PLANS DESIGNED TO THE 2024 NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE

MEAN ROOF HEIGHT: 0'-0" HEIGHT TO RIDGE: 0'-0"

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

* "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 WIN	D SPEED	OF 120 MF	PH, 3 SECO	OND GUST	(93 FAST	EST MILE)	EXPOSUR	RE "B"
COMPONENT	% CLA	DDING	DESIG	NED FO	R THE	FOLLO	WING I	LOADS
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'
ZONE 1	14.2	-26.1	14.9	-27.4	15.5	-28.4	15.9	-29.2
ZONE 2	14.2	-28.7	14.9	-30.1	15.5	-31.3	15.9	-32.1
ZONE 3	14.2	-35.3	14.9	-37.1	15.5	-38.5	15.9	-39.5
ZONE 4	15.5	-16.9	16.3	-16.8	16.9	-17.7	17.4	-18.9
ZONE 5	15.5	-20.8	16.3	-21.8	16.9	-22.8	17.4	-23.3

DESIGNED FOR WIN	ID SPEED	OF 130 MF	PH, 3 SECO	ond Gust	(101 FAS	TEST MILE	:) Exposu	RE "B"
COMPONENT	% CLA	DDING	DESIG	NED FO	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	-30.6	17.5	-32.1	18.2	-33.2	18.7	-34.
ZONE 2	16.7	-33.7	17.5	-35.4	18.2	-22.9	18.7	-23.
ZONE 3	16.7	-41.4	17.5	-43.5	18.2	-45.1	18.7	-46.
ZONE 4	18.2	-19.8	19.1	-20.8	19.8	-21.5	20.4	-22.
70NF 5	18.2	-24 4	19 1	-25.6	19 8	-26.6	20.4	-27

GUARD RAIL NOTES

SECTION R312

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.

Exceptions:

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

PER CODE

12

RIDGE VENT AS REQUIRED

COMPOSITION

SHINGLES AS

SPECIFIED

SCALE 1/8" = 1'-0"

50

Harnett

SIDING AS

SPECIFIED:

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. 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.

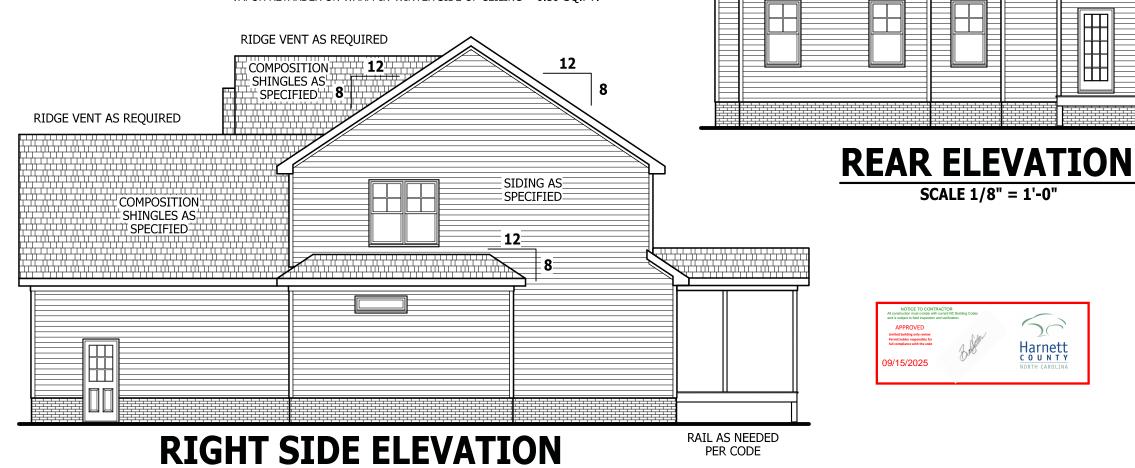
ROOF VENTILATION

SECTION R806

SOUARE FOOTAGE OF ROOF TO BE VENTED = 1,917 SO.FT.

NET FREE CROSS VENTILATION NEEDED:

WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 12.78 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 = 6.39 SQ.FT.



SCALE 1/8" = 1'-0"

RIDGE VENT AS REQUIRED



FRONT ELEVATION

SCALE 1/4" = 1'-0"

AIR LEAKAGE

RAIL AS NEEDED

PER CODE

RAIL AS NEEDED PER CODE

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.

SQUARE FOOTAGE HEĂTED

FIRST FLOOR SECOND FLOOR 1336 SQ.FT. 2731 SQ.FT.

UNHEATED 547 SQ.FT. 114 SQ.FT. GARAGE FRONT PORCH COVERED PORCH 185 SQ.FT. DECK/PATIO 120 SQ.FT.

STORAGE

TOTAL 1171 SQ.FT. UNHEATED OPTIONAL THIRD GARAGE 261 SQ.FT. **TOTAL** 261 SQ.FT.

205 SQ.FT.

RIDGE VENT AS REQUIRED COMPOSITIO SHINGLES AS RIDGE VENT AS REQUIRED SPECIFIED COMPOSITION SHINGLES AS $oxedsymbol{oxedsymbol{oxed}}$ SPECIFIED $oxedsymbol{oxed}$ SIDING AS SPECIFIED SIDING AS SPECIFIED=

LEFT SIDE ELEVATION

SCALE 1/8" = 1'-0"

RAIL AS NEEDED

PAGE 1 OF 7

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS

BEFORE CONSTRUCTION BEGINS M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS

PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL

DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED

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

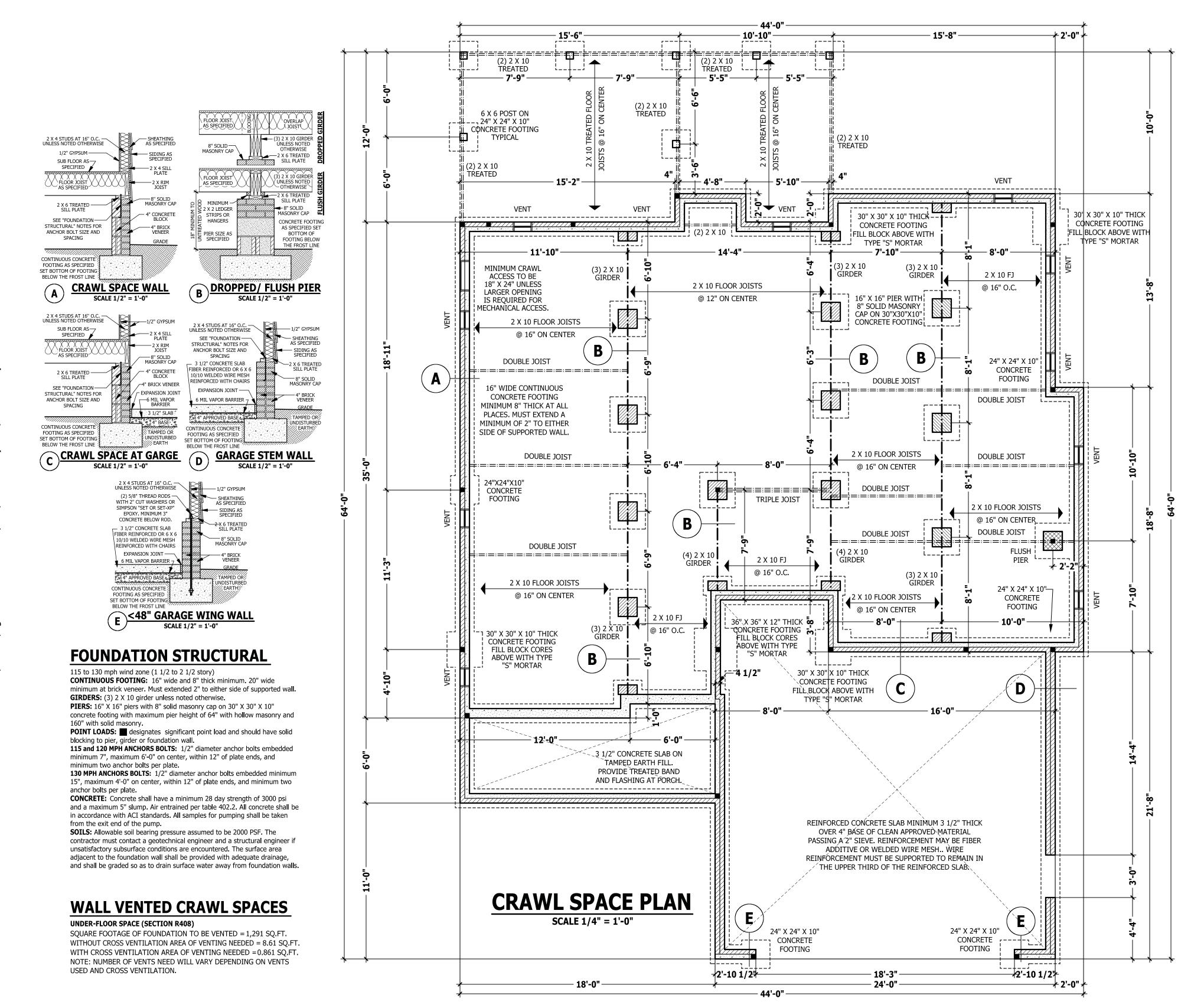
ELEVATIONS

Mayview

SQUARE FOOTAGE
HEATED
FIRST FLOOR 1395 SQ.FT.
SECOND FLOOR 1336 SQ.FT.
TOTAL 2731 SQ.FT. 1395 SQ.FT 1336 SQ.FT 2731 SQ.FT UNHEATED COVERED PORCH DECK/PATIO STORAGE UNHEATED OPTIONAL

> © Copyright 2025 M. HAYNES DESIGNS

3/14/2025 250314B



PURCHASER MUST VERIFY ALL IMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS 1. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY DESIGNER, ARCHITECT OR NGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWING ARE NSTRUMENTS OF SERVICE AND

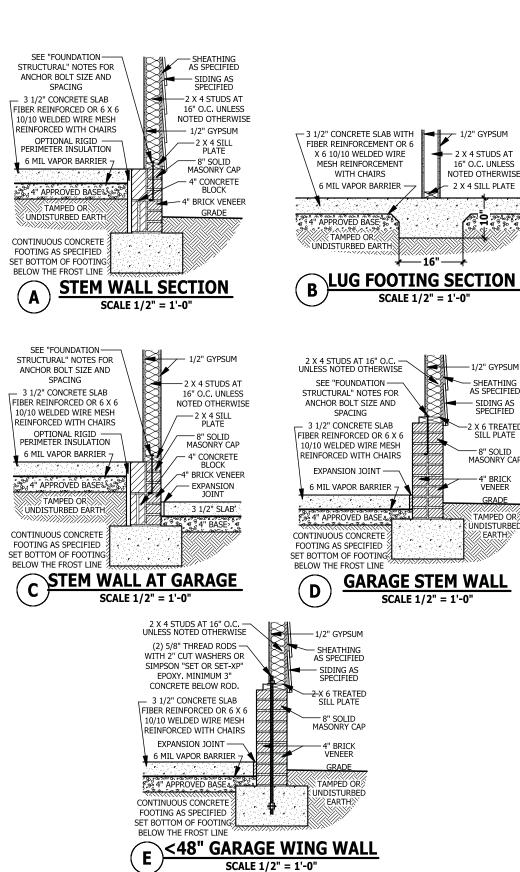
AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

SQUARE FOOTAGE HEATED FIRST FLOOR SECOND FLOOR TOTAL UNHEATED GARAGE FRONT PORCH COVERED PORCH DECK/PATIO STORAGE UNHEATED OPTIONAL

© Copyright 2025 M. HAYNES DESIGNS

3/14/2025 250314B

PAGE 3 OF 7



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.

