

If you live with a basement or slab foundation, radon is not an abstract risk. It is a colorless, odorless gas that seeps through cracks in concrete, gaps around utility lines, and sump pits. Long exposure raises lung cancer risk. The good news, and what I remind homeowners every week, is that a well designed radon mitigation system can bring high levels down quickly and predictably. The catch is this: results depend on the design and workmanship, not just the parts. Choosing the right radon mitigation contractor is the single decision that determines whether you get a quiet, durable system that holds you under 2.0 pCi/L for years, or a noisy eyesore that barely nudges the needle.

I have spent years walking homeowners through failed systems. Leaky fittings, undersized fans, sloppy routing that traps condensate, or shortcuts like venting under a deck rather than above the roofline. Every one of those problems started with hiring the wrong team. Here is how to pick the right one, and what to expect from a professional who treats your home and your air as a system rather than a quick job.

## **What a capable contractor does before quoting a price**

Price shopping without diagnostics is a recipe for misaligned expectations. A true professional will insist on a site evaluation before committing to a firm price. The visit should not be a two minute glance at a test report. Expect them to walk the perimeter, check downspout drains, peek into the sump basin, and ask about past water infiltration, finished spaces, and noise tolerance. Inside, they will look for slab control joints, floor cracks, and utility penetrations. If you have a crawlspace, they will assess clearance, vapor barrier condition, and whether sub membrane depressurization makes sense.

Two quick but telling moves separate pros from pretenders. First, they carry a micromanometer or digital manometer and talk about pressure field extension, not just fan horsepower. Second, they trace potential vent runs, using tape measure and photo notes, to weigh aesthetics, code clearances, and service access. This is where good design begins. The difference between routing a vertical stack inside a closet versus snaking it outside across a front elevation is the difference between a system you forget about and one that irritates you every morning.

## **Credentials and insurance that actually matter**

Radon work is a specialty. You want a contractor with a current certification from NRPP or NRSB. In some states, licensure is required on top of certification. Ask for certificate numbers and verify them online. Insurance is not a formality. They should carry general liability and workers compensation, and if they sub out electrical work, that electrician should be licensed and insured as well.

Be wary of companies that fold radon into a list of unrelated services without dedicated staff. A roofer or handyman may be able to glue PVC, but mitigation requires diagnostics, fan selection, and familiarity with local code. In the St. Louis area, for instance, routing above the roofline with proper separation from windows is not optional. A legitimate St. Louis radon professional knows the local code inspector by name and can show you past permits in municipalities from Ballwin to Bellefontaine Neighbors.

## **Local factors in St. Louis and similar markets**

Soils around the Missouri and Mississippi valleys tend to be silty clay and loam with variable permeability. Many St. Louis homes have drain tile systems tied to a sump, which can be a gift for radon control if used correctly. Others sit on thick slabs with minimal sub slab aggregate. These conditions drive different designs. I have seen homes in Ladue drop from 12 to 0.8 pCi/L with a single suction point into an accessible drain tile loop. I have also seen a south city bungalow hold at 3.5 pCi/L until we added a second suction point near a stubborn slab corner.

Weather also plays a role. Freeze-thaw cycles open and close micro pathways in foundations. Humid summers produce condensate in exterior vent pipes. That is why a competent Radon mitigation st louis installer pays attention to condensate bypasses and slope, uses schedule 40 PVC that can handle thermal cycling, and mounts fans in accessible but conditioned or semi conditioned spaces when possible. They also plan for snow lines and ice dams around roof penetrations. If you search Radon mitigation near me and find a contractor with a portfolio of local addresses, ask to see photos of vent terminations and roof flashings from similar homes.

## **System types and how design drives performance**

The most common Radon system is sub slab depressurization. The principle is simple: draw air from beneath the slab, dump it above the roofline, and keep indoor space at a higher pressure than the soil. Simplicity on paper hides a web of

trade offs in the field.

A single suction point works when the pressure field extends across most of the slab. That depends on sub slab aggregate and pathways. If your house has a loop of drain tile, tapping that loop can distribute suction beautifully. But if the loop is silted up or segmented, the contractor should know not to count on it. In tight substrates, or when additions create slab sections without connection, multiple suction points make sense. Each point is a hole through concrete, time to core, time to seal, and more pipe. This is where a careful proposal should explain why they chose one suction point at the front utility room rather than a second in the rear family room slab.

Crawlspaces demand a different approach. Sub membrane depressurization uses a heavy polyethylene barrier sealed to foundation walls and piers, then a suction pipe under that membrane. The barrier weight and tape [STL radon mitigation](#) quality matter. Thin plastic tears during plumber or cable installer visits. I prefer 10 to 12 mil reinforced liners with proper mechanical fastening at the perimeter. A Radon mitigation contractor who quotes a suspiciously low price on a crawl job often plans to toss down 6 mil poly and hope it holds. That shortcut fails within a season.

