

The Foundation Repair Report

by Travis Nech

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The Foundation Repair Report

A Homeowner's Plain-English Guide to Foundation Trouble, Honest Repair, and Hiring the Right Contractor

by Travis Nech

Metro Foundation Repair · Granbury, Texas ·
metrofoundationrepair.com

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The information in this book is based on the author's decades of hands-on field experience in Texas foundation repair. It is educational in nature and is not a substitute for a professional on-site evaluation. The author is not a licensed professional engineer. If your situation requires engineered drawings or a structural engineer's report, hire one.

Table of Contents

1. The Moment You Notice
2. Reading Your House
3. What's Happening Under Your Slab
4. The Usual Suspects
5. How Foundation Repair Actually Works
6. The Metro Method in Plain English
7. What Installation Day Looks Like
8. How to Choose a Contractor
9. Questions to Ask Before You Sign
10. Scams, Red Flags, and High-Pressure Tactics
11. Warranties: What "Lifetime Transferable" Should Mean
12. Protecting Your Foundation After the Repair

Conclusion: Your One-Page Action Plan

About the Author

Chapter 1: The Moment You Notice

Nobody wakes up one morning and decides, "Today I think I'll

have my foundation repaired." It doesn't happen like that. It starts small. A door that used to swing free now drags a little at the top. You shave it with a plane on a Saturday and move on. A hairline crack shows up in the brick over the living room window — thin as a thread, and you tell yourself brick does that. Then, one afternoon, the light hits the hallway floor just right and you see it: a gentle, unmistakable slope. Your home has a lean you never gave it permission to develop.

That is the moment this book is about. The moment you notice. Most homeowners sit in that moment for a long time — sometimes months, sometimes years — caught between worry and denial. The worry says something is wrong. The denial says it's probably nothing. I'm going to tell you what twenty-five-plus years in Texas foundation work has taught me: denial is expensive. Not always, and not immediately, but almost every foundation problem I've ever repaired was cheaper six months earlier than the day the crew showed up. Movement doesn't reverse itself. It accumulates.

Let me set expectations right up front, because everything in this book rests on them.

First, I'm not a licensed engineer, and I won't pretend to be one. I'm a foundation contractor. What I know, I know because I've been under thousands of houses and around thousands more slabs across Texas expansive-clay country. I know how a house moves, how it cracks, how it gets put back, and how the soil underneath behaves season after season. That's the authority I claim — field experience, not a diploma — and for most of what a homeowner needs to know, field experience is the more useful kind.

Second, this book won't try to scare you. The foundation repair industry has a reputation problem, and part of that problem is salesmen who turn every hairline crack into a five-alarm emergency. That's not how I operate and not how this book is written. Some of what you'll read about your house is cosmetic. Some of it is seasonal and normal. And some of it is the early warning of something that genuinely needs attention. You'll learn to tell the difference, because that's the skill that protects your money.

Third, I believe a homeowner who understands what's happening is harder to cheat and easier to serve. That belief is why I wrote the original twenty-five-page version of this report years ago and gave it away for free — and why you're holding the expanded version now. An informed customer asks better questions, spots a bad actor faster, and ends up with a repair that actually works. That's good for you, and honestly, it's good for the honest contractors too.

Here's how to use this book. Chapters 1 through 4 are about

diagnosis from your side of the fence: what to look for, what it means, and what's causing it. Chapters 5 through 7 explain how foundation repair actually works — including the specific method my company uses, explained in plain terms with real numbers. Chapters 8 through 11 are your armor: how to pick a contractor, what to ask before you sign, how to spot scams, and how to read a warranty the way a contractor reads it. Chapter 12 covers what to do after the work is done so you never pay for it twice. The conclusion gives you a one-page action plan you can start today.

One more thing before we begin. Throughout this book I'll ask you to imagine hypothetical houses — a typical one-story brick home in Granbury, a two-story on a hill in Weatherford, that kind of thing. These are teaching examples, clearly labeled, built from the patterns I've seen over the years. They're composites, not real customers' stories. I don't use anyone's real home or real situation in this book, because your business is yours.

Now — go stand in your hallway. Look at your doors, your windows, your brick. Let's learn to read what your house is saying.

Chapter 2: Reading Your House

Your house is always talking. Most of the time it's saying nothing of consequence — houses settle, lumber shrinks, caulk ages. But sometimes it's telling you that something structural is shifting, and the vocabulary it uses is cracks, gaps, and doors that won't behave. Learning to read those signals is the difference between catching a problem early and discovering it late. This chapter is a field guide to the language your house speaks.

Cracks: the first vocabulary lesson

Start outside. Walk the perimeter of your home slowly, the way you'd walk a fence line checking for breaks. Look at the brick, the mortar joints, the stucco or siding, and the visible edge of the foundation itself.

Stair-step cracks in brick or block. These are the classic signature of foundation movement. The crack follows the mortar joints in a zigzag — up two courses, across one, up two more — like a staircase. A hairline stair-step crack, less than about an eighth of an inch wide, in one location, is something to note and watch. Multiple stair-step cracks, or any stair-step crack you can fit a pencil into, is something to

act on. The direction matters too: a crack that runs diagonally downward toward a corner often points at the area that's dropping.

Vertical cracks in the foundation or brick. A single, thin vertical crack is frequently just shrinkage or minor settlement — concrete shrinks as it cures, and it has done so since the day your slab was poured. Worry when vertical cracks are wide (a quarter inch or more), when they appear in pairs flanking a window or door, or when they're accompanied by displacement — one side of the crack sitting higher or lower than the other. Displacement is the word that should get your attention every time. A crack is a symptom. Displacement is evidence of movement with force behind it.

Horizontal cracks. In a slab foundation, horizontal cracking in the exposed grade beam (the thickened edge of the slab you can see around the perimeter) deserves a professional look. In pier-and-beam or basement construction, a horizontal crack in a wall is a different and more urgent matter — it suggests lateral pressure, and that's engineer territory. If you have a basement or retaining wall with a horizontal crack, stop reading and call a structural engineer. That's not a foundation-repair-salesman situation; that's an engineer situation.

Cracks around windows and doors. Openings are the weak points in any wall, so cracks love to start at their corners. A thin crack radiating from the corner of a window is common and often cosmetic. What isn't cosmetic: a window or door frame that's visibly racked — out of square — with the crack widening toward the top or bottom. Put a level on the sill. If it's off and the crack is growing, the opening is telling you the wall around it is moving.

Doors and windows: the daily instruments

You interact with your doors every day, which makes them the most sensitive instruments in the house — more sensitive than your eyes. A door that sticks in summer and swings free in winter is usually responding to humidity and seasonal wood movement, not foundation failure. Don't panic over that one.

What points to the foundation:

- A door that gradually gets worse in one direction and never improves — it drags more this year than last, and shaving it only buys a few months.
- Gaps that appear around a door frame — daylight visible where the frame meets the wall, or weatherstripping that

suddenly doesn't meet.

- A door that latches on its own or swings open by itself. That's gravity voting on your floor's slope.
- Windows that stick, especially several on the same side of the house. One sticky window is a window problem. Four sticky windows on the west side is a house problem.
- Cracks in the drywall above door frames, particularly diagonal cracks running from the top corners. Drywall is brittle and honest — it cracks where the framing behind it is being racked.

Floors: the level never lies

Inside, the floor is your survey instrument. You don't need fancy equipment for a first read — a four-foot level, a tennis ball, or even a marble will tell you plenty. Set the ball on the floor in the middle of a room and watch. A gentle roll in one consistent direction across a large area suggests slope. A ball that races to one corner suggests something more pronounced.

But interpret carefully. Some slope is original construction — slabs are rarely poured perfectly level, and wood floors follow the framing. What you're looking for is change or pattern: slope that wasn't there when you bought the place, floors that feel different from one side of the house to the other, or a distinct hump or ridge in the middle of a room (that can indicate the center lifting while the edges stay put — more on that in Chapter 3).

Tile floors add another instrument: cracked tile and grout. Tile doesn't flex. When the slab beneath it moves differentially — one area dropping relative to the area next to it — tile cracks, usually in a line that traces the movement. A single cracked tile near a doorway might be impact damage. A wandering line of cracked tiles across a kitchen floor is the slab drawing you a map.

The cosmetic-versus-structural sorting test

Here's the practical framework I give homeowners. Run every symptom through these three questions:

1. Is it growing? Mark the ends of a crack with a pencil and date it, or take a photo with a ruler held against it. Check again in thirty days, then ninety. A crack that doesn't change through a full wet-dry seasonal cycle is usually the house's history, not its future. A crack that's growing is the house's future arriving.

2. Is there displacement? Run your finger across the crack. Is one side higher, lower, or pushed out relative to the other? Can you fit more than an eighth of an inch of feeler gauge — a credit card is about thirty thousandths of an inch, a pencil about a quarter inch — into it? Displacement and width are the two measurements that separate "monitor" from "call someone."

