

Michigan Residential Code Appendix F

Aaron Berndt

Michigan Department of Environmental
Quality

800-723-6642 / radon@michigan.gov

Michigan Legislation

Public Act 230 of 1972

- Requires incorporation of international codes

Michigan Residential Code

LARA (Licensing and Regulatory Affairs)

- International Residential Code
- Appendix F*

*Required in Zone 1 Counties

Michigan Residential Code Appendix F

Section AF101

- Branch, Calhoun, Cass, Hillsdale, Jackson, Kalamazoo, Lenawee, St. Joseph, and Washtenaw
- Determined by EPA Map of Radon Zones

Section AF102

Definitions

- Radon Gas
- Drain Tile Loop
- Soil-Gas-Retarder
- Sub-membrane Depressurization System
- Sub-slab Depressurization System (Passive)
- Sub-slab Depressurization System (Active)

Section AF103 Requirements

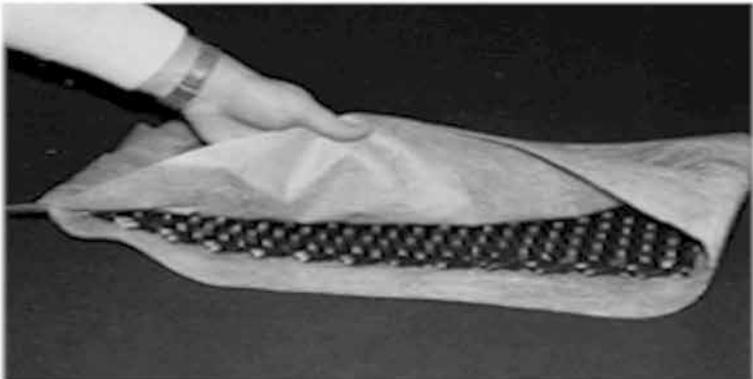
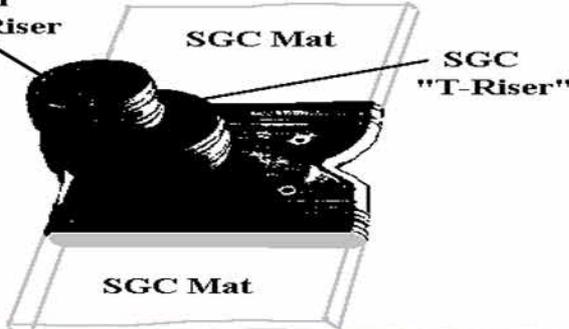
Subfloor Preparation/Promote Lateral Flow

- Min. 4" Aggregate (1/4"- 2" sieve)
- Min. 4" Sand overlain by geotextile mat
- Other materials that demonstrate the capability



Gas Permeable Layer

Fitting for
4 inch or
6 inch Riser



Section AF103 Requirements

Soil-gas-retarder

- Min. 6-mil or 3-mil cross-laminated



Section AF103 Requirements

Entry routes sealed

- Floor openings
- Concrete joints
- Drains
- Sumps
- Foundation walls (Hollow block, joints, cracks)
- Damproofing exterior below ground surface



Section AF103 Requirements

Entry routes Continued

- Air-handling units in crawl space sealed
- Ducts below slab
- Floors above crawl space
 - Air leakage
- Crawl space access

Section AF103 Requirements

Vent pipe drainage

Vent pipe accessibility

- Exception where an approved roof-top electrical supply is provided for future use

Vent pipe identification

- “Radon Reduction System” each floor

Section AF103

Requirements

Combination foundations

- Separate vent pipe
- Single or multiple exhaust points venting above the roof

Power source

- Approved electrical box wired in attic for potential fan and system failure alarm installation

Passive Sub-membrane Depressurization System

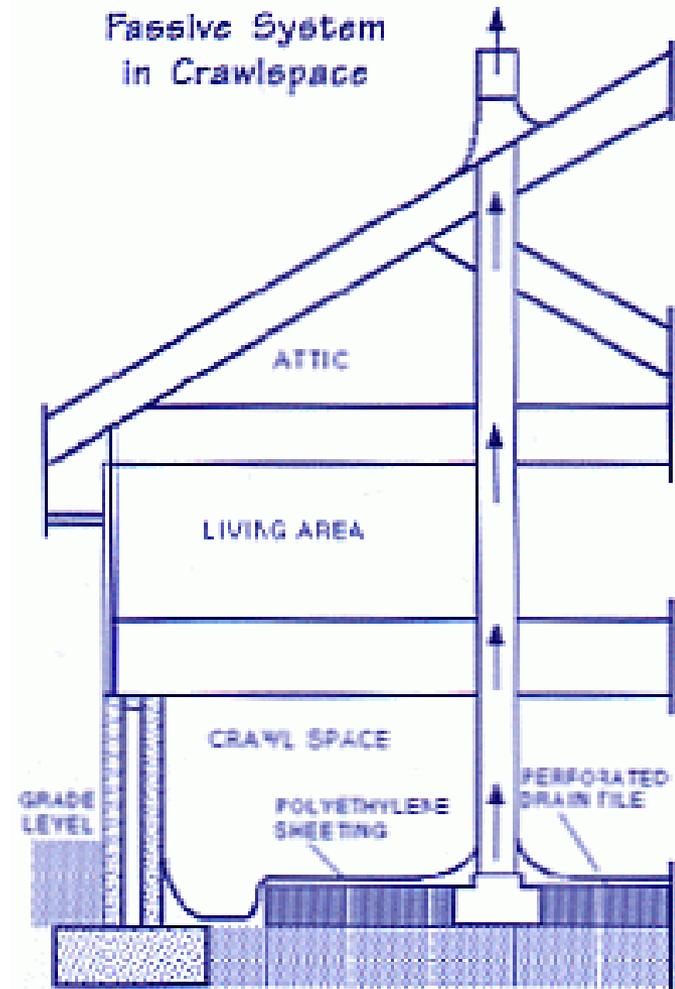
Shall be installed in buildings with crawl space foundations