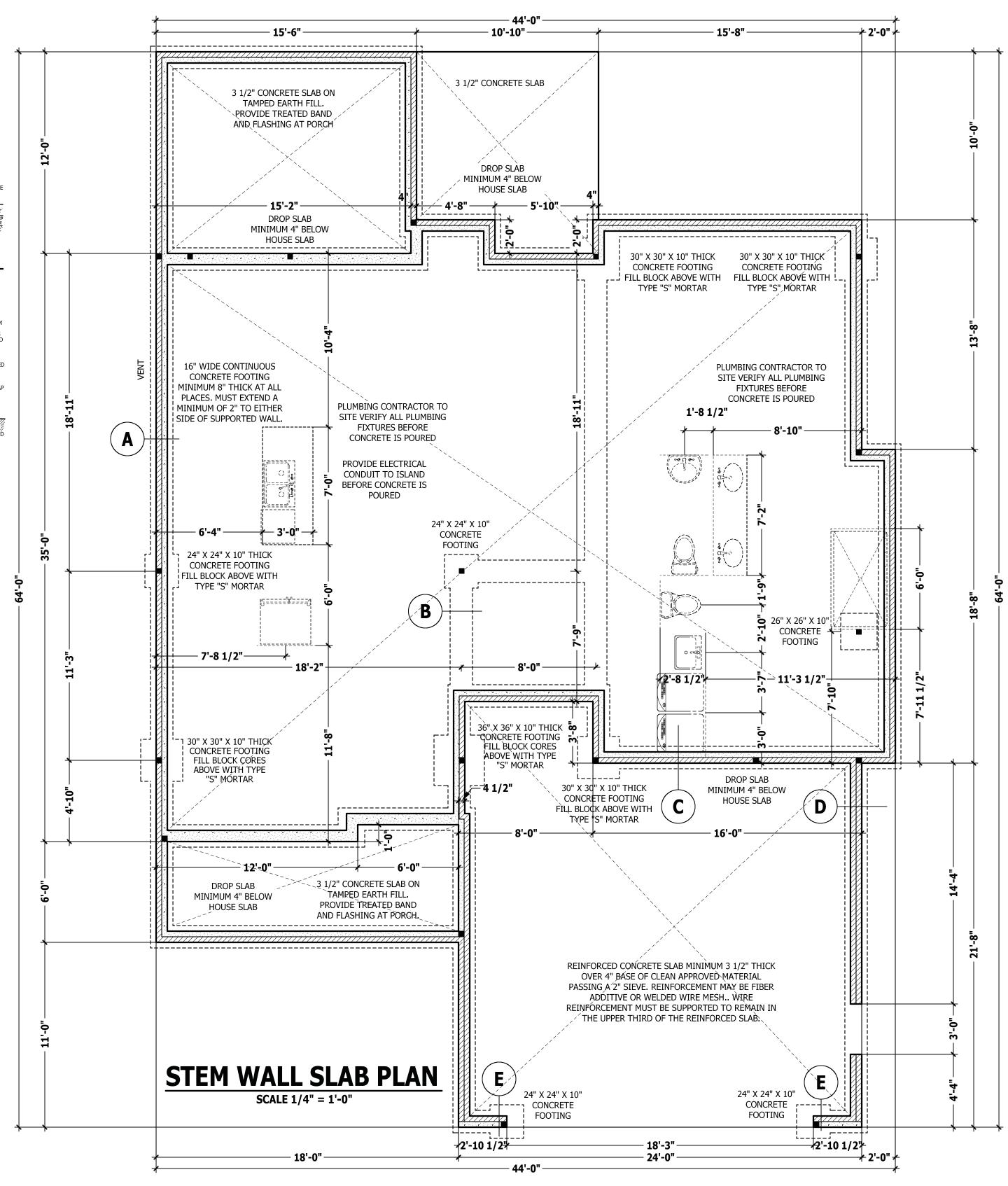
POINT LOADS: designates significant point load and should have solid blocking to pier, girder or foundation wall.

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.



PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS M HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY DESIGNER, ARCHITECT OR INGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWING ARE

NSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

SLAB

Mayview Ш

SQUARE FOOTAGE
HEATED
FIRST FLOOR 1395 SQ.FT.
SECOND FLOOR 1336 SQ.FT.
TOTAL 2731 SQ.FT. 1395 SQ.FT. 1336 SQ.FT. 2731 SQ.FT. UNHEATED GARAGE FRONT PORCH COVERED PORCH DECK/PATIO STORAGE UNHEATED OPTIONAL

© Copyright 2025 M. HAYNES DESIGNS

3/14/2025 250314B

PAGE 3 OF 7

WALL THICKNESSES

Exterior walls and walls adjacent to a garage area are drawn as 4" or as noted 2 X 6 are drawn as 6" to include 1/2" sheathing or gypsum. Subtract 1/2" for stud face.

Interior walls are drawn as 3 1/2" or as noted 2 X 6 are drawn as 5 1/2", and do not include gypsum.

ATTIC ACCESS

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.

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

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

1395 SQ.FT. 1336 SQ.FT. 2731 SQ.FT. FIRST FLOOR SECOND FLOOR TOTAL

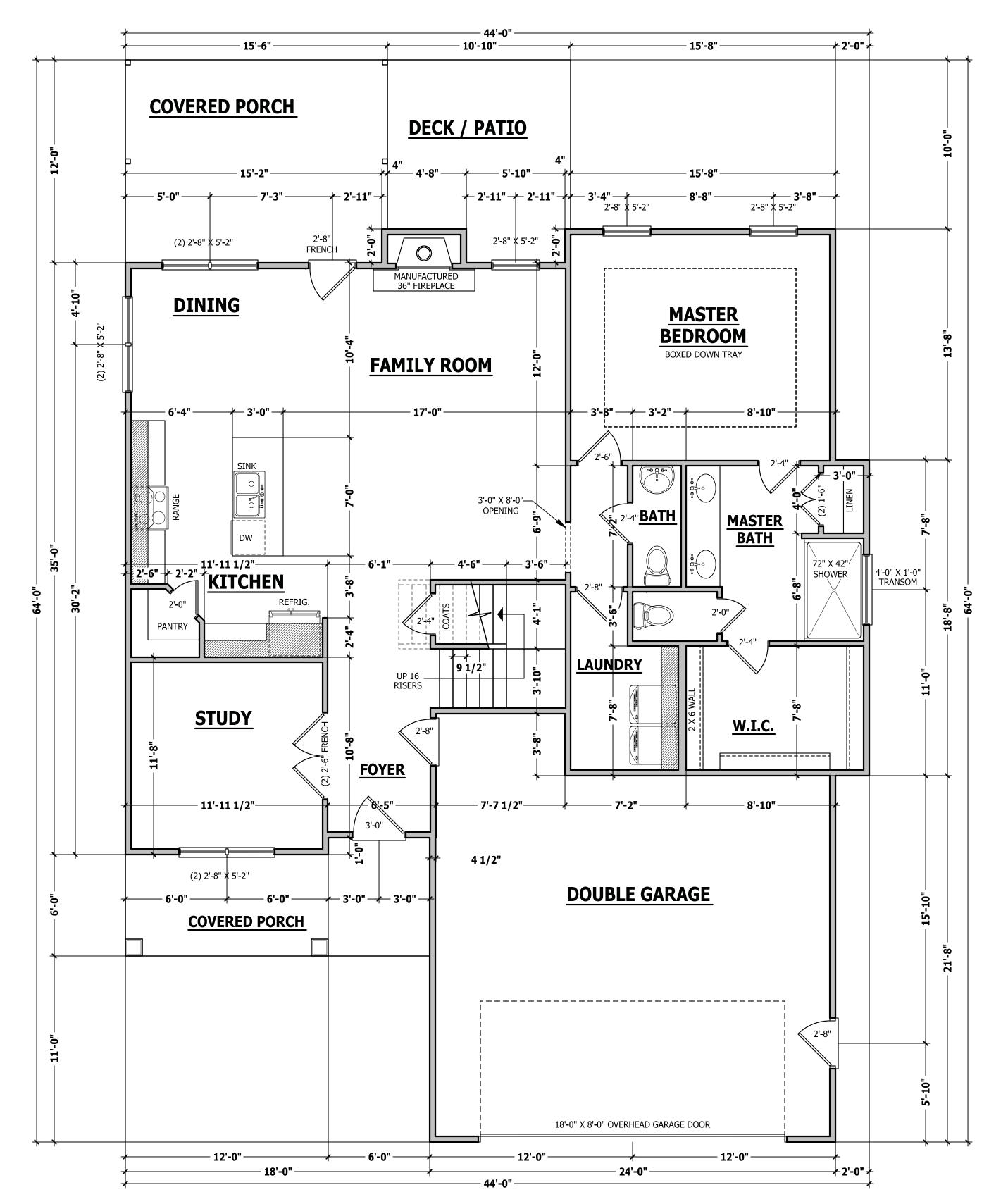
UNHEATED

547 SQ.FT. 114 SQ.FT. 185 SQ.FT. GARAGE FRONT PORCH COVERED PORCH DECK/PATIO 120 SQ.FT. 205 SQ.FT. 1171 SQ.FT. STORAGE

UNHEATED OPTIONAL

261 SQ.FT. 261 SQ.FT. THIRD GARAGE TOTAL





PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL

DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWING ARE NSTRUMENTS OF SERVICE AND

AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

PLAN FLOOR

Mayview

SQUARE FOOTAGE
HEATED
FIRST FLOOR 1395 SQ.FT.
SECOND FLOOR 1336 SQ.FT.
TOTAL 2731 SQ.FT. UNHEATED GARAGE 547 SQ.FT
FRONT PORCH 114 SQ.FT
COVERED PORCH 185 SQ.FT
DECK/PATIO 120 SQ.FT
STORAGE 205 SQ.FT
TOTAL 1171 SQ.FT.
UNHEATED OPTIONAL
THIPD CAPAGE 261 SQ. FT

© Copyright 2025 M. HAYNES DESIGNS

3/14/2025

250314B

PAGE 3 OF 7

STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2024 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: M. Haynes Designs assumes no liability for contractors practices and procedures or safety program, M. Havens Designs 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		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 M. Haynes Designs. **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 7/16" thick. **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 M. Haynes Designs attention before construction begins.

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 M. Haynes Designs 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.

BRACE WALL PANEL

NOTES EXTERIOR WALLS: All exterior walls to be sheathed with

CS-WSP or CS-SFB in accordance with section R602.10.3 unless noted otherwise.

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. Method PF contributes 1.5 times its actual length.

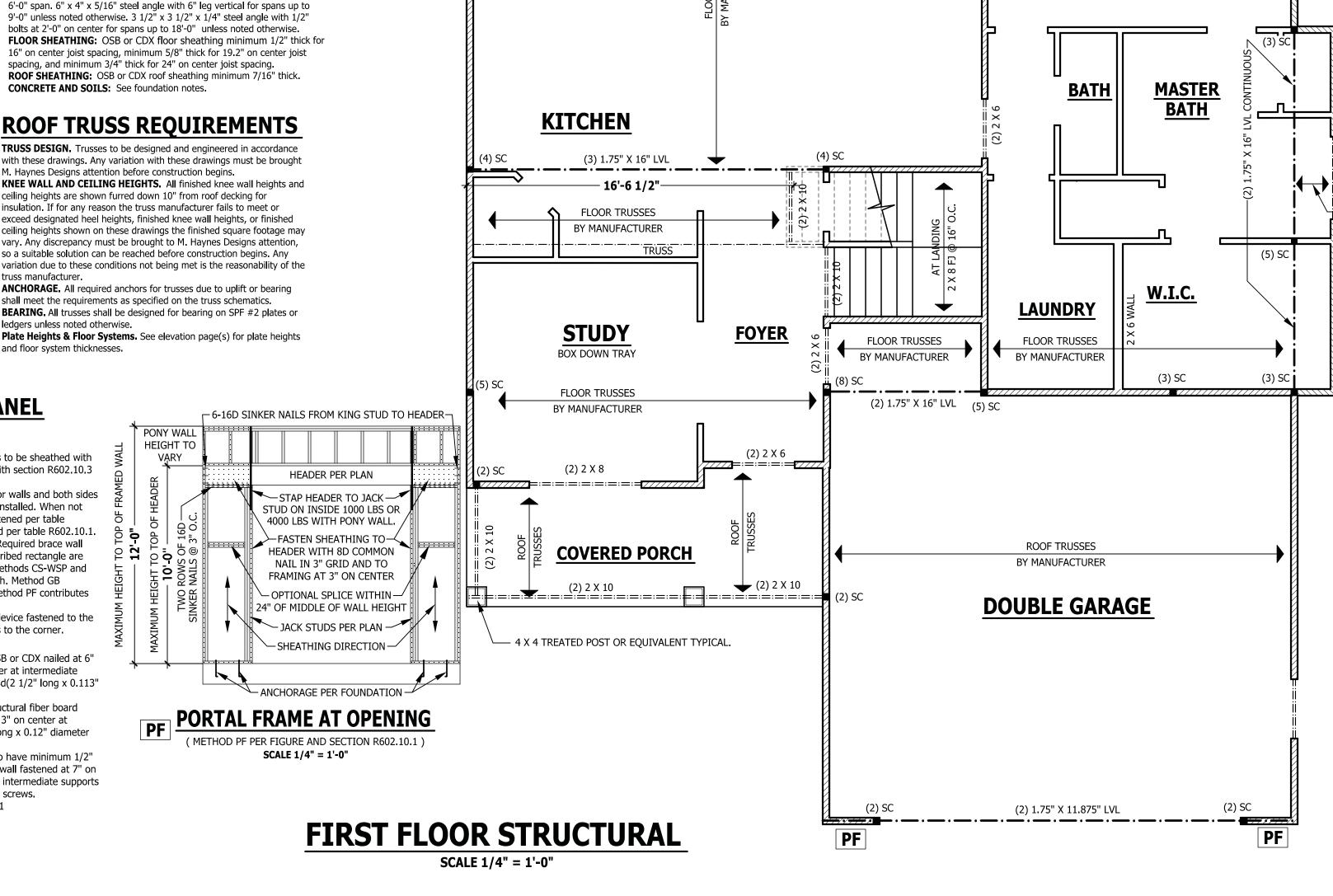
HD: 800 lbs hold down hold down device fastened to the edge of the brace wall panel closets to the corner.

