**WEST POINTE III** 109 HILLWOOD DR SANFORD, NC 27332 LOT 5 RIDGE VENT AS REQUIRED

#### NOTE:

MONO SLAB - STONE TO RUN TO THE BOTTOM OF WINDOW STEM WALL - STONE TO FOUNDATION HEIGHT ONLY

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

MEAN	ROOF	HEIGHT	25'-8"
HILAIN	NOOL	ILLIGITI	23-0

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

DESIGNED FOR WIND SPEED OF 130 MPH, 3 SECOND GUST (101 FASTEST MILE) EXPOSURE "B"								
COMPONENT	COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS							
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'
ZONE 1	16.7	-18.0	17.5	-18.9	18.2	-19.6	18.7	-20.2
ZONE 2		-21.0		-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**

**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.

## **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:

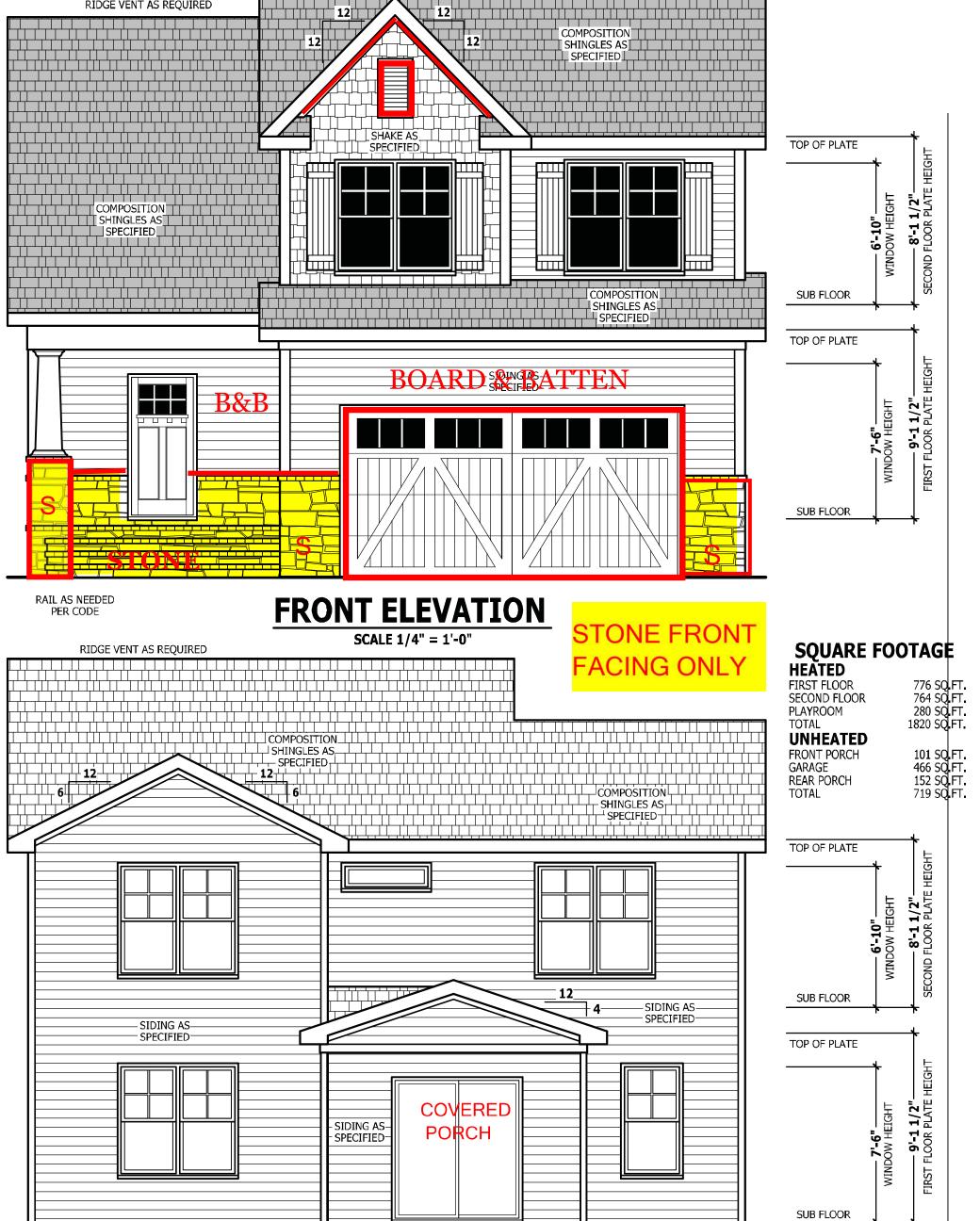
1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the