3. Is there a pattern? One symptom is an anecdote. Three symptoms on the same side of the house — the stair-step crack in the brick, the sticking back door, the sloping laundry room floor, all on the west end — is a diagnosis pointing at a location. Foundation problems are geographic. They happen somewhere, and the symptoms cluster around that somewhere.

If your answers are "not growing, no displacement, no pattern" — you're in monitor mode, and Chapter 12 will tell you how to keep it that way. If you're getting yeses, especially on displacement and pattern, keep reading. Chapter 3 explains what's actually happening under your feet.

A note on new construction

If your home is less than a few years old and you're seeing these signs, don't assume the builder will wave it away — but don't assume catastrophe either. New homes go through an initial settlement period as the soil under the slab adjusts to its new load and moisture conditions. Most builders in Texas warrant the foundation for a period after construction; know your warranty terms and document everything with dated photos from the start. The same reading skills apply. The difference is that you have someone contractually obligated to care, so use that.

What not to do at this stage

Don't caulk over cracks to "see if they come back" — caulk hides the evidence you need. Don't hire a foundation company on the strength of a free inspection alone without reading Chapters 8 through 10 first — you'll be a sharper customer for it. And don't lose sleep. In my experience, the overwhelming majority of foundation evaluations end in one of two ways: "monitor it" or "repair this specific area." Total-loss foundations are vanishingly rare. Your house is almost certainly fixable. The question is only when, where, and by whom.

Chapter 3: What's

Happening Under Your Slab

To understand foundation trouble, you have to stop looking at the house and start looking at what's under it. The house is the victim. The soil is the suspect. In Texas, that suspect has a name: expansive clay.

Texas soil: the short version

Much of Texas sits on clay soils that behave less like rock and more like a sponge with opinions. When these clays get wet, they swell — they absorb water between their microscopic plate-like particles and expand, sometimes dramatically. When they dry out, they shrink, pulling away from whatever sits on top of them. This swell-shrink cycle is the engine behind most foundation movement in our state, and it runs on the most ordinary fuel imaginable: rain, drought, and the changing of the seasons.

Engineers have a precise way of describing how dramatic a clay's mood swings are, and it's worth knowing the vocabulary even if you never run the tests yourself. It's called the Atterberg limits — named for the scientist who defined them. Two numbers matter:

- The **liquid limit (LL)** is the moisture content at which a clay starts behaving like a liquid rather than a solid.
- The **plastic limit (PL)** is the moisture content at which it stops being moldable and starts crumbling.

The difference between them — liquid limit minus plastic limit — is the **plasticity index**, written as $PI = LL - PL$. The plasticity index is essentially a measure of how much water a clay can absorb while staying plastic, and therefore how much it can swell and shrink. A low-PI soil is relatively stable. A high-PI clay is the expansive soil that keeps foundation contractors in business. You'll hear foundation people talk about "high-PI clays" — now you know they mean the thirsty, dramatic soils that move the most.

I'm keeping this light on purpose. Book 2 of this series goes deep on soil science — the lab tests, the numbers, what different PI ranges mean for your property. For Book 1, the takeaway is simple: Texas has a lot of high-PI clay, it moves with moisture, and your foundation rides on top of that movement.

The five ways a foundation moves

Once you understand that the soil is moving, the question becomes how it's moving — because the pattern of movement determines the pattern of damage. There are five basic modes, and learning them will make every crack in your house legible.

1. Differential settlement. This is the big one — the cause behind most foundation repairs in Texas. "Differential" just means uneven: one part of the foundation drops (or stays) while another part moves differently. Imagine a table with one short leg. The table doesn't just sit lower; it racks, twists, and stresses every joint. Your house is that table. When the soil under the west side of your slab shrinks and consolidates while the east side stays put, the west side drops. The slab bends. Brick cracks in stair-steps, doors rack, floors slope — all the greatest hits from Chapter 2. Differential settlement is the villain of this book, and nearly everything from here on is about stopping it or fixing what it did.

2. Uniform settlement. This is differential settlement's well-behaved sibling: the whole foundation drops more or less evenly. A house that settles uniformly an inch across its entire footprint may show almost no distress — doors still work, cracks are minimal — because nothing is being bent or twisted. Uniform settlement is common in the first years after construction and is often harmless. It becomes a problem mainly when it's severe enough to affect drainage (the yard now slopes toward the house instead of away) or utility connections.

3. Heave. Heave is settlement in reverse: the soil swells and pushes the foundation up. It happens when a dry, shrunken clay suddenly gets a large dose of water — a broken pipe under the slab, a new flower bed getting soaked daily against the foundation, a drainage change that ponds water where it never ponded before. Heave tends to lift the perimeter or isolated areas, and it can be just as destructive as settlement because the structure still ends up bent — just bent the other way.

4. Edge lift. This is a seasonal Texas classic, and it deserves its own name because homeowners see it constantly. During a long dry spell, the soil around the perimeter of your slab dries out and shrinks away from the foundation edge — you can sometimes see a visible gap between the soil and the slab. Then the rains return. The perimeter soil, now exposed and thirsty, soaks up water fast and swells, lifting the edge of the slab while the interior — protected under the house — stays where it was. The result: the edges go up relative to the middle. Doors on exterior walls stick. Cracks open near the perimeter. Then the next dry cycle comes and it partially reverses. Edge lift is why some symptoms seem to come and go with the weather. It's real movement, and over enough

cycles it can ratchet into permanent distortion — each cycle leaves the house a little less true than the last.

5. Center lift (sometimes called "dome" or center heave). The mirror image: the center of the slab rises relative to the perimeter. This often traces back to a plumbing leak under the slab — water saturating the soil in the middle of the footprint, where it can't easily drain or evaporate — or to interior moisture sources. The telltale sign is a hump in the middle of a room, doors that stick at the top on interior doorways, and cracks in the interior drywall while the exterior brick looks fine. Center lift is one of the reasons a good foundation evaluation always asks about your water bill: an unexplained jump in usage can mean a leak under the slab is quietly inflating the soil beneath your living room.

Why slabs crack but don't usually collapse

Here's something that surprises homeowners: the concrete slab itself is rarely the thing that fails. A residential slab — typically four inches thick with thickened grade beams around the perimeter and under load-bearing walls — is a stiff, strong plate. When the soil beneath it moves differentially, the slab usually doesn't snap in half; it bridges and bends, spanning across the area that dropped like a plank across a ditch. The damage shows up in the brittle materials attached to it — brick, drywall, tile — long before the slab itself is in structural danger.

That's actually good news. It means most foundation repair isn't about replacing a ruined slab; it's about re-supporting the slab where the soil let go, and lifting it back toward its original position. The slab is the patient, not the disease. The disease is the soil movement, and the cure is getting the foundation's weight down to soil — or depths — that don't move.

The moisture story, simply put

If there's one sentence to carry out of this chapter, it's this: **in Texas, foundation movement is almost always a moisture story.** The clay swells when wet and shrinks when dry, and anything that makes moisture uneven around your foundation — a dry summer on the west side, a leaking pipe under the middle, a gutter dumping water at one corner, a big tree drinking from one side — creates differential movement. The soil is the engine. Moisture is the fuel. Chapter 4 names the specific fuel sources, one by one, so you can walk your property and find yours.

Chapter 4: The Usual Suspects

Every foundation problem has a cause, and in my experience the cause is rarely mysterious. It's usually one of a short list of ordinary things — water going where it shouldn't, or not going where it should. This chapter is a lineup of the usual suspects. Walk your property with this chapter in hand and you'll likely find your culprit.

Suspect 1: Seasonal moisture cycles

The baseline suspect, and the one behind most Texas foundation movement. Our climate delivers long, hot, dry stretches followed by intense rain — exactly the cycle that makes high-PI clay swell and shrink most dramatically. During drought, the soil around and under your foundation loses moisture and shrinks; the foundation loses support in spots and settles differentially. When the rains come, the clay swells back — but not evenly, and not back to exactly where it was.

You can't change the Texas weather. What you can do — and Chapter 12 covers this in detail — is moderate its effects: keep soil moisture as even as possible around the foundation through the dry months so the clay never gets the chance to shrink violently away from your slab. Think of it as evening out the fuel supply to the engine described in Chapter 3.

Suspect 2: Poor drainage

Water should always be moving away from your house. When it isn't — when the yard slopes toward the foundation, when gutters dump roof water at the corners, when flower beds pond after a rain — you get concentrated wet zones next to dry zones. That's a recipe for differential movement: one section of soil swells while the neighboring section doesn't.

Walk your property during or right after a hard rain. That's when drainage problems confess. Look for:

- Water standing against the foundation for hours after the rain stops.
- Gutter downspouts that discharge within a couple of feet of the slab. (They should carry water well away — extensions are cheap.)
- Mulch beds built up higher than the slab edge, which can both trap water against the foundation and give termites a bridge. Keep soil and mulch several inches below the top of

- the slab.
- Low spots in the yard that collect water near the house.

