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

MEAN ROOF HEIGHT: 18'-4	Height to f	UDGE:24'-8"	
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 * "10/13" 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

10/19

DESIGNED FOR WIND SPEED OF 120 MPH, 3 SECOND GUST (93 FASTEST MILE) EXPOSURE "B"								
COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS								
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 EASTEST MILE) EXPOSURE "B"								

DEDIGU	LD I OK WIIN	ID SETTO		THE D DECK		(101 LW2		J EAPUSU	NE D
COM	COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS								
	N ROOF								
ZO	NE 1	16.7	-18.0	17.5	-18.9	18.2	-19.6	18.7	-20.2
ZO	NE 2	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5
ZO	NE 3	16,7	-21,0	17.5	-22.1	18.2	-22.9	18,7	-23.5
ZO	NE 4	18,2	-19.0	19.1	-20.0	19.8	-20.7	20.4	-21.3
ZO	NE 5	18.2	-24.0	19.1	-25.2	19.8	-26.2	20.4	-26.9

ROOF VENTILATION

SECTION R806

R806.1 Ventilation required. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire doth screening, hardware cloth, or similar material with openings having a least dimension of 1/16 Inch (1.6 mm) minimum and 1/4 Inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7.

R806.2 Minimum area. The total net free ventilating area shall not be less than 1/150 of the area of the space ventilated except that reduction of the total area to 1/300 is permitted provided that at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilation area may be reduced to 1/300 when a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling. Exceptions:

1. Enclosed attic/rafter spaces requiring less than 1 square foot (0.0929 m2) of ventilation may be vented with continuous soffit ventilation only. 2. Enclosed attic/rafter spaces over unconditioned space may be vented with continuous soffit vent only.

SQUARE FOOTAGE OF ROOF TO BE VENTED = 2,192 SQ.FT. NET FREE CROSS VENTILATION NEEDED:

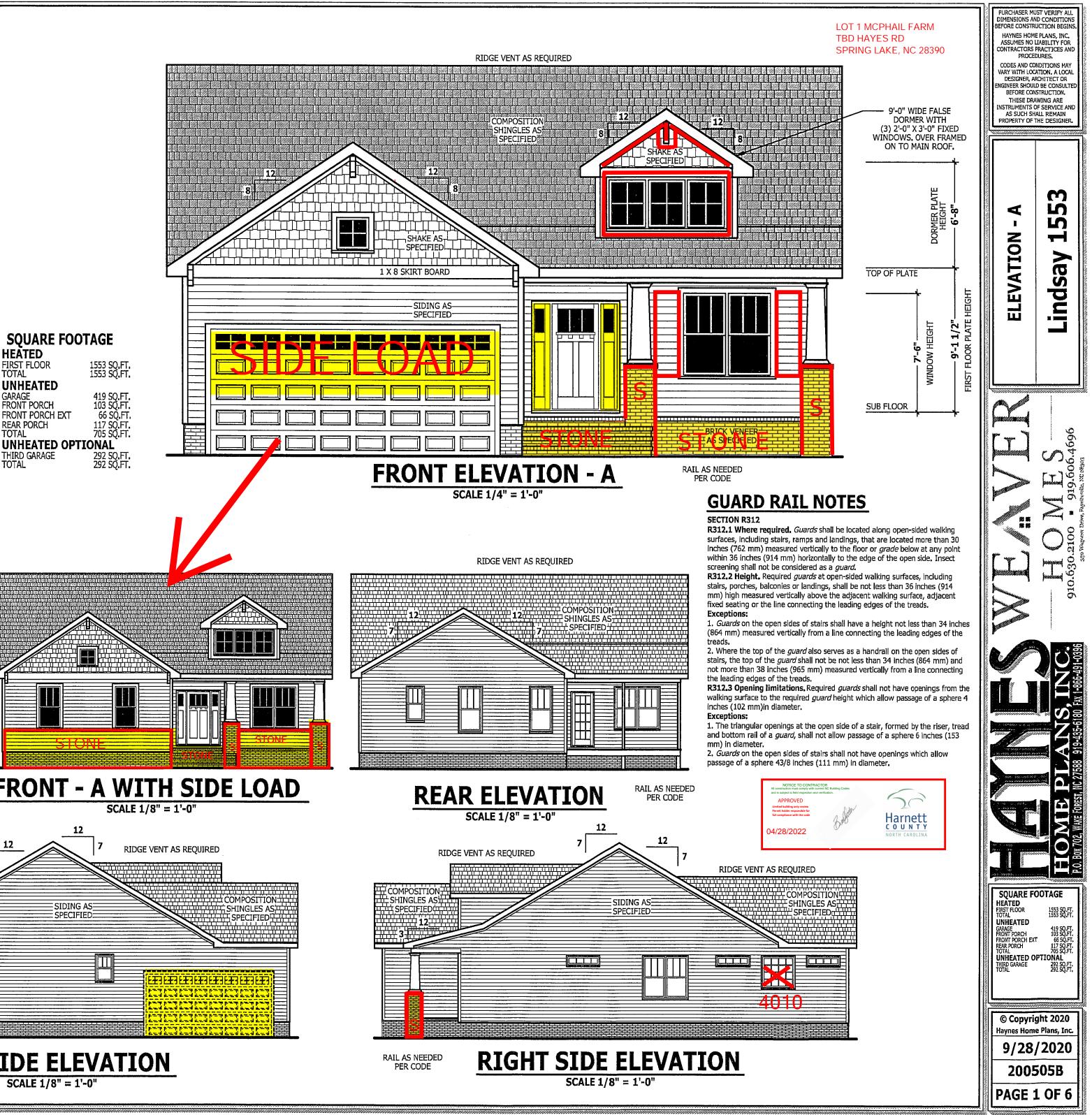
WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 14.61 SQ.FT. WITH 50% TO 80% OF VENTING 3'-0" ABOVE EAVE: OR WITH CLASS I OR II VAPOR RETARDER ON WARM-IN-WINTER SIDE OF CEILING = 7,31 SQ.FT.

