

Sponsored by Councilman Russell Sweetman on the 19th day  
of May, 1975.

AN ORDINANCE AMENDING THE UNIFIED BUILDING  
CODE FOR MONTGOMERY COUNTY AND THE OHIO  
BUILDING CODE AS THEY RELATE TO ENERGY  
CONSERVATION.

Whereas, the necessity has become evident to make certain amendments to the Unified Building Code for Montgomery County, and to the Ohio Building Code, as applicable to the building inspection procedures within the City of Centerville; and

Whereas, proper insulation of a building significantly reduces the amount of energy consumed for heating and cooling, thereby reducing air pollution and consuming energy;

Now, Therefore,

THE MUNICIPALITY OF CENTERVILLE HEREBY ORDAINS:

Section I. That Section 824.0 "Fiber Boards" of the Unified Building Code and Chapters BB-53, BB-55, and BB-57 of the Ohio Building Code are hereby amended by the addition of the following:

1. Insulation Required in Buildings.

It shall be mandatory to install insulation in all heated or mechanically cooled buildings, falling under the chapters quoted above, including all new additions to existing buildings.

2. Determination of Performance of Insulating Materials.

The purpose of heat insulating materials is to provide resistance to the flow of heat. This concerns either heat escaping from the building during the cold seasons, or heat entering the building during warm weather.

Federal Specification III-1-521 (D) designates a certain "R" value for insulating materials which shows the heat stopping ability of the product. Said standards are adopted by reference to this Ordinance.

3. Minimum Insulation Requirements.

Specific areas of buildings shall conform to the following minimum requirements:

- (a) Ceiling areas to have R-21 rating.
- (b) Exterior walls to have an R-11 rating. Walls between heated and unheated or partly heated areas are included in this category.
- (c) Floors to have an R-13 rating if located above unconditioned space.
- (d) If supply or heat return ducts are located in a crawl space under a floor or other unconditioned spaces, then all ducts must be wrapped with a minimum R-7 insulating material and vapor sealed.
- (e) Supply and heat return ducts may be exposed, but in such case the entire crawl space is to be treated as conditioned space. All exterior walls should have a minimum R-7 rating.

- (f) Buildings with concrete slab flooring. Rigid insulation is to be installed along the exterior wall perimeter of the concrete slab and along walls between heated and unheated or partly heated areas. Minimum width of such insulation to be twenty-four (24) inches, and minimum rating to be R-7.
- (g) If basements are to be used for habitation, all provisions for insulating materials, as in any other heated or mechanically cooled parts of the building, apply. Only the portion of wall above grade need have the same insulation as an exterior wall.

If the basement is uninhabited, it does not require insulation. In this case, however, the basement ceiling must conform to 3(c).

- (h) Specific attention is to be given to overhangs in frame structures. Such projections are to have at least R-11 rating and shall be considered part of an exterior wall.

Overhang as used in this article means a projecting part of the building, as in tri-level or two story buildings, where the upper floor projects in front of the lower level. This designation does not include roof overhangs or soffits.

- (i) All windows and sliding glass doors in exterior walls are to have either separate storm sash or are to have double glazing.
- (j) All openings around windows, exterior doors, ducts, vents, etc., are to be properly sealed. Sill sealer insulation is to be used on all exterior walls, and between the wooden sill and concrete foundation. Specific attention shall be given by the building inspector to good workmanship and strict adherence to professional performance.

#### 4. Venting of Attic and Crawl Spaces.

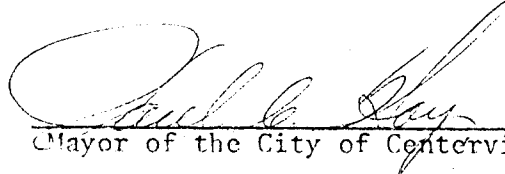
The efficiency of any heating or cooling system is greatly influenced by appropriate measures to efficiently vent the attic and crawl spaces in the building. To achieve this purpose, the following rules apply:

- (a) If gable vents only are installed in a residential structure (one at each end) and no vapor barrier is provided in the ceiling, then the equivalent of a one square foot inlet and a one square foot outlet must be provided for each 300 square foot of ceiling area. If a vapor barrier is installed, then one square foot of inlet and outlet area must be provided for each 600 square feet of ceiling area.
- (b) With a combination of cave, gable, and/or roof vents installed, one square foot of the inlet and one square foot of the outlet area must be provided for each 600 square feet of ceiling. At least one half of the vent area to be part of the gable vents, which in turn shall have to be a minimum of 3'0" above the cave or cornice vents.
- (c) Crawl spaces under the floor of an inhabited area are to have at least four foundation wall vents, one located in the vicinity of each corner of the crawl space, if no moisture seal is provided. The aggregate vent area is to be one square foot for each 150 square feet of crawl space area.

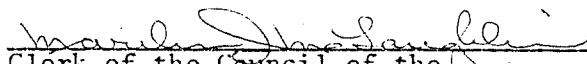
- (d) If a moisture seal is installed in the crawl space, then 1500 square feet of crawl space area shall correspond to one square foot of vent area, and only 2 foundation vents need to be provided. Such vents are to be separated as widely as possible. Other venting arrangements, providing equal benefits, will be accepted at the discretion of the Building Inspector. A six (6) mil polyethylene film vapor barrier (or equal) shall be used as a moisture seal, and shall be covered by 4" to 6" gravel.

Section II. This ordinance shall become effective at the earliest date allowed by law.

PASSED THIS 19th day of May, 1975.

  
Mayor of the City of Centerville, Ohio

ATTEST:

  
Clerk of the Council of the  
City of Centerville, Ohio

C E R T I F I C A T E

The undersigned, Clerk of the Council of the City of Centerville, Ohio, hereby certifies the foregoing to be a true and correct copy of Ordinance No. 52-75, passed by the Council of the City of Centerville, Ohio, on the 19th day of May, 1975.

  
Clerk of the Council

Approved as to form, consistency with existing ordinances, the charter and constitutional provisions.

Department of Law  
Robert N. Farquhar  
Municipal Attorney