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.



**REAR ELEVATION** 

SCALE 1/4" = 1'-0"

**PARGE** 

DIMENSIONS AND CONDITION HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AN PROCEDURES. CODES AND CONDITIONS MA VARY WITH LOCATION, A LOCAL DESIGNER, ARCHITECT OR NGINEER SHOULD BE CONSULTED

BEFORE CONSTRUCTION. THESE DRAWING ARE

NSTRUMENTS OF SERVICE AI AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER

**ELEVATIONS GASTON** REAR 품 8 **FRONT** 

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

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181035B **PAGE 1 OF 8** 

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

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.

**ELEVATIONS** GASTON **RIGHT** 뿔 య

 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
 101 SQ.FT.

 FRARGE
 466 SQ.FT.

 REAR PORCH
 152 SQ.FT.

 TOTAL
 719 SQ.FT.

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181035B PAGE 2 OF 8

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ENGINEER SHOULD BE CONSULTED
BEFORE CONSTRUCTION.
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SQUARE FOOTAGE HEATED

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PAGE 3 OF 8

# **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

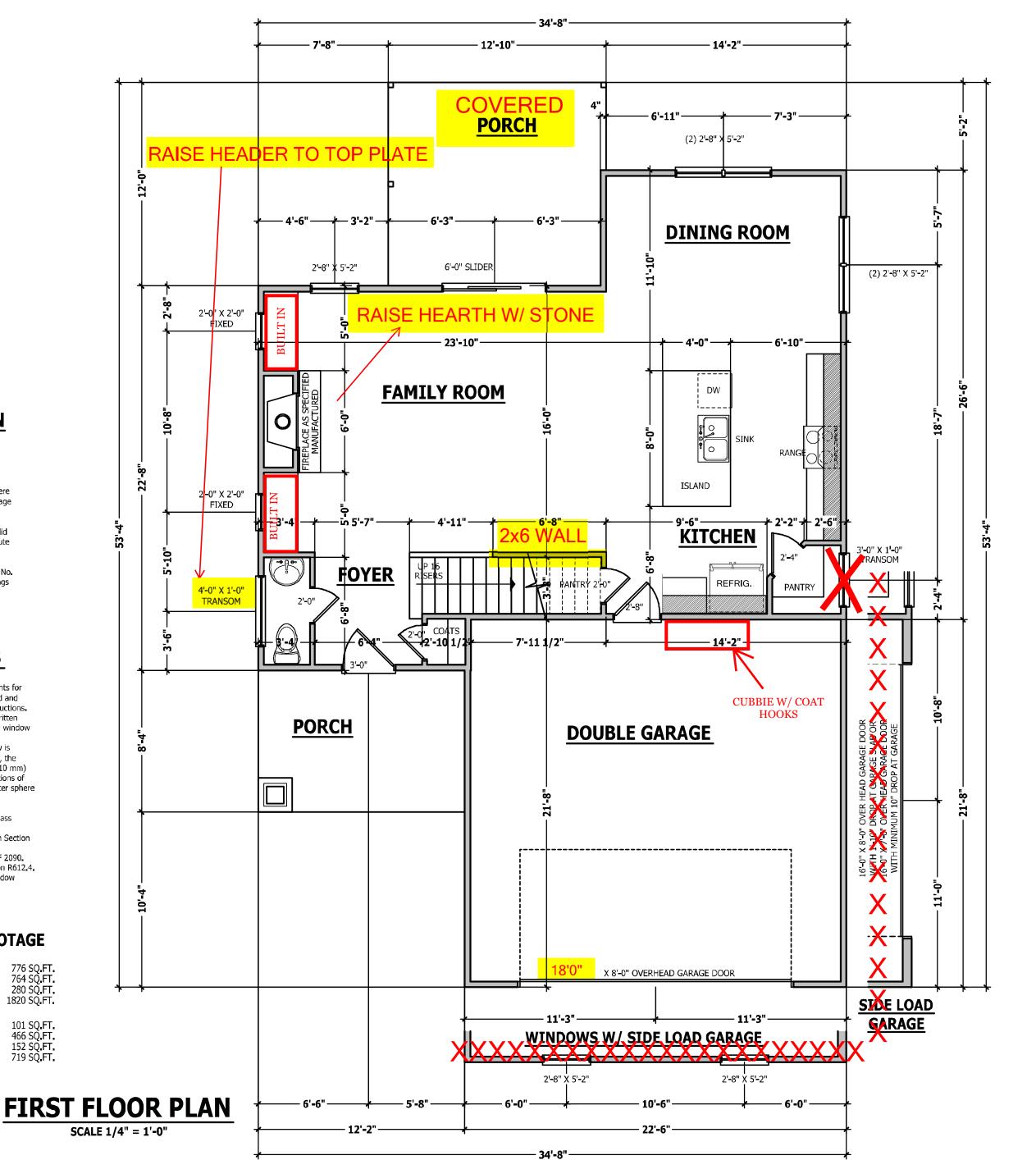
3. Openings that are provided with fall prevention devices that comply with ASTM F 2090. 4. Windows that are provided with opening limiting devices that comply with Section R612.4. **R612,3 Window fall prevention devices.** Window fall prevention devices and window guards, where provided, shall comply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

