



Soil Gas Control

2024 OBC Changes 9.13.4.3. include minimum provisions for **all** municipalities which include:

1. A soil gas barrier Division 9.25
2. A rough-in for future depressurization. 9.13.4

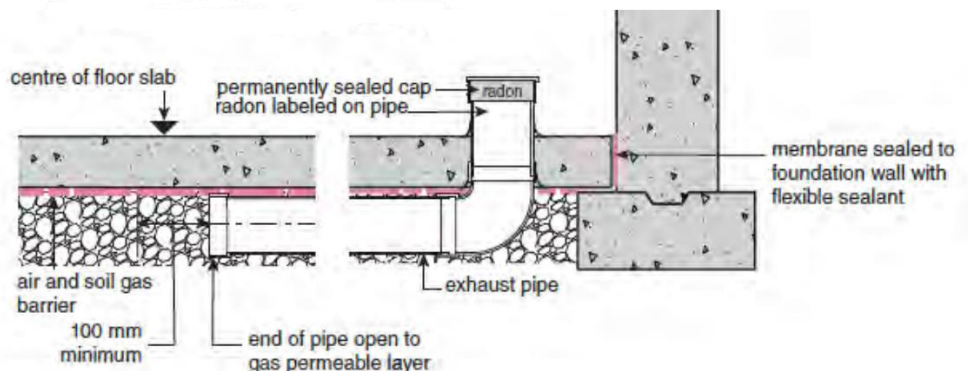
9.13.4.3. Radon Rough-in

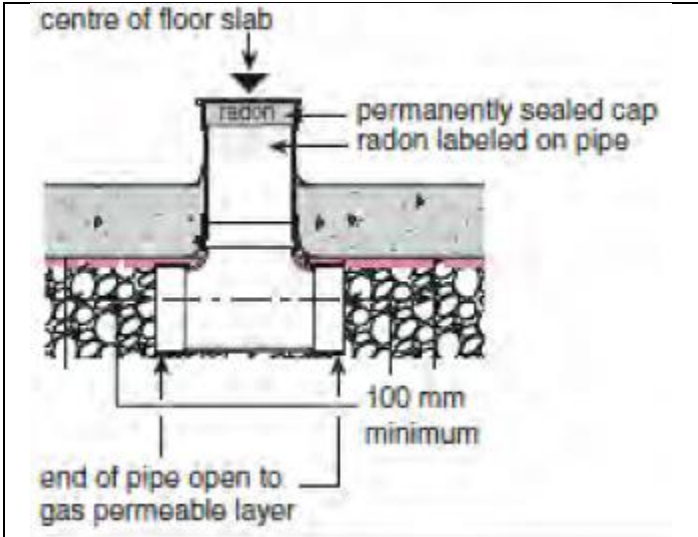
- (1) Floors-on-ground shall be provided with a rough-in for subfloor depressurization consisting of
 - a) A gas-permeable layer, an inlet and an outlet as described in Sentence (2), or
 - b) Clean granular material and a pipe described in sentence (3).
- (3) The rough-in referred to in clause 1(b) shall include:
 - clean granular material installed below the floor slab as per 9.16.2.1. (4" clear stone)
 - a pipe not less than 100 mm (4") in diameter installed through the floor, such that
 - a. its bottom end opens into the granular layer at or near the centre of the floor
 - b. the pipe is clearly labeled near the cap

Requirements, Two Inspections:

