

Texas Clay and Your Brickwork: Expansive Soil, Movement, and Cracks

Why Texas Ground Moves and What That Does to Brick

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Chapter 1: Expansive Clay Soil, Brick Cracks, and the Texas Dirt Under Your House

If you own a brick home in Texas and you've got cracks showing up in the walls, I want you to understand one thing before we talk about anything else: in most cases, your house didn't do anything wrong. The dirt did.

I've been doing this 50 years — brick, masonry, foundation work, all of it — and I can tell you that nine times out of ten, when a Texas homeowner calls me about cracks in their brick, the story starts the same way. The cracks showed up after a dry summer. Or after a wet spring. Or they open up in August and half-close by April, like the house is breathing. That isn't settling in the ordinary sense. That's the ground moving under you, and in Texas, the ground moves a lot.

The ground I'm talking about is expansive clay soil. That's the primary keyword of this whole book — expansive clay soil, brick cracks, Texas — because if you understand those three things and how they connect, everything else about your house gets clearer. Let's start with the dirt itself.

What's actually in the ground

A big belt of Texas sits on a soil called Blackland Prairie clay. It runs through Dallas, Fort Worth, Austin, and San Antonio — basically the whole corridor where most of the brick homes in this state stand. Around Houston there are similar clays. These aren't ordinary dirt. They're built around a clay mineral called montmorillonite, and montmorillonite has one unusual talent: it drinks water.

When water gets between the layers of that mineral, the layers swell. When the water leaves, the layers shrink back down. The volume change is real and dramatic — commonly cited in the range of 10 to 30 percent, depending on the soil. Some Texas clays expand up to about 15 percent in volume when they're wet. Imagine any material under your house growing by a sixth and then shrinking back, every year, year after year. That's not a stable platform. That's a platform with opinions.

Texas A&M's AgriLife Extension research has measured the shear stress these wet-dry volume changes put on foundations and the masonry sitting on them. And a study they published estimated that expansive soils cause something like \$2 billion in damage every year in the United

States — a huge share of it to residential foundations right here in Texas. This isn't theoretical. It's the single biggest structural expense facing Texas homeowners, and it's written into the geology.

Why this never really stops

Here's the part that surprises people. In most states, when you hear "settlement," you think of a house easing into the ground for the first few years and then calming down. Texas expansive clay doesn't settle and calm down. A house built in 1985 is still riding the same shrink-swell cycle in 2026 that it rode the year it was poured. There is no one-time settling period after which the ground stabilizes. The cycle is the permanent condition.

That matters because it changes how you think about repair. You're not fixing a thing that broke once. You're managing a thing that moves forever. The repairs that last in Texas are the ones designed around that fact — and the repairs that fail are the ones that pretend the ground is done moving. We'll come back to that hard in Chapter 5, because it's the most expensive lesson in this book.

What the movement does to a brick wall

Brick is stiff. Mortar is deliberately the softer element in the wall — it's supposed to give a little before the brick does. But "a little" has limits. When one part of your foundation drops half an inch relative to another part — or when one corner gets lifted by swelling soil while the rest sits still — the rigid brick wall can't flex to follow. Something has to give, and what gives is the mortar joints, and then the bricks themselves.

The signature pattern is the stair-step crack: a crack that follows the mortar joints in a zigzag, climbing up the wall like a staircase. It's the classic fingerprint of differential movement — one section of the wall moving relative to the next. You'll also see doors that stick or won't latch, diagonal cracks running off the corners of windows and doors inside the house, gaps opening where the wall meets the ceiling or the baseboard, and out in the yard, the soil pulling away from the slab edge during a dry spell leaving a visible gap. One hairline crack by itself is rarely an emergency. A pattern of these signs — or one sign that keeps getting wider season after season — is the ground talking to you, and it's worth listening.

I want to be clear about the division of labor here, because it shapes this whole book. The cracked brick is the symptom. The moving ground is the disease. A mason fixes the symptom. A foundation crew fixes the disease. This book is about the disease — the soil science in plain English, the seasonal cycle that opens and closes your cracks, and the repair order that doesn't fight the dirt. There's a companion angle in this series on reading the cracks themselves and what each pattern means; this book stays with the dirt.