101 SQ.FT. 466 SQ.FT. 152 SQ.FT. 719 SQ.FT. REAR PORCH TOTAL



DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS

HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES.

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FIRST FLOOR PLAN

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**GASTON** 

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SQUARE FOOTAGE HEATED

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181035B

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FIRST FLOOR SECOND FLOOR PLAYROOM

TOTAL

UNHEATED

FRONT PORCH
GARAGE
REAR PORCH
TOTAL

## 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.

SIGN	LOADS
	LICE

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 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

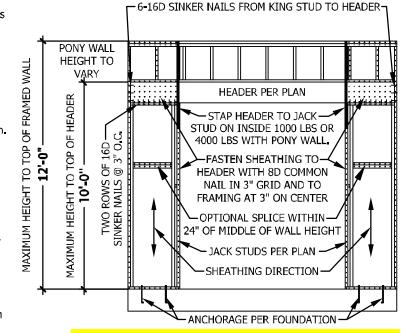
GYPSUM: All interior sides of exterior walls and both sides interior walls to have 1/2" gypsum installed. When not using GB to be fastened per table R602.10.1.

**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.

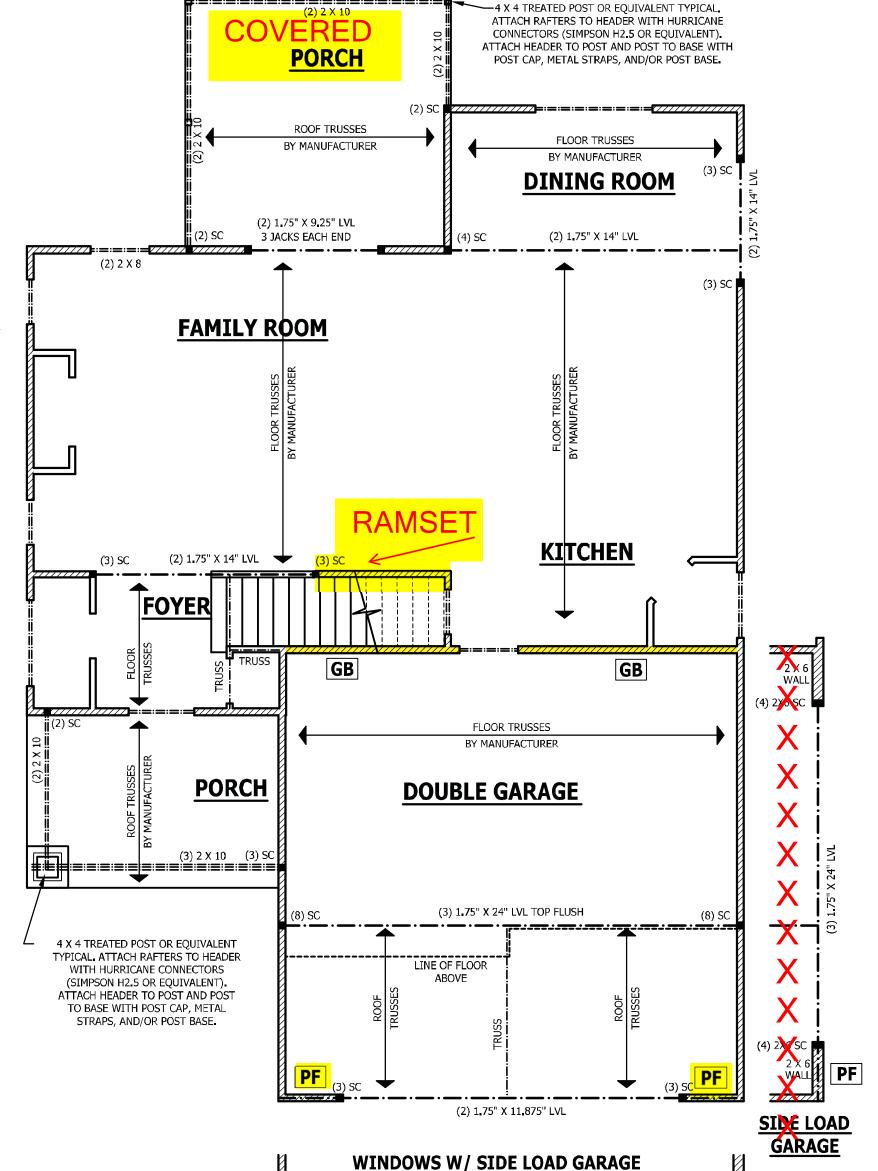
#### Methods Per Table R602.10.1

**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"



FIRST FLOOR STRUCTURAL

SCALE 1/4" = 1'-0"

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FIRST FLOOR STRUCTURAL STON GA Ш

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

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

#### **ENGINEERED WOOD BEAMS:**

Laminated veneer lumber (LVL) = Fb=2600 PSI, Fv=285 PSI, E=1.9x106 PSI Parallel strand lumber (PSL) = Fb=2900 PSI, Fv=290 PSI, E=2.0x106 PSI Laminated strand lumber (LSL) Fb=2250 PSI, Fv=400 PSI, E=1.55x106 PSI 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