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 1/2" long 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 nails.

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. **PF**: Portal fame per figure R602.10.1



(2) 2 X 10

4 X 4 TREATED POST OR EQUIVALENT TYPICAL.

SCREENED PORCH

ROOF TRUSSES BY MANUFACTURER

DINING

(2) 1.75" X 9.25" LVL

3 JACKS EACH END

(2) 2 X 8

(2) SC

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

(2) 2 X 6

DECK / PATIO

(2) 2 X 10

2 JACKS EACH END

FAMILY ROOM

(2) 2 X 8

- 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

2 X 6 CEILING JOISTS

MASTER

BOX DOWN TRAY

FLOOR TRUSSES

BY MANUFACTURER

(2) 1.75" X 18" LVL BOTTOM FLUSH

AT 24" ON CENTER

(2) 2 X 6

STRUCTURAL FLOOR

Mayview

PURCHASER MUST VERIFY ALL IMENSIONS AND CONDITIONS

BEFORE CONSTRUCTION BEGINS M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS

PRACTICES AND PROCEDURES.

CODES AND CONDITIONS MAY

DESIGNER, ARCHITECT OR

NGINEER SHOULD BE CONSULTED

BEFORE CONSTRUCTION,

THESE DRAWING ARE

NSTRUMENTS OF SERVICE AND

AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

VARY WITH LOCATION. A LOCAL

2 X 6 CEILING

JOIST AT 24"

ON CENTER

SQUARE FOOTAGE HEATED FIRST FLOOR SECOND FLOOR UNHEATED Garage Front Porch COVERED PORCH DECK/PATIO STORAGE **UNHEATED OPTIONAL**

© Copyright 2025 M. HAYNES DESIGNS

3/14/2025

250314B

PAGE 4 OF 7

STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2024 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: M. Haynes Designs assumes no liability for contractors practices and procedures or safety program.M. Hayens Designs 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		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 M. Haynes Designs. **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 7/16" thick.

ROOF TRUSS REQUIREMENTS

CONCRETE AND SOILS: See foundation notes.

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought M. Haynes Designs 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 M. Haynes Designs 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.

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

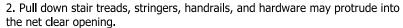
ATTIC ACCESS

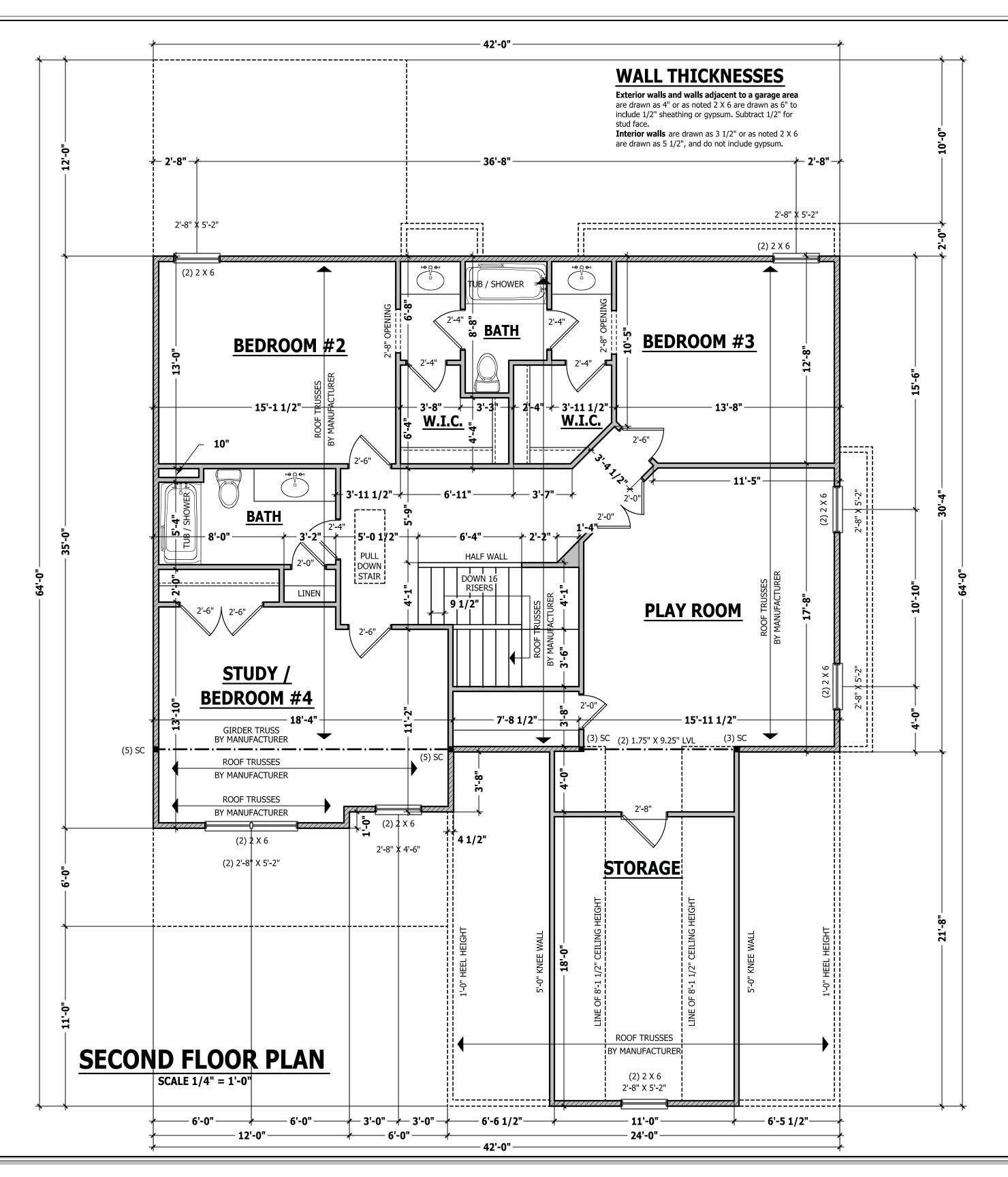
SECTION R807

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 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





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

PROCEDURES. 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 AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

PLAN Mayview FLOOR COND

SQUARE FOOTAGE HEATED FIRST FLOOR SECOND FLOOR UNHEATED Garage Front Porch COVERED PORCH DECK/PATIO

© Copyright 2019

UNHEATED OPTIONAL

Haynes Home Plans, Inc. 3/14/2025

201222B

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.

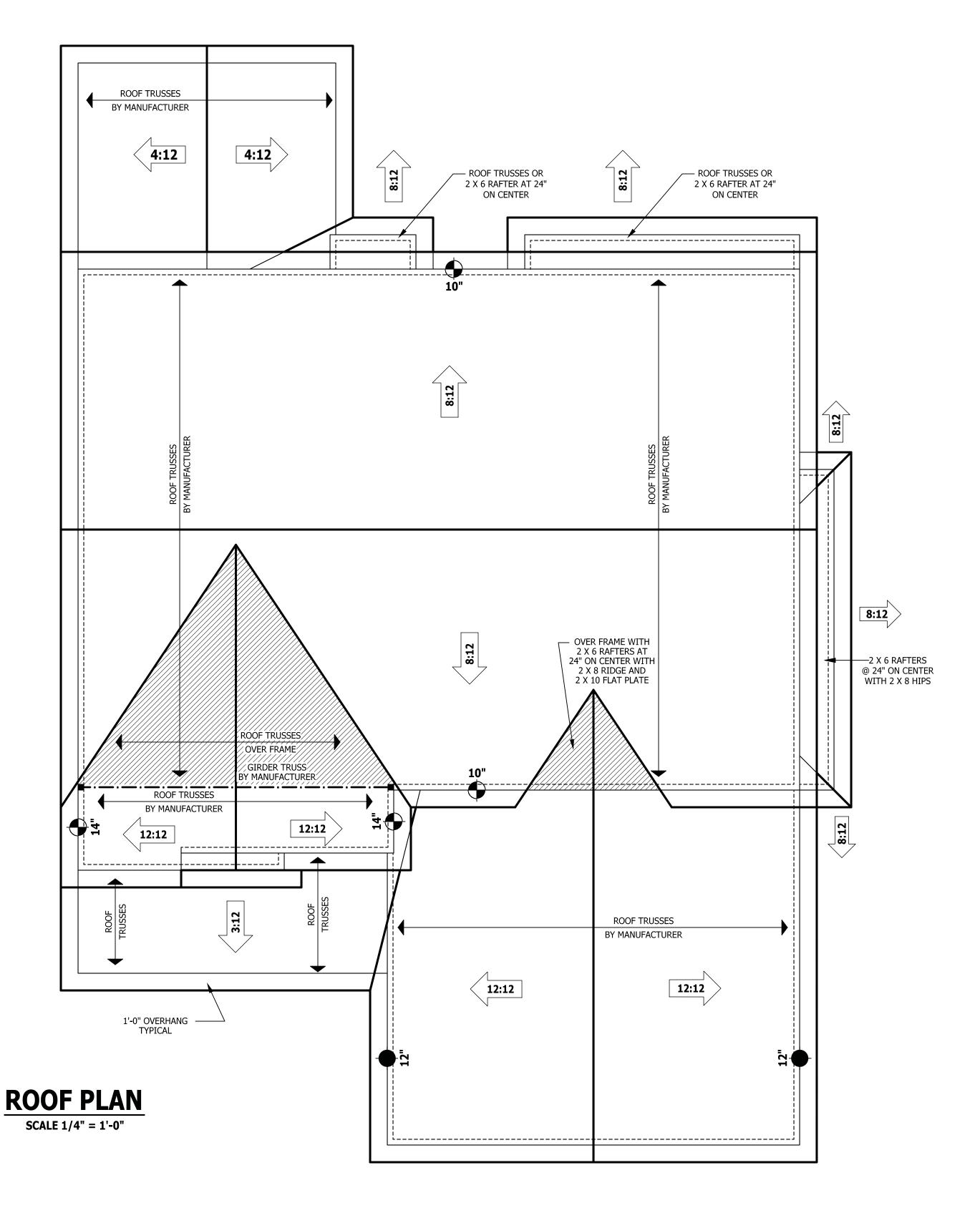
KNEE WALL AND CEILING HEIGHTS. All finished knee wall heights and ceiling heights are shown furred down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these 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



PURCHASER MUST VERIFY ALL
DIMENSIONS AND CONDITIONS
BEFORE CONSTRUCTION BEGINS.

M. HAYNES DESIGNS ASSUMES NO
LIABILITY FOR CONTRACTORS
PRACTICES AND PROCEDURES.
CODES AND CONDITIONS MAY
VARY WITH LOCATION. A LOCAL
DESIGNER, ARCHITECT OR
ENGINEER SHOULD BE CONSULTED
BEFORE CONSTRUCTION.
THESE DRAWING ARE
INSTRUMENTS OF SERVICE AND
ASSICH ENALL DEMACEN

AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

ROOF PLAN

Mayview



DESIDENTIANT

DESTIGNA

19-740-0997 mhavnes1@nc.crr.com

| SQUARE FOOTAGE | HEATED | FIRST FLOOR | 1395 SQ.FT. | SECOND FLOOR | 1336 SQ.FT. | TOTAL | 2731 SQ.FT. | UNHEATED | GARAGE | 547 SQ.FT. | FRONT PORCH | 114 SQ.FT. | COVERED PORCH | 185 SQ.FT. | COVERED PORCH | 185 SQ.FT. | STORAGE | 205 SQ.FT. | TOTAL | 1171 SQ.FT. | UNHEATED OPTIONAL | THIRD GARAGE | 261 SQ.FT. | TOTAL | 261 SQ.FT. | TOTAL | 261 SQ.FT. |

© Copyright 2025 M. HAYNES DESIGNS

3/14/2025 250314B

PAGE 6 OF 7

2 X 4 STUDS AT 16" O.C.

UNLESS NOTED OTHERWISE

SHEATHING

AS SPECIFIED

SIDING AS

SPECIFIED

PLATE

8" SOLID

MASONRY CAP

" CONCRETE

BLOCK

4" BRTCk

VENEER

GRADE

1/2" GYPSUM

SHEATHING

AS SPECIFIED

SIDING AS

2 X 6 TREATED

SILL PLATE

8" SOLID

MASONRY CAP

4" BRICK

VENEER

GRADE

TAMPED OR

UNDISTURBED

≬EARTH∅



EXPANSION JOINT

6 MIL VAPOR BARRIER

్డ్కో 4" APPROVED BASE శ్రీ కోట్

CONTINUOUS CONCRETE

FOOTING AS SPECIFIED

SCALE 3/4" = 1'-0"

GARAGE STEM WALL

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.

