

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

MEAN ROOF HEIGHT 25'-8"	

CLIMATE ZONE	ZONE 3A	ZONE 4A	ZONE 5A
FENESTRATION U-FACTOR	0.35	0.35	0.35
SKYLIGHT U-FACTOR	0.55	0.55	0.55
GLAZED FENESTRATION SHGC	0.30	0.30	0.30
CEILING R-VALUE	38 or 30ci	38 or 30ci	38 or 30ci
WALL R-VALUE	15	15	19
FLOOR R-VALUE	19	19	30
* BASEMENT WALL R-VALUE	5/13	10/15	10/15
** SLAB R-VALUE	0	10	10
* CRAWL SPACE WALL R-VALUE	5/13	10/15	10/19

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

DESIGNED FOR WIN	ID SPEED	OF 130 MF	PH, 3 SEC0	OND GUST	(101 FAS	TEST MILE	E) EXPOSU	IRE "B"
COMPONENT	& CLA	DDING	DESIG	NED FO	R THE	FOLLO	WING	LOADS
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'
ZONE 1	16.7	-18.0	17.5	-18.9	18.2	-19.6	18.7	-20.2
ZONE 2	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5
ZONE 3	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5
ZONE 4	18.2	-19.0	19.1	-20.0	19.8	-20.7	20.4	-21.3
ZONE 5	18.2	-24.0	19.1	-25.2	19.8	-26.2	20.4	-26.9

AIR LEAKAGE

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.

HVAC: TBD ELECTRICAL: PIONEER PLUMBER: DOUBLE J

ROOF VENTILATION

SECTION R806

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

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

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

SQUARE FOOTAGE OF ROOF TO BE VENTED = 1558 SQ.FT. NET FREE CROSS VENTILATION NEEDED:

WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 10.39 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 = 5.16 SQ.FT.

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 *quards* 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:

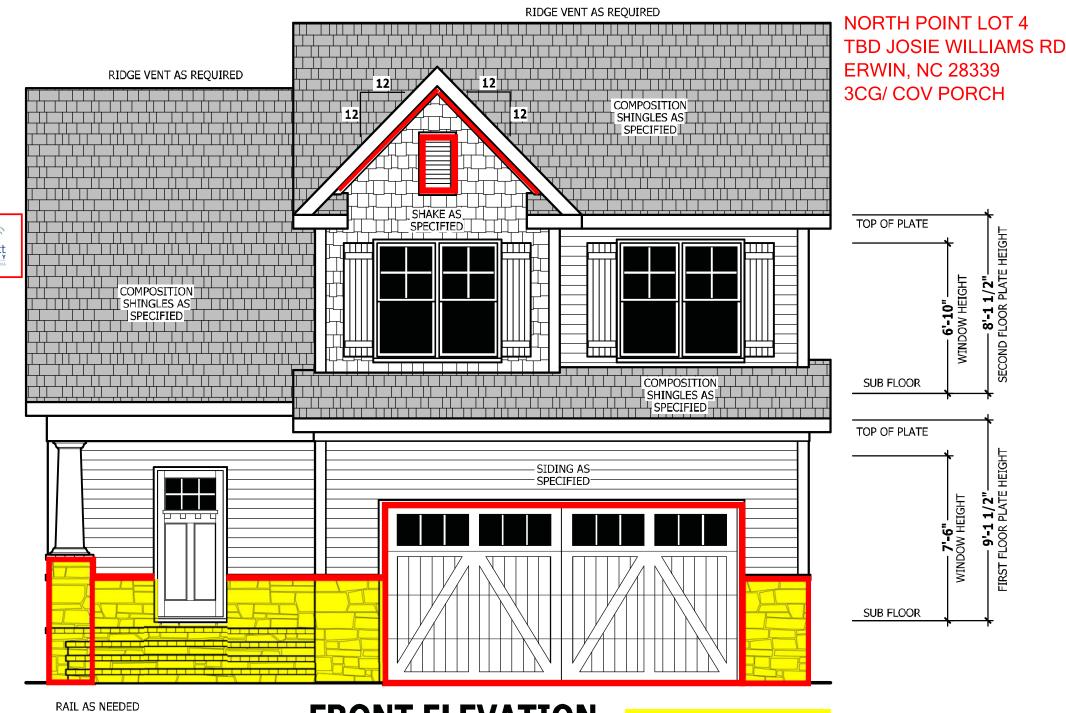
1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the

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.

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 mm) in diameter. 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.



FRONT ELEVATION PER CODE SCALE 1/4" = 1'-0" **SQUARE FOOTAGE** RIDGE VENT AS REQUIRED HEATED 776 SQ FT. 764 SQ FT. FIRST FLOOR SECOND FLOOR 280 SQ FT 1820 SQ FT PLAYROOM TOTAL UNHEATED 101 SQ.FT. 466 SQ.FT. 152 SQ.FT. FRONT PORCH REAR PORCH □COMPOSITION TOTAL 719 SQ.FT. -SHINGLES AST TOP OF PLATE 1/2" SUB FLOOR -SIDING AS-SPECIFIED--SIDING AS-SPECIFIED-TOP OF PLATE .9'-1 1/2" .OOR PLATE COVERED SIDING AS-PORCH SPECIFIED-SUB FLOOR

REAR ELEVATION

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY AL DIMENSIONS AND CONDITION HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AN 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 AI AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER

ELEVATIONS STON REAR

GA 罪 8 **FRONT**

SQUARE FOOTAGE HEATED FIRST FLOOR SECOND FLOOR PLAYROOM TOTAL UNHEATED FRONT PORCH GARAGE REAR PORCH TOTAL 776 SQ FI 764 SQ FI 280 SQ FI 1820 SQ FI

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

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ELEVATIONS GASTON **RIGHT** 뿔 య

LET

 SQUARE FOOTAGE

 HEATED
 776 SQ.FT.

 FIRST FLOOR
 764 SQ.FT.

 SECOND FLOOR
 764 SQ.FT.

 PLAYROOM
 280 SQ.FT.

 TOTAL
 1820 SQ.FT.

 UNHEATED
 FRONT PORCH

 FRONT PORCH
 101 SQ.FT.

 GARAGE
 466 SQ.FT.

 REAR PORCH
 152 SQ.FT.

 TOTAL
 719 SQ.FT.

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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 access.

2. Pull down stair treads, stringers, handrails, and hardware may protrude into the net dear opening.

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.

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

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.

EXTERIOR WINDOWS AND DOORS

R612.1 General. This section prescribes performance and construction requirements for exterior windows and doors installed in walls. Windows and doors shall be installed and flashed in accordance with the fenestration manufacturer's written installation instructions. Window and door openings shall be flashed in accordance with Section R703.8. Written installation instructions shall be provided by the fenestration manufacturer for each window

R612.2 Window sills. In *dwelling* units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished *grade* or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4 inch (102 mm) diameter sphere where such openings are located within 24 inches (610 mm) of the finished floor.

1. Windows whose openings will not allow a 4-inch diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position. 2. Openings that are provided with window fall prevention devices that comply with Section

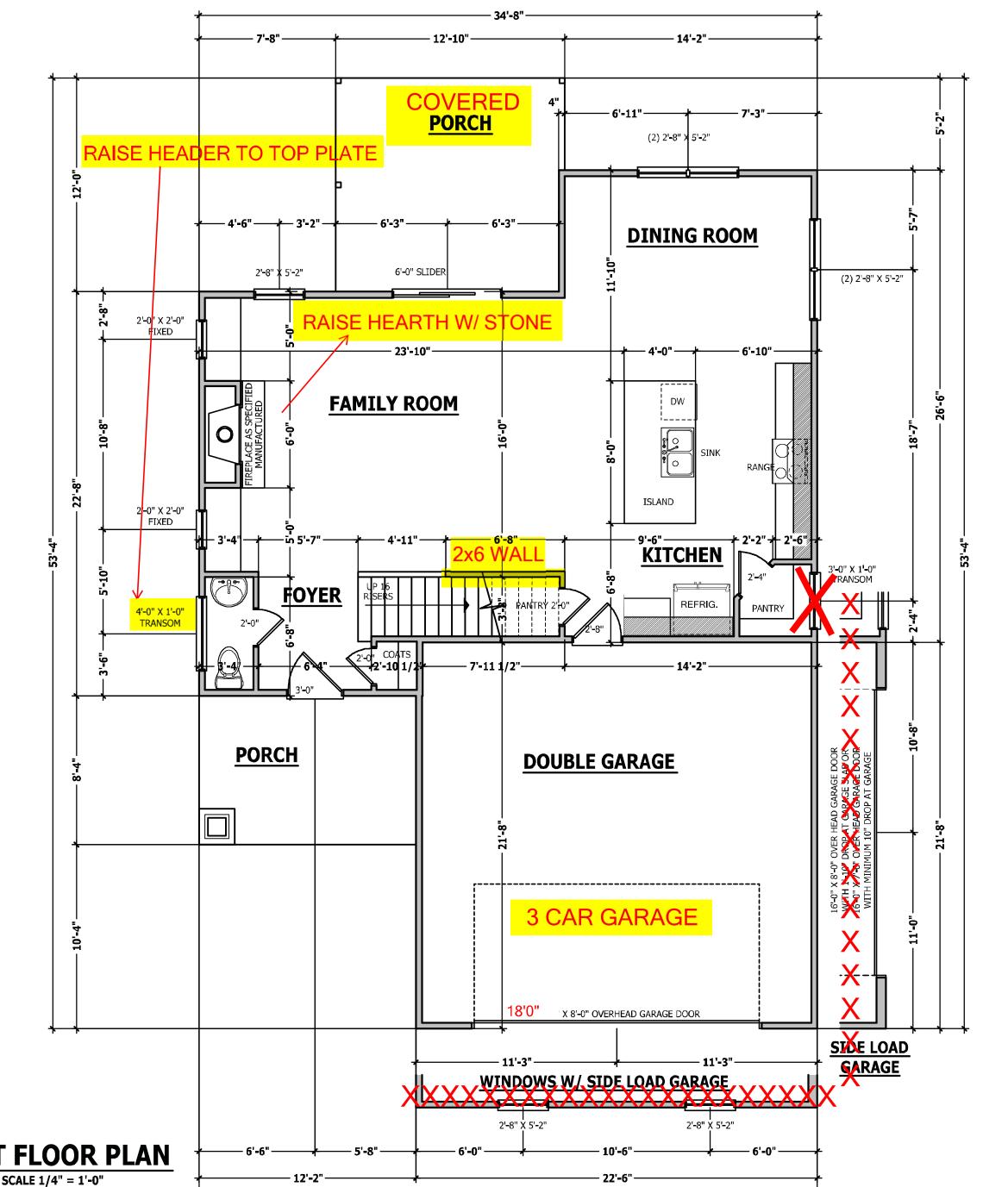
3. Openings that are provided with fall prevention devices that comply with ASTM F 2090. 4. Windows that are provided with opening limiting devices that comply with Section R612.4. **R612.3 Window fall prevention devices.** Window fall prevention devices and window guards, where provided, shall comply with the requirements of ASTM F 2090.