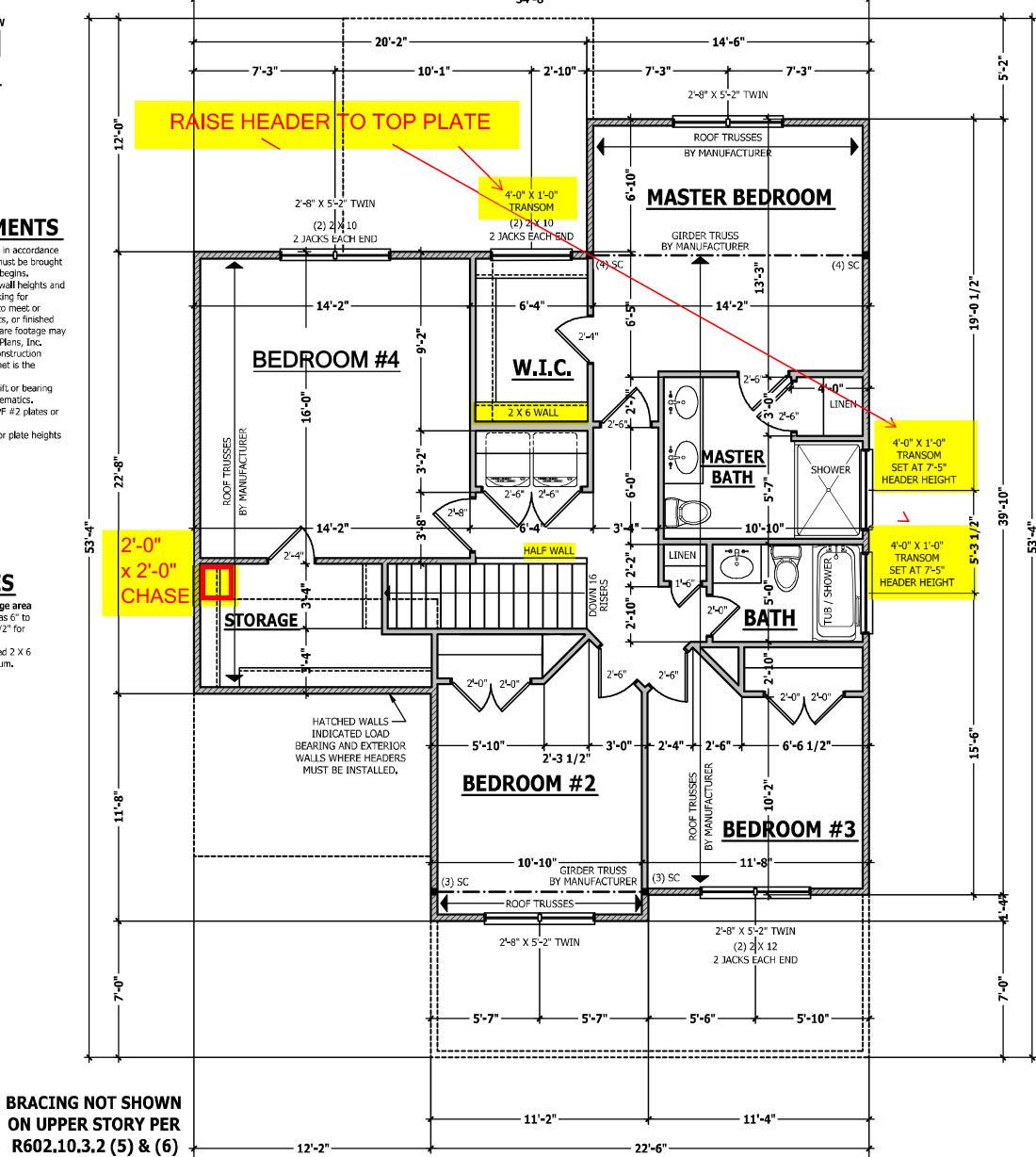
reasonability of the truss manufacturer. ANCHORAGE. All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics. **BEARING.** All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.

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.



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

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**SECOND FLOOR PLAN** 

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SQUARE FOOTAGE HEATED UNHEATED