AIR LEAKAGE

PLUMBING:

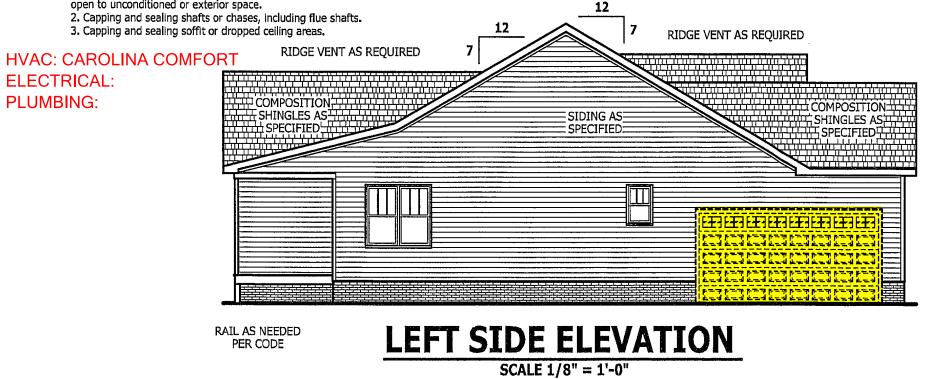
Section N1102.4 N1102.4.1 Building thermal envelope. The building thermal envelope shall be durably sealed with an air barrier system to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. For all homes, where present, the following shall be caulked, gasketed, weather stripped or otherwise sealed with an air barrier material or solid material consistent with Appendix E-2.4 of this code: 1. Blocking and sealing floor/ceiling systems and under knee walls open to unconditioned or exterior space. 2. Capping and sealing shafts or chases, including flue shafts.

