

Cracked Houses

Homes all over Arizona are falling apart.

Blame the bad soil -- and the lousy construction

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Shari Wilson's house is falling apart at the seams. And her life isn't so great, either.

You'd never know it to look at her. At 32, Wilson has the wholesome good looks of a

sitcom mom. Juggling 3-month-old Teagen in her kitchen in suburban Surprise, she might be starring in a commercial for children's Tylenol. Or Ivory soap.

Her five-year-old house is another story.

Cracks are etched along the walls, creeping from the corners of the windows and the baseboards. Holes have been cut in various spots on the kitchen linoleum. There's also a series of holes in the backyard -- five feet deep.

And, since the Wilsons started pulling up the carpet three years ago and stopped, it now sits, half-on, half-off, as if waiting for hardwood floors to arrive and put it out of its misery.

Worst of all: the crack running the entire length of the house, from the easternmost edge of the living room floor to the westernmost edge of the kitchen.

This is not one of those spidery cracks that surface on aging stucco, or the normal hairlines that show up on patios.

This is a 45-foot gash bisecting the house's foundation, as if an earthquake struck Surprise.

It's because of this gash that Shari Wilson's entire house is starting to crack, and because of the cracks that her lawyer advised her, in no uncertain terms, to hold off on any new flooring.

"I can't do anything," she says. "I absolutely cannot fix anything, because if I do, and they end up ripping it out, I'd have to pay for it. And so I'm just stuck."

Wilson and her husband, Shane, chose this house, on North 158th Lane in Surprise, for its size: 4,100 square feet.

They already had three daughters when they decided to become foster parents. Eventually, they added three more kids to their brood, all with special needs. So four bedrooms were important. So was a big yard.

"We got the biggest house we could afford," Shari Wilson says.

They were living the American dream, as clichéd as that sounds. And, yes, it's an even bigger cliché to report that their dream turned into a nightmare. But it did.

(That's the thing about clichés: There's some truth at the heart of every one.)

What happened is this:

The house that Shari Wilson thought would be perfect for her growing family developed severe structural defects, including a mold problem.

Her builder refused to fix them, she says.

And when she hired a lawyer, the builder just fought harder. Now Wilson's paid out nearly \$100,000 in legal and professional fees -- and the house is as screwed up as ever.

All along, Shari Wilson has wanted only two things: to get the home fixed, and to get her lawyers' fees recouped.

She feels like she doesn't have a choice. Who has the money to pay a lawyer \$100,000? And if she can't stay in the house, where is she going to go, with seven kids -- baby Teagen having arrived last November -- and the rising cost of Arizona real estate?

Some people in Shari Wilson's situation might get hysterical. For most Americans, a house isn't just shelter: It's the biggest financial investment they'll ever make.

No one takes out a 30-year mortgage, imagining that their house could fall apart in just five years.

And they don't expect to have to refinance that mortgage, twice, to cover lawyer and engineering fees.

Shari Wilson has done this.

Now she's left trying to salvage her investment in a system that's stacked against her. Arizona's government has been heavily influenced by developers, and if the builders have their way, it's sure to get even worse.

But Shari Wilson is not hysterical. You can't be a mother to so many kids unless you accept catastrophe with a certain nonchalance. And so Wilson does.

Still, it's clear that she is sick and tired of this 45-foot-long crack, and sick and tired of contractors coming to her house. And engineers. And lawyers.

January's bill alone was \$13,000.

"Who in the world has \$13,000 sitting around?" she asks. "After I've already been paying two to five thousand bucks a month!"

But she doesn't really have a choice. If she doesn't pay up, she knows her lawyer could walk, and then she's lost her entire six-figure investment in legal work -- and will still live in a cracked house.

She surveys her kitchen: the places where engineers have cut away the linoleum, the cracks and the holes.

"This has been going on for two years," she says, and her blue eyes flash. "And I've never asked my builder for a dime. I've just asked them to fix the house."

"The Desert Is Desirable," the U.S. Census Bureau concluded in December, and the headline wasn't just silly government alliteration (even if it was, in fact, silly government alliteration).

Arizona is booming. The state added a net gain of 199,413 people in 2005, or 546 people *every day*. According to the Census Bureau, we're the second-fastest-growing state in the nation, behind only Nevada.