Exception – approved mechanical crawl space ventilation system

Passive Sub-membrane Depressurization System

Components

- Ventilation
- Soil-gas-retarder
- Vent pipe



Passive Sub-slab Depressurization System

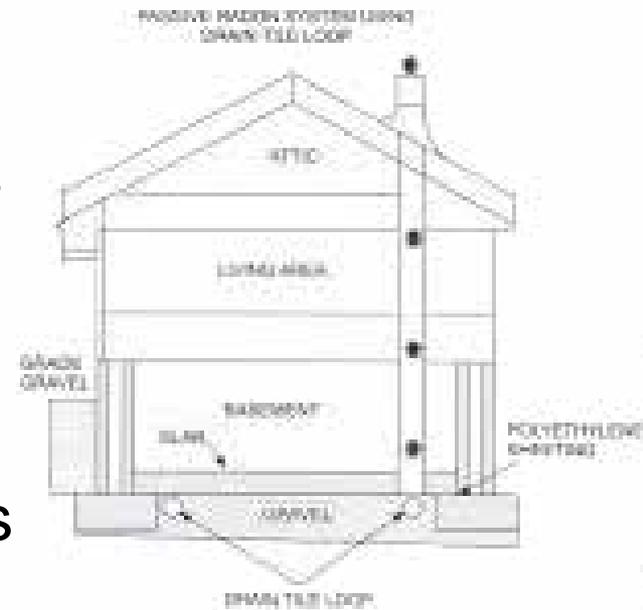
Shall be installed in basement or slab-on-grade buildings

Passive Sub-slab Depressurization System

Components

Vent pipe

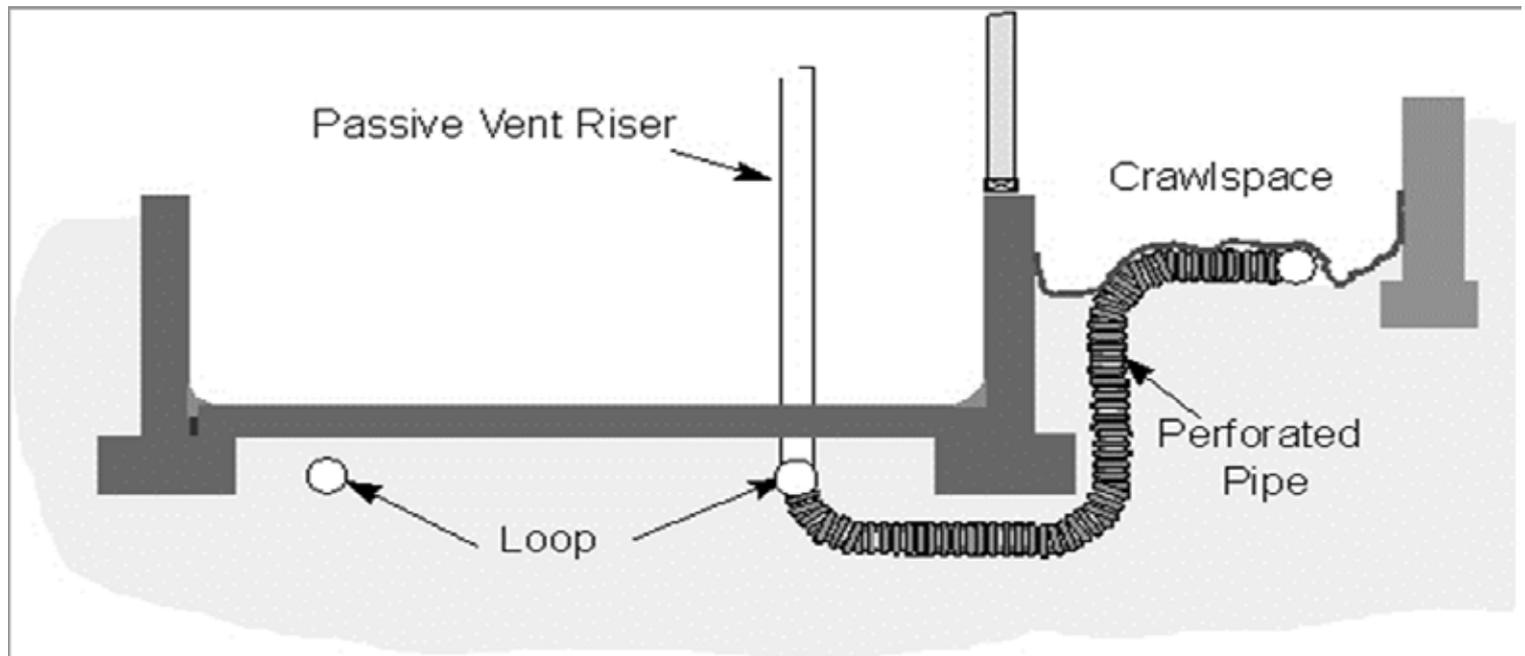
- T-fitting, Drain tile loop, Sealed sump
- Through conditioned space
- 12 inches above roof surface
- 10 feet from openings including adjacent buildings



Passive Sub-slab Depressurization System

Components

- Multiple vent pipes
 - Interior footings or barriers limitations



Michigan Department of Environmental Quality

800-723-6642

www.michigan.gov/deqradon



Sign up for email updates



Follow us on Twitter @MichiganDEQ