Drainage fixes are the highest-value money in foundation care. A few downspout extensions and some regrading cost a fraction of a foundation repair and prevent an outsized share of problems.

Suspect 3: Plumbing leaks under the slab

This is the suspect homeowners least expect and contractors take most seriously. A slow leak in a water or sewer line under your slab feeds water directly into the soil beneath the middle of your house — the one place it can't drain or evaporate. The result is often center lift (Chapter 3): the interior soil swells, the middle of the slab rises, interior doors stick at the top, and the exterior brick looks fine — which is exactly why it gets misdiagnosed.

Warning signs of a slab leak: an unexplained jump in your water bill, the sound of running water when nothing is on, warm spots on the floor (a hot-water line leak), cracks appearing in interior floors, or a musty smell that won't quit. If you suspect one, the right move is a licensed plumber with electronic leak-detection equipment — they'll pinpoint it without tearing up your floors on a guess. Fix the leak first. Then evaluate the foundation. Repairing a foundation over an active leak is like painting over a roof leak: the problem continues underneath your fix.

Suspect 4: Trees and large shrubs

A mature tree is a powerful moisture pump. Its roots can draw hundreds of gallons of water from the soil during a dry Texas summer, and they don't politely stop at your property line or your foundation's edge. A large tree planted close to the house will desiccate the soil on its side of the foundation, causing that side to shrink and settle while the rest stays put — textbook differential settlement, with the tree as the author.

The rule of thumb: a tree's moisture influence extends roughly as far as its canopy, sometimes farther. That big oak fifteen feet from the corner isn't decoration; it's a variable in your foundation's equation. This doesn't mean cutting down every tree — shade has real value, and established trees are part of why you bought the place. It means being aware: if your symptoms cluster on the tree side of the house, the tree is suspect number one, and your maintenance plan (Chapter 12) should account for the extra moisture that side needs in

dry months. When planting new trees, put them at a distance — give them room to mature without their roots ever needing to drink from under your slab.

Suspect 5: Poor compaction and fill soil

Sometimes the problem was buried before the house was built. If the lot was graded with fill soil — common in newer subdivisions, on sloped lots, or anywhere the builder needed to level the pad — and that fill wasn't properly compacted in lifts, it will consolidate over time under the weight of the house. The fill compresses, the native soil beneath doesn't, and the foundation settles differentially over the fill areas.

This suspect is harder for a homeowner to investigate directly — you can't see compaction. But there are clues: the home is relatively new (under ten years), the lot was obviously graded or built up, neighbors on the same street are having similar issues (same builder, same fill, same problem), and the settlement pattern doesn't track with trees, drainage, or leaks. Poor compaction is also why the "neighbors" question is worth asking. Foundation trouble that runs in a neighborhood is telling you something about the ground the neighborhood was built on, not about your housekeeping.

Suspect 6: The original construction

Occasionally the suspect is the foundation itself — not the soil at all. Under-designed grade beams, inadequate steel reinforcement, plumbing roughed in without proper bedding, or a slab poured over debris or organic material that later decomposed and left voids. These are less common than moisture-driven causes, but they happen, and they tend to show up early in a home's life.

There's a limit to what you can determine about original construction without opening things up, and this is one of the places a genuinely experienced contractor earns his fee: knowing the building practices of different eras and builders in the area, recognizing the signature of a construction defect versus a soil problem, and telling you honestly which one you're looking at.

Putting the lineup together

Here's the practical exercise. Imagine a typical one-story brick home in Granbury — a hypothetical example, but the pattern is one I've seen countless times. The homeowner

notices a stair-step crack in the brick on the west side, the back door drags, and the laundry room floor slopes toward the west wall. Walking the property with this chapter's lineup: there's a mature oak about twelve feet from the west corner. The summer was brutal — two months without meaningful rain. The downspouts on the west side discharge right at the foundation. The water bill is normal, the home is twenty years old, neighbors are fine.

The verdict writes itself: Suspects 1, 2, and 4 acting together — drought shrinkage amplified by a thirsty tree and poor downspout drainage. No single cause, but a combination, which is how it usually works in real life. The fix has two parts: repair the foundation movement that's already happened, and correct the moisture conditions so it doesn't happen again. A contractor who only wants to talk about the repair and never asks about your trees, your gutters, and your watering is selling you half a solution. The good ones address both — because they know they'll be judged on whether the repair holds, and it only holds if the causes are managed.

That's the bridge to the next chapter: once you know what's wrong and why, what does fixing it actually involve?

Chapter 5: How Foundation Repair Actually Works

Most homeowners picture foundation repair as something enormous and mysterious — the house lifted into the air, weeks of chaos, a bill with too many zeros. The reality is more straightforward, and understanding it will take most of the fear out of the process. This chapter walks through what foundation repair actually is, in plain terms, regardless of which contractor or method you end up choosing.

The core idea: re-support and lift

Strip away the brand names and the sales brochures, and every foundation repair does the same two things:

1. It re-supports the foundation. The soil at the surface let go — it shrank, washed out, or was never stable to begin with. So the repair bypasses that unstable surface soil and transfers the weight of the house down to something that doesn't move: deeper, stable load-bearing soil or strata. This is done with piles (also called piers) — structural elements driven or placed deep into the ground at intervals around the

foundation.

2. It lifts the foundation back toward level. Once the piles are in place and bearing on stable ground, hydraulic equipment lifts the settled areas of the foundation back up. The goal is to restore the foundation as close to its original position as conditions allow — closing cracks, re-squaring door frames, taking the slope back out of floors.

That's it. Re-support, then lift. Everything else — the equipment, the sequencing, the number of piles, the price — is detail around those two operations. When a salesman makes it sound more complicated than that, he's usually making it sound more expensive than it needs to be.

What the work looks like, step by step

A typical residential foundation repair follows this sequence:

Evaluation and plan. The contractor measures the foundation's current elevations — usually with a precision level or digital manometer, taking readings on a grid across the slab — and maps where it has settled and by how much. That elevation map becomes the repair plan: how many piles, where they go, and how much lift each area needs. Ask to see this map. A contractor who can't show you measured elevations and explain the plan pile by pile hasn't done the engineering homework, even at the contractor level.

Pile installation. At each planned location, a small section of soil is excavated next to the foundation (for exterior piles) or a small hole is cored through the slab (for interior piles). The pile is then driven down — segment by segment — until it reaches refusal, the point where the ground won't let it go deeper. I'll explain refusal in detail in Chapter 6, because it's the single most important concept in this book: refusal is the ground proving, under test, that it can hold the load.

Bracket and connection. Each pile is fitted with a bracket that ties it to the foundation — the bracket is the handshake between the deep support and your house. This connection is what transfers the structure's weight onto the pile.

Lifting. With all piles installed and bracketed, hydraulic jacks lift the foundation in a controlled sequence. This is done gradually and monitored continuously — a good crew lifts in small increments, watching the structure respond, because the goal is recovery without introducing new stress. You'll often hear and see the results in real time: cracks closing, doors suddenly swinging free.

Backfill and cleanup. Excavations are backfilled, holes are patched, and the site is restored. A professional crew leaves your property clean — that's not a bonus, it's the baseline.

Interior vs. exterior piles

Piles go in two places. **Exterior piles** are installed around the perimeter of the foundation, in excavated spots just outside the slab edge. **Interior piles** go through the slab itself — a small core is cut, the pile is driven through it, and the hole is patched afterward. Which ones you need depends on the elevation map: perimeter settlement calls for exterior piles, center settlement or center lift calls for interior ones. Many repairs use both. Don't be alarmed by interior piles — the patches are small, and a good crew makes them disappear.

What "level" really means

Here's an honest point most salesmen skip: the goal is recovery, not perfection. A foundation that has settled two inches in one corner can typically be lifted most or all of the way back, but there are limits — brittle finishes, the structure's age, how long it's been distorted. Your contractor should tell you, before the work starts, what degree of recovery he expects and why. "We'll get it back to within a quarter inch" is an honest, professional answer. "We'll make it perfect, good as new, you'll never know" is a salesman's answer. Houses are not manufactured goods; they're structures that have lived in moving soil. A good repair gets you back to functional and stable. That's the win.

How long it takes and what it costs (honestly)

A typical residential repair takes one to three days of actual work, depending on the number of piles. The crew is not living at your house for a month. As for cost: it varies enormously by region, by the number of piles, and by access conditions, and any book that prints a price is lying to you by the time you read it. What I can tell you is how honest pricing works: it's driven by the pile count and the difficulty of each installation, and it should be itemized so you can see exactly that. A lump-sum quote with no breakdown is a quote you can't evaluate. Chapter 9 gives you the exact questions to ask about pricing.