3. Capping and sealing soffit or dropped ceiling areas.





FRONT - A WITH SIDE LOAD



HEATED

TOTAL

GARAGE FRONT PORCH

TOTAL

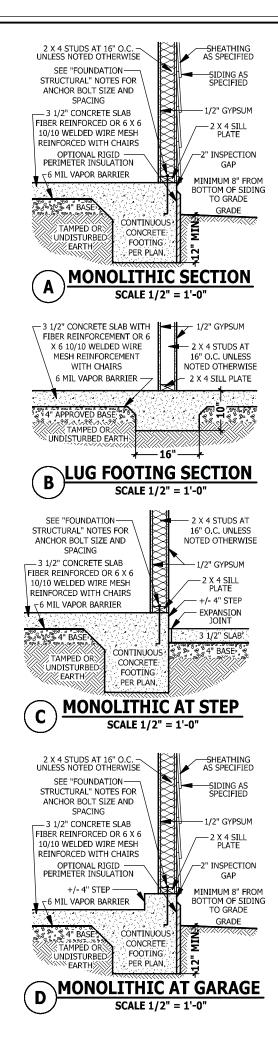
FIRST FLOOR

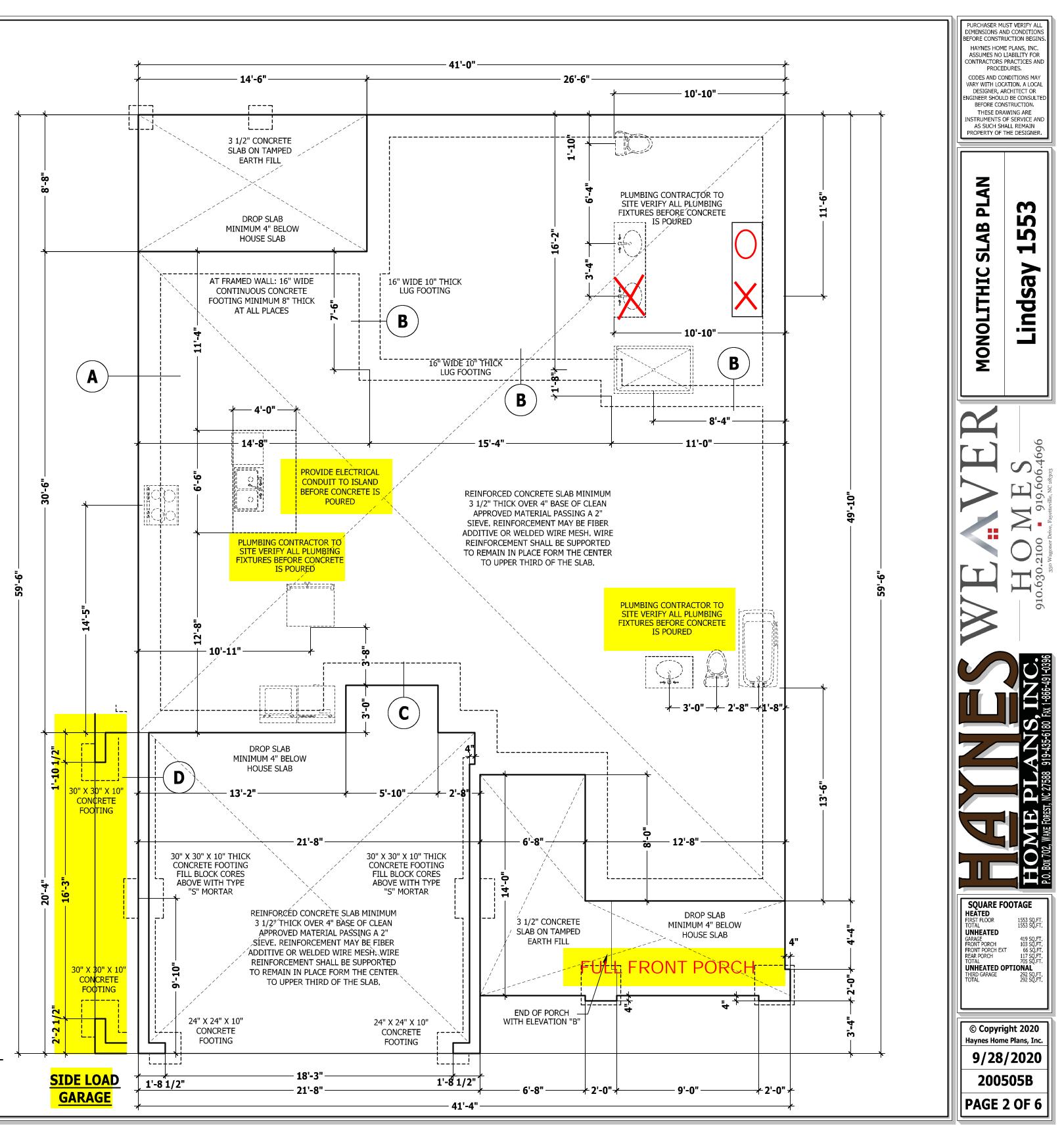
UNHEATED

REAR PORCH

THIRD GARAGE

FRONT PORCH EXT





FOUNDATION STRUCTURAL

115 to 130 mph wind zone (1 1/2 to 2 1/2 story)

CONTINUOUS FOOTING: 16" wide and 8" thick minimum. 20" wide minimum at brick veneer. Must extended 2" to either side of supported wall. **GIRDERS:** (3) 2 X 10 girder unless noted otherwise.

PIERS: 16" X 16" piers with 8" solid masonry cap on 30" X 30" X 10" concrete footing with maximum pier height of 64" with hollow masonry and

160" with solid masonry. **POINT LOADS:** designates significant point load and should have solid

blocking to pier, girder or foundation wall. **115 and 120 MPH ANCHORS BOLTS:** 1/2" diameter anchor bolts embedded

minimum 7", maximum 6'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate. **130 MPH ANCHORS BOLTS:** 1/2" diameter anchor bolts embedded minimum

15", maximum 4'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.

CONCRETE: Concrete shall have a minimum 28 day strength of 3000 psi and a maximum 5" slump. Air entrained per table 402.2. All concrete shall be in accordance with ACI standards. All samples for pumping shall be taken from the exit end of the pump.

SOILS: Allowable soil bearing pressure assumed to be 2000 PSF. The contractor must contact a geotechnical engineer and a structural engineer if unsatisfactory subsurface conditions are encountered. The surface area adjacent to the foundation wall shall be provided with adequate drainage, and shall be graded so as to drain surface water away from foundation walls.

MONOLITHIC SLAB PLAN

SCALE 1/4" = 1'-0"

ATTIC ACCESS

SECTION R807 **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 50 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.

DWELLING / GARAGE SEPARATION

REFER TO SECTIONS R302.5, R302.6, AND R302.7

WALLS. A minimum 1/2" gypsum board must be installed on all walls supporting floor/ceiling assemblies used for separation required by this section. STAIRS. A minimum of 1/2" gypsum board must be installed on the underside and exposed sides of all stairways.