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# **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"

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.

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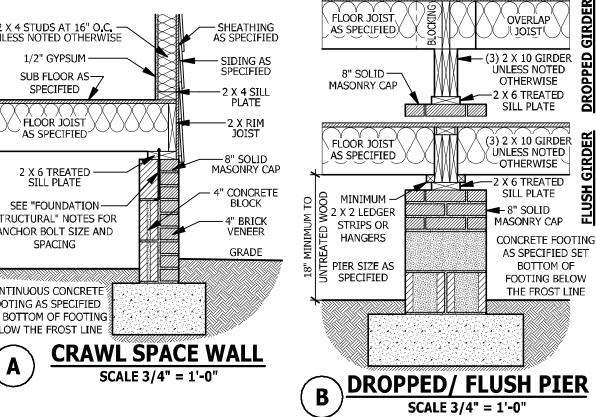
| SQUARE FOOTAGE | HEATED | FIRST FLOOR | 776 SQ.FT. | SECOND FLOOR | 764 SQ.FT. | PLAYROOM | 280 SQ.FT. | TOTAL | 1820 SQ.FT. | UNHEATED | FRONT PORCH | 101 SQ.FT. | GARAGE | 466 SQ.FT. | REAR PORCH | 152 SQ.FT. | TOTAL | 719 SQ.FT. |