SQUARE FOOTAGE HEĀTED

776 SQ.FT. 764 SQ.FT. FIRST FLOOR SECOND FLOOR 280 SQ FT 1820 SQ FT PLAYROOM UNHEATED 101 SQ.FT. 466 SQ.FT. 152 SQ.FT. 719 SQ.FT. FRONT PORCH GARAGE REAR PORCH

TOTAL

FIRST FLOOR PLAN



34'-8"-

DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES.

CODES AND CONDITIONS MAY VARY WITH LOCATION, A LOCAL DESIGNER, ARCHITECT OR NGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION

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FIRST FLOOR PLAN **GASTON** 뿔

SQUARE FOOTAGE HEATED FIRST FLOOR SECOND FLOOR PLAYROOM TOTAL

UNHEATED

FRONT PORCH
GARAGE
REAR PORCH
TOTAL

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STRUCTURAL NOTES

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

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

DESIGN LUADS	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
Balcopies and docks	40	10	1/360

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

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

ENGINEERED WOOD BEAMS:

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

TRUSS AND I-JOIST MEMBERS: All roof truss and I-joist layouts shall be prepared in accordance with this document. Trusses and I-joists shall be installed according to the manufacture's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Homes Plans, Inc. LINTELS: Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span. 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise. 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise. FLOOR SHEATHING: OSB or CDX floor sheathing minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, and minimum 3/4" thick for 24" on center joist spacing. ROOF SHEATHING: OSB or CDX roof sheathing minimum 3/8" thick. CONCRETE AND SOILS: See foundation notes.

ROOF TRUSS REQUIREMENTS

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins. 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.

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

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

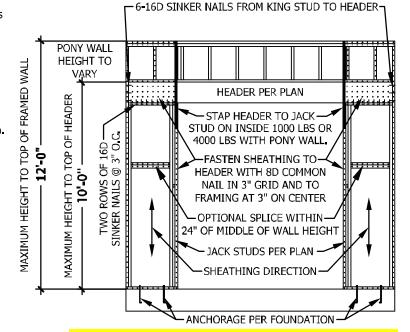
GYPSUM: All interior sides of exterior walls and both sides interior walls to have 1/2" gypsum installed. When not using GB to be fastened per table R602.10.1.

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

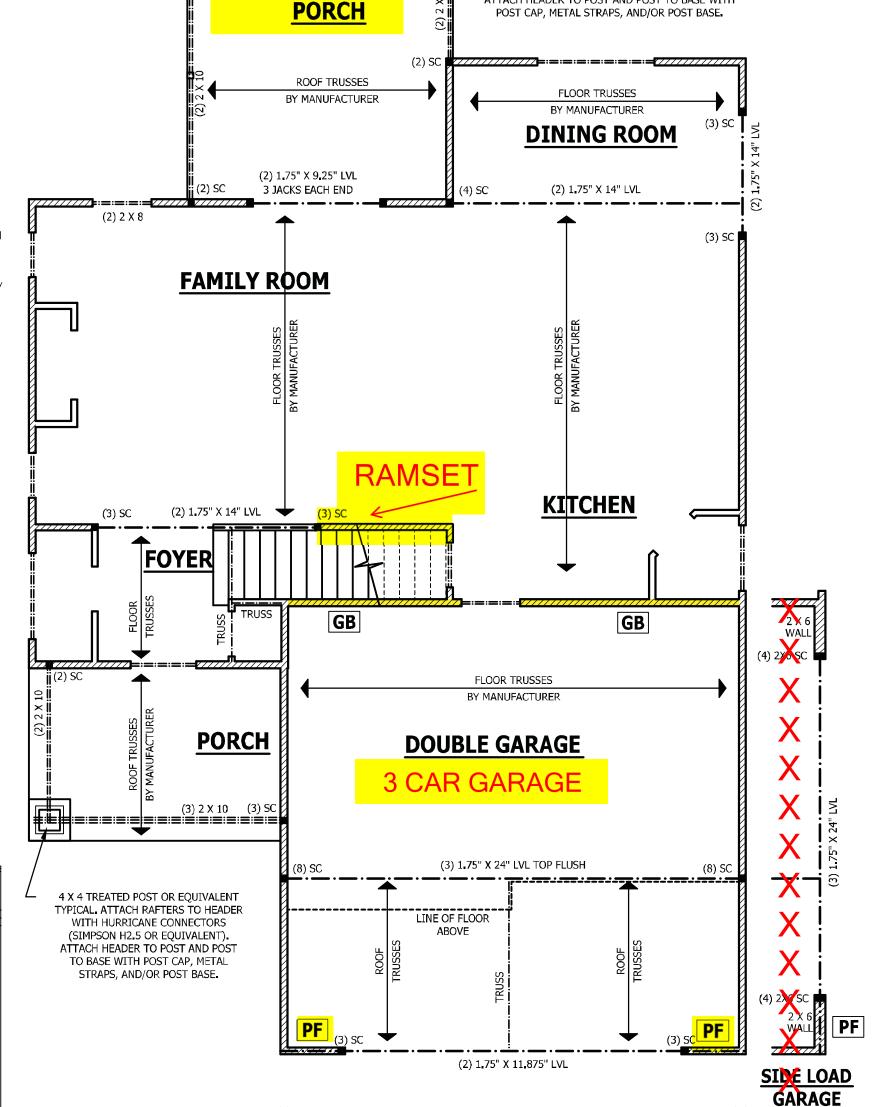
of the brace wall panel dosets to the corner. Methods Per Table R602.10.1

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

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



PORTAL FRAME AT OPENING METHOD PF PER FIGURE AND SECTION R602.10.1 SCALE 1/4" = 1'-0"



WINDOWS W/ SIDE LOAD GARAGE

FIRST FLOOR STRUCTURAL

SCALE 1/4" = 1'-0"

-4 X 4 TREATED POST OR EQUIVALENT TYPICAL. ATTACH RAFTERS TO HEADER WITH HURRICANE CONNECTORS (SIMPSON H2.5 OR EQUIVALENT). ATTACH HEADER TO POST AND POST TO BASE WITH

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IMENSIONS AND CONDITION BEFORE CONSTRUCTION BEGINS HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES

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FIRST FLOOR STRUCTURAL

SQUARE FOOTAGE HEATED FIRST FLOOR SECOND FLOOR PLAYROOM TOTAL
UNHEATED
FRONT PORCH REAR PORCH

© Copyright 2016 Haynes Home Plans, Inc 5/19/2020 181035B PAGE 5 OF 8 JOB SITE PRACTICES AND SAFETY: Haynes Home Plans, Inc. assumes no liability for contractors practices and procedures or safety program. Haynes Home Plans, Inc. takes no responsibility for the contractor's failure to carry out the construction work in accordance with the contract documents. All members shall be framed, anchored, and braced in accordance with good construction practice and the building code

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

TRUSS AND I-JOIST MEMBERS: All roof truss and I-joist layouts shall be prepared in accordance with this document. Trusses and I-joists shall be installed according to the manufacture's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Homes Plans, Inc. LINTELS: Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span. 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise. 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise. FLOOR SHEATHING: OSB or CDX floor sheathing minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, and minimum 3/4" thick for 24" on center joist spacing. **ROOF SHEATHING:** OSB or CDX roof sheathing minimum

CONCRETE AND SOILS: See foundation notes.

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 dear 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

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 dear opening.

EXTERIOR HEADERS

-(2) 2 X 6 WITH 1 JACK STUD EACH END **UNLESS NOTED OTHERWISE** - KING STUDS EACH END PER TABLE BELOW | HEADER SPAN | < 3' | 3'-4' | 4'-8' | 8'-12' | 12'-16' | | KING STUD(S) | 1 | 2 | 3 | 5 | 6

INTERIOR HEADERS

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

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.

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

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.

2'-8" X 5'-2" TWIN RAISE HEADER TO TOP PLATE ROOF TRUSSES BY MANUFACTURE **MASTER BEDROOM** 4'-0" X 1'-0" 2'-8" X 5'-2" TWIN TRANSOM (2) 2 X 10 (2) 2 X 10 2 JACKS EACH END GIRDER TRUSS 2 JACKS EACH END BY MANUFACTURER (4) SC -----**PLAY ROOM** W.I.C. 2 X 6 WALL ო 2'-6" 4'-0" X 1'-0" MASTER TRANSOM SET AT 7'-5" **BATH** HEADER HEIGHT 2'-0" LINEN **TRANSOM** SET AT 7'-5" HEADER HEIGHT **BATH** STORAGE HATCHED WALLS — INDICATED LOAD BEARING AND EXTERIOR WALLS WHERE HEADERS MUST BE INSTALLED. BEDROOM #2 BEDROOM #3 10'-10" GIRDER TRUSS BY MANUFACTURER 2'-8" X 5'-2" TWIN 2'-8" X 5'-2" TWIN (2) 2 X 12 2 JACKS EACH END **BRACING NOT SHOWN ON UPPER STORY PER** R602.10.3.2 (5) & (6)

EXTERIOR WINDOWS AND DOORS

SECTION R612

R612.1 General. This section prescribes performance and construction requirements for exterior windows and doors installed in walls. Windows and doors shall be installed and flashed in accordance with the fenestration manufacturer's written installation instructions. Window and door openings shall be flashed in accordance with Section R703.8. Written installation instructions shall be provided by the fenestration manufacturer for each window

R612.2 Window sills. In *dwelling* units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished *grade* or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4 inch (102 mm) diameter sphere where such openings are located within 24 inches (610 mm) of the finished floor. Exceptions:

1. Windows whose openings will not allow a 4-inch diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position. 2. Openings that are provided with window fall prevention devices that comply with Section

3. Openings that are provided with fall prevention devices that comply with ASTM F 2090. 4. Windows that are provided with opening limiting devices that comply with Section R612.4. R612.3 Window fall prevention devices. Window fall prevention devices and window guards, where provided, shall comply with the requirements of ASTM F 2090.