The moisture lever

If expansive clay soil is the engine, moisture is the throttle. Everything about this soil's behavior is driven by how much water is in it. Long hot dry spell: the clay loses water, shrinks, and support falls away from parts of the foundation — the edges of a slab can drop as the soil pulls back. Heavy rain after the drought: the clay swells fast and pushes up, sometimes unevenly, lifting one section while the rest lags behind. The engineers call the second part "slab heave." I call it the ground winning an argument with your house.

And the moisture doesn't come from rain alone. Large trees — a mature oak, say — can pull big volumes of water out of the ground to a depth of several feet, creating a dry zone on

one side of the house while the other side stays moist. A leaking gutter that dumps roof water right at the foundation keeps one corner swollen while the rest dries. A plumbing leak under the slab can saturate the soil silently for months. Irrigation that waters the lawn heavily on one side and nothing on the other. All of these create differential moisture — which is just a fancy way of saying one part of your dirt is a different size than the part next to it, and your house is the thing spanning the gap.

That one idea — differential moisture — is worth more than most of what you'll read on this subject. Your foundation doesn't care much whether the soil is wet or dry in the abstract. It cares whether it's *evenly* wet or dry. Uniform movement, the whole slab moving together, rarely cracks anything. Uneven movement is what breaks brick. Everything in Chapter 4 is about keeping the moisture even, because that's the one lever you actually control.

Chapter 2: The Seasonal Cycle — Why Your Cracks Open and Close

One of the most confusing things about Texas clay soil brick cracks is that they don't sit still. A homeowner calls me in August and says, "There's a crack in my brick you could stick a pencil in." I come look in March and it's half the width it was. Did the house fix itself? No. The seasons fixed the reading.

Here's the cycle, and once you see it you'll recognize it in your own walls.

Summer: the shrink

Texas summers are long, hot, and dry — often months of it. The sun bakes the moisture out of the clay around your foundation, and the soil starts to shrink. It pulls away from the slab edge — you can walk around your house in August and see a dark gap between the dirt and the concrete in places. The soil under the perimeter of the foundation loses volume first, because that's the soil most exposed to air and heat. As it shrinks, it stops supporting the edge of the slab the way it did in spring.

The middle of the slab, meanwhile, is shaded by the house itself. It stays cooler and holds its moisture longer. So you get a situation where the center of the foundation is still sitting on firm, expanded clay while the edges are dropping into the space the shrunken soil left behind. The engineers describe this as a domed or mounded soil profile — high in the middle, low at the edges — and it bends the slab. That bending is what opens your cracks in summer. Cracks that appeared in July and August are, more often than not, shrinkage cracks: the ground let go, and the house sagged into the gap.

This is also when you notice the spiderweb cracking in the yard — the soil surface itself cracking into polygons — and when doors start sticking. The sticking doors of August are the classic Texas tell. The frame has racked just enough that the door won't latch.

Fall and winter: the swell

Then the rains come. Fall storms and winter wet weather soak the shrunken clay, and montmorillonite does what montmorillonite does — it swells, sometimes fast. The soil that pulled away from your foundation in August pushes back against it in November. Where summer was about the ground letting go, the wet season is about the ground pushing

back, and it doesn't push evenly. The soil on the shady north side of the house stays wetter than the soil on the sunny south side. The corner under the downspout swells more than the corner under the eave overhang. The side where the neighbor's sprinkler hits your fence line swells more than the side where nothing runs.

This is slab heave — upward pressure from expanding soil. It can lift a section of foundation, and it can close a crack that opened in summer, or open a new one in a different place. Homeowners who watch a crack "heal" in the wet months sometimes conclude the problem went away. It didn't. The movement just changed direction. The wall bent one way in August and the other way in January, and brick and mortar don't enjoy being bent back and forth any more than a paperclip does. Every cycle works the joints a little more.

Spring: the transition

The most active movement happens in the transitions — the swing from dry to wet and back. A wet spring after a dry winter, or the first big storms of fall after a brutal summer, is when I get the most calls. The oscillation is the damage. Down, then up, then down again, year after year. One season's movement is nothing. Twenty seasons of it is a stair-

step crack marching up your veneer.

Why this cycle should change how you repair

The seasonal cycle is the reason the repair order matters so much, and the reason patience is part of the job. If you repoint a crack in August, at the maximum shrink, and the ground swells back in December, that fresh mortar is now being squeezed in a joint that wants to close — or the wall moves again and the crack reopens beside your repair. Repairing brick while the ground is mid-cycle is like painting a car while it's driving.