Evidence is everywhere: In the ever-worsening traffic. In the new schools opening every year. Most of all, in the homes that seem to sprout up overnight, mushroom-style, in every direction.

The home-building business is booming: Greater Phoenix alone -- now so sprawling it stretches into both Maricopa and Pinal counties -- added 63,570 new homes last year, according to RL Brown Housing Reports. That's an increase of 63 percent from 2002, itself a record year.

Anthem, the vast Del Webb development north of town on I-17, is one example. Nine years ago, that hunk of land seemed as remote, and as empty, as Manitoba.

Today the traffic that gluts the freeway serves as indisputable proof of the development's popularity. More than 20,000 people live in Anthem already, and still construction continues.

Once building is complete, the spot that once grew only saguaros is expected to hold more than 21,000 homes -- and as many people as Sarasota, Florida.

But while Anthem's growth is real, and property values have soared, residents haven't been without problems.

Like Shari Wilson, some have discovered, to their horror, that their new homes are showing unexpected damage. Walls are cracking. Doors refuse to open. Driveways split so badly that they need to be replaced -- sometimes, repeatedly.

Blame geology.

Some of the hottest areas for development in the Valley -- including parts of Anthem, Gilbert, and Surprise -- suffer from problematic soil.

Soil that won't stay still.

Soil that expands, and contracts.

Soil that collapses.

And that can't help but have an effect on the foundation resting on it. Not to mention the house sitting on top of that.

Phil Pettice, chief inspector for the Arizona Registrar of Contractors, says that, as recently as 10 years ago, builders consciously avoided areas with expansive soils.

"But then the cost of land became so expensive, they started moving into those areas," he says.

The same thing happened in the Tucson area, says Jack Holden, chair of Arizona Building Officials. (He's the building official in Marana, just north of Tucson.)

"You see the land with poorer soils, 10 years ago, the only thing you'd find there is a farm house," Holden says. "But then the building boom hit, and you had these mass builders come in, and now you've got hundreds of houses there."

The problems have been real.

New Times reviewed files from a dozen court cases, examined two dozen formal complaints on file with state regulators, and interviewed home inspectors, engineers, and lawyers.

We visited homes plagued by cracking and settling, from Sun City to Chandler, and examined photographs of many more. We talked to homeowners who see the damage affecting their biggest investment, and are frightened and frustrated.

Michael Dicks, a Phoenix construction-defect attorney, believes that "thousands upon thousands" of homes have been affected by soil problems -- or will be showing damage in the near future.

Personally, he estimates, he's handled almost 2,000 cases where soils have been a factor.

If a builder has taken shortcuts where certain types of soil are involved, Dicks says, "it's not a question *will* it have problems, it's a question of *when* it manifests itself. It's a time bomb, with each home having a different fuse."

Not all are as bad as Shari Wilson's. But that's small consolation to a homeowner who's counting on a home holding its value . . . and is now counting the cracks that seem to expand on a daily basis.

Already, estimates Clarke Booth, who recently resigned after two years as an inspector for the Arizona Registrar of Contractors, soil problems are at the root of at least 5 percent of all complaints the agency receives -- close to 500 complaints every year.

And that doesn't count the homeowners who skip the complaint process and just file a lawsuit. Once the house is up, Booth says, fixing soil problems can be very difficult.

"When it happens, it can be very bad," he says, "and very costly to fix."

Bob Brown's business, Arizona Repair Masons, is one of the companies that gets called in for repair. And while some solutions can be as inexpensive as \$3,000 a house, he cautions that it can get much more costly.

The typical fix? About \$15,000, Brown says. Bad damage costs as much as \$80,000, or even more.

"I just did a house on Camelback Mountain for \$250,000," Brown says. "Some of these fixes are pretty expensive."

Business is booming: Brown's company alone handled almost 400 homes last year.

It's no wonder that construction-defect attorneys say that, within the past decade, problems caused by soil have become one of the biggest pieces of their caseload. They've filed class-action suits over the issue in all the major construction hot spots.

Some builders are now busy playing defense, hoping to head off lawsuits before they're filed. Del Webb actually hired consultants to inject chemicals under the foundations of at least 100 homes, according to a filing from the company's attorney.

Beyond the anecdotes, it's difficult to quantify the problem precisely.