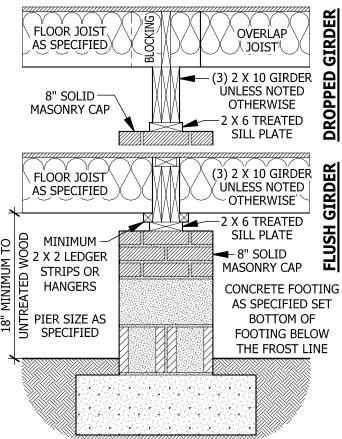
AM109.1.2. 4 x 4 wood knee braces may be provided on each column in both directions. The knee braces shall attach to each post at a point not less than 1/3 of the post length from the top of the post, and the braces shall be angled between 45 degrees and 60 degrees from the horizontal. Knee braces shall 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:

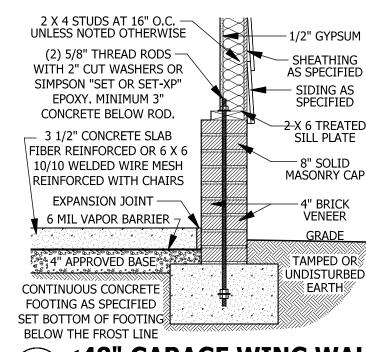
F	POST SIZE	MÂX TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4	4 X 4	48 SF	4'-0"	2'-6"	1'-0"
	6 X 6	120 SF	6'-0"	3'-6"	1'-8"

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.



DROPPED/ FLUSH PIER SCALE 3/4" = 1'-0"



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

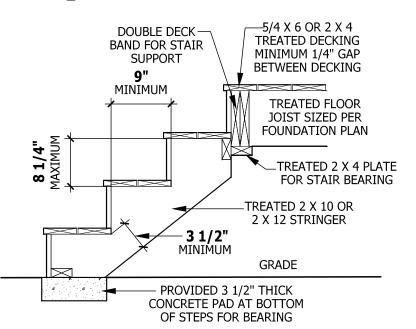


FIGURE AM110 TYPICAL DECK STAIR DETAIL

SCALE 3/4" = 1'-0"

STONE VEENER

AS SPECIFIED

VAPOR BARRIER

-WEEP SCREED

MINIMUM 4" TO

GROUND OR 2"

-TO PAVEMENT

GRADE

SHEATHING-

AS SPECIFIED

LATH-

SEE FOUNDATION

FOR FOUNDATION

DETAILS

WEEP SCREED

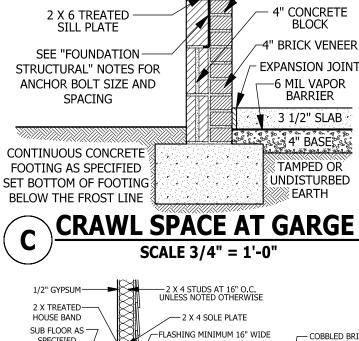
SCALE 3/4" = 1'-0"

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



-1/2" GYPSUM

-2 X 4 SILL

- 2 X RIM

JOIST

-8" SOLID

MASONRY CAP

PLATE

2 X 4 STUDS AT 16" O.C.

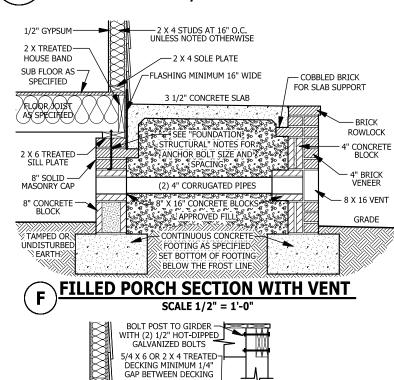
UNLESS NOTED OTHERWISE

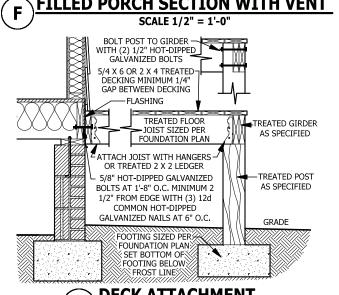
SUB FLOOR AS—

SPECIFIED

FLOOR JOIST

AS SPECIFIED





DECK ATTACHMENT SCALE 1/2" = 1'-0"

SMOKE ALARMS

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

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:

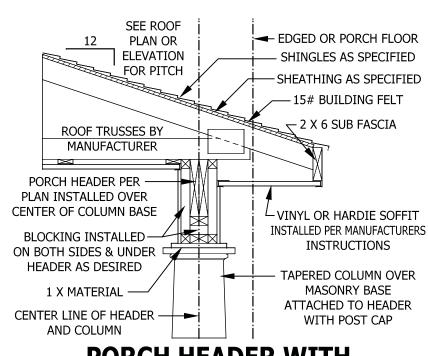
1. In each sleeping room.

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.

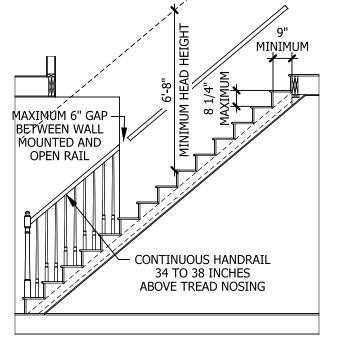
Exceptions 1. Handrails shall be permitted to be interrupted by a newel post. 2. The use of a volute, turnout, starting easing or starting newel shall be

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.

PITCH PER ROOF PLAN OR ELEVATIONS - SHINGLES AS SPECIFIED -15# BUILDING FELT ROOF INSULATION PER CLIMATE ZONE -SHEATHING AS SPECIFIED SEE CODE NOTE ON ELEVATION PAGES INSULATION BAFFLE (2) 2 X 4 TOP PLATE - 1/2" GYPSUM 1 X 8 FASCIA WALL INSULATION PER CLIMATE ZONE -SOFFIT SEE CODE NOTE ON - SOFFIT VENTING **ELEVATION PAGES** OPTIONAL 1 X 4 FRIEZE 3/4" SUBFLOOR 2 X 4 SILL PLATE SHEATHING AS SPECIFIED SIDING AS **SPECIFIED** £∕ÓOR TRUSSES AS SPECIFIED (2) 2 X 4 TOP PLATE - 1/2" GYPSUM 2 X 4 STUDS AT WALL INSULATION PER 16" ON CENTER **UNLESS NOTED** CLIMATE ZONE SEE CODE NOTE ON ELEVATION PAGES OTHERWISE 2 X 4 STUDS AT 16" O.C. SHEATHING UNLESS NOTED OTHERWISE AS SPECIFIED 1/2" GYPSUM SIDING AS SPECIFIED

SPECIFIED 2 X 4 SILL PLATE FLOOR JOIST 2 X RIM JOIST AS SPECIFIED -8" SOLID MASONRY CAP 2 X 6 TREATED SILL PLATE 4" CONCRETE BLOCK SEE "FOUNDATION STRUCTURAL" NOTES FOR 4" BRICK ANCHOR BOLT SIZE AND VENEER SPACING **GRADE** CONTINUOUS CONCRETE FOOTING AS SPECIFIED SET BOTTOM OF FOOTING TYPICAL WALL DETAIL SCALE 3/4" = 1'-0"

SUB FLOOR AS-



TYPICAL STAIR DETAIL

PURCHASER MUST VERIFY ALL IMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGIN: 1. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. THESE DRAWING ARE

CODES AND CONDITIONS MAY DESIGNER, ARCHITECT OR NGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. NSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

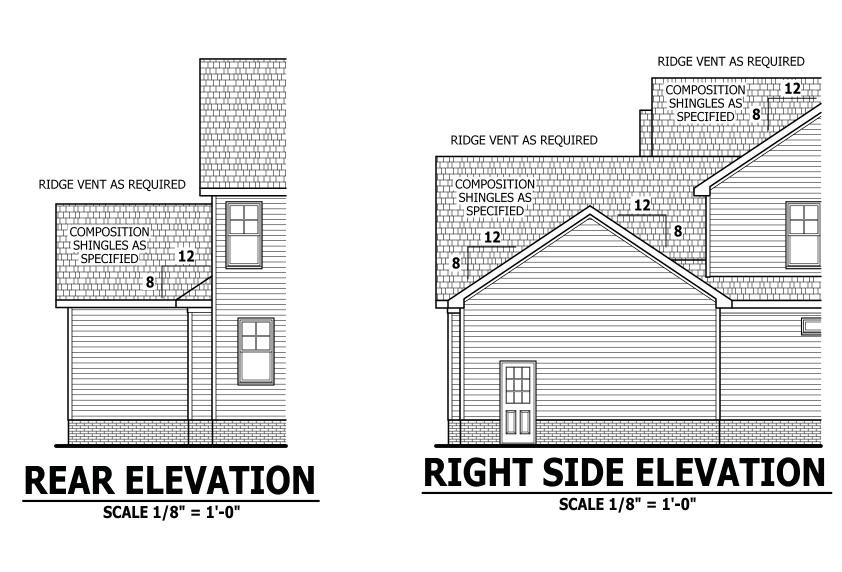
> ayview DET CAL

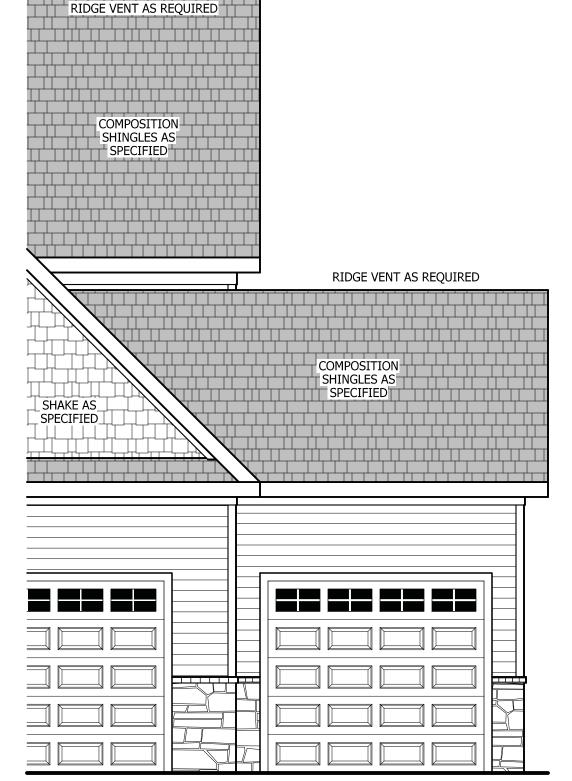
SOUARE FOOTAGE FIRST FLOOR SECOND FLOOR 1395 SQ FT 1336 SQ FT 2731 SQ FT UNHEATED Garage Front Porch COVERED PORCH DECK/PATIO STORAGE **UNHEATED OPTIONAL**