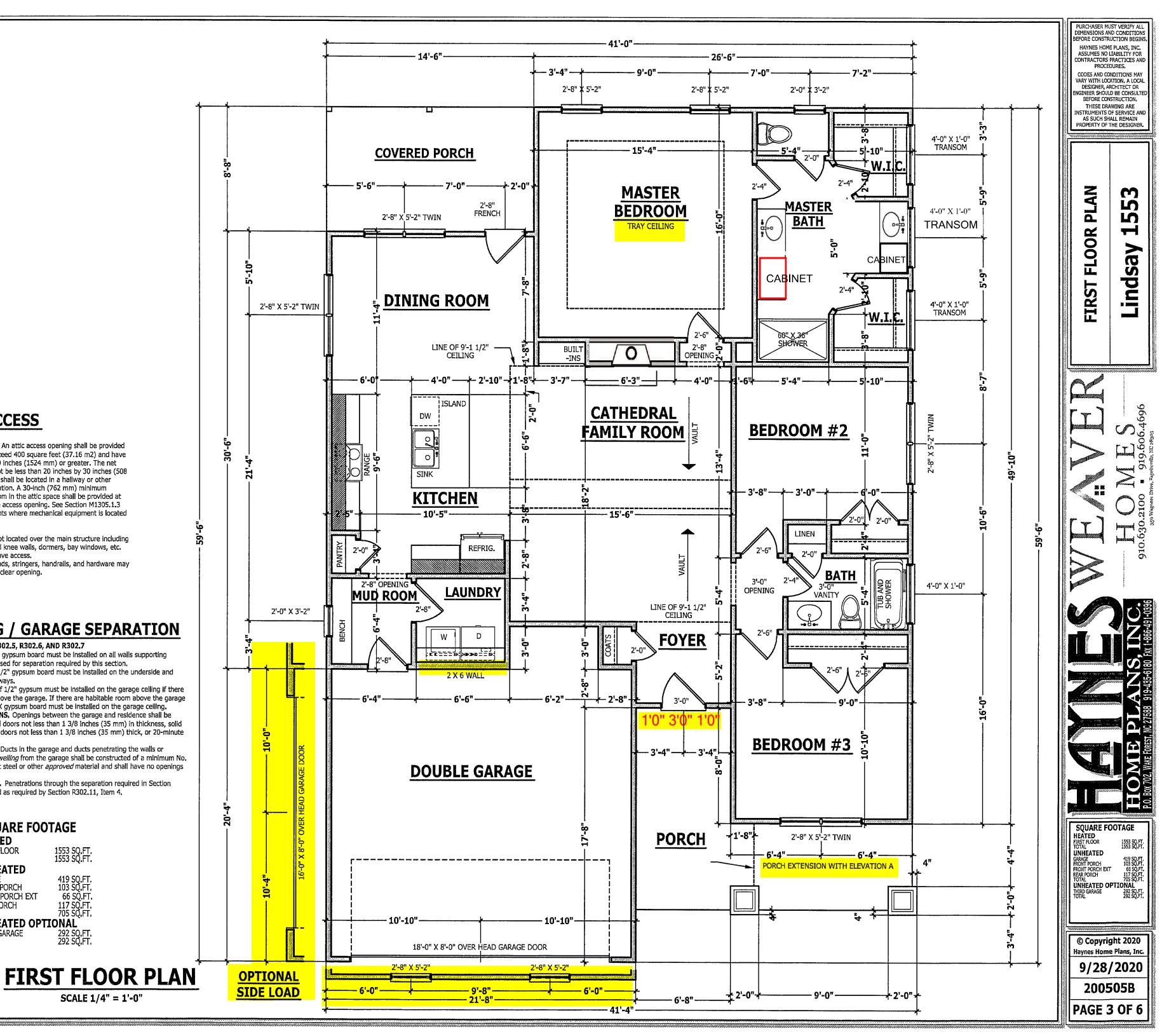
CEILINGS. A minimum of 1/2" gypsum must be installed on the garage ceiling if there are no habitable room above the garage. If there are habitable room above the garage a minimum of 5/8" type X gypsum board must be installed on the garage ceiling. **OPENING PENETRATIONS,** Openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors,

DUCT PENETRATIONS. Ducts in the garage and ducts penetrating the walls or ceilings separating the *dwelling* from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other *approved* material and shall have no openings into the garage.

OTHER PENETRATIONS. Penetrations through the separation required in Section R302.6 shall be protected as required by Section R302.11, Item 4.

SQUARE FOOTAGE HEATED FIRST FLOOR 1553 SQ.FT. 1553 SQ.FT. UNHEATED 419 SQ.FT. 103 SQ.FT. 66 SQ.FT. GARAGE FRONT PORCH FRONT PORCH EXT REAR PORCH 117 SQ.FT. 705 SQ.FT. UNHEATED OPTIONAL THIRD GARAGE 292 SQ.FT. 292 SQ.FT.

SCALE 1/4" = 1'-0"



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: Haynes Home Plans, Inc. assumes no liability for contractors practices and procedures or safety program. Havnes 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	=10	-
Passenger vehicle garages	50	10	L/360
Rooms other than sleeping	40	10	L/360
Sleeping rooms	30	10	L/360
Stairs	40	10	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