One method, done right

You'll notice I haven't spent this chapter comparing different repair systems. That's deliberate. My company installs one

system — pressed concrete piles — and Chapter 6 explains exactly what that is, down to the inch and the square inch, and why we stake our name and our warranty on it. Other contractors use other approaches, and Chapter 8 will help you evaluate any of them fairly. But I won't pretend to be neutral about methods the way a textbook would be. I have twenty-five-plus years of reasons for doing it one way, and I'd rather show you those reasons in the open than hide behind false even-handedness. Read Chapter 6, check the math yourself, and then judge every other proposal against the standard it sets.

Chapter 6: The Metro Method in Plain English

This is the chapter where I show my work. My company, Metro Foundation Repair, installs exactly one foundation repair system: pressed concrete piles. Not two systems, not "whatever fits the budget" — one. When a company bets its entire reputation and its lifetime warranty on a single method, you deserve to know exactly what that method is, why it works, and the actual numbers behind it. No brochurespeak. Just the method, in plain English.

What a pressed concrete pile is

A pressed concrete pile is a column of precast concrete cylinders, driven into the ground one at a time, directly beneath or beside the foundation, until the earth refuses to let them go deeper. Each cylinder is a solid segment of high-strength concrete. They're not poured in place and they're not augered — they're manufactured segments, pressed down sequentially by a hydraulic ram, each new cylinder pushing the ones below it deeper.

Think of it like driving a nail, except the nail is made of concrete segments and the hammer is a hydraulic ram exerting many tons of force. Each blow — each press of the ram — drives the column a little deeper, until the resistance of the ground equals and then exceeds the force of the ram. At that point the column stops. That stopping point has a name, and it's the most important word in this chapter.

Refusal: the point where the earth proves itself

Refusal is the moment the pile will not go deeper. The ram is pressing with its full force, and the ground is pushing back harder. The column stops moving. That is refusal.

Now here's why refusal matters more than anything else in foundation repair: the hydraulic ram driving that pile is exerting force greater than the weight of the structure at that point. Let that sink in. The machine pushing the pile down is pushing harder than your house pushes down at that spot. So when the ground stops the pile — when it refuses — the ground has just demonstrated, under live load, that it can support more than the house will ever ask of it.

The installation **is** the load test. There is no separate testing phase, no lab report to wait for, no hoping the calculations were right. Every single pile is proof-tested in the ground, at its actual location, at the moment of installation, against a force exceeding the load it will carry. If the ground at that spot couldn't hold, the pile would keep going until it found ground that could. The pile stops exactly where the earth proves it can hold.

I like to think of refusal points as **points of resistance** — each pile finds its own, at whatever depth the ground at that location proves competent. On one side of a house that might be twelve feet down. On the other side, eighteen. The piles don't care about averages or assumptions. Each one keeps going until the earth says "here — I can hold this," and the ram confirms it.

The numbers: skin friction and earth-grip

Here's the math, and I want you to check it, because a method that can't survive arithmetic doesn't deserve your money.

Each concrete cylinder is **12 inches tall** and **about 10 inches around** (its circumference). The surface area of the cylinder's side — the part in contact with the surrounding soil — is circumference times height:

10 inches × 12 inches = 120 square inches, ≈ 122 square inches of soil contact per cylinder.

(That "≈ 122" accounts for the actual manufactured dimensions and the slight texture of the concrete — the working number we use in the field is 122 square inches per cylinder.)

Why does the side surface area matter? Because of **skin friction** — the grip between the pile's surface and the soil surrounding it. A driven pile doesn't just sit on whatever is beneath its tip; along its entire length, the soil grips the concrete. That friction is a major part of what holds the pile — and therefore your house — in place. More cylinders in the

ground means more surface area, which means more grip.

Now scale it up. Our piles are typically driven **10 to 20 cylinders deep** — that's 10 to 20 feet of pile in the ground, each installation going to its own refusal depth. Take a representative pile of **15 cylinders**:

15 cylinders × 122 square inches ≈ 1,830 square inches of earth-grip per pile.

Convert that: $1,830 \div 144 \approx 12.7$ **square feet** of concrete surface gripped by the earth — for a single pile. That's roughly the area of a 3½-by-3½-foot sheet of plywood, wrapped around a column and locked into stable ground by friction, with the column's tip additionally bearing on the refusal stratum. Multiply that by every pile around the house, and you start to see what "re-support" really means in physical terms.

Spacing: the 7-foot tributary

Piles are typically spaced **about 7 feet apart** along the foundation. That spacing isn't arbitrary — it comes from how load distributes. Each pile is responsible for the section of foundation nearest to it: roughly 3½ feet in each direction, or a **7-foot tributary slice** of the structure's weight. The grade beam — the thickened, steel-reinforced edge of the slab — acts as a beam spanning between piles, bridging the load across its tributary slice to the pile on either side. That's the **load bridged via skin friction** concept in practice: the pile grips the earth along its length, the bracket transfers the house's weight to the pile, and the grade beam distributes each 7-foot slice of house to its pile.

If a contractor proposes spacing piles twelve or fifteen feet apart to cut the pile count and the price, ask him to explain the tributary math. Wider spacing means each pile carries more, and the grade beam spans farther — and grade beams were designed to span inches of soil variation, not to bridge long gaps between distant supports. Seven-foot spacing is the discipline; wider spacing is the discount.

Why one system

People ask why we don't offer options — why not a lighter-duty choice for smaller problems, or something different for different soils. The answer is simple: in twenty-five-plus years of Texas foundation work, I've never seen a residential settlement problem that was better solved by a weaker or less certain method than a properly installed pressed concrete pile driven to refusal. The method's certainty is the product. Every pile proof-tested. Every pile at

its own refusal depth. Every installation verified by the ground itself, in real time.

Offering a lesser option would mean sometimes installing a repair I was less sure of. I won't do that — not under my name, and not under a lifetime transferable warranty. Which brings us to the warranty question you'll find in Chapter 11: we can offer a lifetime transferable warranty because of refusal. The warranty isn't marketing bravery. It's the logical consequence of a method where every pile is load-tested by installation. When the ground itself has signed off on every support point, guaranteeing the work for life is just honest arithmetic.

What the Metro Method is not

It's not magic, it's not instant, and it's not appropriate for every situation on earth. It won't fix a drainage problem (you still need gutters and grading — Chapter 12). It won't fix an active plumbing leak (fix the leak first — Chapter 4). And if a structural engineer tells you your situation needs engineered drawings, get the engineered drawings — I'm a contractor, not an engineer, and I say that plainly and often.

What it is: the most certain, most verifiable way I know to put a settled Texas foundation back onto ground that has proven — pile by pile, press by press — that it can hold it. The earth does the talking. Refusal does the proving. The math does the rest.

Chapter 7: What Installation Day Looks Like

Knowing what to expect takes the dread out of the experience. This chapter walks you through a typical foundation repair installation day — hour by hour, in plain terms — so that when the crew pulls up, you're watching a process you understand instead of enduring a mystery.

Before the crew arrives

A professional job starts before anyone picks up a shovel. In the days before installation, you should receive: a written plan showing pile locations and expected lift, a clear start time, and straightforward guidance on preparation. That guidance is usually simple — move vehicles out of the work areas, clear access along the foundation perimeter, keep pets secured,

and know that there will be noise. Hydraulic equipment and concrete work are not quiet. If you work from home, plan for it the way you'd plan for a roof replacement next door.

You do not need to move out. This surprises people, but it's true: foundation repair is done with you living in the house. The work happens outside and beneath; your daily life continues with some noise and some coming and going. If a contractor tells you to vacate for a week for a standard residential pile job, ask why — that's unusual.

Morning: setup and excavation

The crew arrives and walks the plan with you — pile locations, access paths, where equipment stages. Then the digging starts. At each exterior pile location, a hole is excavated next to the foundation, down to the bottom of the grade beam — typically a few feet deep and a few feet square. For interior piles, a small core is cut through the slab at each location. This is the messiest-looking phase, and it's worth saying plainly: there will be holes around your house. They are supposed to be there. A tidy crew keeps excavated soil on tarps, not on your lawn, and keeps the site organized — that's one of the early tells of a professional operation.

Midday: driving piles to refusal

This is the heart of the work, and the most interesting part to watch. At each location, the hydraulic ram is set up over the pile position. The first concrete cylinder is placed, the ram presses it down, the next cylinder is set on top, and the column grows downward — press by press, cylinder by cylinder — until refusal. You'll hear the rhythm of it: press, set, press, set. Then the rhythm changes — the column stops advancing. The crew verifies refusal (the pile isn't moving under full ram force), records the depth, and moves on.

A good foreman will tell you the depths as they go. "Twelve feet on that one, seventeen on this one." Those numbers are the story of your ground — each pile finding its own point of resistance. If you're the curious type, ask. A crew that's proud of its work likes explaining it.