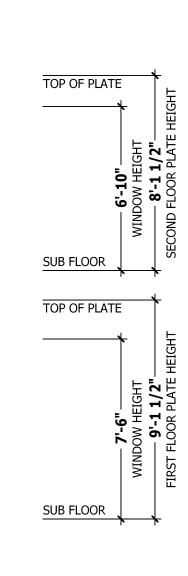
© Copyright 2025 M. HAYNES DESIGNS

3/14/2025 250314B

PAGE 7 OF 7



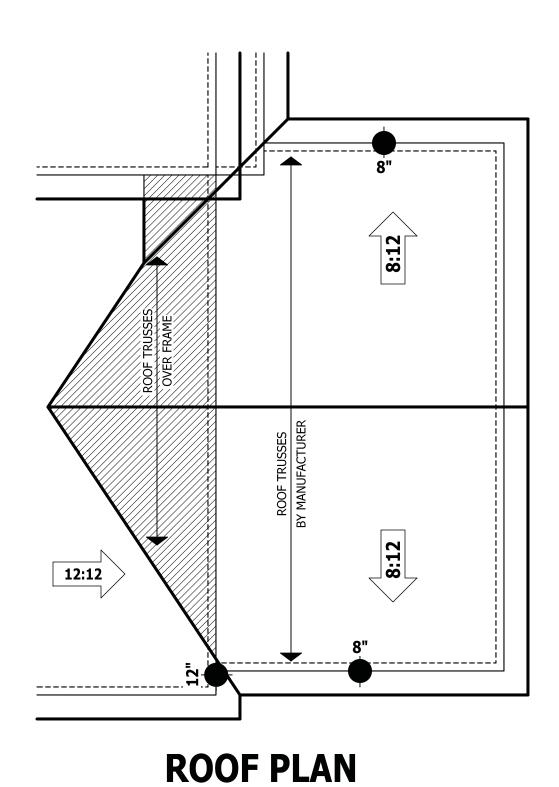




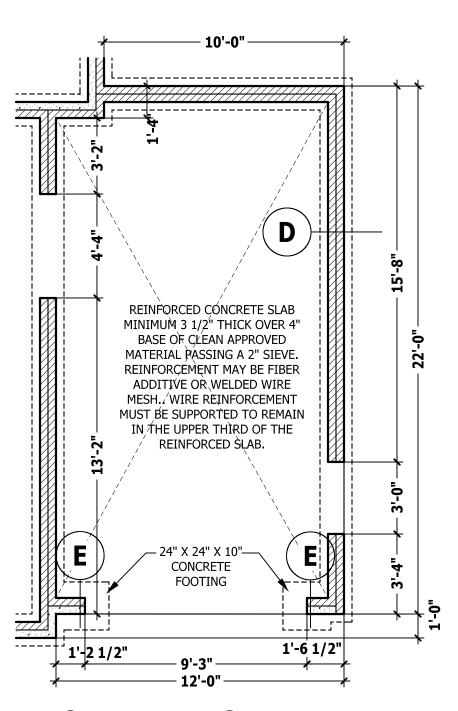
FRONT ELEVATION

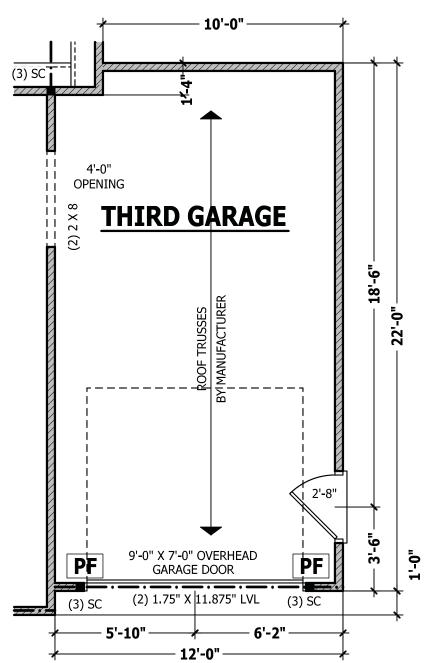
SCALE 1/4" = 1'-0"

SEE BASE PLAN FOR STRUCTURAL NOTES AND DETAILS



SCALE 1/4" = 1'-0"





FOUNDATION PLAN

SCALE 1/4" = 1'-0"

FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

© Copyright 2025
M. HAYNES DESIGNS
3/14/2025

PURCHASER MUST VERIFY ALL

DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.

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

GABLE

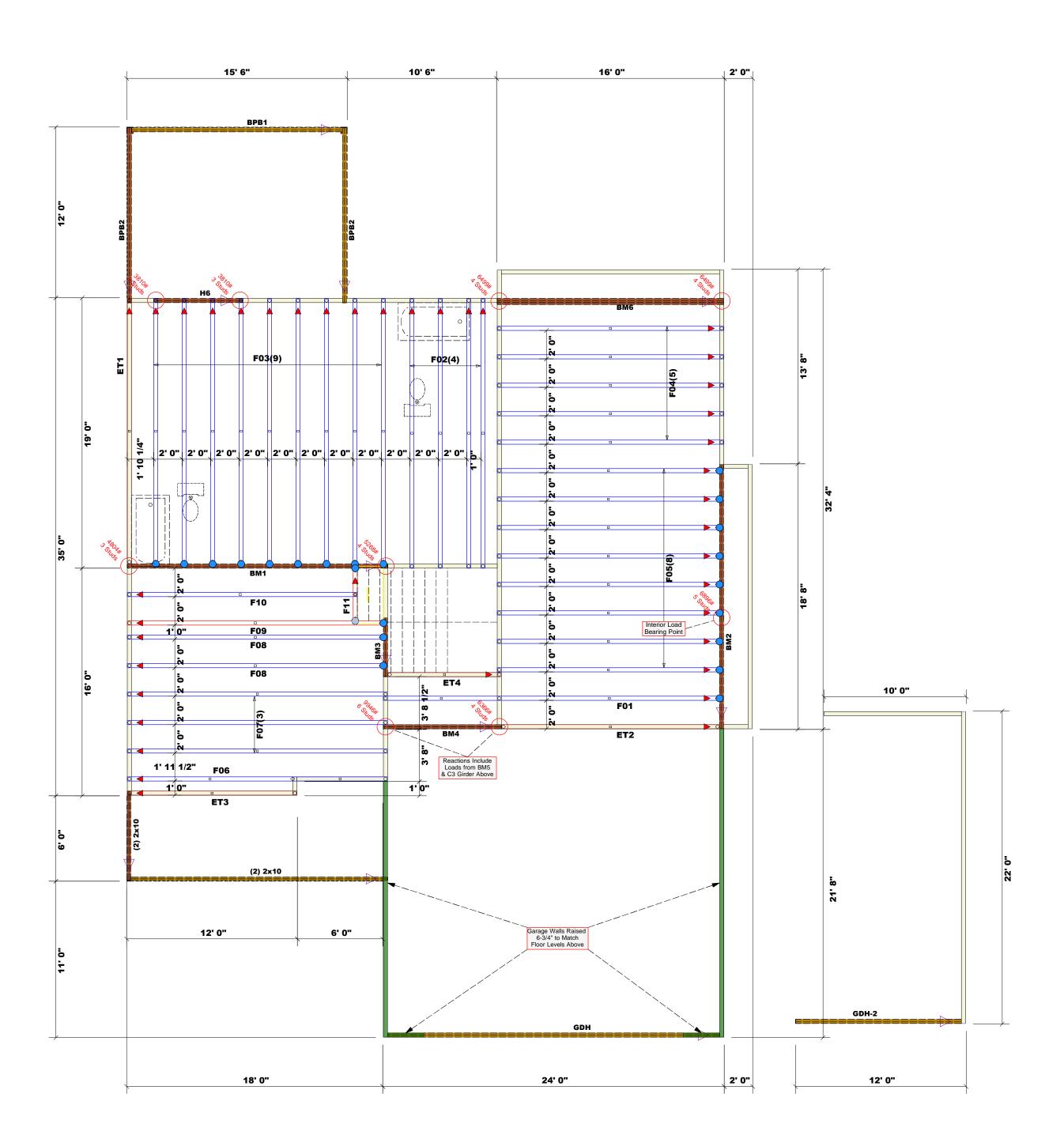
GARAGE

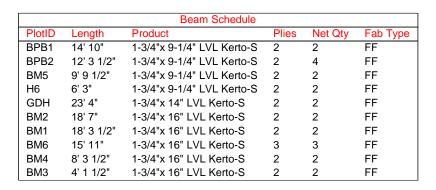
THIRD

Mayview

250314B

ADDENDUM





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

-- Denotes Reaction Greater than 3,000 lbs.

Reaction / # of Studs

		Conne	ctor Info	rmati	on	Nail Info	rmation
Sym	Pr	oduct	Manuf	Qty	Supported Member	Header	Truss
	HU	IS410	USP	22	Varies	16d/3-1/2"	16d/3-1/2"
	MS	H422	USP	1	Varies	10d/3"	10d/3"
			WAL	L	SCHEDI	JLE	
				1	st Floor B	rg. Wall	
				2	nd Floor E	Brg. Wal	l
		==	===	⊐ N	Ion-Bearin	g Walls	
		т.	1		L (4 C. 1	(T	_
	_				Left End		
				_	neered Tr Trusses 1		
			יו בוינ	201	Trusses	buckwui	us
				Pluml	oing Drop Note	s	
		2. Con loca	tractor to	veri or to	cations shown fy ALL plumbin setting Floor T s needed not to	ig drop russes.	
				Din	nension Notes		
					101131011 140103		



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

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#.

C - L - -

Sales Area

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF

		 		 • ,,	
NU	MBER C	STUDS R		A END OF	•
END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

COUNTY	Harnett County
ADDRESS	861 Mann Road / Coats, NC
WODEL	Floor
DATE REV.	9/9/25
DRAWN BY	DRAWN BY Anthony Williams
SALESMAN	SALESMAN Anthony Williams

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

PLAN

Mayview / 250314B /

3/14/25

SEAL DATE

Z

QUOTE#

251075-B

JOB#

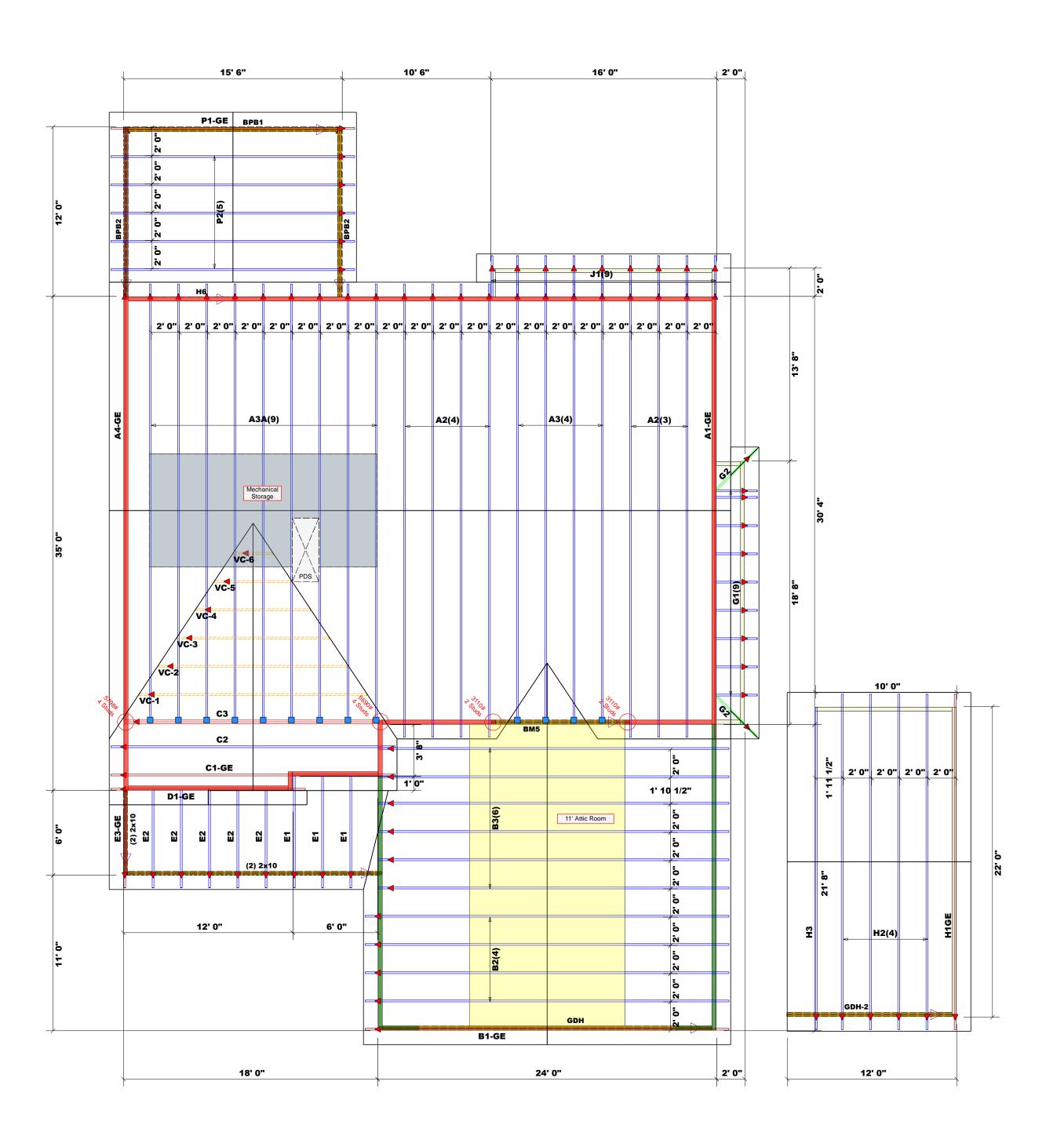
Signature Home Builders

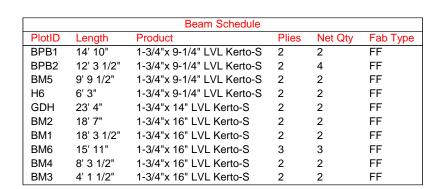
BUILDER

861 Mann

JOB NAME

<u>Truss Placement Plan</u> SCALE: 3/16" = 1'-0"





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

-- Denotes Reaction Greater than 3,000 lbs.