The right move is to watch a full cycle when you can. A crack that opens and closes with the seasons is telling you the movement is active and moisture-driven. A crack that only ever widens, season after season, is telling you something more one-directional is happening — ongoing settlement on one side, a plumbing leak feeding one zone, a tree winning a slow war on one corner. Both are worth a professional look, but they point at different causes, and the fixes are different. We'll sort that out in Chapter 5.

Practical note: if you're tracking a crack, do it like an engineer does. Mark both ends of the crack with a pencil and

write the date. Take a photo from the same spot with something for scale — a coin works. Do it once a season. In twelve months you'll have a record that tells any foundation man exactly what the ground is doing, and you'll stop guessing. I've had homeowners hand me a year of dated photos and save themselves a thousand dollars of diagnostic work, because the pattern was right there on paper.

Chapter 3: Reading What the Dirt Did — Where Soil Damage Shows Up

When expansive clay moves a house, it leaves a signature. Not one mark — a pattern. In fifty years of walking Texas houses, I've learned that the ground never damages just one thing. If the soil moved your brick, it moved other things too, and knowing how to read the whole pattern is the difference between fixing the problem and chasing symptoms one at a time.

This chapter is about reading the pattern from the soil's point of view: what the dirt did, and where it shows. (There's a companion book in this series that goes deep on reading individual crack types and what each one means — this chapter stays on the soil-damage pattern as a whole.)

The outside story

Start at the brick, since that's what brought you here. Soil-driven cracks in brick veneer have a habit of showing up at the weak points: above and below windows, at the corners of the house, and running off the tops of doors and garage openings. The stair-step pattern — cracking that follows the

mortar joints in a zigzag up the wall — is the classic fingerprint of one section of wall moving relative to the next. A straight vertical crack through the bricks themselves can mean the wall is being pulled apart more aggressively, and that's worth a faster look.

But don't stop at the brick. Walk the perimeter and look at the ground. Is the soil pulled away from the slab in a visible gap? That's the dirt telling you it dried and shrank. Is one side of the house sitting in soil that looks swollen and heaved while the other side looks parched? That's differential moisture made visible. Check the chimney — is it separating from the side of the house, opening a gap you can see? Chimneys ride on their own footing, and when the soil under the house moves differently than the soil under the chimney, they part company.

Look at your expansion joints — the vertical lines in the brick where the builder left a deliberate gap for movement. On a house riding clay soil, those joints tell the story of the seasons: opening wider in summer, closing in winter. If an expansion joint has closed completely and the brick is grinding against itself, the wall is under compression stress from swelling soil, and that pressure has to go somewhere.

The inside story

Now go inside, because the ground never damages just one thing, and the inside of the house confirms what the outside suggests. The rule I give every homeowner: if you see brick trouble outside, go look for its partners inside.

Diagonal cracks running off the top corners of doors and windows — inside the drywall — are the interior echo of what's happening in the brick. Doors that stick, won't latch, or swing open on their own are the frame racking with the foundation. Floors that slope or feel uneven underfoot. Gaps where the wall meets the ceiling, or where the baseboard has pulled away from the wall. Cabinets pulling off the kitchen wall. Any one of these alone might be nothing — houses creak. But a cluster of them, especially grouped around the same corner or side of the house where the brick is cracking, is the pattern. One sign is a curiosity. Three signs in the same area is a diagnosis.

Here's why this matters for your wallet: a mason can fix the brick, but if the inside signs are there too, the brick isn't the problem — it's the evidence. Caulking and repointing over evidence doesn't change the verdict. The foundation has to be addressed first, and we'll lay out that order in Chapter 5.

The misleading ones

Not every brick issue is the dirt. I owe you this because I've seen homeowners spend foundation money on masonry problems and masonry money on foundation problems, and both mistakes are expensive.

Brick ties are the metal straps that tie your brick veneer back to the wood framing of the house. When ties corrode or were spaced wrong during construction, sections of veneer can bow or bulge outward — and it looks alarming, like the wall is failing. But the foundation may be perfectly fine. That's a mason's job: take the section down, reset it with proper ties. Similarly, a crack running off a lintel — the steel angle over a window or garage door — is often about the lintel, not the soil. And a single vertical crack in one spot with no interior signs, no sticking doors, no other anything, is often just the house being a house.