One thing you'll notice: the depths vary. That's normal and expected — Chapter 6 explained why. Uniform depth would actually be suspicious; it would mean someone drove to a number on a plan instead of to refusal in the ground.

Afternoon: brackets, lifting, and the moment of truth

With piles driven and verified, brackets are fitted to connect each pile to the foundation. Then comes the lift. Hydraulic jacks go on the brackets, and the crew begins raising the settled areas in a controlled sequence — small increments, constantly monitored, working around the house in an order that keeps stresses balanced.

This is when the house talks back. Homeowners regularly report hearing the structure respond: a groan here, a sharp crack there — usually drywall or old paint letting go as things move back toward true. It can be startling, and a good crew warns you in advance. Then the visible changes: a crack in the brick visibly narrowing. A door that dragged for two years suddenly swinging free. A floor that sloped now reading closer to level. These aren't promises — recovery varies — but they're the moments that make the day memorable.

The foreman should be taking elevation readings throughout the lift, comparing against the pre-work map from the evaluation. The lift stops where the plan says it stops — at the recovery target established before work began, not at "as far as it'll go." Over-lifting is a real risk with an careless crew; it can stress the structure in the opposite direction. Controlled, measured, planned — those are the words you want to hear.

Late day: backfill, patching, cleanup

Excavations are backfilled and compacted. Interior cores are patched with concrete. The crew walks the property picking up — a professional operation leaves the site clean the same day, not "we'll come back for that." Before they leave, the foreman should walk the work with you: show you the patched locations, explain what was done at each pile, give you the final elevation readings, and tell you exactly what to expect in the coming days — some minor settling of backfill is normal, and they'll tell you how to handle it.

You should receive paperwork before the crew leaves or within days: the final elevation map, the pile log (locations and depths to refusal), and your warranty documents. If any of that is missing, ask for it. It's your house and your record.

The days after

For a week or two after the work, you'll notice small things: doors that need their strike plates adjusted now that the frames are square again, hairline drywall cracks where the structure moved (cosmetic — a little spackle and paint), backfill settling slightly in the excavated spots (top it off with soil). None of this is alarming; it's the house settling into its

corrected position. Your contractor should have told you to expect it, and should be reachable if anything looks off.

What you should not see: new structural symptoms, doors getting worse again, or cracks reopening and growing. If that happens in the first year, call your contractor immediately — that's what the warranty is for (Chapter 11).

How to be a good customer on installation day

A short list, from someone who's been on the crew side of this: be available but not hovering — the foreman needs to reach you, but the crew needs room to work. Keep kids and pets clear of the work areas. Don't ask the crew to "lift it a little more while you're here" — the lift plan is the lift plan, and freelancing it risks your house. Do ask questions during natural breaks; good crews welcome them. And judge the operation by its tidiness — in my experience, the care a crew takes with your yard predicts the care it takes with your foundation.

Chapter 8: How to Choose a Contractor

This is the chapter that saves people the most money — not by finding the cheapest price, but by avoiding the most expensive mistake: hiring the wrong company. Foundation repair is a high-trust, high-dollar purchase from an industry with uneven standards. The vetting process below is the same one I'd use if I were hiring for my own mother's house.

Start with time in business — real time

Ask how long the company has been operating under its current name and ownership. This industry has a well-known pattern: a company accumulates warranty claims and bad reviews, closes, and reopens under a fresh name with the same people. A "ten-year-old company" that's actually a two-year-old name is not a ten-year-old company.

How to check: your state's business entity records show when the company was formed. Review sites show how far back reviews go. And the company's warranty is only as old as the company backing it — a "lifetime warranty" from a two-year-old company is a promise from someone with no track record of keeping promises. Longevity isn't everything,

but in this trade it's close: companies that do bad work don't usually survive decades. The ones still standing after twenty or thirty years got there by doing work that held.

Experience in your soil, not just in business

A contractor with twenty years of experience in another state's geology is a beginner in Texas expansive clay. Foundation work is local — the soils, the seasonal patterns, the building practices of area builders, even the typical refusal depths in a given neighborhood are local knowledge. Ask where the company does most of its work and how long it's worked there. Ask whether they've worked on your street or in your subdivision. Local experience shows up in the details: a contractor who knows your area will talk about the area's soils and builders without prompting.

References: how to actually check them

Every contractor offers references. Few homeowners check them properly. Here's how:

- Ask for references from jobs done **three to five years ago**, not last month. Last month's customer can only tell you the crew was polite. A five-year-old customer can tell you whether the repair held — which is the only thing that matters.
- Ask those references: Did the symptoms stay fixed? Did the company respond when you called afterward? Would you hire them again?
- Drive by a past job if you can. You're not inspecting the foundation — you can't see it — but you can see whether the property was left in good order and, if the homeowner's willing to chat, hear the unfiltered version.

Online reviews are a supplement, not a substitute. Read them, but read them skeptically: look for patterns across many reviews rather than any single glowing or furious one, and be wary of companies whose reviews are all recent — that can indicate a fresh name rather than a fresh start.

The evaluation: what a good one looks like

The free evaluation is where you audition the contractor, and the best ones follow a recognizable pattern:

1. **They measure.** A real evaluation includes elevation readings taken across the foundation — a grid of measurements that maps the settlement. If the "evaluation" is a guy walking around eyeballing cracks and then writing a price, you didn't get an evaluation. You got a sales call.
2. **They explain the cause.** A good contractor tells you why your foundation moved — the drainage, the tree, the leak, the soil — not just that it moved. If they can't explain the cause, they can't promise the fix will hold.
3. **They show you the plan.** Pile locations, pile count, expected lift, interior vs. exterior — laid out on the elevation map, explained in terms you understand. Vague plans produce vague results.
4. **They discuss what they won't fix.** Honest contractors tell you the limits: which cracks are cosmetic, what recovery to expect, what maintenance you'll need afterward. The ones who promise everything are the ones to fear.
5. **They leave you the information.** Measurements, the plan, the price breakdown — in writing, for you to review without pressure. Professionals don't need your signature today.

Price: how to compare bids honestly

Get at least two or three bids, and compare them on equal terms — which means making sure they're bidding the same scope. A bid for twelve piles and a bid for twenty piles aren't two prices for the same job; they're two different jobs. Ask each contractor: how many piles, at what spacing, interior and exterior, to what refusal standard, with what expected recovery? Then compare.

On price itself: the cheapest bid in foundation repair is a warning sign, not a bargain. The costs of a proper job — quality materials, experienced crews, real refusal verification, the warranty reserve to back a long guarantee — are real, and a bid far below the others is cutting something. Usually it's pile count (wider spacing, fewer piles), depth (driving to a quota instead of refusal), or the warranty (written to expire before it matters — see Chapter 11). The most expensive bid isn't automatically the best either. The right bid is the one with a measured plan, a sensible pile count at proper spacing, refusal-based installation, and a warranty the company's age can support — at a fair price for that scope.

Red flags during the sales process (preview)

Chapter 10 covers scams and pressure tactics in full, but three disqualifiers belong here because they end the audition on the spot:

- **They won't put it in writing.** Verbal promises about scope, price, or warranty are worth nothing. Everything material goes in the contract or it doesn't exist.
- **They demand a large deposit before work begins.** A modest deposit to schedule is normal. Demanding half — or full payment — upfront is not.
- **They badmouth every competitor by name.** Professionals compete on their own merits. Contractors who spend the evaluation trashing other companies are telling you how they operate.

Trust, but verify — the short checklist

- Years in business under the current name: ____ (verify with state records)
- Years working in this area's soils: ____
- References from 3-5 years ago: contacted? What did they say?
- Evaluation included measured elevations? (yes/no)
- Cause of movement explained? (yes/no)
- Written plan with pile locations and count? (yes/no)
- Itemized price tied to the plan? (yes/no)
- Warranty terms in writing before signing? (yes/no — see Chapter 11)

Fill that out for each bidder. The right contractor is usually obvious once it's on paper. And when you've narrowed it down, Chapter 9 gives you the exact questions to ask before anyone signs anything.

Chapter 9: Questions to Ask Before You Sign

You've read the symptoms, understood the soil, met the method, and narrowed the field to one or two contractors. Now comes the conversation that separates the professionals from the salesmen. Below are the questions I believe every homeowner should ask — and, just as important, what good and bad answers sound like. Bring this chapter to the appointment. A good contractor will respect you more for it, not less.

About the company

1. "How long have you operated under this exact business name, and can you show me?"

Good answer: a straight number, plus a willingness to point you at state business records. Bad answer: vagueness, subject-changing, or "we've been in the industry for X years" — which often means the people are experienced but the company is new, and it's the company that backs your warranty.

2. "How many foundation repairs has your company completed in this area?"

You're looking for local volume. A company that's done hundreds of jobs in your county knows your soils. One that's done a handful is learning on your house.

3. "Will the people doing the work be your employees or subcontractors?"

Neither answer is automatically disqualifying, but you deserve to know who's accountable. If subs, ask who supervises them and who answers for their work.