Reaction / # of Studs

	Conne	ctor Info	rmati	ion	Nail Info	rmation
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
	HUS26	USP	13	Varies	16d/3-1/2"	16d/3-1/2"

WALL SCHEDULE

1st Floor Brg. Wall
2nd Floor Brg. Wall
Non-Bearing Walls

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

Plumbing Drop Notes

1. Plumbing drop locations shown are NOT exact.
2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.
3. Adjust spacing as needed not to exceed 24°oc.

Dimension Notes

1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise

2. All interior wall dimensions are to face of stud unless noted otherwise

3. All exterior wall to truss dimensions are to face of stud unless noted otherwise



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

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_

Sales Area

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF

	(B	ASED O	N TABLE	5 R502.	.5(1) & (l	o))	
NU	MBER C		STUDS F			A END O	F
END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER		END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER		END REACTION (UP TO)	100
1700	1		2550	1		3400	
3400	2		5100	2		6800	
5100	3		7650	3		10200	į
6800	4		10200	4		13600	1
8500	5		12750	5		17000	,
10200	6		15300	6			
11900	7						
13600	8						
15300	9						

	רומו וופרו כסמרון
ADDRESS	861 Mann Road / Coats, NC
WODEL	Roof
DATE REV.	6/9/25
DRAWN BY	Anthony Williams
SALESMAN	SALESMAN Anthony Williams

BUILDERSignature Home BuildersJOB NAME861 Mann RoadPLANMayview / 250314B / 3 CarSEAL DATEPlan Date: 3/14/25QUOTE #NAJOB #251075-A

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 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

Truss Placement Plan SCALE: 3/16" = 1'-0"



Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC Date: 9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

1.750" X 16.000" **Kerto-S LVL** 2-Ply - PASSED BM₁

Application:

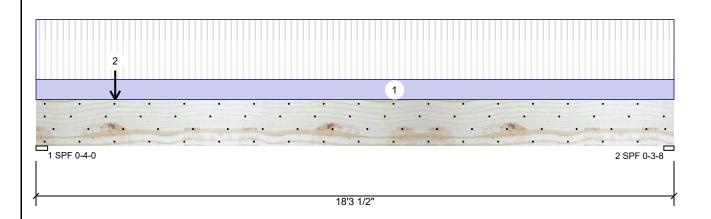
Design Method:

Building Code:

Load Sharing:

Deck:

Level: Level



Floor

ASD

No

IBC 2012

Not Checked



Page 1 of 20

Member Information

Type: Plies: 2 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 360

Importance: Normal - II Temperature: Temp <= 100°F Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	3863	1405	0	0	0
2	Vertical	3516	1289	0	0	0

Bearings

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.000"	Vert	89%	1405 / 3863	5268	L	D+L
2 - SPF	3.500"	Vert	92%	1289 / 3516	4804	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	21179 ft-lb	9' 1/2"	34565 ft-lb	61%	D+L	L
Unbraced	21179 ft-lb	9' 1/2"	21265 ft-lb	100%	D+L	L
Shear	5078 lb	1'8"	11947 lb	43%	D+L	L
LL Defl inch	0.404 (L/529)	9'1 7/16"	0.445 (L/480)	91%	L	L
TL Defl inch	0.552 (L/387)	9'1 7/16"	0.594 (L/360)	93%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top must be laterally braced at a maximum of 5'4 5/16" o.c.
- 6 Bottom must be laterally braced at end bearings.
- 7 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			Far Face	127 PLF	380 PLF	0 PLF	0 PLF	0 PLF	F03
2	Point	2-3-4		Near Face	143 lb	428 lb	0 lb	0 lb	0 lb	F11
	Self Weight				12 PLF					

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-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 2/28/2028

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

Manufacturer Info





isDesign

Client:

Signature Home Builders

Project: Address:

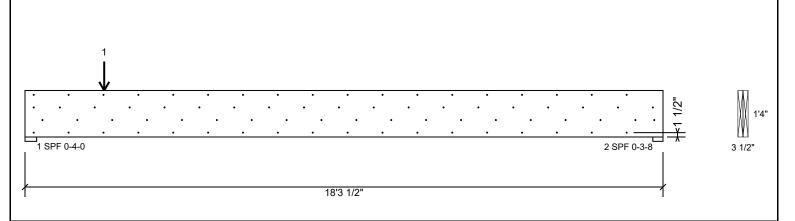
861 Mann Road / Coats, NC

Date: 9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

1.750" X 16.000" **Kerto-S LVL** 2-Ply - PASSED BM₁

Level: Level



Multi-Ply Analysis

Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

	,	
Capacity	77.4 %	
Load	253.5 PLF	
Yield Limit per Foot	327.4 PLF	
Yield Limit per Fastener	81.9 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination	D+L	
Duration Factor	1.00	

Notes

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

- Informing & Installation

 I. VIL 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

 Design assumes top edge is laterally restrained is provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

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

Manufacturer Info

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



Page 2 of 20

This design is valid until 2/28/2028 CSD DESIGN



Signature Home Builders

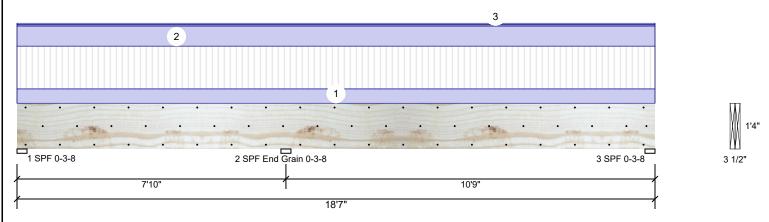
Project:

Address: 861 Mann Road / Coats, NC Date: 9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

1.750" X 16.000" **Kerto-S LVL** 2-Ply - PASSED BM₂

Level: Level



dember Infor	mation			Rea	Reactions UNPATTERNED lb (Uplift)							
Туре:	Girder	Application:	Floor	Brg	Direction	n Live	;	Dead	Snow	Wind	Const	
Plies:	2	Design Method:	ASD	1	Vertical	859)	755	27	0	0	
Moisture Condition	n: Dry	Building Code:	IBC 2012	2	Vertical	3595	;	3158	113	0	0	
Deflection LL:	480	Load Sharing:	No	3	Vertical	1437		1262	45	0	0	
Deflection TL:	360	Deck:	Not Checked									
Importance:	Normal - II											
Temperature:	Temp <= 100°F			Bea	rings							
				Be	aring Len	gth Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.	
				1 -	SPF 3.50	0" Vert	36%	716 / 1150	1865	L_	D+L	
nalysis Resu	2 - En	SPF 3.50 d	0" Vert	61%	3225 / 3671	6896	LL	D+L				

3 - SPF 3.500"

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-6602 ft-lb	7'10"	34565 ft-lb	19%	D+L	LL
Unbraced	-6602 ft-lb	7'10"	7396 ft-lb	89%	D+L	LL
Pos Moment	5677 ft-lb	14'	34565 ft-lb	16%	D+L	_L
Unbraced	5677 ft-lb	14'	7396 ft-lb	77%	D+L	_L
Shear	2882 lb	9'3 3/4"	11947 lb	24%	D+L	LL
LL Defl inch	0.034 (L/3685)	13'4 1/8"	0.263 (L/480)	13%	L	_L
TL Defl inch	0.061 (L/2084)	13'4 13/16"	0.351 (L/360)	17%	D+L	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 3 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 bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 7 Bottom must be laterally braced at end bearings.

8 Lateral siende	erness ratio based on single	piy wiatn.									
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	106 PLF	317 PLF	0 PLF	0 PLF	0 PLF	F05	
2	Uniform			Тор	150 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL	
3	Uniform			Тор	10 PLF	0 PLF	10 PLF	0 PLF	0 PLF	G1	
	Self Weight				12 PLF						

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-ply fastening details, beam strength values, and code approvals
 2 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 2/28/2028

Manufacturer Info Metsä Wood

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

1234 / 1496

2730 _L

D+I

52%

Vert

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



Page 3 of 20





Client: Project: Address:

Signature Home Builders

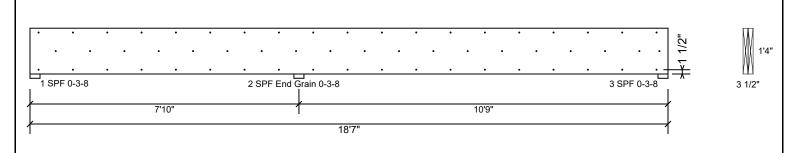
861 Mann Road / Coats, NC

Date: 9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

1.750" X 16.000" **Kerto-S LVL** 2-Ply - PASSED BM₂

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 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	245.6 PLF	
Yield Limit per Fastener	81.9 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

Notes

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

Informing & Installation

I. VIL 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

Design assumes top edge is laterally restrained is 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 2/28/2028

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

Manufacturer Info

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



Page 4 of 20





Signature Home Builders

Project:

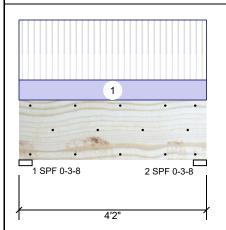
Address: 861 Mann Road / Coats, NC Date: 9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan

251075-A/B

Project #: Level: Level

1.750" X 16.000" **Kerto-S LVL** 2-Ply - PASSED BM₃



Temp <= 100°F



Page 5 of 20

	М	em	ber	Info	rmatio
--	---	----	-----	------	--------

Type: Girder Plies: 2 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 360 Importance: Normal - II

Application: Floor Design Method: ASD

> Load Sharing: No

Building Code:

Deck: Not Checked

IBC 2012

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	763	280	0	0	0
2	Vertical	763	280	0	0	0

Bearings

Bearing	Length	Dir.	Cap. Re	act D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	20%	280 / 763	1043	L	D+L
2 - SPF	3.500"	Vert	20%	280 / 763	1043	L	D+L

Analysis Results

Temperature:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	870 ft-lb	2'1"	34565 ft-lb	3%	D+L	L
Unbraced	870 ft-lb	2'1"	27947 ft-lb	3%	D+L	L
Shear	880 lb	2'6 1/2"	11947 lb	7%	D+L	L
LL Defl inch	0.002 (L/22654)	2'1 1/16"	0.093 (L/480)	2%	L	L
TL Defl inch	0.003 (L/16568)	2'1 1/16"	0.124 (L/360)	2%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 3 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 bottom edge only and across their full width.
- 5 Top must be laterally braced at end bearings.
- 6 Bottom must be laterally braced at end bearings.
- 7 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			Near Face	122 PLF	366 PLF	0 PLF	0 PLF	0 PLF	F08	
	Self Weight				12 PI F						

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-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

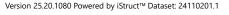
301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us

Manufacturer Info

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



This design is valid until 2/28/2028





Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC Date: 9/9/2025

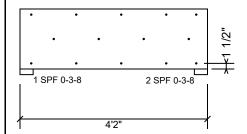
Project #:

Input by: Anthony Williams Job Name: Mayview Plan

251075-A/B

1.750" X 16.000" **Kerto-S LVL** 2-Ply - PASSED BM₃

Level: Level





Page 6 of 20

Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

raster an plies asing 5 rows	or rod box ridiis (.120x3) at
Capacity	99.4 %
Load	244.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
См	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes

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

- Handling & Installation

 1. UVI 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 2/28/2028

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

Manufacturer Info







Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC Date: 9/9/2025

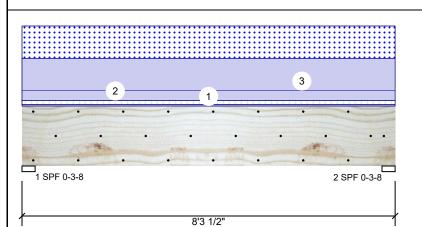
Input by: Anthony Williams Job Name: Mayview Plan

251075-A/B

Level: Level

Project #:

1.750" X 16.000" **Kerto-S LVL** 2-Ply - PASSED BM4





Page 7 of 20

Member Information

Туре:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application: 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	166	1892	1364	0	0
2	Vertical	166	1892	1364	0	0

Bearings

Bearing	Length	Dir.	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	63%	1892 / 1364	3256	L	D+S
2 - SPF	3.500"	Vert	63%	1892 / 1364	3256	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6057 ft-lb	4'1 3/4"	39750 ft-lb	15%	D+S	L
Unbraced	6057 ft-lb	4'1 3/4"	15114 ft-lb	40%	D+S	L
Shear	1980 lb	1'7 1/2"	13739 lb	14%	D+S	L
LL Defl inch	0.017 (L/5541)	4'1 13/16"	0.196 (L/480)	9%	S	L
TL Defl inch	0.041 (L/2321)	4'1 13/16"	0.262 (L/360)	16%	D+S	L

Design Notes

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

		<u> </u>								
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	Uniform			Тор	100 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
3	Uniform			Тор	329 PLF	0 PLF	329 PLF	0 PLF	0 PLF	A2
	Self Weight				12 PLF					

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-ply fastening details, beam strength values, and code approvals
 2 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

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

Manufacturer Info

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



This design is valid until 2/28/2028



Signature Home Builders

Project: Address:

861 Mann Road / Coats, NC

9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan

251075-A/B

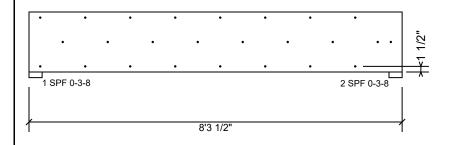
Project #:

Kerto-S LVL BM4

1.750" X 16.000"

2-Ply - PASSED

Level: Level





Page 8 of 20

Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

1 3	
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
CM	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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
- Informing & Installation

 I. VIL 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

 Design assumes top edge is laterally restrained is 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 2/28/2028

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

Manufacturer Info







BM₅

Client:

Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC Date: 9/9/2025

Project #:

Input by: Anthony Williams Job Name: Mayview Plan

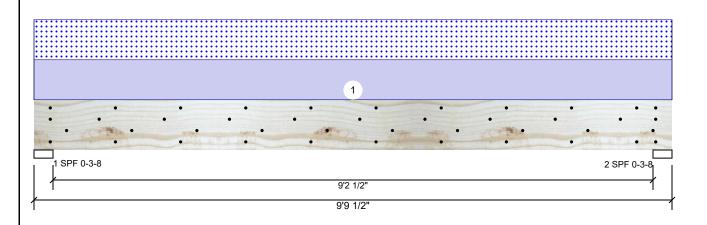
251075-A/B

Level: Level

Kerto-S LVL

1.750" X 9.250"

2-Ply - PASSED





Page 9 of 20

Member Information

Type: Plies: 2 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 360

Importance: Normal - II Temp <= 100°F

Application: 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	0	1573	1537	0	0
2	Vertical	0	1573	1537	0	0

Bearings

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. D+S 1 - SPF 3.500" Vert 1573 / 1537 3110 L 3.500" 1573 / 1537 2 - SPF Vert 60% 3110 L D+S

Analysis Results

Temperature:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6917 ft-lb	4'10 3/4"	14423 ft-lb	48%	D+S	L
Unbraced	6917 ft-lb	4'10 3/4"	7832 ft-lb	88%	D+S	L
Shear	2919 lb	8'8 3/4"	7943 lb	37%	D+S	L
LL Defl inch	0.128 (L/873)	4'10 3/4"	0.233 (L/480)	55%	S	L
TL Defl inch	0.260 (L/432)	4'10 3/4"	0.311 (L/360)	83%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top must be laterally braced at end bearings.
- 6 Bottom must be laterally braced at end bearings.
- 7 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			Far Face	314 PLF	0 PLF	314 PLF	0 PLF	0 PLF	A3
	Self Weight				7 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-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

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

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



This design is valid until 2/28/2028

Manufacturer Info



Signature Home Builders

Project: Address:

861 Mann Road / Coats, NC

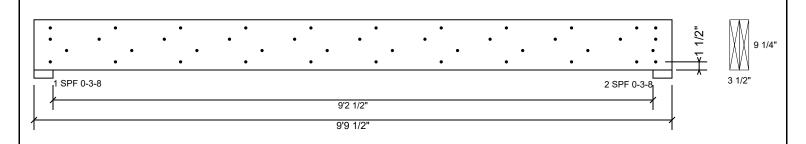
9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

Page 10 of 20

Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED BM5

Level: Level



Multi-Ply Analysis

Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

	•	•
Capacity	83.4 %	
Load	314.0 PLF	
Yield Limit per Foot	376.5 PLF	
Yield Limit per Fastener	94.1 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination	D+S	
Duration Factor	1.15	

Notes

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

- Informing & Installation

 I. VIL 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

 Design assumes top edge is laterally restrained is 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 2/28/2028

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

Manufacturer Info







Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC Date: 9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

1.750" X 16.000" **Kerto-S LVL** 3-Ply - PASSED BM6

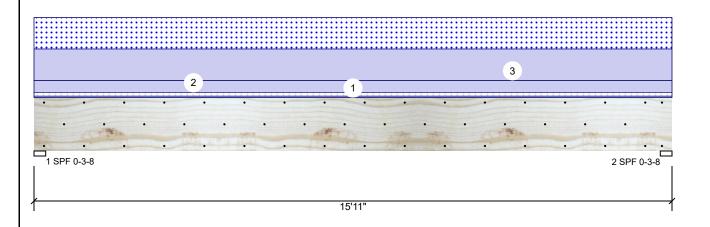
> Application: Design Method:

Building Code:

Load Sharing:

Deck:

Level: Level



ASD

Yes

IBC 2012

Not Checked



5 1/4

Page 11 of 20

Member Information

Type:	Girder
Plies:	3
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal

- II Temperature: Temp <= 100°F

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	318	3881	2618	0	0
2	Vertical	318	3881	2618	0	0

Bearings

Bearing I	Length	Dir.	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.
1-SPF 3	3.500"	Vert	83%	3881 / 2618	6499	L	D+S
2-SPF 3	3.500"	Vert	83%	3881 / 2618	6499	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	24460 ft-lb	7'11 1/2"	62010 ft-lb	39%	D+S	L
Unbraced	24460 ft-lb	7'11 1/2"	24497 ft-lb	100%	D+S	L
Shear	5172 lb	1'7 1/2"	20608 lb	25%	D+S	L
LL Defl inch	0.132 (L/1406)	7'11 9/16"	0.387 (L/480)	34%	S	L
TL Defl inch	0.328 (L/567)	7'11 9/16"	0.516 (L/360)	64%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6". Nail from both sides.
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 7'3 1/16" 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			Тор	15 PLF	40 PLF	0 PLF	0 PLF	0 PLF	FLOOR	
2	Uniform			Тор	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL	
3	Uniform			Тор	329 PLF	0 PLF	329 PLF	0 PLF	0 PLF	A2	
	Self Weight				19 PLF						

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-ply fastening details, beam strength values, and code approvals

2 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 2/28/2028

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

Manufacturer Info







Client: Project: Address:

Signature Home Builders

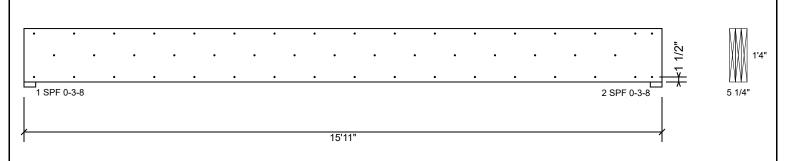
861 Mann Road / Coats, NC

9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED BM6

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6".

Capacity	0.0 %	
Load	0.0 PLF	
Yield Limit per Foot	245.6 PLF	
Yield Limit per Fastener	81.9 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

Notes

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-ply fastening details, beam strength values, and code approvals

 2 Damaged Beams must not be used
- Danaged Beams must not be used
 Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rotation
- For flat roofs provide proper drainage to prevent ponding

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

Manufacturer Info

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



Page 12 of 20

This design is valid until 2/28/2028



GDH

Client:

Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC

Application:

Design Method:

Building Code:

Load Sharing:

Deck:

Floor

ASD

No

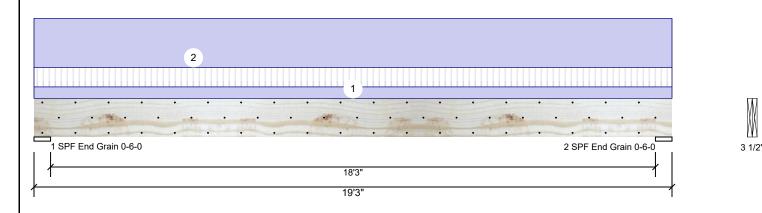
IBC 2012

Not Checked

Date: 9/9/2025

> Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED Level: Level



Member Information Type: Plies: 2

Moisture Condition: Dry Deflection LL: 480 Deflection TL: 360

Importance: Temp <= 100°F Temperature:

Normal - II

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	578	1885	0	0	0
2	Vertical	578	1885	0	0	0

Page 13 of 20

Bearings

Grain

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 6.000" Vert 14% 1885 / 578 2463 L D+I End Grain 14% 1885 / 577 2463 L D+L 2 - SPF 6.000" Vert End

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10800 ft-lb	9'7 1/2"	26999 ft-lb	40%	D+L	L
Unbraced	10800 ft-lb	9'7 1/2"	10822 ft-lb	100%	D+L	L
Shear	2036 lb	1'8"	10453 lb	19%	D+L	L
LL Defl inch	0.102 (L/2160)	9'7 9/16"	0.459 (L/480)	22%	L	L
TL Defl inch	0.435 (L/506)	9'7 9/16"	0.612 (L/360)	71%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 9'11 5/16" 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			Тор	35 PLF	60 PLF	0 PLF	0 PLF	0 PLF	F+4
2	Uniform			Тор	150 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
	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-ply fastening details, beam strength values, and code
- 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 2/28/2028

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

Manufacturer Info







Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC 9/9/2025

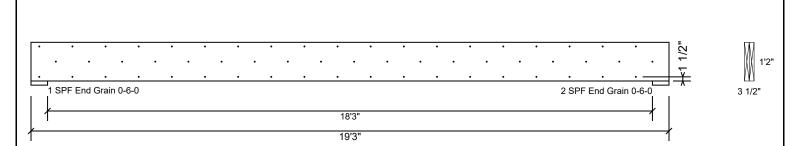
Project #:

Input by: Anthony Williams Job Name: Mayview Plan 251075-A/B

Page 14 of 20

Level: Level

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



Multi-Ply Analysis

Fasten all plies using 3 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	245.6 PLF	
Yield Limit per Fastener	81.9 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

Notes

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
requirements, multi-ply
fastening details, beam strength values, and code
approvals
Damaged Beams must not be used

Danaged Beams must not be used
Design assumes top edge is laterally restrained
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 2/28/2028

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

Manufacturer Info







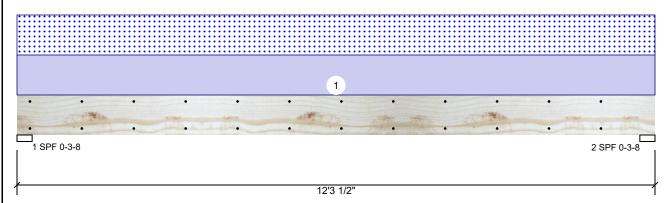
Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC Date: 9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan Project #: 251075-A/B

1.750" X 9.250" **Kerto-S LVL** 2-Ply - PASSED Level: Level





Page 15 of 20

Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II

Application: 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	0	1058	1014	0	0
2	Vertical	0	1058	1014	0	0

Bearings

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	40%	1058 / 1014	2072	L	D+S
2 - SPF	3.500"	Vert	40%	1058 / 1014	2072	L	D+S

Analysis Results

Temperature:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5902 ft-lb	6'1 3/4"	14423 ft-lb	41%	D+S	L
Unbraced	5902 ft-lb	6'1 3/4"	6421 ft-lb	92%	D+S	L
Shear	1714 lb	11'2 3/4"	7943 lb	22%	D+S	L
LL Defl inch	0.168 (L/845)	6'1 3/4"	0.296 (L/480)	57%	S	L
TL Defl inch	0.343 (L/414)	6'1 3/4"	0.394 (L/360)	87%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.