The test is always the pattern. Foundation settlement from clay soil shows up in multiple places at once — brick outside, drywall inside, doors, trim, floors. If you've got the full chorus, it's the dirt. If you've got one soloist, look closer before you spend.

When to get a professional look

One hairline crack that isn't growing: watch it, photograph it seasonally, don't panic. A crack that's widening season to season: get an inspection. A pattern of signs — brick cracks plus sticking doors plus interior drywall cracks, all on the same side of the house: get an inspection now. Any crack you can fit more than a quarter-inch into, any chimney pulling away from the house, any door that suddenly won't close at all: don't wait.

A foundation inspection from a reputable company is usually free, and a structural engineer's assessment typically runs a few hundred dollars. Either one will tell you whether you're looking at normal seasonal flex or movement that needs correcting. What you want from that visit is a diagnosis with measurements — elevation readings, not just opinions. Anyone who quotes you piers without taking measurements is selling, not diagnosing.

Chapter 4: Water Is the Lever — Moisture Management That Actually Works

Here's the good news in this book. You can't change the clay under your house — it's been there a lot longer than you have and it'll be there long after. But you can manage the one thing that makes it move: moisture. And moisture management is the cheapest foundation protection a Texas homeowner can buy. I've seen a \$30 soaker hose do more for a house than a \$10,000 repair did for the house next door that skipped the watering.

Remember the key idea from Chapter 1: your foundation doesn't care much whether the soil is wet or dry. It cares whether it's *evenly* wet or dry. Everything in this chapter is about keeping the moisture around your foundation as even as you can, through the brutal summer and the soaking winter alike. Consistency beats volume. A little water, regularly, beats a flood once a month.

Drainage first — get water away from the house

Before you add a drop of water around your foundation, make sure the water that falls from the sky is leaving

properly. This is the step people skip, and it undoes everything else.

Grading. The ground around your house should slope away from the foundation. The rule of thumb I give every homeowner: you want at least six inches of drop over the first ten feet out from the house. Walk your perimeter after a hard rain and look for where water stands. Low spots against the foundation are feeding one zone of soil while the rest dries — differential moisture, manufactured right at your slab edge. The fix is usually simple: bring in soil and regrade. It's shovel work, not engineering.

Gutters and downspouts. A roof collects an enormous amount of water in a Texas thunderstorm, and every gallon of it comes off the edge somewhere. If your gutters are clogged, the water sheets off in curtains and digs trenches along the foundation. If your downspouts dump right at the slab, you've got one corner of your house sitting in a swamp while the other three corners dry out. Downspout extensions — the cheap plastic or metal kind — should carry roof water at least several feet away from the foundation. Splash blocks alone aren't enough in a gully-washer. This is unglamorous work and it prevents an enormous share of the localized

heave I get called out to look at.

French drains and surface drains. Where the lot just won't shed water — flat lots, houses at the bottom of a slope, clay that perks about as well as a parking lot — a French drain or surface drain system gives the water somewhere to go. These aren't cheap, but they're cheaper than piers, and on the wrong lot they're the difference between a house that rides the seasons calmly and one that doesn't.

The watering program — soaker hoses done right

In a Texas summer, rain alone won't keep your foundation soil even. You have to water the ground around your house the way you'd water a garden — deliberately and consistently.

The tool is a soaker hose: the black, spongy kind you can buy at any hardware store. Lay it in a loop around the entire foundation, about 12 to 18 inches out from the slab edge. Not against the concrete — if the hose sits right on the slab and the soil is dried and cracked, water runs down the cracks and pools under the edge, and you've created the exact heave problem you were trying to prevent. Twelve to eighteen inches out lets the moisture soak evenly into the soil.

Run it for about 15 to 20 minutes a few times a week during the peak of summer. The goal is to keep the soil consistently damp — not soggy, not a swamp, just not pulling away from the foundation. When you can press your thumb into the soil and it holds together instead of crumbling to dust, you're in the right range. Some folks bury the hose a few inches deep so it doesn't grow legs or get chewed by the mower; that works fine too.

Your sprinkler system can help, but it's not a substitute. Sprinkler patterns around a house tend to go wet-dry-wet-dry — the zones overlap unevenly, the corners get missed, the side under the big eave gets nothing. A soaker hose gives you even placement all the way around, which is the whole point. Run both if you like, but don't count the sprinkler as your foundation program.