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

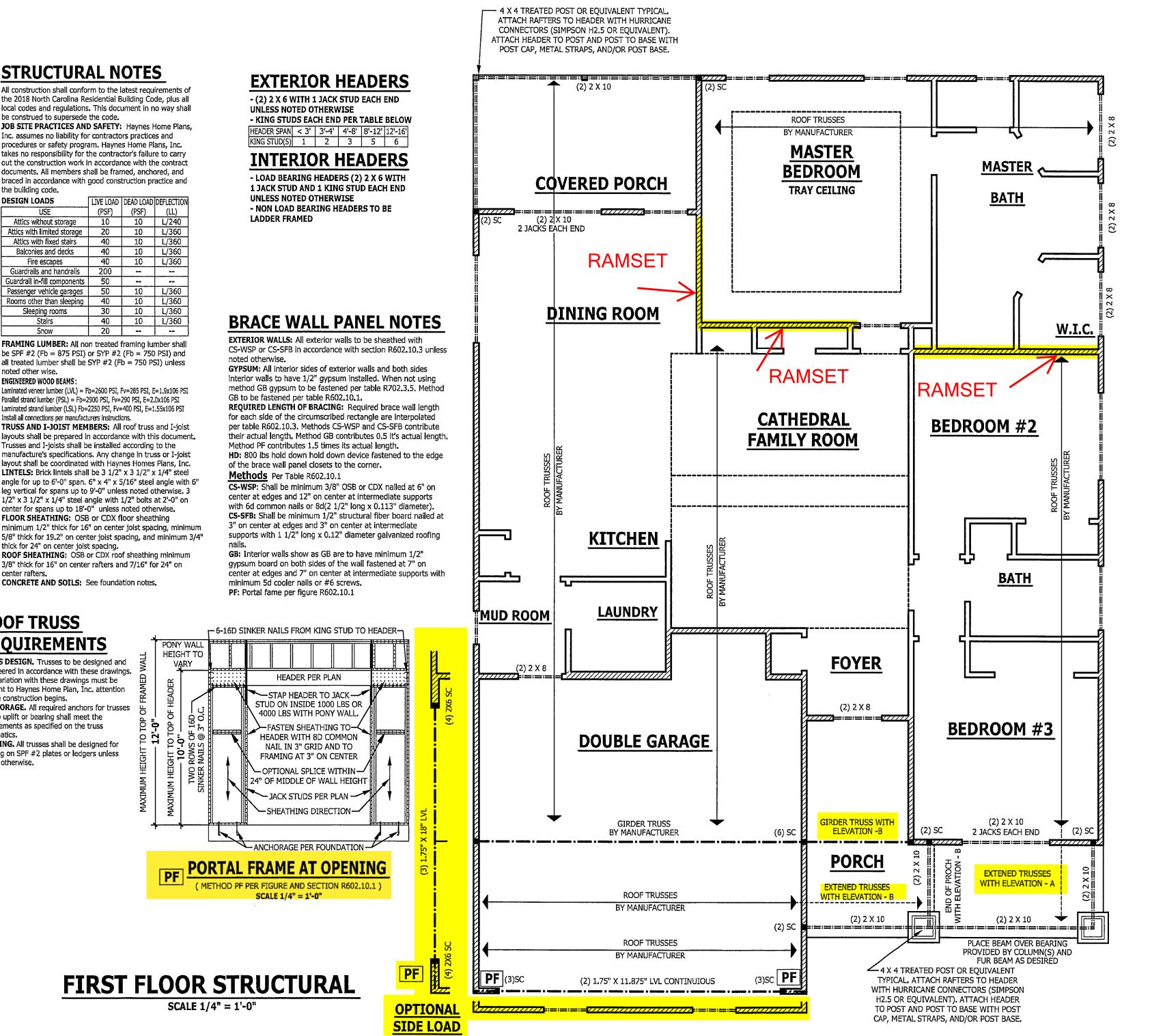
3/8" thick for 16" on center rafters and 7/16" for 24" on center rafters. **CONCRETE AND SOILS:** See foundation notes.

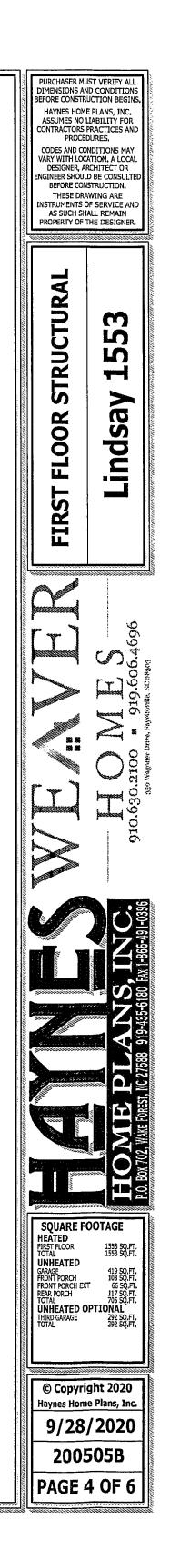
ROOF TRUSS REQUIREMENTS

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.

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.

