The Corporation of The
Town of Amherstburg

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ANGELO AVOLIO
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March 10, 2021

Re: Radon

Radon is a natural occurring gas that is formed by the breakdown of uranium in soil, rock and water. It is a radioactive gas that cannot be detected by any of the senses. When radon enters a house or any enclosed space it can accumulate to a high concentrated level that can be a health concern. It can enter in the house through cracked foundation, floor slab or any other penetrations through the building envelope below the ground level.

The Ontario Building Code in Part 3 outlines three areas in Ontario that contain a high level of radon which requires the construction to be designed to reduce concentration of radon to not exceed 200 Bq/m3. The communities are the City of Elliot Lake, Township of Faraday, and Township of Hyman.

The Windsor Essex County Health Unit conducted radon testing in 2015 to 2018 in our area. The report indicates that Amherstburg radon levels were the highest in the area at a reading of 119.80 Bq/m3 and Windsor with the lowest reading at 94.1 Bq/m3. In both of these levels, they are substantial lower than the required threshold outlined in the Building Code of 200 Bq/m3.

The Building Code does however outlines “rough in” options that can be installed at the time of construction. The rough in option allows to have a depressurization equipment (fan) installed if the radon level is determine to be at high levels. The rough in option is not mandatory by the Building Code.

Windsor Essex is unique in that the drainage around concrete footings is very different from the rest of the Province. The installation of the footing requires a continuous footing drain on the exterior of the footing however this area also installs the footing drain on the interior of the footing. This allow drainage under the basement slab to drain to the sump pit and then pump to the exterior. This interior drain tile can also be the

rough in for radon venting. Every residential home constructed in the last 25 years has been constructed in this way. This is very advantageous because the drain tile terminates at the sump pit. The Building Code requires that the sump pit lid be sealed. There are product on the market that consist of a 3” vent off the seal sump pit lid that is used to vent for radon gas. The vent pipe would have to vent directly to the exterior. This is a simple and inexpensive method of venting for radon. The installation of the depressurization equipment can easily be installed in the vented pipe. The photo below illustrates the sump pump discharge pipe along with a 3” vent pipe for radon venting.

If homeowners are concerned with radon within their home, test kits can be obtained from your local hardware store. As outline previously, radon venting is not required by building code unless you are in the three communities listed above.

Sincerely,

Angelo Avolio CBCO
Chief Building Official
Town of Amherstburg