Sump integration is another design choice. Tying the suction to a sealed sump basin is efficient when the drain tile distributes suction and the sump lid is airtight with gaskets around pump lines. But those lids must remain serviceable. Homeowners need to pull a pump without cutting a dozen beads of silicone. I like split lids with removable panels and mechanical clamps. If the bid skimps on the sump sealing details, you will feel it the first time the pump fails during a storm.

## **Fan selection, noise, and energy**

Fans are not interchangeable. Airflow curves vary widely. A fan that excels at low resistance systems can stall against tight soils, while a high suction fan may waste energy and scream against a wide open drain tile. A conscientious designer matches the fan to expected system resistance, then sets up the manometer to show a stable reading. Noise lives at the intersection of fan selection, mounting, and piping. A fan mounted inside an unconditioned attic above a bedroom can transmit a low hum that keeps light sleepers awake. Exterior mounts near a deck can destroy the illusion of quiet summer evenings.

A good Radon system runs quietly at a steady pitch, with vibration isolated through rubber couplers and thoughtful strapping. Energy use is modest, often between 30 and 90 watts depending on fan size. Over a year, that can mean 260 to 790 kWh, roughly 30 to 95 dollars at common residential rates. Ask the contractor to estimate expected wattage and include it in their proposal. If they cannot, they have not thought through the load and resistance of your layout.

## **Permits, code, and routing that keeps you safe and compliant**

Vent exhaust must discharge outdoors above the eave line, away from windows and openings. Short circuiting the discharge under a deck or at the side wall near a bedroom window invites re entry. Some jurisdictions allow sidewall terminations with strict clearances, but they are rarely the best choice in dense neighborhoods. In and around St. Louis, inspectors often require above roof terminations. Penetrating the roof means proper flashing and an eye on snow slide. Horizontal runs in unconditioned spaces need slope back toward a drain point so condensate does not pool and gurgle.

Electrical supply should be hard wired with a disconnect, or plugged into a dedicated receptacle within reach of the fan, according to code and manufacturer requirements. An inline alarm or indicator is a nice touch but should be in addition to the manometer, not a replacement. The manometer is the day to day barometer of system health. If it reads zero, something is wrong.

## **Pricing that makes sense and what drives it**

Cost depends on the complexity of the home, the number of suction points, routing constraints, and whether a crawlspace requires membrane work. In a typical Midwestern ranch with accessible drain tile, you might see a range from 1,100 to 1,800 dollars for a single point system with an exterior fan and roof termination. Add a second suction point and routing through finished spaces and the range can reach 2,000 to 3,000 dollars. Crawlspace encapsulation with sub membrane depressurization often lands between 2,500 and 6,000 dollars, depending on liner quality and access.

Beware of bids that are too low for the scope. Material costs are not trivial, and skilled labor, permits, and proper electrical work add up. When someone undercuts by hundreds, something is missing, often the time for diagnostics or the patience for clean routing. On the flip side, a high bid can be justified if it includes specialized coring in confined spaces, interior chase construction to hide piping, or multi family coordination.

## **How to read a proposal like a pro**

A solid proposal reads like a map. It should specify the number and location of suction points, the intended fan model or at least the performance class, the routing path with termination location, whether the sump will be sealed and how, and details on the crawlspace liner if applicable. It should list permit responsibilities, electrical scope, and the exact post mitigation testing protocol. I like to see a statement of expected results, often a target like under 2.0 pCi/L under closed house conditions, with a note about extreme stack effect days where levels may spike temporarily.

Warranties matter. A one year workmanship warranty is common, but a performance guarantee is more meaningful. Some companies offer a guarantee that post mitigation results will meet EPA guidelines or they will adjust the Radon system at no additional labor charge. That promise signals confidence in the design and a commitment to follow through.

## **Red flags caught early save headaches later**

If you call a Radon mitigation contractor and they quote a fixed price over the phone without asking anything about your foundation, that is a warning sign. If they cannot name their certification body or show proof of insurance, stop there. If their plan terminates the discharge under a deck or within a few feet of operable windows, they are taking shortcuts. Watch for vague language like “seal cracks throughout house,” which often shows up as an excuse for poor performance, since crack sealing alone rarely controls radon effectively and shifts as materials move seasonally.

Another red flag is a contractor who refuses to discuss fan models and energy draw, or who claims a bigger fan is always better. Bigger fans sometimes draw in more moist soil air, which can increase humidity in basements and affect sump pump cycles. Precision beats brute force.