And here's the discipline part: start the watering program *before* the soil pulls away, not after. Once the clay has shrunk and cracked open, re-wetting it is a slower, trickier business — water runs down the cracks instead of soaking in, and the swelling happens unevenly. The program works best as prevention, run all summer, every summer. In a wet year you can back off. In a drought year, it's the most important chore

on your list.

Trees — the quiet moisture thieves

A mature tree is a magnificent thing until it's parked twenty feet from your slab. A big oak or pecan can pull enormous volumes of water out of the ground, down to a depth of several feet, and it does it all summer long. The result is a localized drought zone on the tree side of the house while the other side stays moist. I've walked houses where you could draw the tree's root zone on the foundation like a map, just by following the settlement.

You don't have to cut the tree down — though sometimes that's the honest answer on a bad one. The standard fix is a root barrier: a vertical plastic or metal sheet buried between the tree and the foundation, typically a few feet deep, that blocks the roots from reaching the soil under the house. It's real work — trenching, not gardening — but it's a one-time job that removes a permanent moisture imbalance. If you're planting new trees, plant them with the mature canopy in mind: a good rule is to keep large species at least as far from the house as their expected mature height. Your foundation will thank you for the next fifty years.

Plumbing leaks — the invisible soaker hose

Everything so far has been about water you can see. The dangerous kind is the water you can't. A slow leak in the water or sewer line under your slab feeds moisture into one zone of clay, month after month, silently. The soil swells in that one spot. The slab lifts in that one spot. The brick cracks above that one spot. And because the leak is invisible, the homeowner chases every other explanation first.

Watch for the tells: a water bill that climbs for no reason, the sound of running water when nothing's on, a warm spot on the floor, a sudden drop in water pressure, or one area of the yard that's suspiciously lush in August. A hydrostatic plumbing test — where a plumber pressurizes the lines and watches for loss — typically runs a few hundred dollars, and it's the cheapest way to rule a leak in or out before you spend foundation money. If you're getting a foundation inspection anyway, ask whether a plumbing test makes sense. Fixing a leak before the foundation work is part of doing the job in the right order, which brings us to the chapter that saves people the most money in this book.

Chapter 5: The Repair Order That Doesn't Fight the Dirt

This is the most expensive chapter in the book, because getting the order wrong is the most expensive mistake a Texas homeowner can make with cracked brick. I'll say it plain, the way I say it to every customer standing in their yard:

Foundation first. Masonry second. Always.

If your stair-step cracks are caused by foundation movement — and on expansive clay, they usually are — then repointing the brick or caulking the cracks before the foundation is stabilized is like painting a sinking ship. The ground is still moving. The cracks will come back within months, sometimes weeks, and you'll have paid for the masonry work twice.

Worse than wasted money: repairing the brick first can actually make the foundation repair harder and more damaging. Here's why, and this is the part most homeowners never hear. When the foundation crew comes to lift a settled section of your house, everything has to move together. If

you've filled the settlement cracks with fresh mortar or packed them with new brick, that new material becomes a wedge. When the slab rises, the wedge has nowhere to go — so it forces the crack open on the opposite side, or pushes the brick out at the corners of the house. I've seen repaired walls crack worse during the lift than they were before the repair, because somebody filled the joints first. The mason's good work became the foundation crew's obstacle.

So the order is:

Step 1: Diagnose before you spend

Get the actual cause identified before anyone sells you a repair. That means a foundation inspection with elevation measurements — a reputable company will do this free — or a structural engineer's assessment, which typically runs a few hundred dollars. What you're buying is an answer to two questions: is the foundation actually moving, and is the movement ongoing or stable? Anyone who quotes you piers without taking measurements is guessing. Make them measure.

While you're diagnosing, rule out the accomplices: get the plumbing tested if there's any hint of a leak, walk the

drainage the way Chapter 4 describes, and note the trees. Foundation companies will sometimes tell you that you need piers before anyone's checked whether a \$400 plumbing fix would stop the movement. Check the cheap causes first. That's not an insult to foundation men — it's just the right order.

Step 2: Stabilize the foundation

If the diagnosis says the foundation needs help, that's the next money you spend. On Texas clay, that usually means underpinning: piers driven down to a stable load-bearing layer of soil, and then the settled section lifted back toward its original elevation. The common pier types you'll hear about are pressed concrete piers and steel piers — steel goes deeper and costs more per pier, concrete is the workhorse of DFW residential work. A typical DFW home that needs work takes something like 8 to 12 piers along one or two elevations, not a full perimeter lift. We'll put real 2026 numbers on all of this in the next chapter.