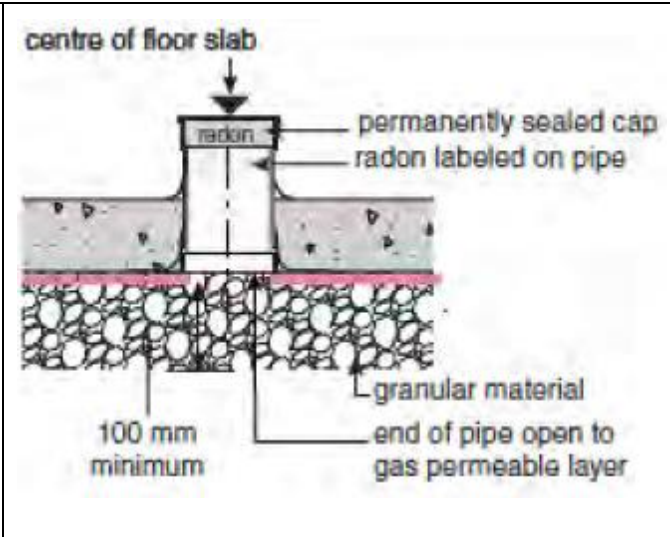
- **Permit Applications:** Requirement to show the details and location of the radon rough-in and air barrier detail on the drawings at time of submission.
- **Rough-in Inspection:** Rough-in piping is required to be inspected prior to covering.
- **Air Barrier Below Slab Inspection:** Polyethylene (min 6 mill) or other membrane as the *Soil Gas Barrier*, must be inspected prior to covering. All joints must be sealed and form a continuous barrier.
- If backwater valves are installed (except adapt-a-valve) it shall also be sealed with an approved air barrier application.
- The completed rough-in with cap and label can be inspected at Occupancy.

Pipe of 100 mm (4"), at outside edge and connected to piping into middle of floor slab.





Pipe of 100 mm (4"), connected to "Tee" into 100 mm (4") Stone Layer

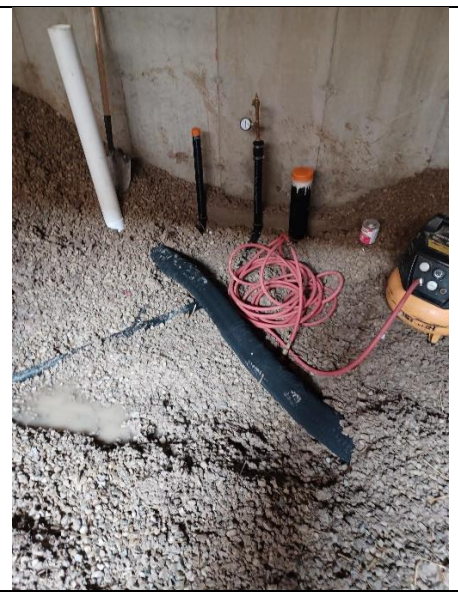


Pipe of 100 mm (4"), open bottom into 100 mm (4") Stone Layer

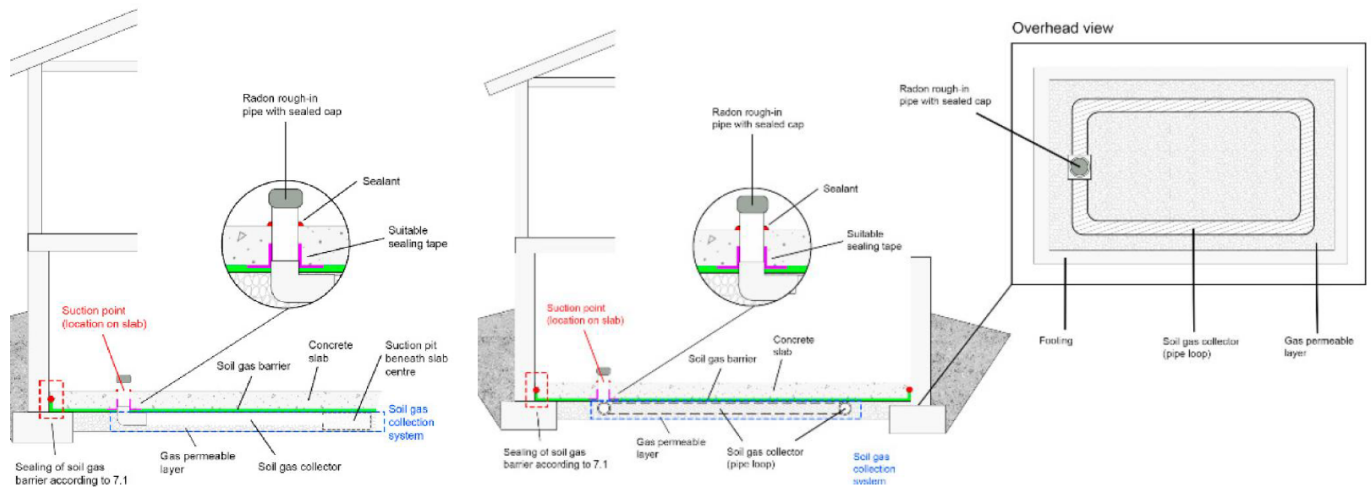
- Floor covered with poly prior to pouring.
- Inspection at this phase
- Poly cut at top of floor and sealed with caulking
- 'Leak-by' not permitted unless designer shows how to make the system as 'soil gas friendly'