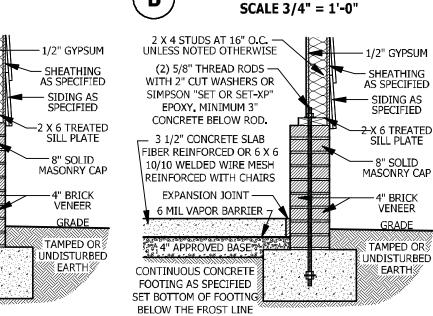
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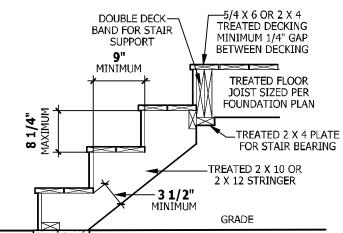
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**SECTION AM109** 

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

above finished grade per Figure AM109 and the deck is attached to the structure in accordance with Section

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

diagonal bracing, lateral stability may be provided by embedding the post in accordance with Figure AM109<sub>•</sub>2

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.

# **WEEP SCREEDS**

**R703.6.2.1** - A minimum 0.019-inch (0.5

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.

2 X 4 STUDS AT 16" O.C.

UNLESS NOTED OTHERWISE

SPECIFIED

\ FLOOR JOIST

AS SPECIFIED

2 X 6 TREATED SILL PLATE

SEE "FOUNDATION -

STRUCTURAL" NOTES FOR

ANCHOR BOLT SIZE AND

SPACING

CONTINUOUS CONCRETE

FOOTING AS SPECIFIED

SET BOTTOM OF FOOTING

BELOW THE FROST LINE

SUB FLOOR AS =

2 X 6 TREATED SILL PLATE

8" SOLID — MASONRY CAP

8" CONCRETE BLOCK

SUB FLOOR AS-

-1/2" GYPSUM

2 X 4 SILL

-8" SOLID

MASONRY CAP

BLOCK

-4" BRICK VENEER

- EXPANSION JOINT

-6 MIL VAPOR

🛊 3 1/2" SLAB

**BARRIER** 

🍰 4" BASE

TAMPED OR

JNDISTURBED

FOR SLAB SUPPORT

AS SPECIFIED

- 8 X 16 VENT

CRAWL SPACE AT GARAGE

SCALE 3/4" = 1'-0"

ASHING MINIMUM 16" WIDE

ET BOTTOM OF FOOTIN

FILLED PORCH SECTION WITH VENT

ITH (2) 1/2" HOT-DIPPED GALVANIZED BOLTS

TACH JOIST WITH HANGERS

/8" HOT-DIPPED GALVANIZED

SOLTS AT 1-8" O.C. MINIMUM

1/2" FROM EDGE WITH (3) 12d

GALVANIZED NAILS AT 6" O.C.

G DECK ATTACHMENT

**SMOKE ALARMS** 

equipment provisions of NFPA 72.

SCALE 1/2" = 1'-0"

R314.1 Smoke detection and notification. All smoke alarms shall be

listed in accordance with UL 217 and installed in accordance with

R314.2 Smoke detection systems. Household fire alarm systems

a combination of smoke detector and audible notification device

installed as required by this section for smoke alarms, shall be

installed in accordance with NFPA 72 that include smoke alarms, or

permitted. The household fire alarm system shall provide the same

level of smoke detection and alarm as required by this section for

using a combination of smoke detector and audible notification

smoke alarms. Where a household fire warning system is installed

owned by the homeowner. The system shall be monitored by an

the provisions of this code and the household fire warning

COMMON HOT-DIPPE

4 X 6 OR 2 X 4 TREATE

— FLASHING

Building code. the bedrooms. lower level provided that the lower level is less than one full story

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.