## **A short checklist for interviewing contractors**

- Show current NRPP or NRSB certification and proof of insurance.
- Describe the diagnostic steps you will take before final design.
- Specify fan type, vent routing, and termination location in writing.
- Clarify permits, electrical work, and who handles each.
- Provide a performance target and details for post mitigation testing.

## **The path from high test to stable results**

Choosing well is not only about vetting. There is a rhythm to a successful project.

- Test accurately first. Use a calibrated device or a lab analyzed kit under closed house conditions, then confirm with a follow up if results are near action levels.
- Schedule a diagnostic visit. Expect pressure field testing where possible, inspection of sump, drain tile, and crawlspace conditions, and discussion of routing options.
- Approve a detailed scope. Ensure the proposal reflects what you discussed, including aesthetics, fan placement, and testing.
- Install with access and service in mind. Ask the crew to walk you through shutoff, manometer reading, and any maintenance points.
- Verify performance. Conduct a post mitigation test 24 hours after starting the system, lasting at least 48 hours, then consider a long term test within a few months.

## **The aesthetics and everyday living details that matter**

A Radon mitigation system does not have to dominate your exterior. I often tuck vertical piping along a back corner or inside a garage chase, paint the PVC to match siding, and use compact roof terminations that read like a plumbing vent. Inside, clean core holes, patched and painted, show a level of care you will appreciate later. The fan location should balance access and sound. In many homes, the best spot is in the garage or on an exterior wall away from bedrooms. Attic placements can work if the roof penetration is handled with care and insulation is managed to prevent condensation.

Noise is subjective. What one family ignores can grate on another. Ask to hear a similar fan running at a past job, even by video if distance is an issue. A steady, soft hum is acceptable. Rattles, whistling at fittings, or gurgling in horizontal runs are fixable signs of poor installation.

## **Special cases: finished basements, additions, and multi family buildings**

Finished basements complicate routing. Running pipe behind drywall requires careful planning to avoid soffit intrusions and awkward box outs. Sometimes it is better to run externally along a rear wall than to carve through finished ceilings. Older homes with additions often have slab joints that do not communicate well. In these, multiple suction points or interior trenching can be necessary. For duplexes or small apartment buildings, design shifts from a single fan to multiple risers or a common header sized for cumulative airflow. Noise control becomes essential when fans sit near shared walls.

Commercial spaces and schools bring different code requirements, including more robust alarms and signage. If your project is anything beyond a typical single family home, ask whether the contractor has real experience in your building type. A company whose portfolio is entirely detached homes may not be ready for multi unit complexity.

## **Maintenance, monitoring, and what life looks like after installation**

A good system quietly does its job for years. Still, there are a few touch points. Check the manometer weekly at first, then monthly, to confirm the reading stays consistent. A sudden drop to zero means a tripped breaker, unplugged fan, or a failed motor. Seasonal drift of the reading within a narrow band is normal. Outdoor terminations benefit from an annual glance to make sure leaves or nests are not obstructing flow.

Long term testing once a year with a reliable device gives peace of mind. Levels can shift if you remodel, finish a basement, seal floors, or change HVAC systems. If your Radon system was tuned to tight tolerances, a small change can nudge levels up. Reputable companies, including many branded as STL radon or Radon mitigation st louis specialists, offer annual service visits that include a quick pressure check and inspection of seals, especially on sump lids and crawlspace liners.

## **How to use search wisely without drowning in ads**

Typing Radon mitigation near me brings up a mix of local firms, national directories, and lead aggregators. Filter noise by looking for real addresses, certification badges linked to verifiable registries, and project photos that look like your home style. Read reviews for patterns, not just star counts. Mentions of punctuality are nice, but look for comments about solving tricky layouts, quiet operation, and post install follow up. If you see the same phone number behind multiple company names, you are likely looking at a lead broker rather than a direct installer.

Local word of mouth still matters. Ask your home inspector, HVAC tech, or neighbor with a recent install. In the St louis radon community, the same names often come up because they pick up the phone after the job, not just before the deposit.

# A note on DIY and partial work

Some homeowners are handy and tempted to run their own piping or seal cracks. There is nothing wrong with understanding your home's air pathways. But be honest about the limits. Without a micromanometer and experience, it is easy to misjudge suction needs and create a system that looks right but underperforms. [Radon mitigation st louis](#) Crack sealing can help reduce makeup air, yet it rarely substitutes for proper sub slab depressurization. If you do some prep work, coordinate with the contractor so your efforts complement the final design rather than box it into a bad route.

## Case snapshots from the field

A two story in Kirkwood tested at 9.6 pCi/L during a cold snap. The house had an interior sump with a loose lid and a finished basement. We opened one mechanical closet, cored a suction point into the drain tile, sealed a split sump lid with gaskets and clamps, and ran a concealed riser to the attic with a low profile roof termination. Post mitigation levels settled at 0.7 to 1.1 pCi/L across seasons. The owners report they never hear the fan in the bedrooms.