SECOND FLOOR PLAN

SCALE 1/4" = 1'-0"

IMENSIONS AND CONDITION BEFORE CONSTRUCTION BEGINS HAYNES HOME PLANS, INC. CONTRACTORS PRACTICES AND PROCEDURES.

CODES AND CONDITIONS MAY VARY WITH LOCATION, A LOCAL DESIGNER, ARCHITECT OR NGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION

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

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GASTON

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SECOND FLOOR PLAN

SQUARE FOOTAGE HEATED UNHEATED

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and floor system thicknesses.

HEEL HEIGHT ABOVE

FIRST FLOOR PLATE

HEEL HEIGHT ABOVE SECOND FLOOR PLATE

SCALE 1/4" = 1'-0"

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

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,

THE GASTON II



 SQUARE FOOTAGE

 HEATED
 776 SQ.FT.

 HEATED
 764 SQ.FT.

 SECOND FLOOR
 764 SQ.FT.

 PLAYROOM
 280 SQ.FT.

 TOTAL
 1820 SQ.FT.

 UNHEATED
 FRONT PORCH

 FRONT PORCH
 101 SQ.FT.

 GARAGE
 466 SQ.FT.

 REAR PORCH
 152 SQ.FT.

 TOTAL
 719 SQ.FT.

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181035B

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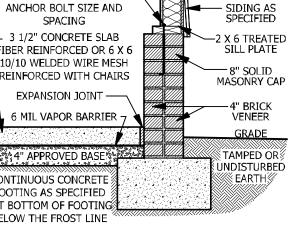
1/2" GYPSUM

SUB FLOOR AS-

SPECIFIED

\FLOOR JOIST

AS SPECIFIED



SCALE 3/4" = 1'-0"

- SHEATHING AS SPECIFIED

— 8" SOLID MASONRY CAP

" CONCRETE

4" BRICK

VENEER

-1/2" GYPSUM

SHEATHING

AS SPECIFIED

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

see Chapter 45.

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

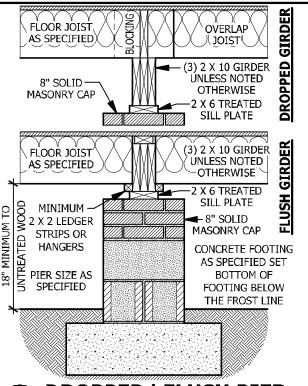
AM109_1_1. When the deck floor height is less than 4'-0" above finished grade per Figure AM109 and the deck is attached to the structure in accordance with Section AM104, lateral bracing is not required. AM109.1.2. 4 x 4 wood knee braces may be provided on

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

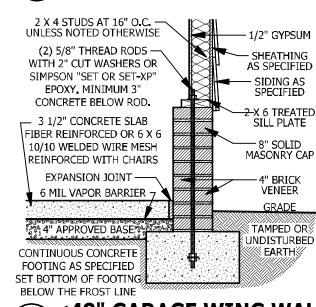
AM109.1.3. For freestanding decks without knee braces or AS SPECIFIED diagonal bracing, lateral stability may be provided by embedding the post in accordance with Figure AM109.2

POST SIZE	TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
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,



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



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

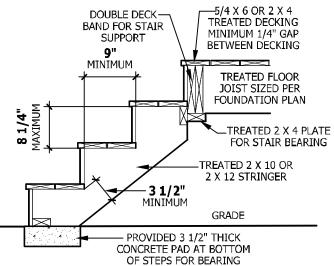


FIGURE AM110 TYPICAL DECK STAIR DETAIL

SCALE 3/4" = 1'-0"

-STONE VEENER

AS SPECIFIED

VAPOR BARRIER

WEEP SCREED

MINIMUM 4" TO

GROUND OR 2"

TO PAVEMENT

SHEATHING -

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

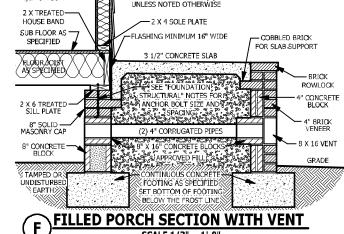
inches (102 mm) above the earth or 2 inches (51 mm) above paved areas and shall be of a type that will allow trapped water to drain to the exterior of the shall cover and terminate on the attachment flange of the weep screed.

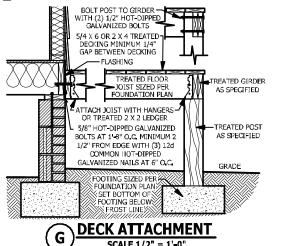
UNLESS NOTED OTHERWISE SEE ROOF -1/2" GYPSUM ← EDGED OR PORCH FLOOR PLAN OR SUB FLOOR AS-2 X 4 SILL ELEVATION — SHINGLES AS SPECIFIED SPECIFIED FOR PITCH SHEATHING AS SPECIFIED \ FLOOR JOIST - 15# BUILDING FELT AS SPECIFIED -8" SOLID MASONRY CAP ROOF TRUSSES BY MANUFACTUR**E**R 2 X 6 TREATED SILL PLATE BLOCK PORCH HEADER PER --4" BRICK VENEER SEE "FOUNDATION -PLAN INSTALLED OVER - EXPANSION JOINT STRUCTURAL" NOTES FOR CENTER OF COLUMN BASE VINYL OR HARDIE SOFFIT ANCHOR BOLT SIZE AND -6 MIL VAPOR INSTALLED PER MANUFACTURERS **BLOCKING INSTALLED-BARRIER** SPACING INSTRUCTIONS ON BOTH SIDES & UNDER 🛊 3 1/2" SLAB HEADER AS DESIRED TAPERED COLUMN OVER 🍰 4" BASE CONTINUOUS CONCRETE 1 X MATERIAL · MASONRY BASE ATTACHED TO HEADER TAMPED OR FOOTING AS SPECIFIED CENTER LINE OF HEADER -JNDISTURBED WITH POST CAP SET BOTTOM OF FOOTING AND COLUMN BELOW THE FROST LINE **PORCH HEADER WITH**

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

2 X 4 STUDS AT 16" O.C.

ASHING MINIMUM 16" WIDE FOR SLAB SUPPORT





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 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

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 between the wall and the handrails. 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.

CARBON MONOXIDE ALARMS

TAPERED COLUMN

SCALE 3/4" = 1'-0"

SECTION R315

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

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 device(s), it shall become a permanent fixture of the occupancy and 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

> owest 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

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)

be permitted to exceed the maximum height.

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.

IMENSIONS AND CONDITION BEFORE CONSTRUCTION BEGINS HAYNES HOME PLANS, INC. CONTRACTORS PRACTICES AND PROCEDURES. ARY WITH LOCATION, A LOCAL DESIGNER, ARCHITECT OR PITCH PER ROOF PLAN GINEER SHOULD BE CONSUL' BEFORE CONSTRUCTION. OR ELEVATIONS THESE DRAWING ARE AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER - SHINGLES AS SPECIFIED -15# BUILDING FELT

—SHEATHING AS SPECIFIED

└SOFFIT

└ SOFFIT VENTING

- INSULATION BAFFLE

X 8 FASCIA

DETAILS

STON **TYPICAL** ⋖ Ú Ш I

SQUARE FOOTAGE HEATED UNHEATED

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OPTIONAL 1 X 4 FRIEZE 3/4" SUBFLOOR: PLATE SHEATHING AS SPECIFIED - SIDING AS FLOOR TRUSSES AS SPECIFIED (2) 2 X 4 TOP PLATE 2 X 4 STUDS AT WALL INSULATION PER -16" ON CENTER CLIMATE ZONE SEE CODE **UNLESS NOTED** NOTE ON ELEVATION PAGES OTHERWISE 2 X 4 STUDS AT 16" O.C. -JNLESS NOTED OTHERWISE SHEATHING AS SPECIFIED 1/2" GYPSUM SIDING AS SPECIFIED SUB FLOOR AS-SPECIFIED PLATE FLOOR JOIST - 2 X RIM AS SPECIFIED JOIST MASONRY CAR 2 X 6 TREATED SILL PLATE 4" CONCRETE SEE "FOUNDATION-STRUCTURAL" NOTES FOR 4" BRICK ANCHOR BOLT SIZE AND SPACING GRADE

