

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

MEAN ROOF HEIGHT: 27'-3" HEIGHT TO RIDGE: 33'-5"

CLIMATE ZONE	ZONE 3A	ZONE 4A	ZONE 5A
CEILING 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	20
* BASEMENT WALL R-VALUE	5/13	10/15	10/15
** GLAZ R-VALUE	0	10	10
* CRAWL SPACE WALL R-VALUE	5/13	10/15	10/15

* 10/15 MEANS R-10 SHEATHING INSULATION OR R-13 CAVITY INSULATION
** INSULATION DEPTH WITH MONOLITHIC SLAB 2" OR FROM INSPECTION GAP TO BOTTOM OF FOOTING; INSULATION DEPTH WITH STEEL WALL SLAB 2" OR TO BOTTOM OF FOUNDATION WALL
DESIGNED FOR WIND SPEED OF 115 MPH, 3 SECOND GUST (89 FASTEST WIND EXPOSURE 3")
COMPLY WITH ALL ADDING DESIGNED FOR THE FOLLOWING LOADS:
MEAN ROOF UP TO 30' 50'-1" TO 35' 35'-1" TO 40' 40'-1" TO 45'
ZONE 1 13.1 -14.0 13.8 -14.7 14.3 -15.3 14.7 -15.7
ZONE 2 13.0 -13.0 13.7 -13.7 14.2 -14.2 14.6 -14.6
ZONE 3 13.1 -16.0 13.8 -16.8 14.3 -17.4 14.7 -17.9
ZONE 4 14.3 -19.0 15.0 -19.8 15.6 -16.4 16.0 -16.8
ZONE 5 14.3 -19.0 15.0 -20.0 15.6 -20.7 16.0 -21.3

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 cloth, or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7.
R806.2 Minimum area. The total net free ventilating area shall not be less than 1/150 of the area of the space ventilated except that reduction of the total area to 1/200 is permitted provided that at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilation area may be reduced to 1/300 when a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.
Exceptions:
1. Enclosed attic/rafter spaces requiring less than 1 square foot (0.0929 m²) of ventilation may be vented with continuous soffit ventilation only.
2. Enclosed attic/rafter spaces over unconditioned spaces may be vented with continuous soffit vent only.

SQUARE FOOTAGE OF ROOF TO BE VENTED = 1,433 SQ.FT.
NET FREE CROSS VENTILATION NEEDED:
WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 9.55 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 = 4.78 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 guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads.
Exceptions:
1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. Where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
R312.3 Opening limitations. Required guards shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches (102 mm) in diameter.
Exceptions:
1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a guard, shall not allow passage of a sphere 6 inches (153 mm) in diameter.
2. Guards on the open sides of stairs shall not have openings which allow passage of a sphere 43/8 inches (113 mm) in diameter.

AIR LEAKAGE

Section R1102.4
R1102.4.1 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.

REAR ELEVATION

SCALE 1/4" = 1'-0"