- Example of piping brought to outside wall with 'Big-O' extending to centre of room



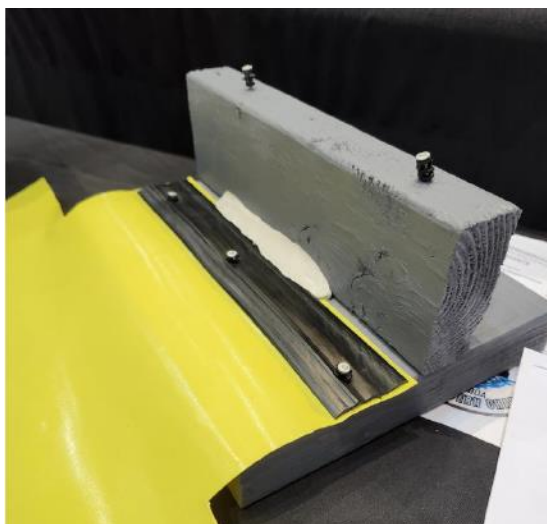
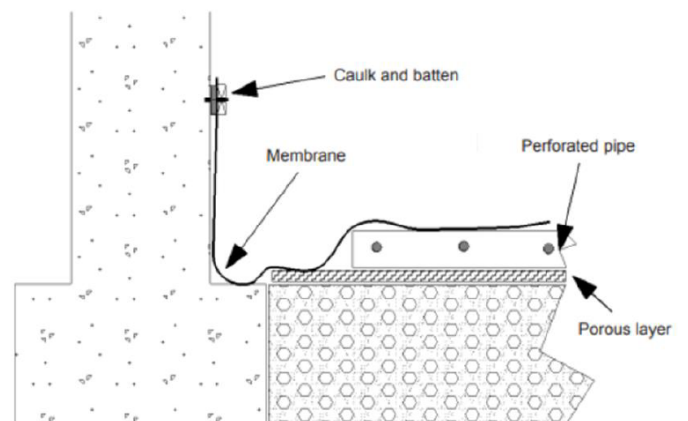
ILLUSTRATIVE DIAGRAM OF A LEVEL 1A RADON ROUGH-IN (FIGURE 2A AND 2B)



CRAWLSPACES

- An exposed dirt crawl space shall be covered with a soil gas barrier at least meeting the requirements and properties of type 2 CAN/CGSB-51.34-2022 0.25 mm (10 mil) thick polyethylene.
- a piece of perforated pipe should be placed on the dirt floor prior to installing the soil gas barrier membrane
- The soil gas barrier installed over a dirt crawl space shall be completely sealed and mechanically fastened to the foundation wall
- All joints in the sheets of the soil gas barrier covering a dirt crawl space shall be lapped by 300 mm (12 in.) and sealed

Figure 2 — Membrane/wall detail



Option for Seal - poly to footing w/strip+caulk



Radon Label