TYPICAL WALL DETAIL

ROOF INSULATION

PER CLIMATE ZONE

SEE CODE NOTE ON

BLEVATION PAGES

(2) 2 X 4 TOP PLATE

— 1/2" GYPSUM

WALL INSULATION

PER CLIMATE ZONE

SEE CODE NOTE ON

ELEVATION PAGES

CONTINUOUS CONCRETE

FOOTING AS SPECIFIED

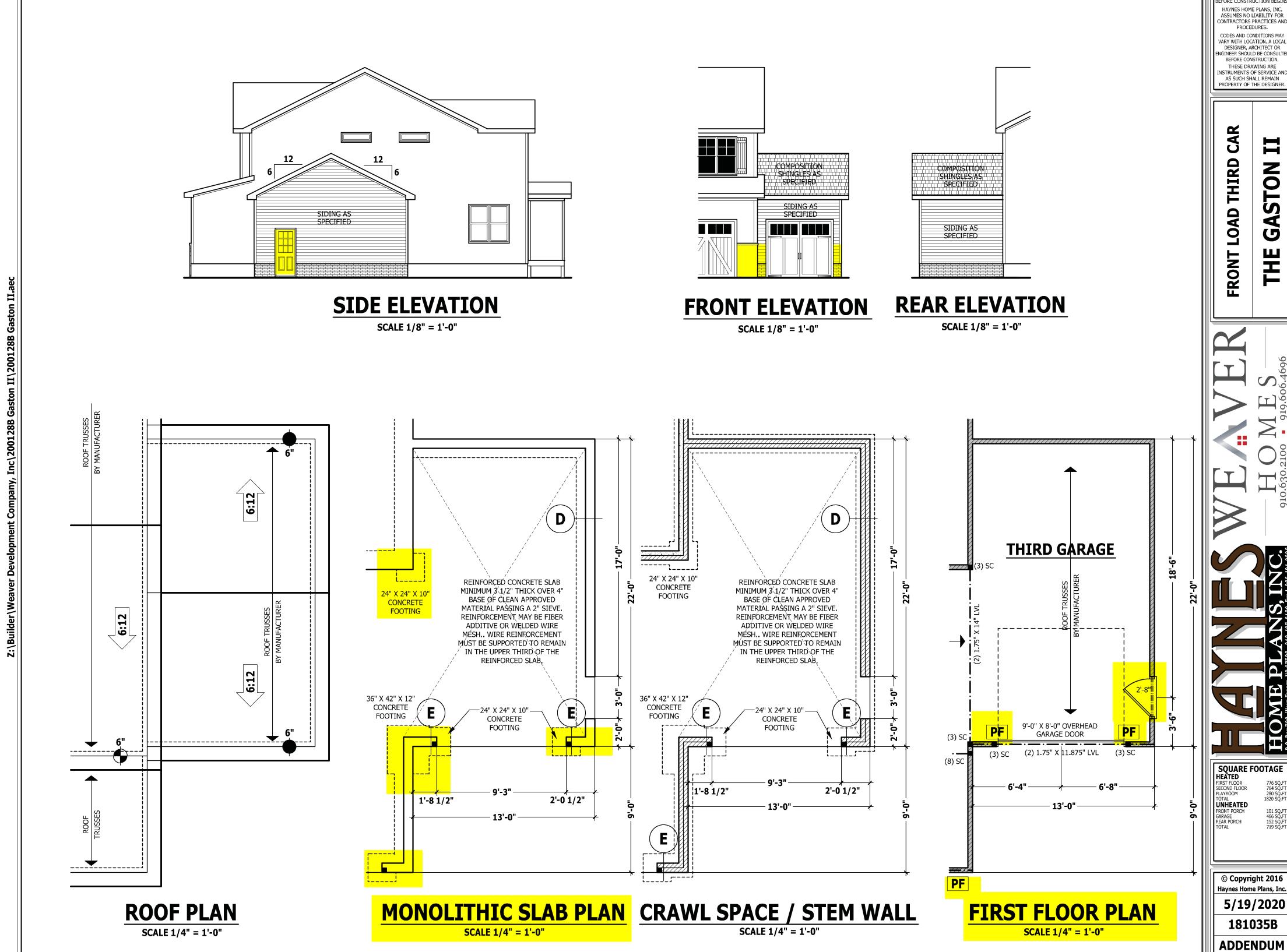
SET BOTTOM OF FOOTING

BELOW THE FROST LINE

MAXIMUM 6" GAP BETWEEN WALL **MOUNTED AND** OPEN RAIL CONTINUOUS HANDRAIL 34 TO 38 INCHES ABOVE TREAD NOSING

TYPICAL STAIR DETAIL SCALE 1/4" = 1'-0"

D



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

> CODES AND CONDITIONS MAY DESIGNER, ARCHITECT OR IGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.

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

CAR **THIRD** LOAD

GASTON 뽀 **FRONT**

 SQUARE FOOTAGE

 HEATED
 776 SQ.FT

 FIRST FLOOR
 776 SQ.FT

 SECOND FLOOR
 764 SQ.FT

 PLAYROOM
 280 SQ.FT

 TOTAL
 1820 SQ.FT

 UNHEATED
 FRONT PORCH

 FRONT PORCH
 101 SQ.FT

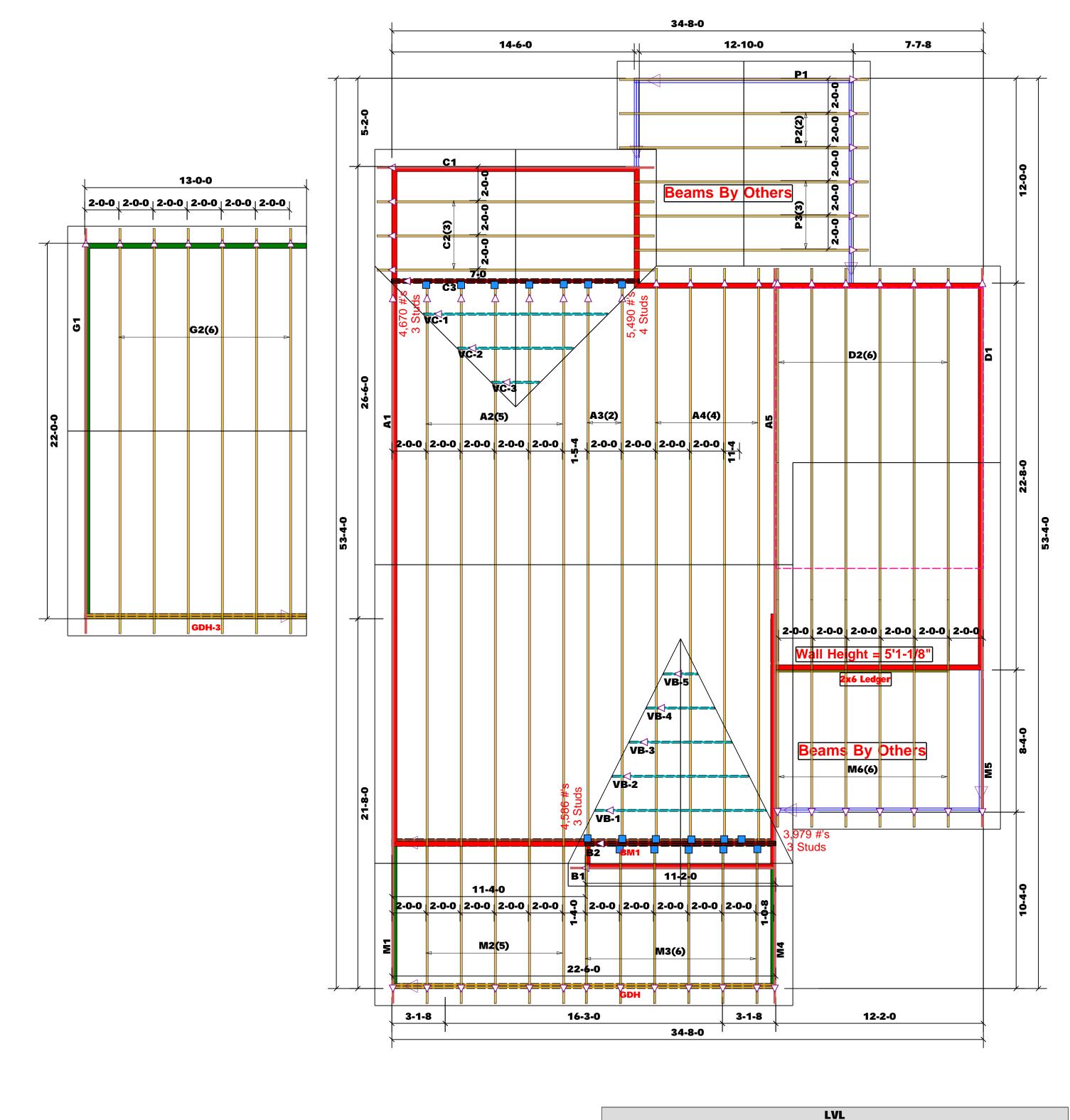
 GARAGE
 466 SQ.FT

 REAR PORCH
 152 SQ.FT

 TOTAL
 719 SQ.FT

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5/19/2020 181035B



HUS26 USP 18 16d/3-1/2" 16d/3-1/2"

= 1st Level Wall

= 2nd Level Wall

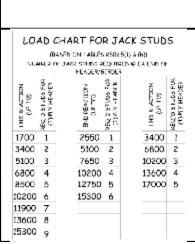
Product PlotID Plies Net Qty Fab Type Length GDH-3 13' 0" 1-3/4"x 11-7/8" LVL Kerto-S FF

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

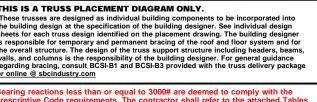
-- Denotes Reaction Greater than 3,000 lbs. **Reaction / # of Studs**

Truss Placement Plan SCALF: 1/4"=1'

= Indicates Left End of Truss (Reference Engineered Truss Drawing) **Do NOT Erect Truss Backwards**



			SCALE: 1/4"=1"	
BUILDER	Weaver Development Co. Inc.	COUNTY	Harnett	THIS IS These tru the buildi sheets fo
JOB NAME	Lot 4 North Pointe	ADDRESS	Josey Williams Road	is respon the overa walls, and regarding
PLAN	Gaston I I (181035B) 3 Car	MODEL	Roof	or online Bearing prescript
SEAL DATE	N/A	DATE REV.	11	(derived foundation than 300 be retain
QUOTE #		DRAWN BY	Marshall Naylor	specified retained
JOB#	J1121-6685	SALESMAN	Lenny Norris	