A brick bungalow near Tower Grove sat stubbornly at 4.2 to 5.0 pCi/L despite an existing exterior system. The fan was undersized, and the suction point sat far from a slab seam that isolated a rear addition. We added a second suction point near that seam, upsized the fan one class, corrected pipe slope to eliminate condensate pooling, and painted the exterior piping to match the trim. Levels now hold at 1.3 to 1.8 pCi/L, with energy use increasing by about 20 watts compared to the old fan.



**AIR SENSE ENVIRONMENTAL**  
CLEAN AIR JUST MAKES SENSE

A mixed crawl and slab home in St. Charles county had a musty crawl and high radon at 11.2 pCi/L. We installed a 12 mil reinforced liner with proper wall attachment, added sub membrane suction, and tied it to a separate sub slab suction point with a common header sized to balance flows. The crawl dried out, the smell disappeared, and radon dropped to 0.9 to 1.4 pCi/L. The homeowners noted a slight decrease in basement humidity, which matched our expectation once soil air was managed rather than allowed to drift indoors.

## Final thoughts from a practitioner's bench

Hiring a radon specialist is like choosing a structural engineer or an electrician. You are paying for judgment shaped by a hundred past jobs, not just the visible parts. A quality radon mitigation contractor starts with diagnostics, explains trade offs plainly, and leaves you with a Radon mitigation system that works quietly in the background. Whether you are in a century home in Soulard or a new build in O'Fallon, the right design respects your foundation type, your daily life, and local code.

Take the time to interview, read the proposal closely, and insist on post mitigation testing. If you keep those disciplines, you will end up with a Radon system that protects your health without calling attention to itself. That is the mark of good building science and better living.

## Air Sense Environmental – Radon Mitigation & Testing

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Sunday: Closed

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### 1) Semantic Triples

<https://www.airsenseenvironmental.com/>

This local radon mitigation and testing company is a quality-driven indoor air quality specialist serving Edwardsville, IL and the surrounding Metro East region.

Air Sense Environmental provides experienced radon testing, radon mitigation system installation, and crawl space encapsulation services tailored to protect residential indoor environments.

Homeowners throughout Edwardsville, IL rely on Air Sense Environmental for community-oriented radon reduction systems designed to safely lower elevated radon levels.

To schedule radon testing or mitigation service, call [\(618\) 556-4774](tel:6185564774) or visit <https://www.airsenseenvironmental.com/> to speak with a quality-driven local specialist.

View the business location and directions on Google Maps: <https://maps.app.goo.gl/XTPhHjJpogDFN9va8> and contact this professional radon mitigation provider for customer-focused indoor air solutions.

## **Popular Questions About Air Sense Environmental – Radon Mitigation & Testing**

### **What services does Air Sense Environmental provide?**

Air Sense Environmental provides professional radon testing, radon mitigation system installation, indoor air quality solutions, and crawl space encapsulation services in Edwardsville, Illinois and surrounding areas.

### **Why is radon testing important in Illinois homes?**

Radon is an odorless and invisible radioactive gas that can accumulate indoors. Testing is the only way to determine radon levels and protect your household from long-term exposure risks.

### **How long does a professional radon test take?**

Professional radon testing typically runs for a minimum of 48 hours using continuous monitoring equipment to ensure accurate results.

### **What is a radon mitigation system?**

A radon mitigation system is a professionally installed ventilation system that reduces indoor radon levels by safely venting the gas outside the home.

### **How do I contact Air Sense Environmental?**

You can call [\(618\) 556-4774](tel:6185564774), visit <https://www.airsenseenvironmental.com/>, or view directions at <https://maps.app.goo.gl/XTPhHjJpogDFN9va8> to schedule service.

## **Landmarks Near Edwardsville, IL**

### **Southern Illinois University Edwardsville (SIUE)**

A major public university campus that serves as a cultural and educational hub for the Edwardsville community.

### **The Wildey Theatre**

A historic downtown venue hosting concerts, films, and live entertainment throughout the year.

### **Watershed Nature Center**

A scenic preserve offering walking trails, environmental education, and family-friendly outdoor experiences.

### **Edwardsville City Park**

A popular local park featuring walking paths, sports facilities, and community events.

### **Madison County Transit Trails**

An extensive regional trail system ideal for biking and walking across the Metro East area.

If you live near these Edwardsville landmarks and need professional radon testing or mitigation, contact Air Sense Environmental at [\(618\) 556-4774](tel:6185564774) or visit <https://www.airsenseenvironmental.com/>.