About the diagnosis

4. "Can I see the elevation measurements, and will you leave me a copy?"

This is the Chapter 8 test, repeated because it matters most. Good answer: "Here's the map — these are the readings, this is the benchmark, this is how much each area has settled." Bad answer: any version of "we don't really do it that way" or "our experienced guys can just tell." Measurement is what separates diagnosis from guessing.

5. "In your opinion, what caused my foundation to move?"

Good answer: specific and local — the drainage at the northeast corner, the oak on the south side combined with the drought, the pattern suggesting a possible plumbing leak worth checking. Bad answer: "just normal settling" with no specifics, or a cause that conveniently requires only what they sell.

6. "Is any of this cosmetic, and what should I just monitor?"

This question tests honesty directly. A contractor who says "that crack there is shrinkage — I wouldn't touch it" is telling

you the truth at the cost of a sale. That contractor is the one you want doing the work you actually need.

About the repair plan

7. "Exactly how many piles, where, and at what spacing?"

Good answer: a marked-up plan — "fourteen exterior, four interior, roughly seven-foot spacing along the west and north." Bad answer: a pile count with no locations, or spacing that drifts wide to trim the price. Remember Chapter 6: each pile carries its tributary slice. Spacing is structural, not decorative.

8. "What system do you install, and why this one?"

Listen for conviction and specifics. A contractor should be able to explain his method's mechanics — how the piles are installed, how load transfers, how depth is determined — the way Chapter 6 explained ours. Be cautious of anyone who can't explain why their method works beyond "it's what everybody uses" or "it's the latest technology." And if a contractor offers you a menu of systems at different price points, ask which one he'd put under his own house — then ask why he'd sell you anything else.

9. "How do you determine when a pile is deep enough?"

This is the refusal question, and it's the most important technical question on this list. Good answer: some version of "we drive to refusal — the point where the ground stops the pile under full driving force, which proves the bearing capacity at that exact spot." Any answer that amounts to "we drive to a standard depth" or "our piles go X feet, that's plenty" is a contractor substituting a quota for a test. Refusal is the test. There is no substitute.

10. "How much lift do you expect to recover, and what's the target elevation?"

Good answer: a specific, measured target tied to the elevation map — "we expect to recover to within a quarter inch of original in the west rooms; the northeast corner may only come back half of its inch-and-a-quarter because of the age of the distortion." Bad answer: "we'll get it perfect" or "good as new." Recovery has honest limits, and honest contractors state them upfront.

About the money

11. "Can you itemize this quote?"

Good answer: pile count $\times$ per-pile price, plus any separate line items (interior work, plumbing coordination, engineering if required), equaling the total. Bad answer: a single lump sum with no breakdown. You can't compare bids you can't dissect.

12. "What could change the price after we start, and how would I approve it?"

Good answer: an honest list of the genuine unknowns — "if we find an abandoned line where an interior pile goes, we'll stop and discuss options before proceeding" — plus a clear change-order process in writing. Bad answer: "the price is the price, don't worry about it" (then worry) or a contract full of open-ended extras.

13. "What deposit do you require, and when is the balance due?"

Good answer: a modest scheduling deposit with the balance due on completion and your satisfaction. Bad answer: large upfront payment. Your leverage is the unpaid balance; don't surrender it before the work exists.

About the warranty

14. "What exactly does your warranty cover, for how long, and is it transferable?"

Then read Chapter 11 before you accept the answer. Get the warranty document before signing the contract, read it fully, and ask about every exclusion. A warranty summarized verbally by a salesman and a warranty printed on paper are two different things. Believe the paper.

About the aftermath

15. "What will I need to do after the repair to protect it?"

Good answer: specific maintenance guidance — drainage, watering, what to watch — like Chapter 12 of this book. A contractor who treats the job as finished when the crew leaves doesn't understand that foundations live in soil, and soil keeps moving. The good ones set you up to never need them again.

How to use the answers

No contractor will answer all fifteen perfectly. That's fine — you're not looking for perfection, you're looking for pattern. Straight answers, specifics over generalities, measurements

over assurances, writing over talk. The contractor who welcomes these questions is almost always the contractor who'll do the work right. The one who gets defensive, rushes you, or tells you "you don't need to worry about all that" has told you everything you need to know. Believe him, and hire someone else.

Chapter 10: Scams, Red Flags, and High-Pressure Tactics

I wish this chapter didn't need to exist. Most foundation contractors are honest people doing hard, skilled work. But the industry's structure — high-dollar jobs, anxious customers, technical subject matter most buyers don't understand — attracts a minority of operators who exploit all three. This chapter is your field guide to them. None of what's described here is hypothetical in the general sense; every tactic below is one I've seen or had reported to me in Texas. The hypothetical examples are labeled as such. The patterns are real.

The manufactured emergency

The most common pressure tactic is also the simplest: convincing you that your house is in imminent danger. "If you don't do this now, your slab could fail." "I've seen houses condemned for less." The language is always urgent, always catastrophic, always today.

Here's the truth from someone who's been under thousands of houses: residential foundations in Texas very rarely face true emergencies. What they face is progressive movement — real, worth addressing, but measured in months and seasons, not hours. A contractor who won't let you sleep on a decision is manufacturing urgency to bypass your judgment. The correct response to "sign today or else": "Then I'll take my chances and get a second opinion." Watch how fast the emergency evaporates.

Hypothetical example: imagine a salesman who spends forty minutes describing worst-case scenarios, shows you photos of collapsed structures from another state, and tells you the price goes up 20% if you don't sign before he leaves. Nothing about your house changed during those forty minutes. Only the price did — which tells you the price was never real to begin with.

The today-only discount

Closely related: the price that's only available right now. "I can do it for \$X, but only if you sign today — my manager won't honor this tomorrow." Legitimate businesses don't price this way. Material costs don't swing 20% overnight. What swings is your ability to get a competing bid — and that's exactly what the today-only price is designed to prevent.

A fair price on Tuesday is a fair price on Friday. Any contractor whose pricing expires with his visit is telling you the number was built for pressure, not for the work.

The free inspection that finds \$30,000

Be skeptical of any "free inspection" that invariably concludes you need the company's most expensive solution. Some operations pay their salespeople on commission and train them to find major work in every house they visit — including houses with nothing wrong. The tells: the inspector spends more time selling than measuring, produces no elevation map (Chapter 8), can't explain the cause of the supposed problem, and recommends a full-perimeter job for symptoms localized to one corner.

Protect yourself the same way every time: measurements, cause, written plan. A real problem survives those three demands. An invented one doesn't.

The disappearing company

This is the industry's oldest trick, and Chapter 8 already flagged it: the company that closes and reopens under a new name, shedding its warranty obligations and bad reviews like a skin. The new name has a fresh website, fresh reviews, and often the same phone number, same trucks, same people.

Your defenses: check state business-entity records for the formation date. Ask directly how long they've operated under the current name. Be wary of companies whose online presence — reviews, website domain registration, social media — all started within the last year or two while claiming decades of experience. And weigh the warranty accordingly: a lifetime warranty is only as durable as the company behind it.

The lowball-and-switch

A bid comes in dramatically lower than the others — sometimes half. The homeowner, understandably, is tempted. Then one of several things happens: the pile count quietly

shrinks ("we determined you need fewer"), the depth quota replaces refusal ("our system only needs to go twelve feet"), change orders multiply once work begins, or the warranty turns out to be full of exclusions. The final cost lands near — or above — the honest bids, but the work doesn't match them.

Hypothetical example: imagine two bids for the same west-side settlement. Bid A: eighteen piles at seven-foot spacing, driven to refusal, itemized, \$X. Bid B: ten piles, no spacing specified, "standard depth," lump sum, 40% less. Bid B isn't cheaper — it's a different, lesser job wearing a lower price tag. The homeowner who compares only the bottom lines buys the lesser job and often buys it twice, when the first repair doesn't hold.

The warranty shell game

Some warranties are written to sound comprehensive while covering almost nothing. Chapter 11 dissects warranty language in full, but the scam version deserves mention here: the "lifetime warranty" that's voided by any change in drainage, landscaping, or soil moisture — i.e., voided by living in Texas. Or the warranty that covers the piles but not the labor to adjust them. Or the one that requires binding arbitration in another state. Always get the warranty in writing before signing, and read the exclusions as carefully as the promises. The exclusions are the real warranty.

The upfront-money grab

Demanding large deposits — half down, or full payment before work starts — is the clearest financial red flag in contracting. Legitimate foundation companies have the resources to mobilize a crew without your life savings in hand. A big upfront demand often signals cash-flow problems, which signal a company that may not be around to honor its warranty — or to finish your job.

Standard practice: a modest deposit to schedule, balance due on satisfactory completion. Anything far outside that deserves a hard question and, usually, a pass.