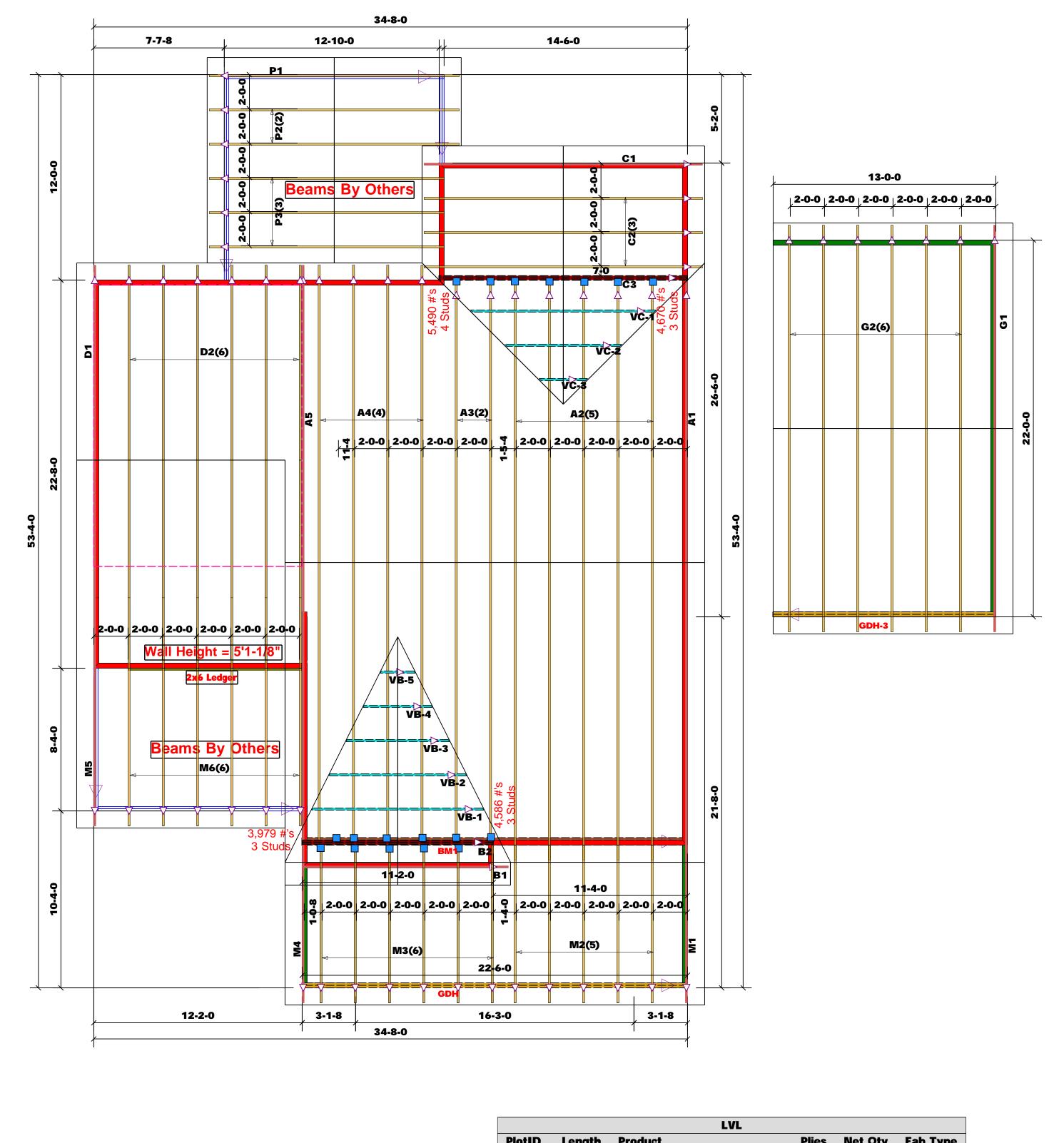


ring reactions less than or equal to 3000# are deemed to comply with the criptive Code requirements. The contractor shall refer to the attached Tables rived from the prescriptive Code requirements) to determine the minimum dation size and number of wood studs required to support reactions greater 3000#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

Marshall Naylor



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



HUS26 USP 18 16d/3-1/2" 16d/3-1/2"

= 1st Level Wall

= 2nd Level Wall

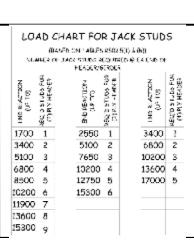
PlotID Length **Product Plies Net Qty** Fab Type GDH-3 13-0-0 1-3/4"x 11-7/8" LVL Kerto-S FF

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

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

Truss Placement Plan

= Indicates Left End of Truss (Reference Engineered Truss Drawing) **Do NOT Erect Truss Backwards**



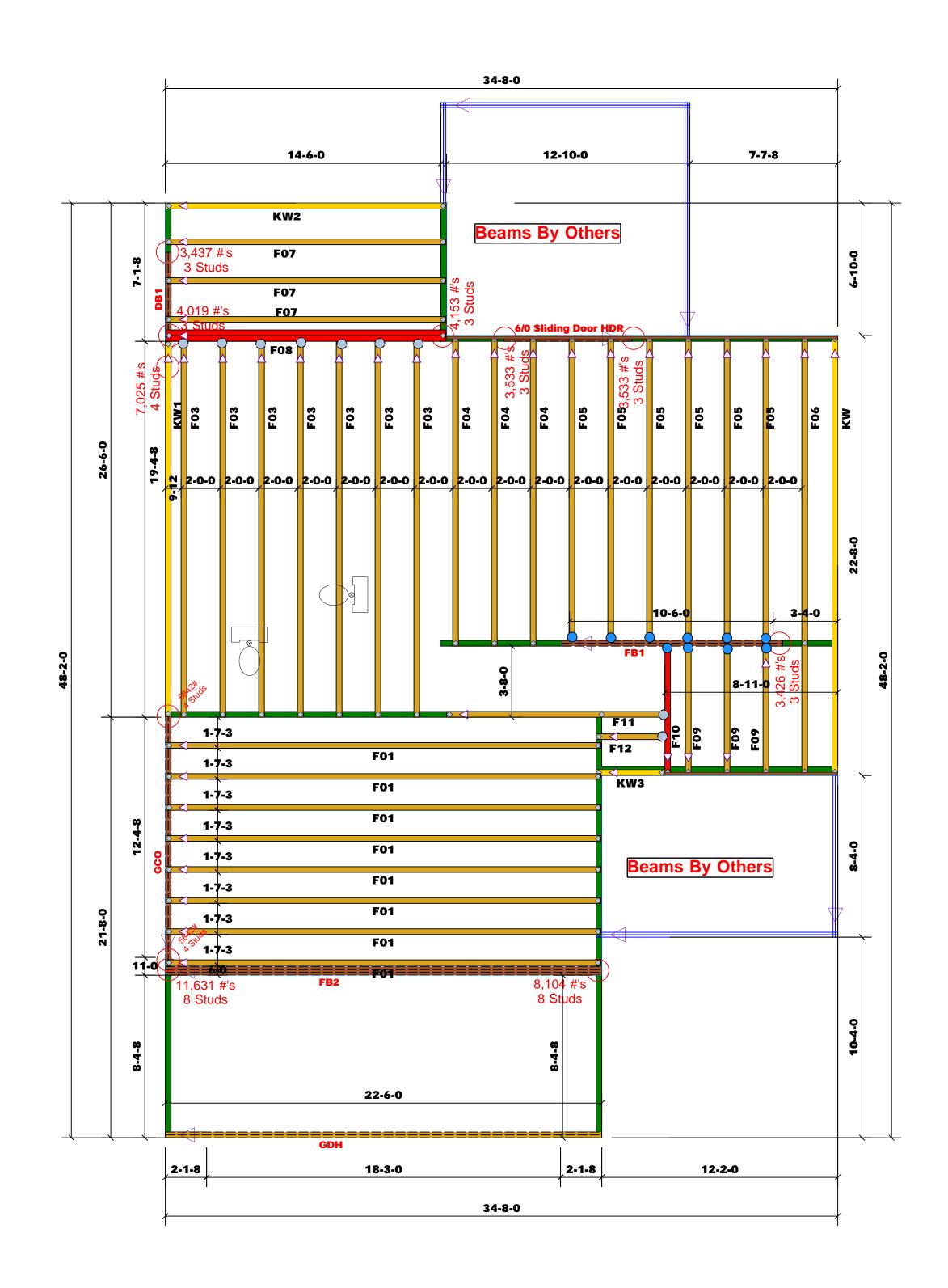
			SCALE: 1/4"=1'	
BUILDER	Weaver Development Co. Inc.	COUNTY	Harnett	THIS IS These tr the building
JOB NAME	Lot 4 North Pointe	ADDRESS	Josey Williams Road	is respor the overa walls, an regarding
PLAN	Gaston II (181035B) 3 Car	MODEL	Roof	or online Bearing prescrip
SEAL DATE	N/A	DATE REV.	//	(derived foundati than 300 be retain
QUOTE #		DRAWN BY	Marshall Naylor	specified retained
JOB#	J1121-6685	SALESMAN	Lenny Norris	

IS A TRUSS PLACEMENT DIAGRAM ONLY. e trusses are designed as individual building components to be incorporated into iliding design at the specification of the building designer. See individual design for each truss design identified on the placement drawing. The building designer consible for temporary and permanent bracing of the roof and floor system and for erall structure. The design of the truss support structure including headers, beams, and columns is the responsibility of the building designer. For general guidance ling bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package line @ sbcindustry.com

Marshall Naylor



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



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

-- Denotes Reaction Greater than 3,000 lbs.

Reaction / # of Studs

	HUS410	USP	10	NA	16d/3-1/2"	16d/3-1/2"
	MSH422	USP	9	Varies	10d/3"	10d/3"

		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
6/0 Sliding Door HDR	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
GDH	23' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF
GCO	14' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF
FB1	12' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF
DB1	7' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF
FB2	23' 0"	1-3/4"x 23-7/8" LVL Kerto-S	3	3	FF

Truss Placement Plan

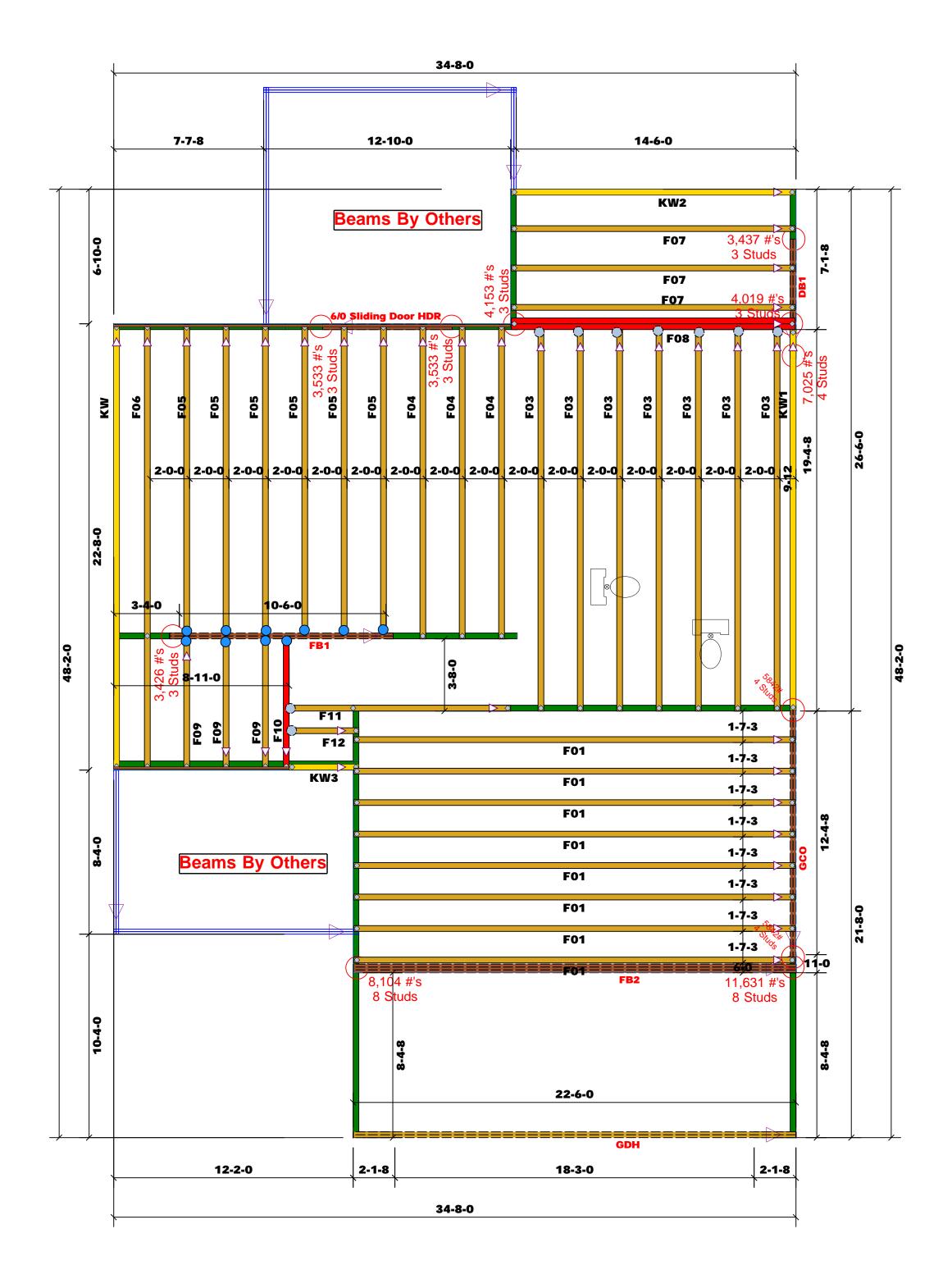
= Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

