

Understanding the Radon Crawl Space Cost: What St. Louis Homeowners Need to Know

When I first started working with homeowners in St. Louis, one of the first things I learned was that crawl spaces are not just dusty storage zones. They are often the main pathway for radon gas to enter a home. If you have a crawl space and you are worried about radon, you have probably started looking into mitigation options. And the first question that comes up is almost always about the radon crawl space cost. It is a fair question. But the answer depends on a few key factors that are worth understanding before you get quotes.

Why Crawl Spaces Are a Common Radon Entry Point

Radon is a radioactive gas that comes from the natural decay of uranium in soil. It moves up through the ground and can seep into any home through cracks, gaps, or openings in the foundation. In St. Louis, the geology makes radon levels a real concern. The EPA has even mapped parts of the region as Zone 1, meaning average indoor radon levels are expected to exceed the action level of 4 pCi/L.

For homes with a crawl space, the dirt floor and exposed foundation walls create a direct connection to the soil below. Unlike a basement, a crawl space often has no concrete slab to block the gas. That is why radon mitigation in a crawl space typically requires a different approach than it does for a basement. The [radon crawl space cost](#) reflects that difference in complexity.

The Core Mitigation Method: Sub-Slab Depressurization

The most common and effective solution for a crawl space is sub-slab depressurization. In a basement, this involves drilling a hole through the concrete floor and installing a pipe connected to a radon fan that vents the gas outside. In a crawl space, the process is similar but trickier. The "slab" in a crawl space is often a dirt floor, or a thin layer of concrete that may not be sealed well. Sometimes there is no slab at all, just dirt and gravel.

To make sub-slab depressurization work in a crawl space, the first step is usually to install a vapor barrier over the dirt floor. This is a heavy-duty plastic sheet that blocks moisture and radon from coming up into the living space. Then a perforated pipe is laid on top of the barrier and connected to a radon fan, which creates negative pressure under the barrier and pulls the gas out before it can enter the home.

That combination of vapor barrier, sealing, and fan installation is what drives the radon crawl space cost. It is more labor-intensive than a standard basement system, and the materials add

up.

Breaking Down the Cost Components

Let me walk through the main pieces that go into a typical radon mitigation quote for a crawl space. These numbers come from my experience working with Air Sense Environmental and other local contractors in St. Louis, but actual prices will vary depending on your specific home.

Inspection and Radon Testing

Before any work starts, you need to know your current radon levels. A professional radon test costs between \$150 and \$300. Some companies include this in the mitigation quote if you hire them for the full job. Testing takes at least 48 hours, often longer, and must be done under closed-house conditions.

Vapor Barrier Installation

For a crawl space with a dirt floor, laying down a thick vapor barrier is essential. The material itself is not expensive, maybe \$0.50 to \$1 per square foot. But the labor is significant. You have to clear the crawl space, roll out the plastic, overlap the seams, and seal them with tape or mastic. If there is a sump pump or plumbing penetrations, those need to be sealed tightly around the barrier. This step alone can add \$500 to \$1,500 to the total, depending on the size of the crawl space and how accessible it is.

Sealing Cracks and Gaps

Before the barrier goes down, the crew will seal any visible cracks in the foundation walls, around pipes, and where the floor meets the wall. This is a critical step because radon can still sneak in through tiny openings. Sealing adds maybe \$200 to \$400 to the job, but it makes the whole system work better.

Sub-Slab Depressurization System

This is the heart of the mitigation. It includes a radon fan, typically from a brand like RadonAway or SUPCO, plus PVC piping, fittings, and a discharge vent that runs up the side of the house. The fan needs to be sized correctly for the square footage of the crawl space and the resistance from the piping. A good fan can cost \$200 to \$400 on its own. The full installation, including the pipe run and electrical work, usually adds \$1,000 to \$2,500.

Manometer and Monitoring

Every system should include a manometer, which is a simple U-tube gauge that shows whether the fan is maintaining negative pressure under the barrier. It is a small cost, maybe \$30 to \$50, but it is essential for long-term peace of mind. You can check it monthly to make sure the system is working.

When you add all of that up, a complete radon mitigation system for a crawl space in St. Louis typically runs between \$2,000 and \$4,000. That is the real radon crawl space cost that most homeowners should budget for. Some smaller crawl spaces might come in under \$2,000, and larger or more complex ones could go over \$4,500.

What Affects the Final Cost?

Every home is different, and a few factors can push the price up or down.

- **Accessibility:** If your crawl space is tight, with less than 18 inches of clearance, the installer will have a harder time working. That means higher labor costs. If it is spacious and easy to move around, the price drops.
- **Existing moisture issues:** A wet crawl space complicates the vapor barrier installation. If there is standing water, you may need to address drainage or a sump pump before the radon system goes in. That is a separate cost.
- **Number of penetrations:** Every pipe, wire, or duct that goes through the crawl space floor needs to be sealed. More penetrations mean more time and materials.
- **Distance to the exterior wall:** The discharge vent for the radon fan needs to run outside, usually through a wall and up the side of the house. The longer the pipe run, the more material and labor are involved.

Why You Should Not Skip the Cost Estimate

I have seen homeowners try to save money by skipping the vapor barrier or using a cheap fan. That usually ends up costing more in the long run. A system that is not properly sealed will not reduce radon levels reliably. The fan might run, but the gas will still find its way in.

When you get quotes from contractors, ask for a detailed cost estimate that breaks down each component. A reputable company like Air Sense Environmental will walk you through the logic behind their pricing. They should also explain how they plan to verify the system works, usually with a follow-up radon test after installation. A post-mitigation test is the only way to know for sure that indoor air quality has improved.

Also, keep in mind that radon levels can change with the seasons and over time. The system you install today should be built to last for years. Using quality parts from RadonAway or SUPCO, and having the installation done by someone who understands crawl space dynamics, is worth the investment.

Is It Worth the Money?

That is a personal question, but I will say this: radon is the second leading cause of lung cancer in the United States, according to the EPA. The action level of 4 pCi/L is not a safe threshold, it is a guideline for when you absolutely should act. Many homes in St. Louis test between 2 and 4 pCi/L, and even at those levels, long-term exposure carries risk.

When you compare the radon crawl space cost to the health risk, it starts to look like a good deal. A one-time expense of a few thousand dollars can protect your family for decades. It also adds value to your home. If you ever sell, having a documented radon mitigation system in place is a strong selling point.

If you are on the fence, start with a professional inspection. A radon test is cheap, and it gives you the information you need to make a decision. From there, you can get quotes and compare prices. Most contractors offer free estimates, so you have nothing to lose by asking.

Final Thoughts from the Field

I have been in a lot of crawl spaces over the years, and I can tell you that no two are exactly alike. The radon crawl space cost for your home will depend on the details. But the general range I have given here should help you know what to expect.

Do not let the price scare you off. Mitigation is a proven technology, and when it is done right, it works. The peace of mind that comes from knowing your indoor air quality is safe is worth more than the money you will spend. And if you live in St. Louis, you are in good company. Many of your neighbors have already gone through this process. Their advice would probably be the same as mine: get the test, get the quotes, and get the system installed.