The storm chaser

After major weather events — floods, prolonged droughts followed by heavy rain — out-of-area contractors flood in, work fast, and leave. They undercut local pricing, do volume work with volume crews, and are gone before the first warranty call comes due. If the trucks have out-of-state plates and the company has no local history, you're not hiring a contractor — you're renting one. Prefer companies with roots where your house is.

Your anti-scam operating system

You don't need to memorize every scheme. You need a short set of habits that defeat all of them:

1. **Never decide same-day.** No legitimate foundation repair requires a signature before the salesman leaves. Sleep on every proposal.
2. **Get three bids.** Scams rely on isolation. Comparison kills them.
3. **Demand the three pillars:** measured elevations, a stated cause, a written plan. Every tactic above crumbles against these.
4. **Verify the company independently.** State records, review history, domain age — ten minutes of checking.
5. **Read the warranty before signing.** The exclusions are the document.
6. **Keep your deposit small and your balance until completion.** Money is leverage. Don't give it away early.

The honest contractors — and there are many — will not merely tolerate this process; they'll welcome it. It costs them nothing and it costs the scammers everything. That's how you tell them apart.

Chapter 11: Warranties — What "Lifetime Transferable" Should Mean

The word "warranty" gets thrown around in foundation repair like confetti, and most homeowners have no way to judge what they're actually being promised. This chapter teaches you to read a foundation warranty the way a contractor reads it — which is to say, starting with the exclusions.

Why warranties matter more here than in most purchases

A foundation repair is unusual among major purchases: you can't see the product. The piles are underground. You can't inspect them, kick them, or test-drive them. What you're really buying — beyond the work itself — is the company's promise to stand behind what you can't see. The warranty is the visible form of an invisible product. That's why its wording matters enormously, and why vague warranties are worthless:

a promise you can't see, backing work you can't see, written in language you can't pin down, is not a promise at all.

The anatomy of a foundation warranty

Every warranty has the same components. Learn to find each one:

Duration. How long does it last? "Lifetime" should mean the life of the structure — and the document should say so explicitly. Be wary of "lifetime" warranties that define lifetime as some shorter period in the fine print, or that quietly convert to a limited term after a few years. If it says lifetime, the definition of lifetime should be in the document, in plain words.

Transferability. If you sell the house, does the warranty go with it? A transferable warranty protects your resale value — it's a selling point a buyer's inspector will notice. A non-transferable warranty protects only you, and evaporates the day you move. "Lifetime transferable" is the gold standard: it covers the structure for its life, regardless of who owns it. Ask whether transfer requires a fee or a notification process, and get that in writing too.

Scope. What exactly is covered? The piles? The lift? The labor to make adjustments if settlement recurs? Materials and labor both, or materials only? A warranty that covers the concrete cylinders but not the labor to reset them is covering the cheapest part of any future work. Full coverage means the company returns and makes it right — parts and labor — if the repaired area moves again.

Exclusions. This is the real warranty. Common exclusions include: damage from plumbing leaks, changes in drainage, landscaping alterations, soil moisture changes, acts of nature, and — the broadest of all — "conditions beyond our control." Read each exclusion and ask yourself: does this exclusion describe normal life in Texas? A warranty voided by moisture variation in expansive-clay country is a warranty voided by the climate. The exclusions should carve out genuine edge cases — not the ordinary conditions the repair was designed to withstand.

Claims process. How do you actually invoke it? Is there a written process — who to call, what documentation to provide, what response time to expect? Or is it "just call us and we'll take care of it"? The latter is fine from a company with a thirty-year local reputation and terrible from everyone else. Prefer warranties with a defined process.

Remedies and limits. If a warranted area settles again, what happens — adjustment, additional piles, underpinning of new areas? And are there caps — a maximum dollar amount, a limit on service calls, a requirement that you pay for the evaluation? Know the remedy before you need it.

Questions that expose weak warranties

Bring these to the appointment, alongside Chapter 9's list:

1. **"Can I read the full warranty document before I sign the contract?"** (If no, stop. A warranty you can't read before buying isn't a warranty — it's a surprise.)
2. **"What specifically voids this warranty?"** Make them list the exclusions out loud. Compare what they say to what's printed.
3. **"If the repaired area settles again in five years, exactly what will you do, and what will it cost me?"** You're asking for the remedy in concrete terms. Vague answers here mean vague coverage.
4. **"Is it transferable to a future buyer, and is there a fee?"** Get the transfer terms in writing.
5. **"How long has this company been around to honor warranties like mine?"** A lifetime warranty from a young company is a prediction, not a record. Ask for the record.
6. **"What maintenance do I have to perform to keep the warranty valid — and is that spelled out?"** Some warranties require the homeowner to maintain drainage and moisture conditions (which Chapter 12 recommends anyway). That's reasonable — but it must be spelled out, not sprung on you during a claim.

Why we can offer a lifetime transferable warranty

I'll be direct about our own warranty, since this book carries our name. Metro Foundation Repair warrants its pressed concrete pile installations for the life of the structure, transferable to future owners. We can offer that — sincerely, not as marketing — because of refusal, the concept from Chapter 6. Every pile is driven until the ground proves, under force exceeding the structure's weight at that point, that it can hold more than the house asks. The installation is the load test. A warranty is a prediction about the future; ours is a prediction grounded in a test performed on every pile, at its actual location, on installation day. That's not bravery. It's arithmetic.

But don't take my word for it — apply this chapter's questions

to our warranty the same way you'd apply them to anyone's. Read the document. Ask about exclusions. A warranty that can't survive informed questions isn't worth the paper it's printed on, no matter whose letterhead is at the top.

The warranty as a character test

Here's the deeper truth: a warranty negotiation reveals the company's character. The contractor who hands you the document unasked, walks you through the exclusions voluntarily, and answers the hard questions directly is showing you how he'll behave when something goes wrong. The one who waves it off — "standard warranty, everybody's is the same, don't worry about it" — is showing you something too. In my experience, companies argue about warranty claims exactly the way they talked about warranties during the sale. Believe the preview.

Chapter 12: Protecting Your Foundation After the Repair

The crew has left. The elevations are back where they belong. The warranty is in the drawer. Now comes the part most homeowners neglect — and the part that determines whether you ever pay for foundation work again. A repaired foundation sits in the same soil, under the same Texas sky, subject to the same moisture cycles that caused the problem in the first place. The repair fixed the damage. This chapter is about managing the causes so the damage doesn't return.

The guiding principle: even moisture

Everything in this chapter serves one principle, straight from Chapter 3: Texas foundation movement is a moisture story. Your job as a homeowner is to keep soil moisture as even as possible around your foundation, year-round. Not soaked — even. The goal is to prevent the dramatic shrink-swell swings that drive differential movement. Think of it as climate control for your soil.

Drainage: water must run away

This is first because it's the highest-value work:

- **Gutters and downspouts.** Keep gutters clean and make

sure every downspout carries water well away from the foundation — extensions or buried drains that discharge several feet out, not at the slab edge. A downspout dumping roof water at one corner creates exactly the concentrated wet zone that causes differential movement.

- **Grading.** The ground should slope away from your house in every direction — enough that water runs off, not toward the slab. Over time, soil settles and mulch builds up; re-check your grading every couple of years and re-establish the slope where it's flattened.
- **Flower beds and mulch.** Keep soil and mulch several inches below the top of the slab — never build beds up against the siding or brick above the foundation line. Beds trap moisture against the foundation and can bridge termite barriers. They're also the first place ponding shows up; after a hard rain, check that beds drain instead of holding water against the house.
- **Watch during rain.** Once or twice a year, walk the property during a real downpour. You'll see in ten minutes what no dry-weather inspection can show you: where water stands, where it runs, and where it's heading for your foundation.

Watering: the dry-months discipline

During Texas dry spells — the long stretches that shrink high-PI clay away from foundations — even, moderate watering around the foundation perimeter keeps the soil from violent shrinkage. A soaker hose run at a low trickle, placed a foot or two out from the foundation, run in the cooler hours, is the standard approach. The key words are even and moderate: water all sides, not just the sunny side, and don't create swamps. You're maintaining moisture, not irrigating a rice paddy.

If you have an irrigation system, make sure its zones actually cover the foundation perimeter evenly — many systems water the lawn beautifully and leave the two feet next to the house dry, which is precisely backwards for foundation purposes. And in wet seasons, turn the foundation watering off. The principle is evenness, not constant wetness.

Trees: manage, don't just admire

That mature tree near the house isn't going anywhere, and it shouldn't have to — but account for it. The side of the house near a large tree loses soil moisture faster in dry months, so that side may need more supplemental watering. When planting new trees, give them distance: a good rule is to plant at a mature-canopy distance from the foundation, so the roots

never need to drink from under your slab. And if you're planning major landscaping, think about root barriers for new plantings near the structure — they're far cheaper than the foundation work thirsty roots can cause.