Two things to know about the lift itself. First, the goal is *stabilization*, not perfection. A good foundation crew gets the house stable and as close to level as the structure will safely allow; chasing the last quarter-inch can do more harm than

good. Second, the lift moves everything — and I mean everything. Doors that stuck may free up. Cracks may partially close on their own. That's why the masonry waits: you want to see where everything lands before you start rebuilding joints.

Step 3: Let it settle into its new position

This is the step impatient people skip, and patient people get rewarded for. After a foundation lift, give the house time — a full seasonal cycle if you can stand it — before you do the masonry repair. The structure needs to find its new equilibrium. Any cosmetic work you do in the first weeks is being done on a house that's still adjusting. A season of watching, with your dated photos from Chapter 2, tells you and your mason exactly what the final crack pattern looks like. Then the repair is done once, on the real geometry, and it stays done.

Step 4: Repair the masonry

Now — and only now — the mason comes in. The cracks get properly repointed: failed mortar cut out to sound material, new mortar matched to the old in strength, color, and texture, joints tooled to match the original profile. Cracked

bricks get replaced with matched units. This is straightforward, honest masonry work, and on a stabilized foundation it lasts. If you're hiring for this, the companion book on hiring a masonry contractor in this series walks through the questions and red flags — but the short version is the same as any trade: specific answers are honest, vague answers are a warning.

The one exception

There's exactly one situation where you touch the brick before the foundation: when water is getting in and doing active damage. If a crack is letting rain pour into the wall cavity, or a separated chimney joint is funneling water behind the veneer, you seal it temporarily — caulk, flashing tape, whatever keeps the water out — and you tell everyone involved that it's temporary. Weatherproofing is triage, not repair. It doesn't change the order; it just keeps the patient alive until surgery.

What about the warranty question

Ask every foundation company the same question: "What happens to my warranty if the soil moves again?" On expansive clay, some future movement is always possible —

the dirt doesn't retire. Reputable Texas foundation companies warranty their piers, typically with long or lifetime transferable warranties on the pier work itself. What they can't warranty is the soil. That's not a dodge; it's geology. The warranty covers the work they did. Your moisture management program from Chapter 4 is what protects the soil side of the bargain. The two together — stabilized foundation plus even moisture — is the actual long-term fix. Either one alone is half a job.

Chapter 6: The 2026 Numbers — What Stabilizing and Repairing Actually Costs

Let's talk money, honestly and in ranges. Foundation work on Texas clay is priced by the job, and the job is priced mostly by pier count — how many piers, what type, and how deep they have to go to find stable soil. Anyone who gives you a firm number without measuring your house and counting piers is guessing. But ranges are real, and you deserve to know them before anybody knocks on your door.

Foundation stabilization

Per pier. This is the unit everything is built from. In 2026, Texas foundation companies report pressed concrete piers running roughly \$350 to \$550 installed per pier, and steel piers running roughly \$900 to \$1,500 installed per pier. Other reputable companies quote a blended range of about \$600 to \$1,000 per pier installed regardless of method. The spread exists because depth matters — a pier driven 12 feet to bearing soil costs more in material, labor, and time than one driven 8 feet — and because access, soil conditions, and the weight of the structure all move the number. When a bid

seems high per pier, ask how deep they're going and what they're bearing on. That's a fair question and it has a specific answer.

Per job. The typical DFW home that needs foundation work needs something like 8 to 12 piers along one or two elevations — not a full perimeter lift. Reputable Texas companies report the average 2026 job ticket landing between about \$6,500 and \$11,000. Broken down the way homeowners actually experience it: a single settled corner — the most common job — typically runs \$2,500 to \$6,000. A full side runs \$5,000 to \$12,000. Multi-side or full-perimeter work runs \$15,000 to \$35,000. Slab foundation repair for 8 to 12 piers is commonly quoted \$4,500 to \$14,000 depending on pier type. Houston-market guides put the typical homeowner spend at \$4,500 to \$12,000, with extensive damage on a badly shifted home reaching \$20,000 or more.