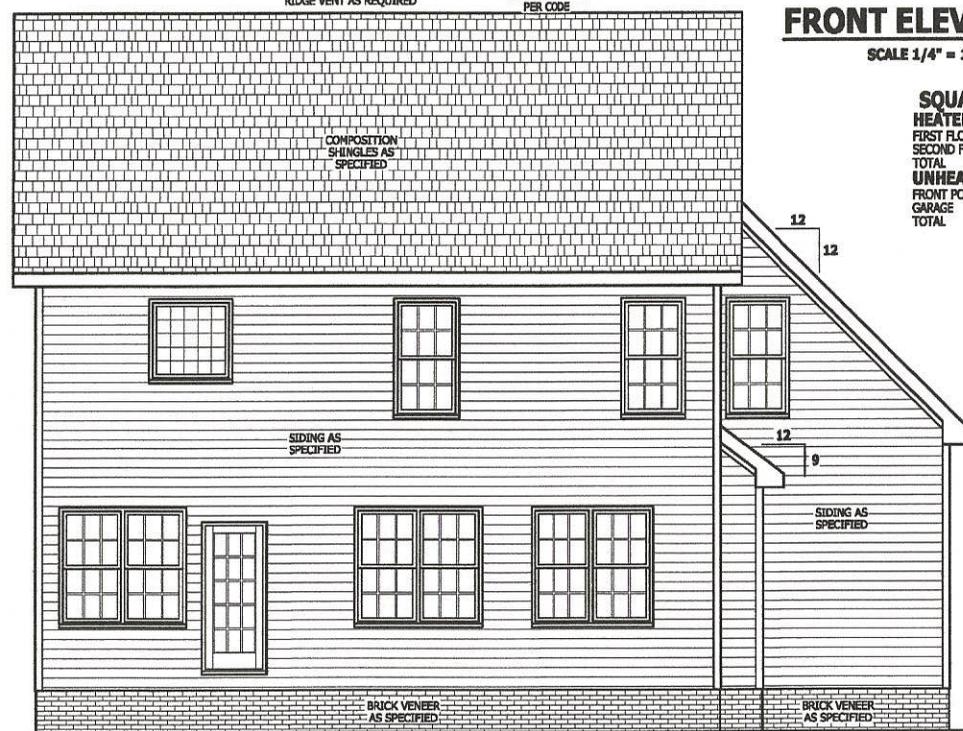
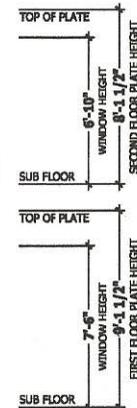


FRONT ELEVATION

SCALE 1/4" = 1'-0"

SQUARE FOOTAGE

HEATED	
FIRST FLOOR	918 SQ.FT.
SECOND FLOOR	1231 SQ.FT.
TOTAL	2149 SQ.FT.
UNHEATED	
FRONT PORCH	65 SQ.FT.
GARAGE	440 SQ.FT.
TOTAL	505 SQ.FT.



PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS. HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTOR PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION, LOCAL, DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

FRONT & REAR ELEVATIONS
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SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	918 SQ.FT.
SECOND FLOOR	1231 SQ.FT.
TOTAL	2149 SQ.FT.
UNHEATED	
FRONT PORCH	65 SQ.FT.
GARAGE	440 SQ.FT.
TOTAL	505 SQ.FT.