соттесн

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

LO	LOAD CHART FOR JACK STUDS									
(DASEN ON LABLES \$502.5(1) & (6)) NUMBER OF JACK STUDG REQUIRED RELEASED.										
No										
	er.	PEAGER/	~	ì	of .					
OT 10)	SEC DISTURS FOR	PAD DEACTION (OF AL)	REQUESTUDS FOR	END REACTION (U* FO)	REQ'O STUDS FO (4) MY HEABER					
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	á	15300	6							
11900	7									
13600	8									
15300	9									

			SCALE: 1/4":	=1'	Do NO
	BUILDER	Weaver Development Co. Inc.	COUNTY	Harnett	THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer
100 100 100 100 100 100 100 100 100 100	JOB NAME	Lot 4 North Pointe	ADDRESS	Josey Williams Road	is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package
	PLAN	Gaston II (181035B) 3 Car	MODEL	Floor	or online @ sbcindustry.com Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables
	SEAL DATE	N/A	DATE REV.	11	(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 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those
	QUOTE #	Quote #	DRAWN BY	Marshall Naylor	specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.
_	JOB#	J1121-6686	SALESMAN	Lenny Norris	Signature Marshall Naylor



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

-- Denotes Reaction Greater than 3,000 lbs.

Reaction / # of Studs

HUS410	USP	10	NA	16d/3-1/2"	16d/3-1/2"
MSH422	USP	9	Varies	10d/3"	10d/3"

		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
6/0 Sliding Door HDR	7-0-0	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
GDH	23-0-0	1-3/4"x 14" LVL Kerto-S	2	2	FF
GCO	14-0-0	1-3/4"x 14" LVL Kerto-S	2	2	FF
FB1	12-0-0	1-3/4"x 14" LVL Kerto-S	2	2	FF
DB1	7-0-0	1-3/4"x 14" LVL Kerto-S	2	2	FF
FB2	23-0-0	1-3/4"x 23-7/8" LVL Kerto-S	3	3	FF

Truss Placement Plan

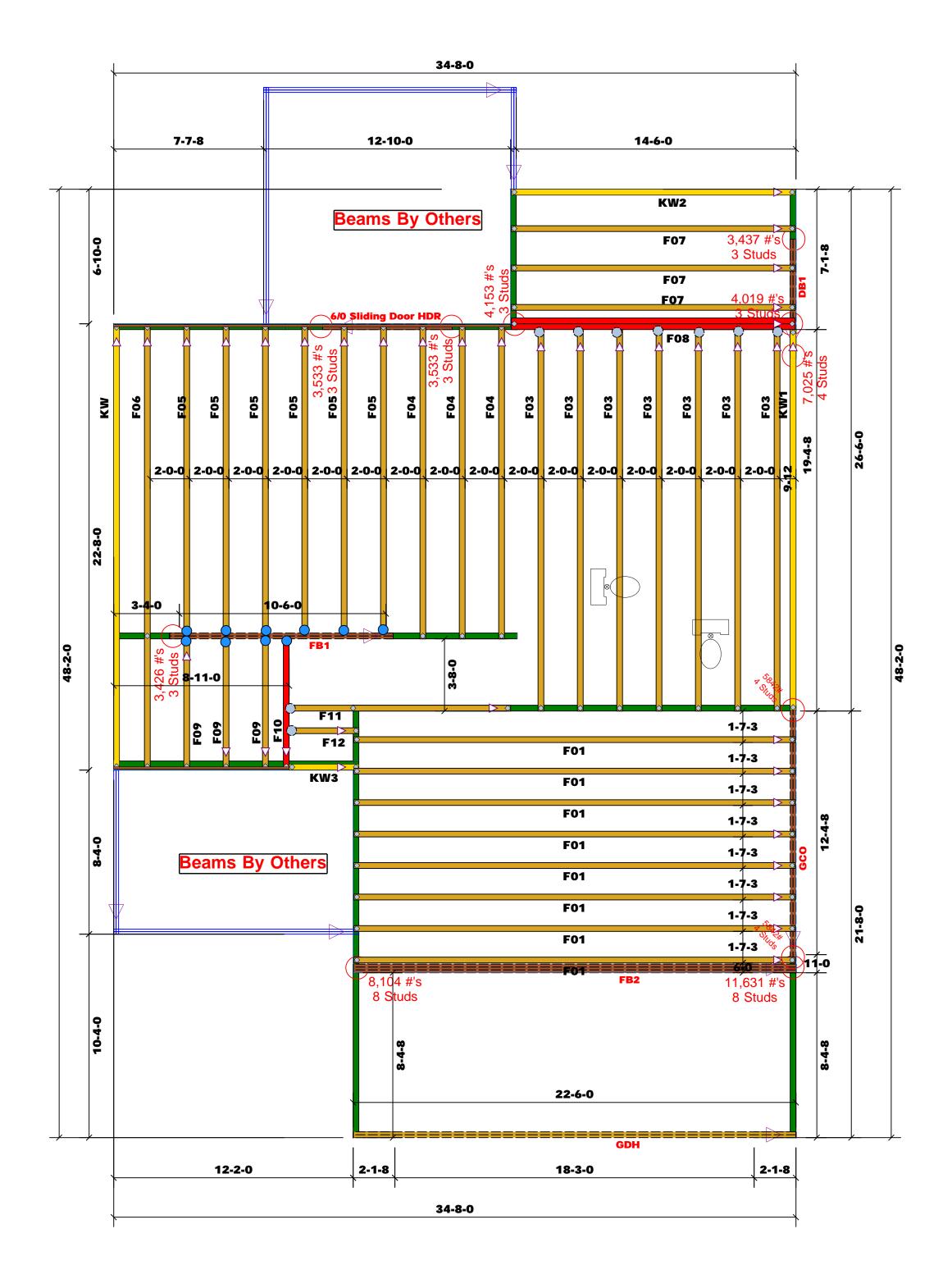
= Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

LOAD CHART FOR JACK STUDS (04456 ON 14066 85035() 4 (0) MANGE OF JACK STUDG BO (A CAD OF FRACE/STROES								
		PENDERO	er kom					
END REACTION (OT 3U)	SEC DISTURS FOR CONVINCABLES	CLL 410	ARQ IS STUDS FOR CIPAN HEADER	ND SUACTOON (01°U)	REQ'D STUDS FOR (4) RLY HEADER			
1700	1	2550	1	3400	1			
3400	2	5100	2	6600	2			
5100	3	7650	3	10200	3			
6800	4	10200	4	13600	4			
8500	5	12750	5	17000	5			
10200	á	15300	6					
11900	7							
13600	8							
15300	9							

		SCALE: 1/4"	=1'	Do NO
BUILDER	Weaver Development Co. Inc.	COUNTY	Harnett	THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer
JOB NAME	Lot 4 North Pointe	ADDRESS	Josey Williams Road	is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package
PLAN	Gaston I I (181035B) 3 Car	MODEL	Floor	or online @ sbcindustry.com Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables
SEAL DATE	N/A	DATE REV.	11	(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 3000# hot not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those
QUOTE #	Quote #	DRAWN BY	Marshall Naylor	specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.
JOB#	J1121-6686	SALESMAN	Lenny Norris	Signature Marshall Naylor



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



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

-- Denotes Reaction Greater than 3,000 lbs.