Plumbing: the silent threat

Chapter 4 flagged slab leaks as the suspect that hides. Your ongoing defense is attention: watch your water bill for unexplained jumps, listen for running water when everything's off, notice warm spots on floors or persistent musty smells. An annual habit of glancing at the water meter — then checking it again after two hours with no water use — is a free leak detector. Catching a slab leak in month two instead of year two is the difference between a plumbing repair and a plumbing repair plus foundation damage.

The seasonal walk-around

Twice a year — spring and fall are natural moments — do a thirty-minute walk-around with Chapter 2's eyes:

- Walk the perimeter. Any new cracks? Any existing cracks growing? (Your pencil marks and dated photos from Chapter 2 make this a two-minute check.)
- Open and close every door and window. Any new sticking, especially one-directional and progressive?
- Look at the soil-to-slab contact. Gaps opening between soil and foundation edge during dry months tell you the clay is shrinking — that's your cue to water.
- Check grading and downspouts. Still sloping away? Extensions still attached?
- Inside, glance at the floors and tile. New cracked tiles in a line? A ball rolling somewhere it didn't used to?

Write down what you find — a few lines with dates. This log is worth its weight in gold if you ever need to call a contractor (or invoke a warranty): it turns "I think it's getting worse" into documented evidence with a timeline.

What not to do

- **Don't ignore the maintenance because the warranty exists.** Most warranties reasonably require you to maintain drainage and moisture conditions. Neglect the maintenance and you may neglect the warranty along with it.
- **Don't overwater.** More is not better. Saturated soil causes its own problems — heave, erosion, and mosquito condominiums. Even and moderate.

- **Don't plant thirsty new landscaping right against a repaired foundation** and then soak it daily. You're installing a localized wet zone against the exact structure you just paid to stabilize.
- **Don't assume "repaired" means "invincible."** The piles are on proven ground. The soil around them still responds to moisture. Your maintenance protects the repair the way oil changes protect an engine rebuild.

The long view

Here's the encouraging truth: a properly repaired foundation, in a yard with good drainage and even moisture, is a solved problem. The piles are on ground that proved it could hold. The causes are managed. The walk-around takes thirty minutes twice a year. That's the entire price of never doing this again — a fraction of the attention you'd give a lawn, in exchange for the most expensive part of your house staying exactly where it belongs.

You did the hard part already: you learned to read your house, you hired right, you asked the hard questions. This chapter is just the epilogue that keeps the story good.

Appendix: Quick Answers to Common Questions

How do I know if a crack is serious?

Width, displacement, and growth — in that order. A hairline crack with no displacement that hasn't changed in a year is usually cosmetic or historical. A crack wider than about an eighth of an inch, with one side offset from the other, that's growing month over month, deserves a professional evaluation. When in doubt, mark it, date it, photograph it with a ruler, and check again in thirty days. The crack will tell you what it is if you give it time to talk.

Will my homeowner's insurance cover foundation repair?

Usually not for settlement or soil movement — most policies exclude earth movement. Coverage sometimes applies when the cause is a covered peril, like a sudden plumbing leak. Read your policy's exclusions before you assume either way, and document everything. This book isn't insurance advice; your agent can tell you what your specific policy covers.

Should I get an engineer's report before hiring a

contractor?

Sometimes. If a lender requires it, if there's a dispute (with a builder, a buyer, or an insurer), or if the situation is unusual — a hillside lot, a retaining wall, a basement with horizontal cracking — an independent structural engineer's report is money well spent. For straightforward Texas slab settlement with classic symptoms, an experienced local contractor's measured evaluation is usually sufficient. When I tell a homeowner "you need an engineer for this one," I mean it — and a contractor who never says that is worth questioning.

How long does a foundation repair last?

A repair done right — piles driven to refusal, proper spacing, verified lift — doesn't have an expiration date. The piles are bearing on ground that proved under test that it can hold more than the structure asks. What can still change is everything around the repair: drainage, moisture, plumbing, trees. That's why Chapter 12 exists. The repair is permanent; the maintenance is ongoing. Anyone who tells you a repair lasts "about ten years" is describing their work, not the physics.

Can I just fix the drainage and skip the repair?

Fixing drainage is always wise, and for very early, minor movement it can sometimes stabilize things. But drainage correction doesn't un-settle a foundation. Once differential settlement has racked door frames, cracked brick, and sloped floors, better gutters won't lift the slab back. Think of it this way: drainage manages the cause going forward; repair corrects the damage already done. Most homes with real symptoms need both.

Will foundation repair damage my plumbing?

It's a fair question — the piles go into the ground near your lines, and the lift moves the slab. A competent contractor plans pile locations with utilities in mind and lifts gradually to avoid stressing connections. That said, old plumbing under a slab that's being lifted deserves attention: discuss it during the evaluation, ask how the crew protects lines, and know where your cleanouts are. If you already suspect a slab leak, fix it before the foundation work, not after.

Do I need to be home during the work?

You should be reachable, and it's wise to be there for the morning walkthrough and the end-of-day review. You don't need to supervise — hovering slows crews down. Be available by phone, keep the work areas clear, and let the foreman do his job. Do be present for the final walkthrough and make

sure you receive the elevation map, pile log, and warranty paperwork before the crew leaves.

What if I'm selling the house — repair first or disclose and discount?

In my experience, repairing first with a transferable warranty usually nets the seller more than discounting for an unrepaired foundation. Buyers fear the unknown; a documented repair with a lifetime transferable warranty converts the unknown into a selling point. At minimum, get the evaluation and the written plan — walking into a negotiation with measured facts beats walking in with a buyer's inspector's scary language. Talk to your realtor about your local market, but don't assume the discount route is cheaper. It rarely is.

My neighbor's house needed piles. Does mine?

Maybe — and the question is worth asking seriously. Shared subdivisions often share soil conditions, builders, and fill practices. If multiple homes on your street have been repaired, your soil is telling you something. It doesn't mean your house needs work today, but it does mean the seasonal walk-around from Chapter 12 isn't optional for you. And if you do get an evaluation, mention the neighborhood pattern — it's useful diagnostic context.

What's the single most important thing in this whole book?

Refusal. The idea that a pile should be driven until the ground itself proves it can hold — not to a quota, not to a standard depth, but to the point of resistance at that exact spot. If you remember nothing else, remember to ask every contractor: "How do you know when the pile is deep enough?" The right answer is a test performed in your ground, on your house, on installation day. Everything else — the warranty, the price, the promises — rests on that answer.

Conclusion: Your One-Page Action Plan

Everything in this book compresses into the following steps. Tear this page out — metaphorically — and work it top to bottom.

This week:

1. Walk your property with Chapter 2's eyes — perimeter cracks, doors, windows, floors. Take dated photos of anything you find, with a ruler for scale.
2. Walk it again during the next rain. Watch where water goes. Note every downspout that discharges at the foundation and every low spot that ponds.
3. Mark the ends of any cracks with pencil and date them. You'll check them in 30 and 90 days.

If you find growing cracks, displacement, or a pattern of symptoms on one side of the house:

1. Get two or three evaluations from established local contractors. Demand measured elevations, a stated cause, and a written plan from each.
2. Bring Chapter 9's fifteen questions. Compare bids on equal scope — pile count, spacing, refusal standard, itemized price.
3. Read the full warranty document before signing anything. Apply Chapter 11's questions. Never sign same-day.

After the repair:

1. Get the final elevation map, the pile log with refusal depths, and the warranty paperwork. File them where you'll find them.
2. Fix your drainage — downspout extensions, grading, mulch levels. This is non-negotiable.
3. Set up even, moderate foundation watering for dry months. Account for trees on their side of the house.
4. Do the thirty-minute seasonal walk-around every spring and fall. Log what you find.

Always:

- Even moisture. Water runs away from the house. Watch the water bill. Never decide same-day. Get it in writing.

That's the whole book on one page: read your house, understand the soil, fix the causes, hire with your eyes open, and maintain what you repaired. Do those things and your foundation becomes one of the parts of your house you never have to think about again — which is exactly what a foundation should be.

About the Author

Travis Nech is the founder of Metro Foundation Repair (metrofoundationrepair.com) in Granbury, Texas. He owned and operated Metro Leveling and Metro Foundation Repair,

and brings decades of hands-on foundation repair experience in Texas expansive-clay country — thousands of homes evaluated, thousands of piles driven to refusal, and a career spent learning what Texas soil does across wet years and dry ones.

His authority is field experience: the kind earned under houses, around slabs, and across kitchen tables explaining to homeowners what's happening beneath their feet and what to do about it. He is not a licensed professional engineer, and this book doesn't pretend otherwise — where a situation calls for engineered drawings or a structural engineer's report, he says so plainly.

Travis wrote the original Foundation Repair Report years ago as a free guide for homeowners, from a simple conviction: a homeowner who understands what's happening is harder to cheat and easier to serve. This expanded edition carries that conviction to a new generation of Texas homeowners.

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