



CITY OF LANCASTER
BUILDING DEPARTMENT
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**OHIO RESIDENTIAL ONE-, TWO-, AND THREE-FAMILY DWELLING
 PRESCRIPTIVE ENERGY REQUIREMENTS**

1104.1 Energy compliance:

Energy efficiency for the design and construction of buildings regulated by this code shall be demonstrated by complying with the prescriptive requirements listed in Table 1, Table 2, and Table 3 of this document. By complying with the prescriptive requirements of these tables, those buildings shall be deemed to satisfy the requirements of this chapter.

TABLE 1
OHIO RESIDENTIAL PRESCRIPTIVE ENERGY REQUIREMENTS TABLE (a)

Thermal Envelope		Zone A (b)	Zone B (b)
1.	Attic Insulation	R-30	R-38
2.	Walls	R-13	R-13
3.	Floors	R-19	R-19
4.	Band board/Band joist/Rim joist (c)	R-19	R-19
5.	Conditioned Basement - Walls (d), Conditioned Crawl Space - Walls (f)	R-5 (R13 e)	R-5 (R13 e)
6.	Slab Perimeter (When above Frost Line) (g)	R-10	R-10
7.	Glazing (h)	U-0.35	U-0.35
8.	Exterior Doors	U-0.57	U-0.57
9.	Ductwork (i)	R-6	R-6
10.	Maximum window to wall area ratio	21%	21%
HVAC Efficiencies			
1.	Furnace (j)	90%	90%
2.	Air Conditioning (k)	13	13
Air Infiltration Requirements			
1.	Refer to infiltration requirements in Table 3		

- a. R-values represent the insulation only (i.e. not the entire wall, floor, or ceiling assembly).
- b. Zones A and B are as indicated in Table 2.
- c. Includes sill sealer, compressible gasketing, or caulking for air infiltration sealing.
- d. Insulated from the top of the plate to frost line.
- e. Walls that are more than fifty percent above grade shall be insulated as a wall – R-13.
- f. The crawl space wall R-value requirements are for walls of conditioned crawl spaces (i.e., not directly vented to the outside). The crawl space wall insulation must extend from the top of the plate to top of footing or crawlspace slab.
- g. Insulation depth/length - 24 inches.
- h. Skylights shall have a U-factor of 0.60
- i. Duct sealing as required by code; Recommend burying attic ducts in ceiling insulation.
- j. AFUE rating; heat pumps shall have an HSPF efficiency rating of 7.7.
- k. SEER rating.

TABLE 2

Zone A Counties	Zone B Counties
Adams, Athens, Belmont, Brown, Butler, Clermont, Clinton, Coshocton, Fairfield, Fayette, Franklin, Gallia, Greene, Guernsey, Hamilton, Highland, Hocking, Jackson, Lawrence, Licking, Madison, Meigs, Monroe, Montgomery, Morgan, Muskingum, Noble, Perry, Pickaway, Pike, Preble, Ross, Scioto, Vinton, Warren, or Washington County	Allen, Ashland, Ashtabula, Auglaize, Carroll, Champaign, Clark, Columbiana, Crawford, Cuyahoga, Darke, Defiance, Delaware, Erie, Fulton, Geauga, Hancock, Hardin, Harrison, Henry, Holmes, Huron, Jefferson, Knox, Lake, Logan, Lorain, Lucas, Mahoning, Marion, Medina, Mercer, Miami, Morrow, Ottawa, Paulding, Portage, Putnam, Richland, Sandusky, Seneca, Shelby, Stark, Summit, Trumbull, Tuscarawas, Union, Van Wert, Wayne, Williams, Wood, or Wyandot County

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TABLE 3
AIR INFILTRATION REQUIREMENTS

THESE ITEMS ARE REQUIRED WHEN USING THE OHIO RESIDENTIAL PRESCRIPTIVE ENERGY REQUIREMENTS		
1.	Overall Air and Thermal Barrier Alignment	Insulation shall be installed in full contact with sealed interior and exterior air barrier.
		A - Overall alignment throughout dwelling without gaps or compression
		B - Garage band joist air barrier adjoining conditioned space
		C - Attic eave baffles
2.	Walls Adjoining Exterior Walls or Unconditioned Space	D - Slab-edge insulation
		Fully insulated walls align with air barrier at interior and exterior; Continuous top and bottom plates or sealed blocking.
		A - Wall behind shower/tub
		B - Wall behind furnace
		C - Insulated attic slopes for unvented attic spaces
		D - Attic knee walls
		E - Skylight shaft walls
		F - Walls adjoining porch roofs
3.	Floors Between Conditioned and Unconditioned Spaces	G - Staircase walls
		H - Double walls
		Air barrier installed at any exposed insulation edges; Insulation installed to maintain permanent contact with sub-floor above and air barrier below.
4.	Shafts	A - Insulated floor above garage
		B - Insulated cantilevered floor
		Openings to unconditioned space fully sealed with solid blocking or flashing and gaps are fully sealed with caulking or foam (fire-rated collars and caulking where required)
5.	Attic/Ceiling interface	A - Duct shafts and penetrations
		B - Piping shafts and penetrations
		C - Flue shafts
		All attic penetrations and dropped ceilings include full interior air barrier aligned with insulation; gaps fully sealed with caulking or foam; Moveable insulation fits snugly in opening and air barriers fully gasketed
		A - Attic access panel fully gasketed and insulated
6.	Common Walls Between Dwelling Units	B - Attic drop-down stairs fully gasketed and insulated
		C - Dropped ceiling/soffit - air barrier aligned with insulation
		D - Recessed lighting fixtures IC-AT (Insulation Contact- Air Tight) labeled & sealed to drywall
		E - Whole-house fan insulated cover gasketed to the opening
		Gaps between drywall shaft wall (common wall) and structural framing between units sealed at all exterior boundary conditions
		A - Common walls between dwelling units