Reaction / # of Studs

HUS410	USP	10	NA	16d/3-1/2"	16d/3-1/2"
MSH422	USP	9	Varies	10d/3"	10d/3"

		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
6/0 Sliding Door HDR	7-0-0	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
GDH	23-0-0	1-3/4"x 14" LVL Kerto-S	2	2	FF
GCO	14-0-0	1-3/4"x 14" LVL Kerto-S	2	2	FF
FB1	12-0-0	1-3/4"x 14" LVL Kerto-S	2	2	FF
DB1	7-0-0	1-3/4"x 14" LVL Kerto-S	2	2	FF
FB2	23-0-0	1-3/4"x 23-7/8" LVL Kerto-S	3	3	FF

Truss Placement Plan

= Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

LOAD CHART FOR JACK STUDS (04456 ON 14066 85035() 4 (0) MANGE OF JACK STUDG BO (A CAD OF FRACE/STROES								
		PENDERO	er kom					
END REACTION (OT 3U)	SEC DISTURS FOR CONVINCABLES	CLL 410	ARQ IS STUDS FOR CIPAN HEADER	ND SUACTOON (01°U)	REQ'D STUDS FOR (4) RLY HEADER			
1700	1	2550	1	3400	1			
3400	2	5100	2	6600	2			
5100	3	7650	3	10200	3			
6800	4	10200	4	13600	4			
8500	5	12750	5	17000	5			
10200	á	15300	6					
11900	7							
13600	8							
15300	9							

		SCALE: 1/4"	=1'	Do NO
BUILDER	Weaver Development Co. Inc.	COUNTY	Harnett	THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer
JOB NAME	Lot 4 North Pointe	ADDRESS	Josey Williams Road	is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package
PLAN	Gaston I I (181035B) 3 Car	MODEL	Floor	or online @ sbcindustry.com Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables
SEAL DATE	N/A	DATE REV.	11	(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 3000# hot not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those
QUOTE #	Quote #	DRAWN BY	Marshall Naylor	specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.
JOB#	J1121-6686	SALESMAN	Lenny Norris	Signature Marshall Naylor



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



Address:

Weaver Homes

Project:

Gaston II (181035B)

Date: 12/13/2021

Input by: Marshall Naylor Job Name: Gaston II (181035B) Page 1 of 2

0

0

Ld. Comb. D+S

D+S

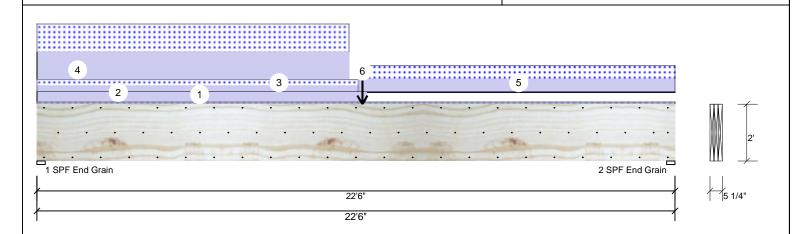
Project #:

Kerto-S LVL FB₂

1.750" X 24.000"

3-Ply - PASSED

evel: Level



Reactions UNPATTERNED Ib (Uplift) Type: Girder Application: Floor Wind Brg Direction Live Dead Snow Const Plies: 3 Design Method: ASD Vertical 225 6536 5095 0 1 Moisture Condition: Dry **Building Code:** IBC 2012 225 O 2 Vertical 4429 3676 Deflection LL: 480 Load Sharing: Yes Deflection TL: 360 Deck: Not Checked Importance: Normal - II Temperature: Temp <= 100°F

Bearings Bearing Length

End Grain

Fnd Grain

1 - SPF 3.500"

2 - SPF 3.500"

Dir.

Vert

Vert

Cap. React D/L lb

6536 / 5095

4429 / 3676

Analysis Results

Member Information

•						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	65477 ft-lb	11'5 3/4"	131295 ft-lb	0.499 (50%)	D+S	L
Unbraced	65477 ft-lb	11'5 3/4"	65512 ft-lb	0.999 (100%)	D+S	L
Shear	10076 lb	2'3 1/2"	30912 lb	0.326 (33%)	D+S	L
LL Defl inch	0.226 (L/1171)	11'1 11/16"	0.552 (L/480)	0.410 (41%)	S	L
TL Defl inch	0.501 (L/528)	11' 7/8"	0.735 (L/360)	0.682 (68%)	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 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 the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 4' 3/8" o.c.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

0 24004	mood ratio bacca cir c	ingle ply main								
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In	0-0-0 to 22-6-0	0-6-0	Far Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	1' Floor
2	Part. Uniform	0-0-0 to 11-7-8		Тор	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Part. Uniform	0-0-0 to 11-4-0		Near Face	79 PLF	0 PLF	79 PLF	0 PLF	0 PLF	M2
4	Part. Uniform	0-0-0 to 11-0-0		Тор	341 PLF	0 PLF	341 PLF	0 PLF	0 PLF	A2

Continued on page 2...

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

Manufacturer Info

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

Total Ld. Case

11631 L

8104 L



This design is valid until 11/3/2024 CSD I



Weaver Homes

Project:

Address: Gaston II (181035B) Date: 12/13/2021

Input by: Marshall Naylor Job Name: Gaston II (181035B) Page 2 of 2

Project #:

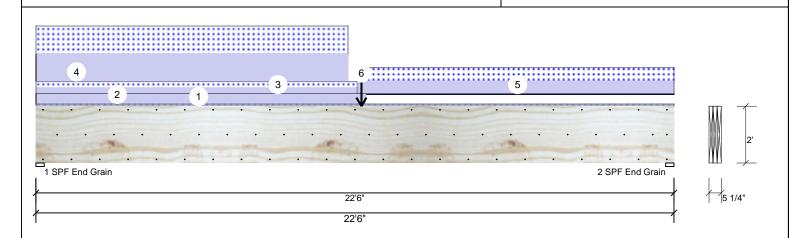
Kerto-S LVL FB₂

.Continued from page 1

1.750" X 24.000"

3-Ply - PASSED

Level: Level



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Part. Uniform	11-4-0 to 22-6-0		Near Face	164 PLF	0 PLF	164 PLF	0 PLF	0 PLF	M3
6	Point	11-5-12		Тор	2293 lb	0 lb	2293 lb	0 lb	0 lb	B2
	Bearing Length	0-3-8								
	Self Weight				28 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

- Handling & Installation

 1. IVI beams must not be cut or drilled

 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

 3. Damaged Beams must not be used

 4. Design assumes top edge is laterally restrained

 5. Provide lateral support at bearing points to avoid lateral displacement and rotation
- - This design is valid until 11/3/2024

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

Manufacturer Info







Project:

Address: Gaston II (181035B)

Weaver Homes

Date: 12/13/2021

Input by: Marshall Naylor Job Name: Gaston II (181035B)

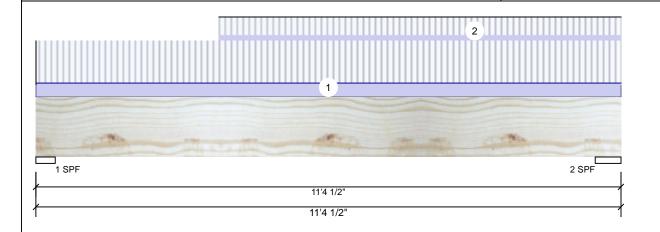
Project #:

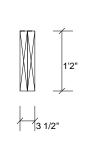
Kerto-S LVL FB1

1.750" X 14.000"

2-Ply - PASSED

Level: Level





Page 1 of 1

Member Information

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

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

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2129	771	0	0	0
2	Vertical	2523	904	0	0	0

Bearings

Bearing	Length	Dir.	Cap. R	eact D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.500"	Vert	43%	771 / 2129	2899	L	D+L
2 - SPF	6.000"	Vert	38%	904 / 2523	3426	L	D+L

Analysis Results

Temperature:

_							
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	8168 ft-lb	5'9 3/16"	26999 ft-lb	0.303 (30%)	D+L	L
	Unbraced	8168 ft-lb	5'9 3/16"	10268 ft-lb	0.795 (80%)	D+L	L
	Shear	2421 lb	9'8 1/2"	10453 lb	0.232 (23%)	D+L	L
	LL Defl inch	0.090 (L/1419)	5'8 3/16"	0.266 (L/480)	0.338 (34%)	L	L
	TL Defl inch	0.122 (L/1044)	5'8 3/16"	0.354 (L/360)	0.345 (34%)	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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.

Temp <= 100°F

5 Top must be laterally braced at end bearings.

Self Weight

- 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			Тор	106 PLF	318 PLF	0 PLF	0 PLF	0 PLF	F5
2	Part. Uniform	3-6-8 to 11-4-8		Тор	44 PLF	132 PLF	0 PLF	0 PLF	0 PLF	F9

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
- Indicating & 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

 3. Damaged Beams must not be used

 1. Design assumes top edge is laterally restrained

 5. Provide lateral support at bearing points to avoid lateral displacement and rotation
- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

11 PLF

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

Manufacturer Info







Project: Address:

Date: 12/13/2021

Input by: Marshall Naylor Job Name: Gaston II (181035B)

Project #:

6/0 SLIDER **Kerto-S LVL** 1.750" X 9.250"

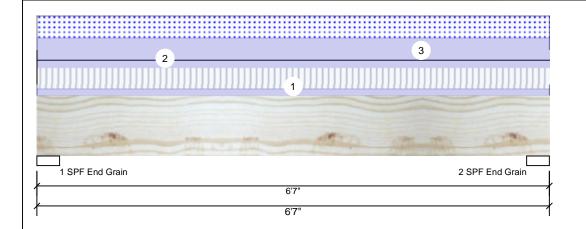
Gaston II (181035B)

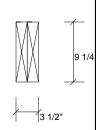
Weaver Homes

2-Ply - PASSED

Level: Level

Reactions UNPATTERNED Ib (Uplift)





Page 1 of 1

Member Information

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

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

_						
Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1060	1887	1113	0	0
2	Vertical	1060	1887	1113	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5009 ft-lb	3'3 1/2"	14423 ft-lb	0.347 (35%)	D+0.75(L+S)	L
Unbraced	5009 ft-lb	3'3 1/2"	10451 ft-lb	0.479 (48%)	D+0.75(L+S)	L
Shear	2387 lb	1' 3/4"	7943 lb	0.300 (30%)	D+0.75(L+S)	L
LL Defl inch	0.042 (L/1741)	3'3 1/2"	0.153 (L/480)	0.276 (28%)	0.75(L+S)	L
TL Defl inch	0.091 (L/807)	3'3 1/2"	0.204 (L/360)	0.446 (45%)	D+0.75(L+S)	L

Bearings

Grain

Bearing	Length	Dir.	Сар. н	React D/L Ib	Iotai	Ld. Case	La. Comb.
1 - SPF End	3.500"	Vert	34%	1887 / 1629	3516	L	D+0.75(L+S)
Grain 2 - SPF	3.500"	Vert	34%	1887 / 1629	3516	L	D+0.75(L+S
End							(

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.

- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at end bearings.