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WALL THICKNESSES

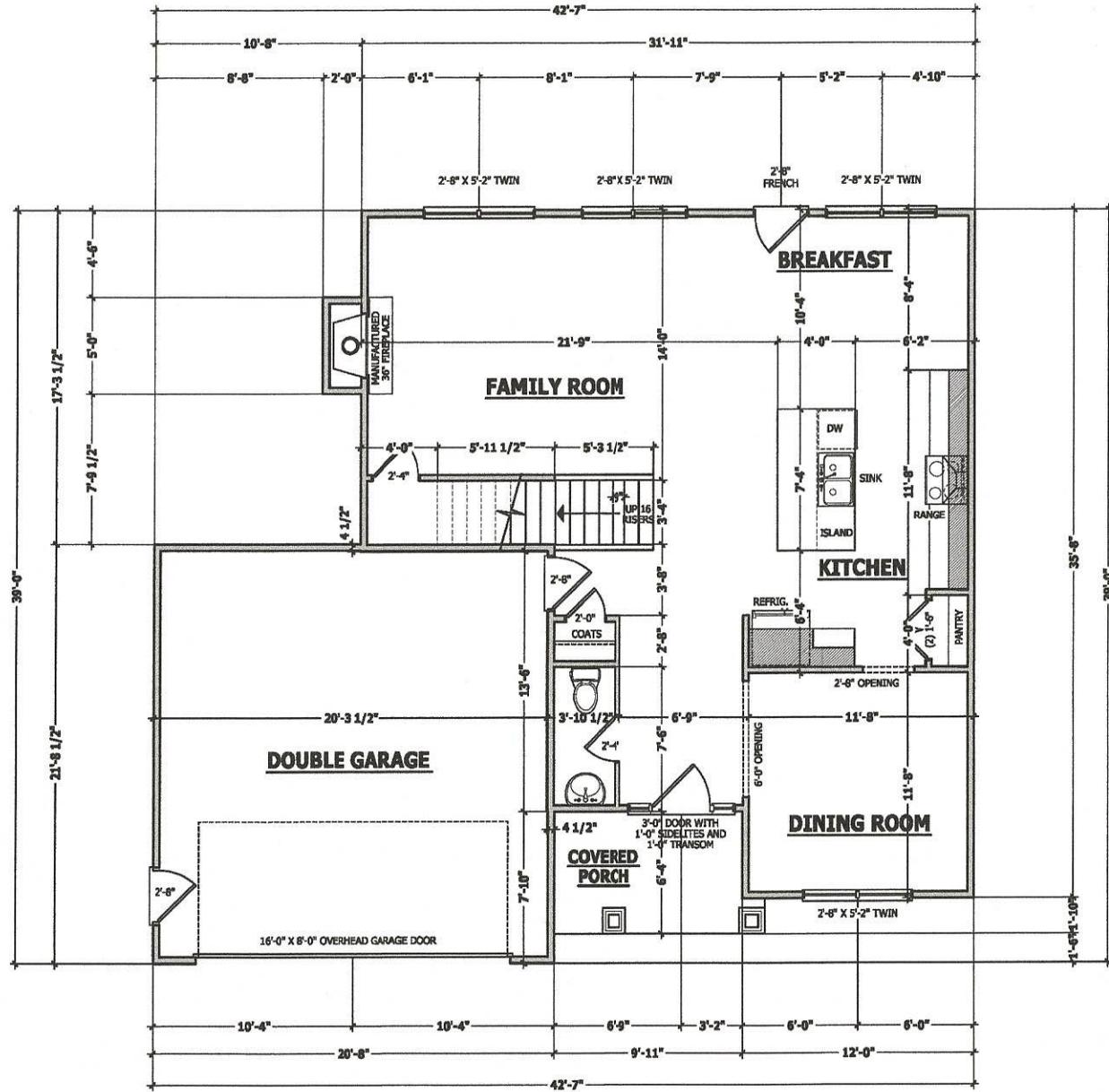
Exterior walls and walls adjacent to a garage area are drawn as 4" or as noted 2 X 6 are drawn as 6" to include 1/2" sheathing or gypsum. Subtract 1/2" for stud face.
Interior walls are drawn as 3 1/2" or as noted 2 X 6 are drawn as 5 1/2", and do not include gypsum.

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.
CEILING. A minimum of 1/2" gypsum must be installed on the garage ceiling if there are no habitable rooms above the garage. If there are habitable rooms above the garage a minimum of 5/8" type X gypsum board must be installed on the garage ceiling.
OPENING PENETRATIONS. Openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors.
DUCT PENETRATIONS. Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall have no openings into the garage.
OTHER PENETRATIONS. Penetrations through the separation required in Section R302.6 shall be protected as required by Section R302.11, Item 4.

SQUARE FOOTAGE

HEATED	
FIRST FLOOR	918 SQ.FT.
SECOND FLOOR	1231 SQ.FT.
TOTAL	2149 SQ.FT.
UNHEATED	
FRONT PORCH	65 SQ.FT.
GARAGE	440 SQ.FT.
TOTAL	505 SQ.FT.



FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

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FIRST FLOOR PLAN
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SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	918
SECOND FLOOR	1231
TOTAL	2149
UNHEATED	
FRONT PORCH	65
GARAGE	440
TOTAL	505