Temp <= 100°F

6 Top must be laterally braced at end bearings.

Self Weight

- 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			Тор	165 PLF	0 PLF	165 PLF	0 PLF	0 PLF	P2

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-ply fastening details, beam strength values, and code approvals

2 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 2/28/2028

7 PI F

Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850

www.metsawood.com/us

Manufacturer Info





isDesign

Client:

Signature Home Builders

Project: Address:

861 Mann Road / Coats, NC

9/9/2025

Input by: Anthony Williams Page 16 of 20

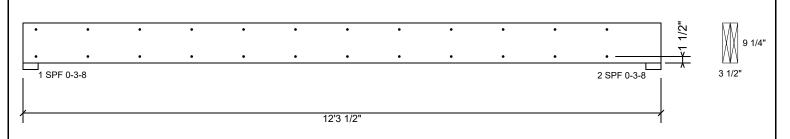
Job Name: Mayview Plan Project #: 251075-A/B

Level: Level

Kerto-S LVL

1.750" X 9.250"

2-Ply - PASSED



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.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

Notes

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

- Danaged Beams must not be used
 Design assumes top edge is laterally restrained
 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 2/28/2028

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

Manufacturer Info

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



CSD DESIGN



H6

Kerto-S LVL

Client:

Signature Home Builders

Project:

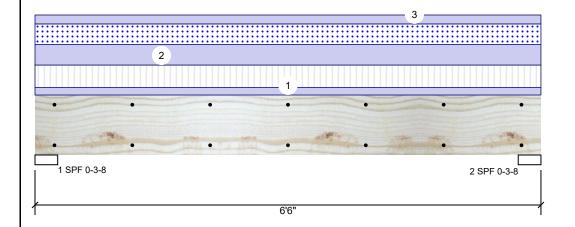
Address: 861 Mann Road / Coats, NC Date: 9/9/2025

Input by: Anthony Williams Job Name: Mayview Plan

251075-A/B

Project #: 1.750" X 9.250" 2-Ply - PASSED

Level: Level



ASD

No

IBC 2012

Not Checked

Application: Design Method:

Building Code:

Load Sharing:

Deck:



Page 17 of 20

Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Norma

al - II Temp <= 100°F Temperature:

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1229	2045	1125	0	0
2	Vertical	1229	2045	1125	0	0

Bearings

Bearing	Length	Dir.	Сар.	React D/L lb	Total		Ld. Comb.
1 - SPF	3.500"	Vert	73%	2045 / 1765	3810	L	D+0.75(L+S)
2 - SPF	3.500"	Vert	73%	2045 / 1765	3810		D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5348 ft-lb	3'3"	14423 ft-lb	37%	D+0.75(L+S)	L
Unbraced	5348 ft-lb	3'3"	10533 ft-lb	51%	D+0.75(L+S)	L
Shear	2564 lb	5'5 1/4"	7943 lb	32%	D+0.75(L+S)	L
LL Defl inch	0.044 (L/1645)	3'3"	0.151 (L/480)	29%	0.75(L+S)	L
TL Defl inch	0.095 (L/762)	3'3"	0.201 (L/360)	47%	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 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			Тор	126 PLF	378 PLF	0 PLF	0 PLF	0 PLF	F03
2	Uniform			Тор	346 PLF	0 PLF	346 PLF	0 PLF	0 PLF	A3A
3	Uniform			Тор	150 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
	Self Weight				7 PLF					

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-ply fastening details, beam strength values, and code approvals

 2 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 2/28/2028

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

Manufacturer Info







Signature Home Builders

Project:

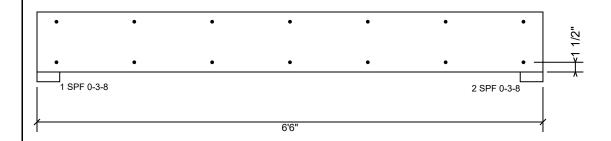
Address: 861 Mann Road / Coats, NC Date: 9/9/2025

Input by: Anthony Williams

Job Name: Mayview Plan Project #: 251075-A/B

Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED **H6**

Level: Level





Page 18 of 20

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.
См	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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

- Handling & Installation

 1. UVI 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

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

Manufacturer Info

Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



This design is valid until 2/28/2028



Kerto-S LVL

GDH-2

Client:

Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC Date: 9/9/2025

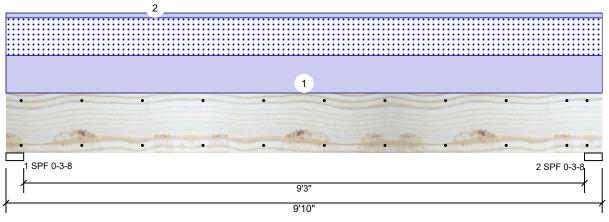
Input by: Anthony Williams Job Name: Mayview Plan

_evel: Level

251075-A/B

1.750" X 11.875" 2-Ply - PASSED

Project #:





Page 19 of 20

Member Information

Type: Plies: 2 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 360 Importance: Normal - II Temperature: Temp <= 100°F

Application: 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	0	1338	1146	0	0		
2	Vertical	0	1338	1146	0	0		

Bearings

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 3.500" D+S Vert 1338 / 1146 2484 L 2 - SPF 3.500" Vert 48% 1338 / 1146 2484 L D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5551 ft-lb	4'11"	22897 ft-lb	24%	D+S	L
Unbraced	5551 ft-lb	4'11"	9857 ft-lb	56%	D+S	L
Shear	1837 lb	8'6 5/8"	10197 lb	18%	D+S	L
LL Defl inch	0.049 (L/2317)	4'11"	0.234 (L/480)	21%	S	L
TL Defl inch	0.105 (L/1069)	4'11"	0.312 (L/360)	34%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 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			Тор	233 PLF	0 PLF	233 PLF	0 PLF	0 PLF	H2
2	Uniform			Тор	30 PLF	0 PLF	0 PLF	0 PLF	0 PLF	wall
	Self Weight				9 PLF					

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-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 2/28/2028

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

Manufacturer Info







Signature Home Builders

Project:

Address: 861 Mann Road / Coats, NC 9/9/2025

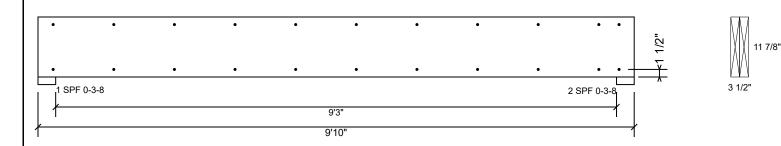
Input by: Anthony Williams Job Name: Mayview Plan

Page 20 of 20

Project #: 251075-A/B

1.750" X 11.875" GDH-2 **Kerto-S LVL** 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.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

Notes

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

- Handling & Installation

 1. UVI 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

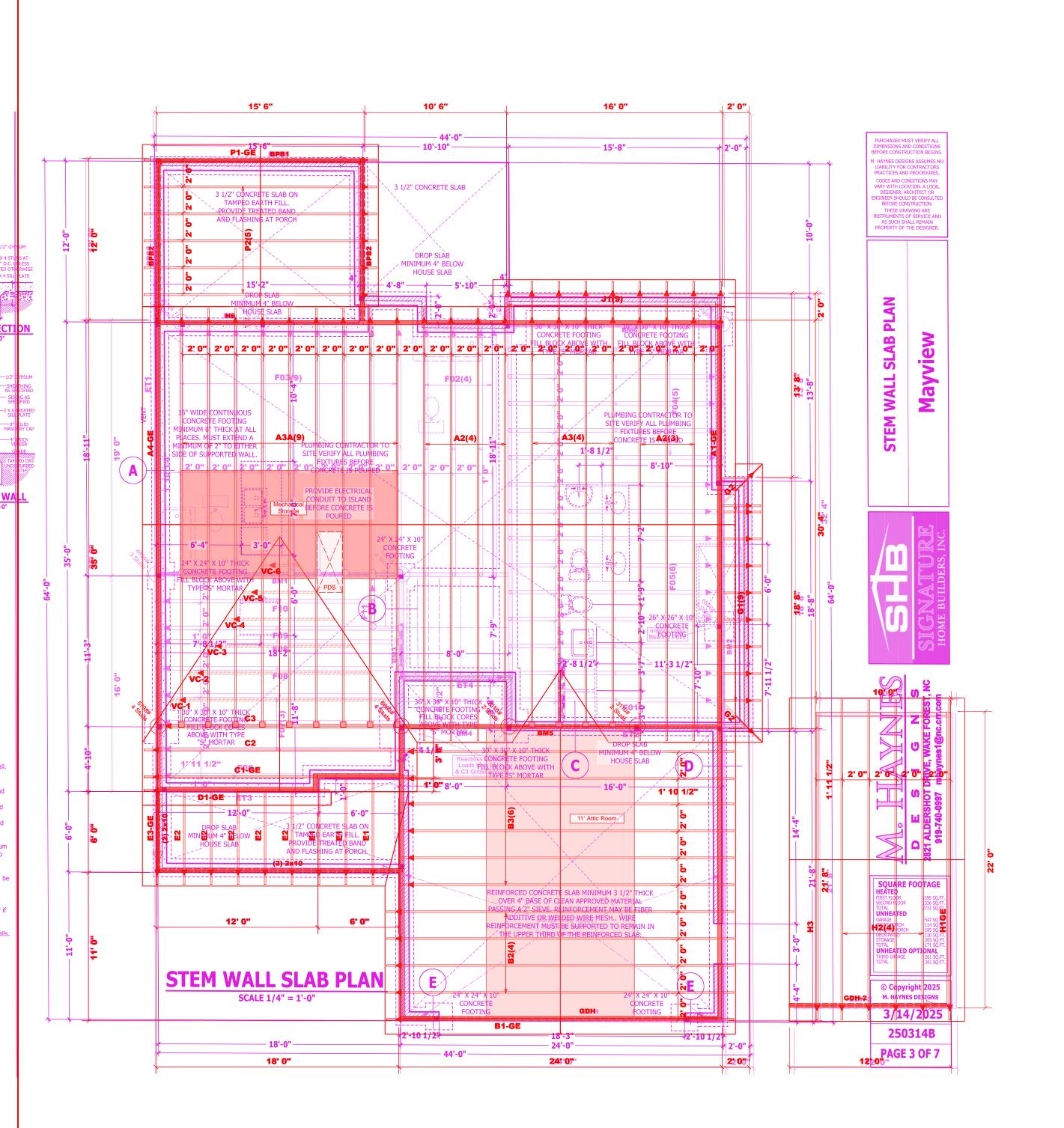
This design is valid until 2/28/2028

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

Manufacturer Info









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

-- Denotes Reaction Greater than 3,000 lbs.

Reaction / # of Studs

	Conne	ctor Info	rmati	ion	Nail Info	rmation
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
	HUS26	USP	13	Varies	16d/3-1/2"	16d/3-1/2"

WALL SCHEDULE

1st Floor Brg. Wall
2nd Floor Brg. Wall
Non-Bearing Walls

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

Plumbing Drop Notes

Plumbing drop locations shown are NOT exa
Contractor to verify ALL plumbing drop locations orior to setting Floor Trusses.

Dimension Notes

1. All exterior wall to wall dimensions are to
face of sheathing unless noted otherwise

2. All interior wall dimensions are to face of
stud unless noted otherwise

3. All exterior wall to truss dimensions are

ROOF & FLOOR TRUSSES & BEAMS

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

Reilly Road Industrial Park

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_

Sales Area

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF

NU/	MBER C	STUDS F HEADER/		A END	OF
END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	
1700	1	2550	1	3400)
3400	2	5100	2	6800)
5100	3	7650	3	1020	0
6800	4	10200	4	1360	0
8500	5	12750	5	1700	0
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

COUNTY	Harnett County
ADDRESS	861 Mann Road / Coats, NC
MODEL	Roof
DATE REV.	9/9/25
DRAWN BY	DRAWN BY Anthony Williams
SALESMAN	SALESMAN Anthony Williams

BUILDERSignature Home BuildersCOUNTJOB NAME861 Mann RoadADDRESPLANMayview / 250314B / 3 CarMODELSEAL DATEPlan Date: 3/14/25DATE RQUOTE #NADRAWNJOB #251075-ASALESA

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 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

Truss Placement Plan SCALE: 3/16" = 1'-0"