Uniform

- 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			Тор	108 PLF	322 PLF	0 PLF	0 PLF	0 PLF	F4
2	Uniform			Тор	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL

338 PLF

0 PLF

338 PLF

Top

Self Weight 7 PLF

Notes

3

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
- Indicating & 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

 3. Damaged Beams must not be used

 1. Design assumes top edge is laterally restrained

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

- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

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

0 PLF

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





0 PLF A4



Project: Address:

Gaston II (181035B)

Date: 12/13/2021

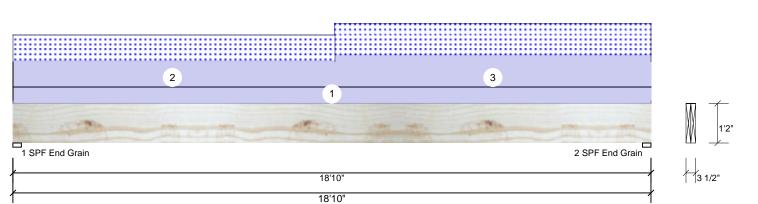
Input by: Marshall Naylor Job Name: Gaston II (181035B)

Project #:

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

Reactions UNPATTERNED Ib (Uplift)

Bearings



Page 1 of 1

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

Member Information

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

			(op::::			
Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1619	952	0	0
2	Vertical	0	1720	1052	0	0

Analysis Results Analysis Actual 12090 ft-lb Moment Unbraced 12090 ft-lb 9'8 7/8"

2353 lb

0.491 (L/451)

LL Defl inch 0.184 (L/1202)

Capacity Comb. Case Location Allowed 9'8 7/8" 31049 ft-lb 0.389 (39%) D+S L 12128 ft-lb 0.997 L (100%)17'5" 12021 lb 0.196 (20%) D+S 9'6 3/16" 0.461 (L/480) 0.399 (40%) S ī

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. D+S 1 - SPF 3.000" Vert 1619 / 952 2571 I End Grain 2 - SPF 3.000" 1720 / 1052 D+S Vert 31% 2772 L Fnd Grain

TL Defl inch **Design Notes**

Shear

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.

9'5 13/16" 0.615 (L/360) 0.798 (80%) D+S

- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 8'7 13/16" o.c.
- 6 Bottom must be laterally braced at end bearings.

Self Weight

7 Lateral slenderness ratio based on single ply width

i Lateral Sieriu	erriess railo baseu c	in 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	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	wall
2	Part. Uniform	0-0-0 to 9-6-0		Тор	96 PLF	0 PLF	96 PLF	0 PLF	0 PLF	M2
3	Part. Uniform	9-6-0 to 18-10-0		Тор	117 PLF	0 PLF	117 PLF	0 PLF	0 PLF	M3

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

11 PLF

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 11/3/2024





Project:

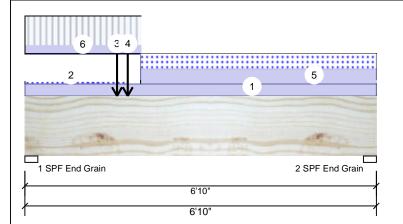
Address: Gaston II (181035B) Date: 12/13/2021

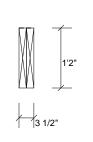
Input by: Marshall Naylor Job Name: Gaston II (181035B)

Project #:

Window Hdr. Kerto-S LVL 1.750" X 14.000"

Level: Level 2-Ply - PASSED





Page 1 of 2

Member Information

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

Normal - II Temperature: Temp <= 100°F

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

Application:

Deck: Not Checked

Floor

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2861	3387	1990	0	0
2	Vertical	873	1906	1168	0	0

Analysis Results

Analysis Actual Location Allowed Comb. Case Capacity 11172 ft-lb 0.360 (36%) D+0.75(L+S) L Moment 2' 31049 ft-lb Unbraced 11172 ft-lb 2' 15767 ft-lb 0.709 (71%) D+0.75(L+S) L 6407 lb 1'5" 12021 lb 0.533 (53%) D+0.75(L+S) L Shear LL Defl inch 0.033 (L/2343) 2'7 5/8" 0.161 (L/480) 0.205 (20%) 0.75(L+S) L TL Defl inch 0.067 (L/1165) 2'8 7/8" 0.215 (L/360) 0.309 (31%) D+0.75(L+S) L

Bearings

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. D+0.75(L+S) 1 - SPF 3.000" Vert 3387 / 3638 7025 I End

Grain

2 - SPF 3.000" 3437 L D+0.75(L+S) Vert 1906 / 1531 End Grain

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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at end bearings.
- 6 Bottom must be laterally braced at end bearings.
- 7 Lateral clanderness ratio based on single ply width

/ Late	erai sieriuerriess ratio baseu ori s	single ply widin.								
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	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Tie-In	0-0-0 to 2-0-0	1-0-0	Тор	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	2' ROOF
3	Point	1-9-8		Тор	1040 lb	3115 lb	0 lb	0 lb	0 lb	F08

Top

Bearing Length 0-3-8

Bearing Length

Point

Continued on page 2...

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.

Notes

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation

0-3-8

2-0-0

- LVI beams must not be cut or drilled
 Refer to manufacturer's product information
 regarding installation requirements, multi-ply
 fastening details, beam strength values, and code
 approvals
- Damaged Beams must not be used Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rotation
- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

2385 lb

0 lb

2385 lb

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

Manufacturer Info

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



CSD I

0 lb

0 lb C3



Project:

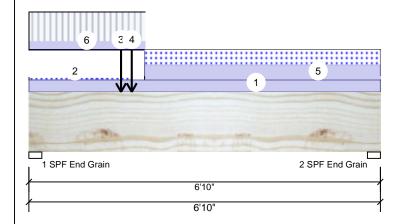
Address: Gaston II (181035B) Date: 12/13/2021

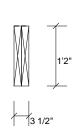
Input by: Marshall Naylor Job Name: Gaston II (181035B)

Project #:

Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED Window Hdr.

Level: Level





Page 2 of 2

Continued	from	page	1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Part. Uniform	2-3-0 to 6-10-0		Тор	160 PLF	0 PLF	160 PLF	0 PLF	0 PLF	C2
6	Part. Uniform	2-3-0 to 0-0-0		Тор	97 PLF	300 PLF	0 PLF	0 PLF	0 PLF	F07
	Self Weight				11 PLF					

Notes

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- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

Handling & Installation

- Handling & Installation

 1. IVI beams must not be cut or drilled

 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

 3. Damaged Beams must not be used

 4. Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

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Manufacturer Info







Project: Address:

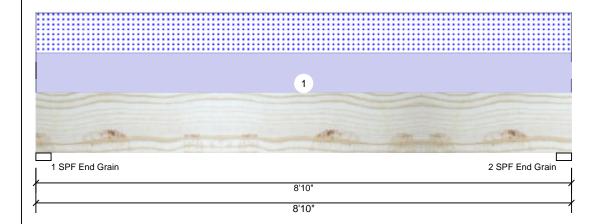
Date: 12/13/2021

Input by: Marshall Naylor Job Name: Gaston II (181035B)

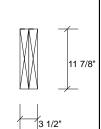
Project #:

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

Level: Level



Gaston II (181035B)



Page 1 of 1

	V	len	nber	Info	rma	ition
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Туре: Girder Plies: 2 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 360 Importance:

Normal - II Temperature: Temp <= 100°F

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

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1145	1104	0	0
2	Vertical	0	1145	1104	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4554 ft-lb	4'5"	22897 ft-lb	0.199 (20%)	D+S	L
Unbraced	4554 ft-lb	4'5"	10675 ft-lb	0.427 (43%)	D+S	L
Shear	1627 lb	1'2 7/8"	10197 lb	0.160 (16%)	D+S	L
LL Defl inch	0.036 (L/2845)	4'5 1/16"	0.211 (L/480)	0.169 (17%)	S	L
TL Defl inch	0.073 (L/1397)	4'5 1/16"	0.282 (L/360)	0.258 (26%)	D+S	L

Bearings

Grain

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	26%	1145 / 1104	2249	L	D+S
2 - SPF End	3.000"	Vert	26%	1145 / 1104	2249	L	D+S

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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 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 Trib Width Side Dead 0.9 Comments Location Live 1 Snow 1.15 Wind 1.6 Const. 1.25 1 Uniform Top 250 PLF 0 PLF 250 PLF 0 PLF 0 PLF

> Self Weight 9 PLF

Notes

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

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

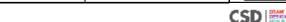
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

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Manufacturer Info







Weaver Homes

Project:

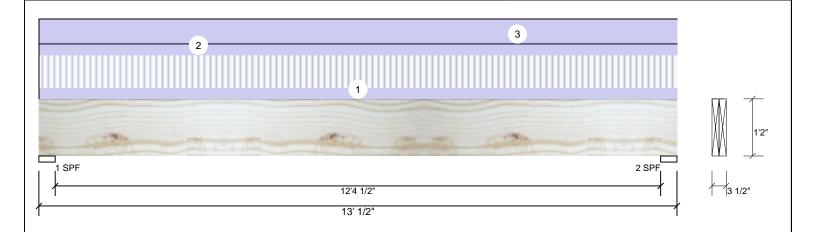
Address: Gaston II (181035B) Date: 12/13/2021

Input by: Marshall Naylor Job Name: Gaston II (181035B) Page 1 of 1

Project #:

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

Level: Level



Member Information **Reactions UNPATTERNED Ib (Uplift)** Type: Girder Application: Floor Snow Wind Const Brg Direction Live Dead Plies: 2 Design Method: ASD Vertical 2374 3468 0 0 0 1 Moisture Condition: Dry **Building Code:** IBC 2012 2374 3468 O O 2 Vertical 0 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Temperature: Temp <= 100°F Bearings Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 4.000" D+L Vert 3468 / 2374 5842 L 2 - SPF 4.000" Vert 98% 3468 / 2374 5842 L D+I

Analysis Results

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Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	17498 ft-lb	6'6 1/4"	26999 ft-lb	0.648 (65%)	D+L	L
Unbraced	17498 ft-lb	6'6 1/4"	17512 ft-lb	0.999 (100%)	D+L	L
Shear	4511 lb	1'6"	10453 lb	0.432 (43%)	D+L	L
LL Defl inch	0.142 (L/1059)	6'6 1/4"	0.312 (L/480)	0.453 (45%)	L	L
TL Defl inch	0.349 (L/430)	6'6 1/4"	0.625 (L/240)	0.558 (56%)	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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 5'7 3/8" o.c.
- 6 Bottom must be laterally braced at end bearings.
- 7 Lateral slenderness ratio based on single ply width

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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	122 PLF	364 PLF	0 PLF	0 PLF	0 PLF	F01
2	Uniform			Тор	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Uniform			Тор	274 PLF	0 PLF	0 PLF	0 PLF	0 PLF	A1
	Self Weight				11 PLF					

Notes

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Manufacturer Info