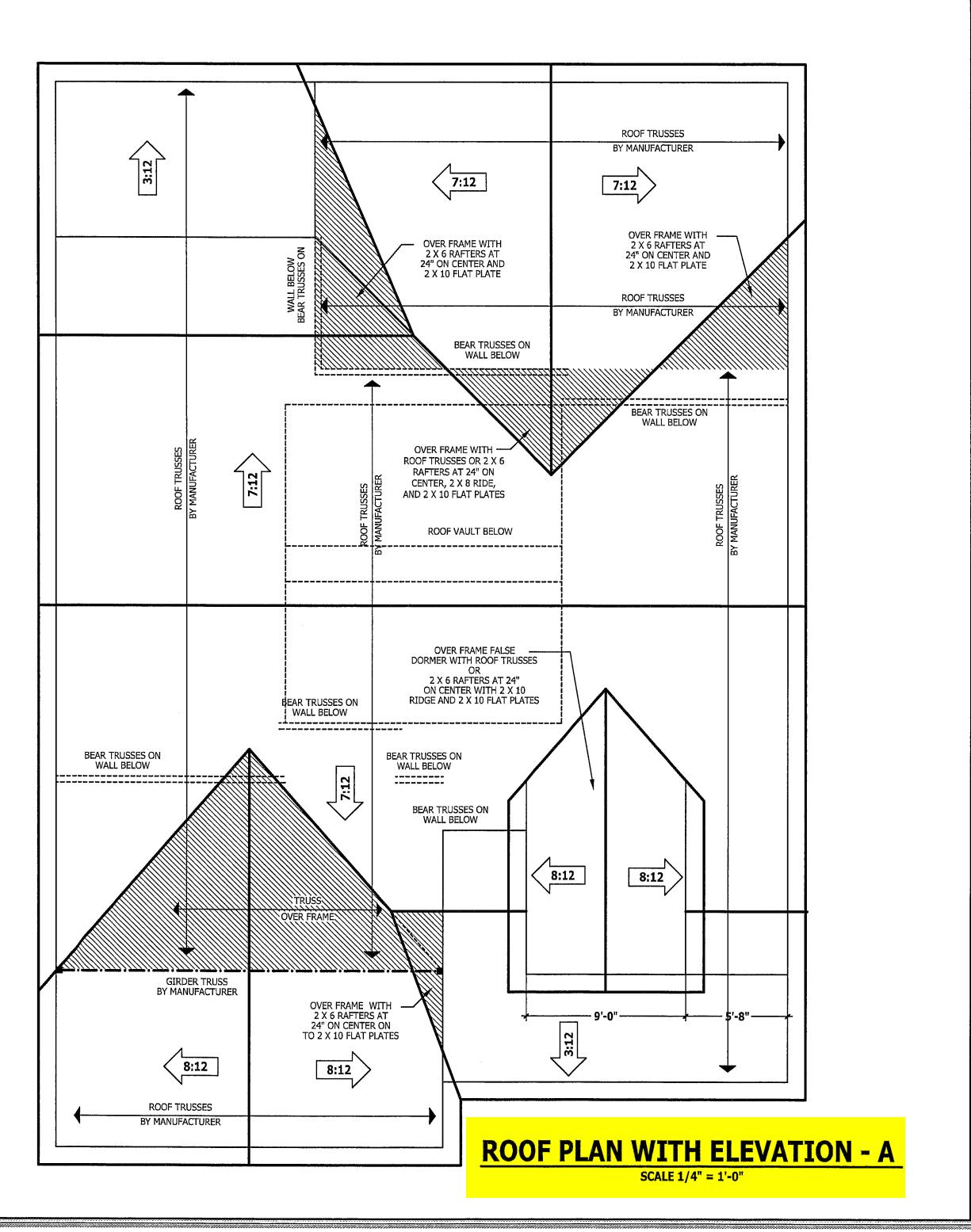


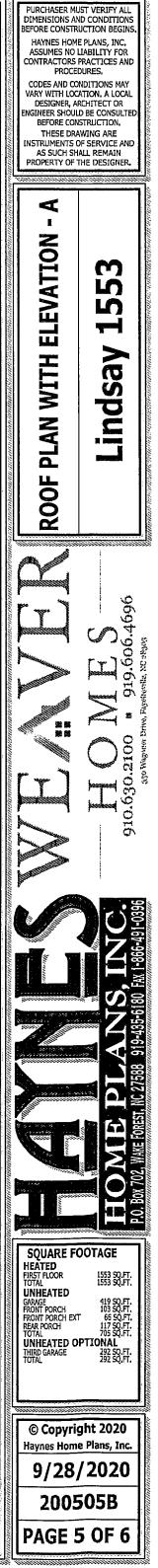


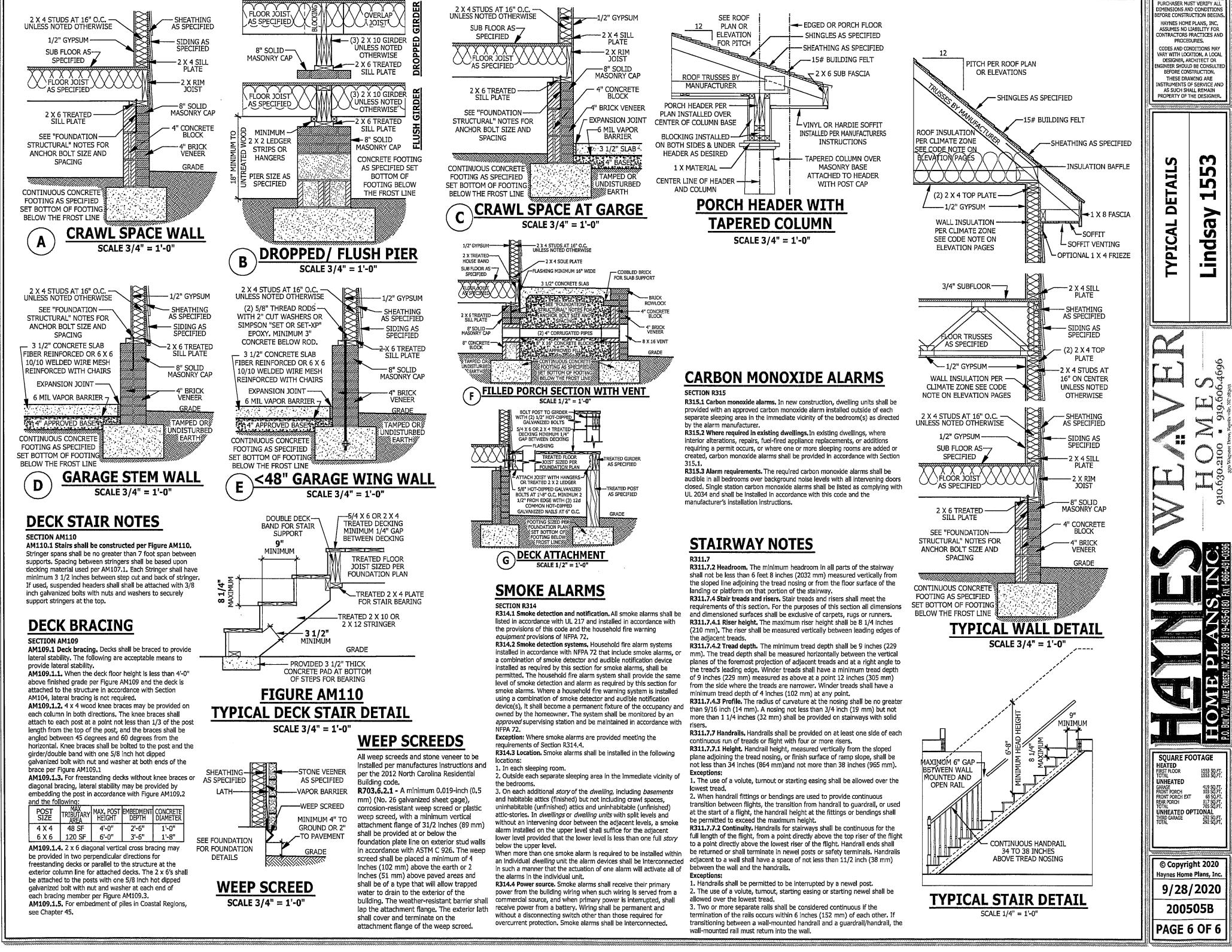
ROOF TRUSS REQUIREMENTS