SEE ROOF ← EDGED OR PORCH FLOOR PLAN OR ELEVATION — SHINGLES AS SPECIFIED FOR PITCH SHEATHING AS SPECIFIED - 15# BUILDING FELT ROOF TRUSSES BY MANUFACTUR**E**R PORCH HEADER PER -PLAN INSTALLED OVER CENTER OF COLUMN BASE VINYL OR HARDIE SOFFIT INSTALLED PER MANUFACTURERS **BLOCKING INSTALLED-**INSTRUCTIONS ON BOTH SIDES & UNDER HEADER AS DESIRED TAPERED COLUMN OVER 1 X MATERIAL · MASONRY BASE ATTACHED TO HEADER CENTER LINE OF HEADER · WITH POST CAP AND COLUMN

# **PORCH HEADER WITH TAPERED COLUMN**

SCALE 3/4" = 1'-0"

# **CARBON MONOXIDE ALARMS**

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.

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

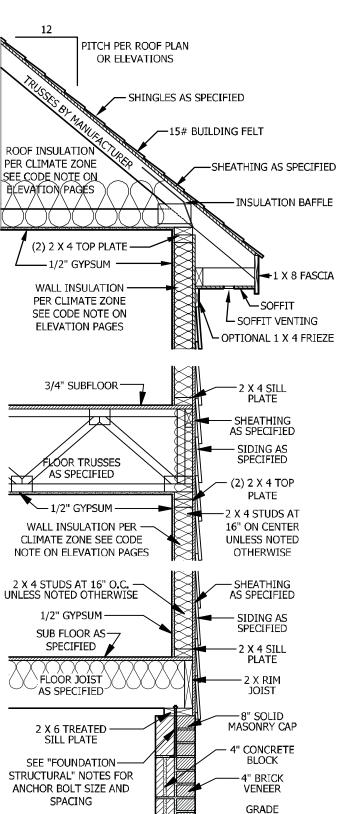
**R311.7.7 Handrails.** Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers. R311.7.7.1 Height. Handrail height, measured vertically from the sloped

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).

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.

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)

> termination of the rails occurs within 6 inches (152 mm) of each other. If 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

GINEER SHOULD BE CONSUL' BEFORE CONSTRUCTION.

THESE DRAWING ARE

AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER

**DETAILS** 

**TYPICAL** 

STON

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Ш I

SQUARE FOOTAGE HEATED UNHEATED

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

TYPICAL WALL DETAIL

CONTINUOUS CONCRETE

FOOTING AS SPECIFIED

SET BOTTOM OF FOOTING

BELOW THE FROST LINE

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

<48" GARAGE WING WALL SCALE 3/4" = 1'-0" - PROVIDED 3 1/2" THICK OF STEPS FOR BEARING

# FIGURE AM110 TYPICAL DECK STAIR DETAIL

-STONE VEENER

AS SPECIFIED

VAPOR BARRIER

WEEP SCREED

MINIMUM 4" TO

**GROUND OR 2"** 

TO PAVEMENT

SHEATHING -

SEE FOUNDATION

WEEP SCREED

**SCALE 3/4" = 1'-0"** 

# SCALE 3/4" = 1'-0"

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

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

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. Exceptions 2. Outside each separate sleeping area in the immediate vicinity of owest tread. 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

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.

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

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

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

2. When handrail fittings or bendings are used to provide continuous

**R311.7.7.2 Continuity.** Handrails for stairways shall be continuous for the

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 transitioning between a wall-mounted handrail and a guardrail/handrail, the

4" APPROVED BASE CONTINUOUS CONCRETE FOOTING AS SPECIFIED SET BOTTOM OF FOOTING BELOW THE FROST LINE **GARAGE STEM WALL** D SCALE 3/4" = 1'-0"**DECK STAIR NOTES** SECTION AM110

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

# **DECK BRACING**

provide lateral stability.

AM109\_1\_1. When the deck floor height is less than 4'-0" AM104, lateral bracing is not required.

AM109.1.2. 4 x 4 wood knee braces may be provided on

AM109.1.3. For freestanding decks without knee braces or AS SPECIFIED

and the following.							
POST SIZE	MAX 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"			
AM100 1 4 2 x 6 diagonal vertical cross bracing may							

FOR FOUNDATION AM109\_1.5. For embedment of piles in Coastal Regions, see Chapter 45.