What moves the number. Pier count is the big one — it's simple multiplication. After that: pier type (steel costs more than concrete and goes deeper), depth to bearing soil, interior versus exterior piers (interior piers mean breaking and patching the slab inside the house), engineering and permits (an engineer's report can run \$500 to \$2,000 or more, permits

\$100 to \$500 depending on the city — Dallas and Plano now require engineered plans on permitted work), and ancillary costs like debris removal and landscaping restoration, typically a few hundred dollars. A plumbing hydrostatic test, if you need one to rule out a leak, runs about \$350 to \$550 and is often billed separately.

What the increase is. If these numbers look higher than what your neighbor paid five years ago, they are. DFW foundation costs have climbed notably — steel pipe prices are up substantially since 2022, labor is up, and the added engineering cities now require adds real cost. That's not gouging; it's the market. The way to control the number is still what it's always been: catch it early. A small settled corner is a \$2,500-to-\$6,000 job. The same corner ignored for five years, with the plumbing stressed and the brick torn up, is a different conversation.

The masonry repair after

Once the foundation is stable, the brickwork repair is ordinary masonry pricing — and there's a companion book in this series, on tuckpointing costs in Texas, that goes deep on the 2026 numbers. The short version: straightforward repointing on a Texas home typically lands \$10 to \$20 per

square foot; a defined job like an 8-by-10-foot section of wall typically runs \$400 to \$2,000; chimney work runs higher because of access. Epoxy or polyurethane injection for individual slab cracks runs about \$250 to \$800 per crack. Mudjacking or slabjacking to lift a slightly sunken section runs roughly \$600 to \$3,000.

Here's the cost logic of the repair order from Chapter 5, in dollars: foundation work plus one masonry repair is the total job. Foundation work plus a premature masonry repair plus a second masonry repair after the lift is the total job plus the cost of doing the brickwork twice. The order isn't just technically right — it's financially right.

Insurance: the honest answer

Homeowners ask me this at every inspection, so here it is straight: standard Texas homeowners policies almost always exclude foundation damage caused by expansive soil. It's considered a maintenance and earth-movement issue, not a sudden accident. What insurance *can* cover is the sudden stuff — a burst pipe that floods and undermines the slab, for example, may trigger coverage for the resulting damage depending on your policy. Read your policy before you need it, not after the claim is denied. And document everything:

your dated crack photos from Chapter 2, your inspection reports, your plumbing test results. If a covered event ever does cause foundation damage, that paper trail is worth real money.

Getting bids you can compare

Get three bids. Make sure each one lists pier count, pier type, depth or bearing target, which elevations get piers, engineering and permit handling, and the warranty in writing — what's covered, for how long, and whether it transfers to the next owner. A bid that just says "foundation repair: \$8,500" with no pier count isn't a bid, it's a number. And remember the rule from the last chapter: anyone quoting piers without elevation measurements is selling, not diagnosing. The measurement is the diagnosis. The pier count comes out of the measurement.

Chapter 7: Buying or Selling a House on Texas Clay

Texas clay doesn't just affect the house you live in — it affects the house you're thinking about buying, and the one you're trying to sell. After fifty years of watching deals get made and broken over foundation issues, here's what I tell buyers and sellers.

If you're buying

Look at the brick before you fall in love with the kitchen.

On your first walkthrough, do the perimeter walk from Chapter 3. Fresh paint on the interior drywall and brand-new caulk in every brick joint are worth noticing — not as red flags by themselves, but as questions. Ask the seller directly: has the foundation ever been repaired? When, by whom, and is the warranty transferable? In Texas, a foundation repair with a transferable warranty from a reputable company is a selling point, not a scar. It means somebody already paid for the stabilization and you inherit the protection.

Get the inspection that matters. A general home inspector will note the cracks. For a house on expansive clay with

visible movement signs, spend the money on a foundation-specific evaluation with elevation measurements — or better, a structural engineer's report. A few hundred dollars at inspection time has saved my customers tens of thousands in surprise pier work after closing. And check the moisture story: walk the grading, look at the downspouts, note the big trees near the slab, ask about the watering program. You're not just buying the house — you're buying its relationship with the dirt, and you want to know what that relationship looks like.

Negotiate with numbers, not fear. If the inspection finds movement that needs piers, get a real bid — pier count, elevations, the works — and negotiate off the bid, not off your anxiety. A \$8,000 pier job on a \$400,000 house is a line item, not a dealbreaker. What kills deals is uncertainty: a vague "foundation issues" note with no measurements and no bid. Replace the vagueness with numbers and most deals survive.