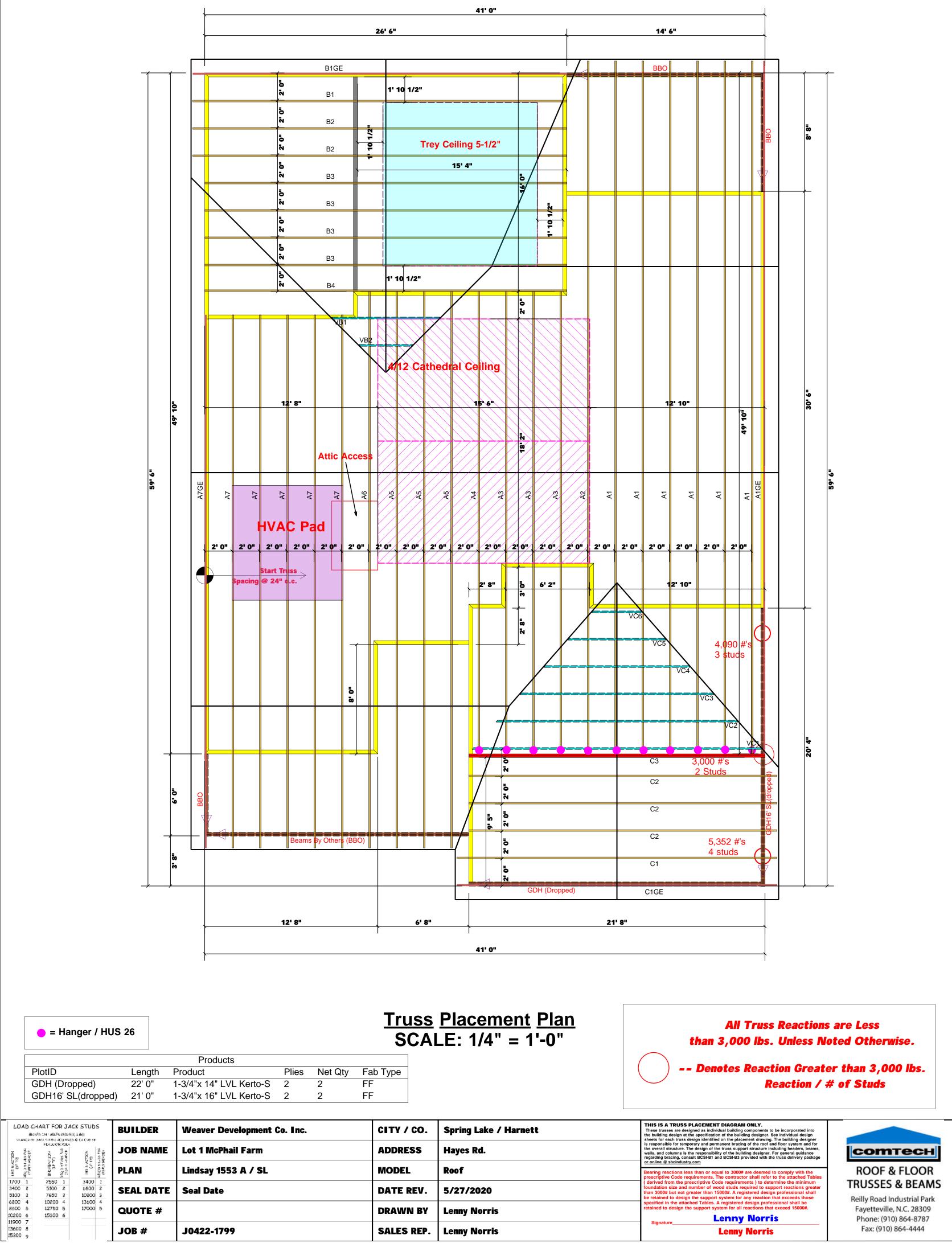
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5/27/2020

Lenny Norris

Lenny Norris

DATE REV.