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ATTIC ACCESS

SECTION R807

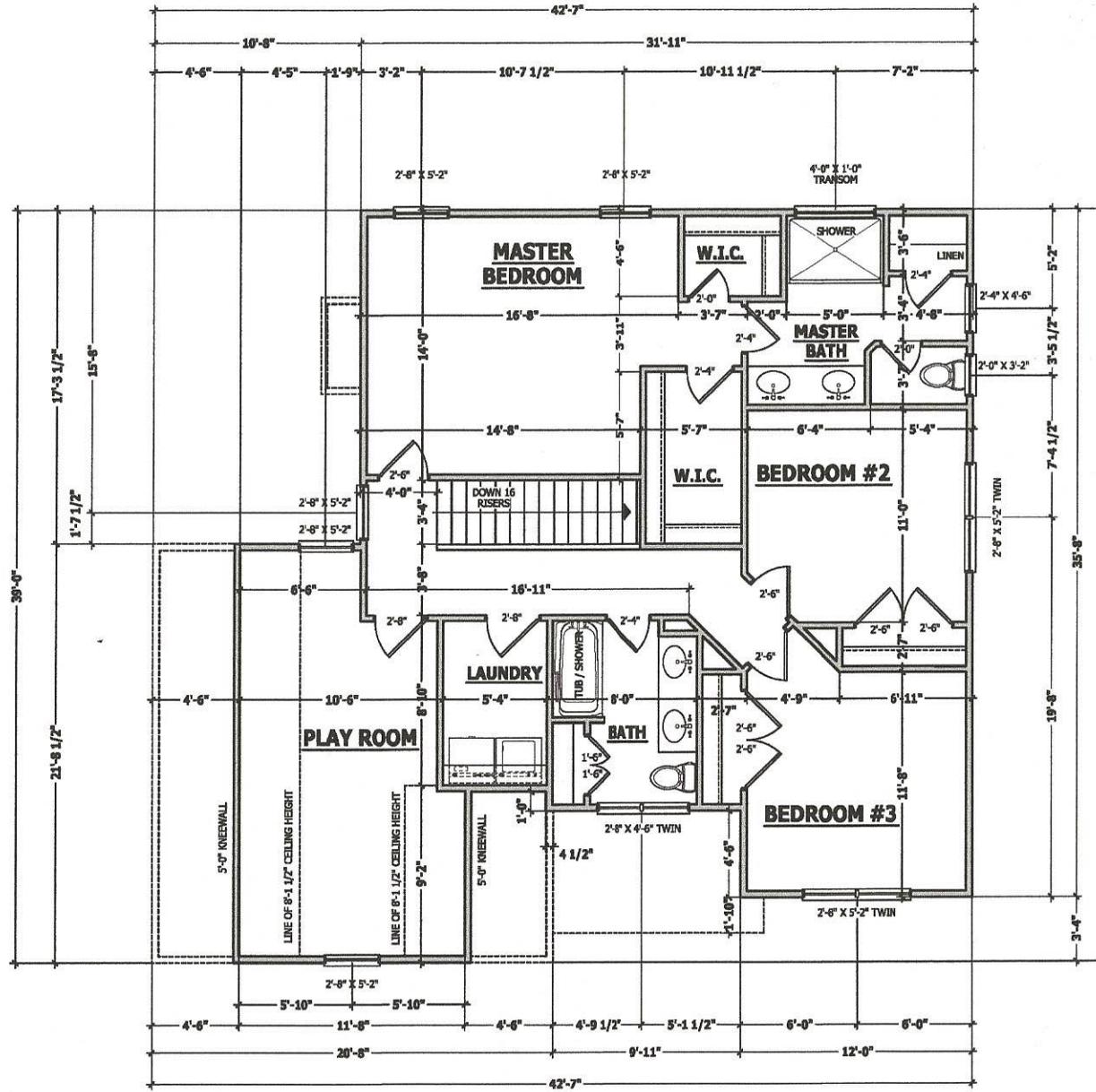
R807.1 Attic access. An attic access opening shall be provided to attic areas that exceed 400 square feet (37.16 m²) and have a vertical height of 60 inches (1524 mm) or greater. The net clear opening shall not be less than 20 inches by 30 inches (508 mm by 762 mm) and shall be located in a hallway or 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 clear opening.

WALL THICKNESSES

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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.



SECOND FLOOR PLAN
SCALE 1/4" = 1'-0"

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SECOND FLOOR PLAN
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SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	68 SQ. FT.
SECOND FLOOR	85 SQ. FT.
TOTAL	153 SQ. FT.
UNHEATED	
FIRST FLOOR	88 SQ. FT.
SECOND FLOOR	85 SQ. FT.
TOTAL	173 SQ. FT.

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