If you're selling

Disclose honestly. Texas sellers are required to disclose known foundation issues, and trying to hide them is how lawsuits get born. Disclose the repair, hand over the warranty paperwork, and provide the engineering report if

you have one. Buyers pay more for documented honesty than for a house with suspiciously fresh caulk and no paperwork.

Don't do the masonry right before listing. This is the Chapter 5 mistake in a sales context. Sellers love to repoint the brick and caulk everything to make the house photograph well — and then the buyer's inspector finds the interior signs anyway, and now the seller looks like they were hiding something. If the foundation needs work, do the foundation work, let it settle, do the masonry properly, and disclose all of it with paperwork. A documented repair history sells. A cosmetic cover-up invites a lowball.

Stage the moisture story. If you've run a watering program, kept the grading right, and managed the trees, say so — and show the buyer how it works. "Here's the soaker hose loop, here's the timer, here's what I do in August" is a five-minute conversation that tells a buyer this house has been cared for by someone who understands the ground it sits on. On Texas clay, that's worth more than new cabinet hardware.

Chapter 8: Living With It — Your Yearly

Routine

You don't beat Texas clay. You manage it, the way you manage the heat and the storms — it's part of living here. The homeowners whose houses ride the decades gracefully aren't the ones who spent the most money. They're the ones who built a routine. Here's the one I recommend, season by season.

Spring. Walk the perimeter. Look at every elevation of brick for new cracking or widening. Check the expansion joints — did they close up over winter? Walk inside and check the doors, the drywall corners, the trim gaps. Take your dated photos. Clean the gutters before the spring storms — clogged gutters are a localized-heave factory. Check the grading after the heavy rains: did water stand anywhere against the foundation? If it did, that's a summer project.

Summer. Run the watering program. Soaker hose loop, 12 to 18 inches out, 15 to 20 minutes a few times a week, all summer. Watch for the soil pulling away from the slab — if you see the gap opening, you're behind; water a little more,

not a lot more. Remember: consistency, not flooding. Watch the trees — a dry August is when a big oak does its worst work on your moisture balance. And keep photographing any cracks you're tracking. Summer is when shrinkage cracks show themselves most honestly.

Fall. The transition season — the most active movement of the year. Do your full inside-outside walk again and compare against spring. This is when new stair-step activity usually shows up if it's going to. Check the downspout extensions before the fall storms — make sure roof water is still being carried away from the foundation. If you had grading work planned from the spring observations, fall is a good time to do it, before the winter wet sets in.

Winter. The wet season. Back off the watering program — the sky is doing the work. Watch for the opposite problem: soil staying soggy against the foundation for weeks, water standing where it shouldn't. If a crack that opened in August closes up by January, note it — that's the seasonal cycle doing its thing, and it's useful information, not a cure. Winter is also planning season: if the year's photos show a crack widening season over season, that's your signal to get the professional inspection in the spring, before the next summer's shrink.

Every year, one discipline: keep the photo log. Same spots, same scale reference, dated. It takes ten minutes a season. In three years you'll know your house's movement pattern better than any contractor who walks in cold — and you'll know the difference between normal seasonal flex and something that needs money. That knowledge is the whole game.

One last thing. I wrote this book because Texas clay soil and brick cracks are the most misunderstood pairing in Texas homeownership. People either panic over a hairline crack that means nothing, or ignore a pattern that means everything. Now you know the difference. You know the dirt, you know the cycle, you know the order, and you know the numbers. The ground under your house will keep moving — that's geology, not a defect. But a homeowner who understands the ground is a homeowner the ground can't surprise. That's worth more than any repair.

If the brick itself needs attention, [brick crack repair in Texas](<https://championbrickrepair.com>) is what we do every day at Champion. And if the ground needs stabilizing first — the foundation side of this whole story — that's [foundation repair for expansive clay](<https://metrofoundationrepair.com>) over at Metro. Foundation first, masonry second. Always.

About the Author

Travis Nech has spent 50 years in Texas brick, masonry, and foundation work. He owns [Champion Brick Repair](<https://championbrickrepair.com>) — (817) 900-6324 — [Metro Foundation Repair](<https://metrofoundationrepair.com>) — (817) 670-4474 — and the [LintelLOCK](<https://lintlerepair.com>) lintel system — (469) 730-0650. All his books are free at [Travis Nech's Free Book Library](<https://metro-foundation-repair.web.app/free-books/>).