DRAWN BY

SALES REP.

6600 Z

10200 3

13600 4 17000 5

7650 3

10200 4 12750 5

15300 6

SEAL DATE

QUOTE #

JOB#

Seal Date

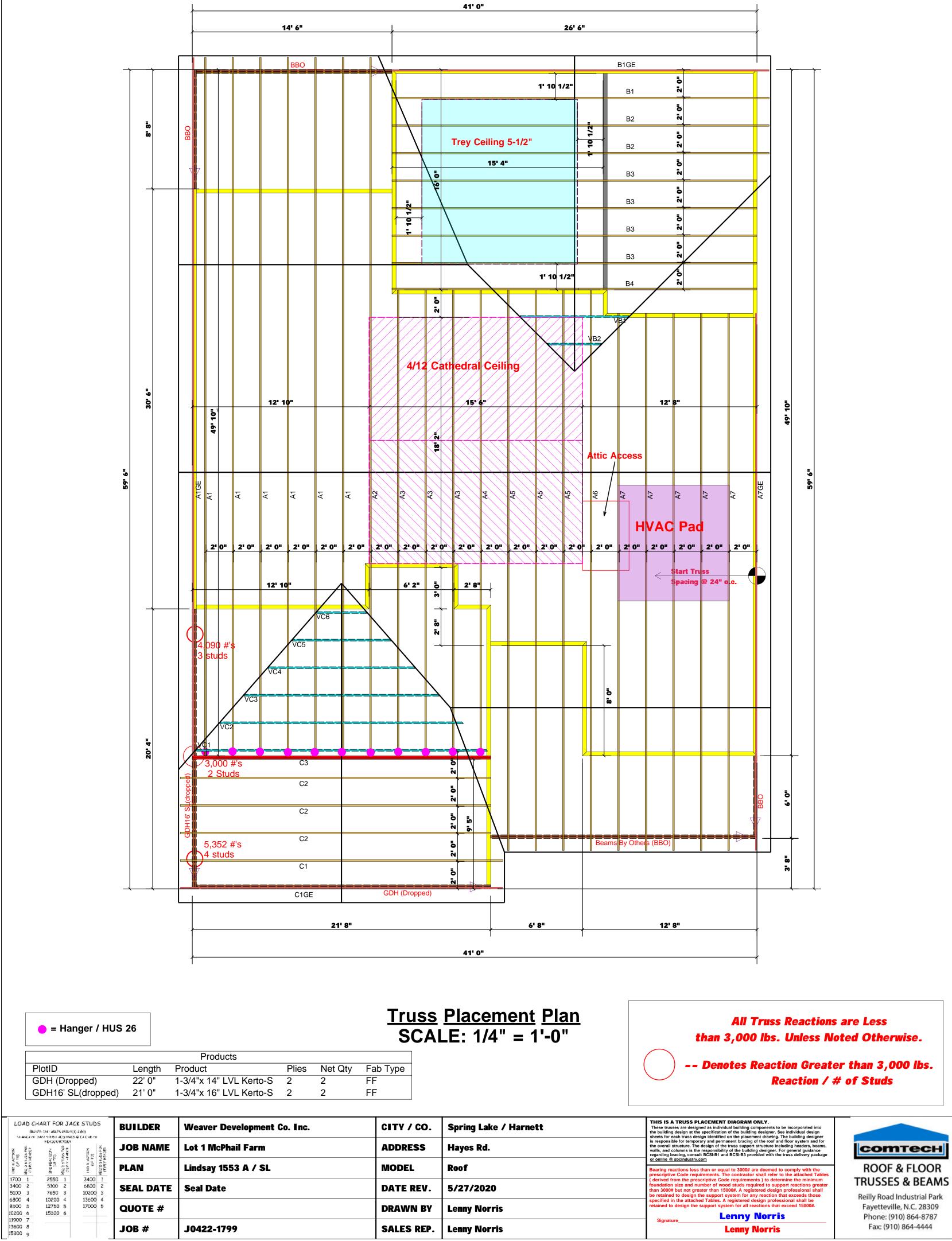
J0422-1799

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	TRUSSES & BEAMS
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#.	Reilly Road Industrial Park Fayetteville, N.C. 28309
Signature Lenny Norris	Phone: (910) 864-8787

Lenny Norris

Signature

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



5/27/2020

Lenny Norris

Lenny Norris

DATE REV.

DRAWN BY

SALES REP.

2550 1 5100 2

7650 3

10200 4 12750 5

15300 6

3400

6600 Z

10200 3

13600 4

17000 5

SEAL DATE

QUOTE #

JOB#

Seal Date

J0422-1799

earing reactions less than or equal to 3000# are deemed to comply with the escriptive Code requirements. The contractor shall refer to the attached Tables	ROOF & FLOOR		
lerived from the prescriptive Code requirements to determine the minimum undation size and number of wood studs required to support reactions greater	TRUSSES & BEAMS		
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ecified in the attached Tables. A registered design professional shall be tained to design the support system for all reactions that exceed 15000#.	Eavetteville NC 28309		

Lenny Norris

Lenny Norris

Signature

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