The state registrar, which is the repository of around 10,000 complaints each year about home construction, doesn't sort the complaints by type. And the Maricopa County Clerk of Courts does not track the number of construction-defect lawsuits, much less break them down by the nature of the problem.

But what's clear is that this doesn't involve just one development.

There are problematic soils in pockets across the state, and if lawyers like Michael Dicks are to be believed, even the homes that are doing fine today may well end up with big problems in 10 years.

And it's not just one builder. It's almost every builder, from some of the smallest custom home specialists to major national players.

They've taken shortcuts. They've saved a few grand here and a few hundred bucks there.

And now it's their buyers who will pay the price

Real estate porn -- those gorgeous full-color ads in *Phoenix Magazine* and the *Sunday Arizona Republic* -- always employs the same buzz words: Gourmet kitchens and roman tubs. Maple cabinets and guest cottages. Heated pools. Granite countertops. Hardwood floors.

The ad guys aren't stupid. This is sexy stuff. Far sexier than the foundation below, which never even gets mentioned.

And not just because foundations aren't as noticeable as high-end cabinets.

Because the foundation is supposed to be a given.

Indeed, one of the craziest things about all the soil problems plaguing new construction here is how easily they could be avoided.

You might assume, after hearing about all the lawsuits, and seeing so many cracking homes, that Arizona's soil is awful, some of the worst in the country.

Not true.

"I wouldn't say the Phoenix Valley has particularly bad problems when you compare it to places like Denver, Oklahoma, and Texas," says Sandra Houston, a professor of civil and environmental engineering at Arizona State University.

The catalyst for most of Arizona's foundation problems is what geologists call "expansive soil." Frequently found in lake bottoms, expansive soils have a high clay content, which means they absorb water like a sponge.

When they get wet, they expand. Then, when they dry out, they shrink.

The other problem soils, called "collapsible," were the ones at Shari Wilson's house. Silty and sandy, they, too, seem fine until they get wet. Then, true to their name, they collapse.

Expansive and collapsible soils didn't affect the original settlers here, the Native Americans, or even the cowboys who followed.

It's been a different story for Arizona's more recent immigrants: the ex-Midwesterners with their new four-bedroom suburban manses, the Californians with their tidy vacation cottages, the young families with white-collar jobs and faux colonials.

The reason: Soil movement -- be it expanding and shrinking, or collapsing -- can wreak havoc on the big slabs of concrete that provide the base to most Valley homes.

As long as moisture stays constant, the house is okay. But consider the chain reaction that begins when water gets under the foundation.

First, the soil swells with moisture. And though without a house on top of it no one would likely notice, expanding soil doesn't take well to being pinned down by a thousand feet of concrete and a few tons of drywall and furniture and Spanish tile.

So it heaves.

And the concrete cracks.

When the moisture dries out, the concrete settles.

And then it cracks some more.

Because the whole house rests on the slab, when the concrete moves, the house moves, too. But it doesn't rise and fall in an elegant, uniform motion; it settles uneasily on the cracking, heaving foundation.

(Collapsible soils typically experience similar problems, so much so that they're frequently confused in early stages of investigation. Either way, the house is in trouble.)

"If the whole house moved together, you wouldn't have a problem," explains Houston, the engineering professor. "The problem is there are different levels of moisture in different areas under the foundation, and one part moves differently than the other."

And so cracks run from window frames across the wall, or from the edges of the archway up to the ceiling. In nastier cases, doors won't open. Walls begin to separate from the ceiling. At the baseboards, the drywall pulls away from the floor.

Mold, too, can result. Once the home starts shifting, moisture can get between the walls. And then, says attorney Jim Eckley, it grows like crazy.

But as bad as the results can be, experts agree that they're entirely avoidable. With proper engineering and careful attention, most soils in Maricopa County could be built on without too much trouble.

The problem is that some builders here aren't taking the trouble.

Instead, rather than address soil issues in construction, when they might be handled for a few extra grand per house, those builders are playing Russian roulette.

By taking shortcuts, they're clearly betting that, despite all evidence to the contrary, nothing will go wrong. Or, at least, maybe not until the statute of limitations runs out.

In some cases, the bet pays off. In others, they end up spending hundreds of thousands fighting off lawyers -- and, eventually, paying off their clients.

Either way, it's the homeowner who gets screwed.

Consider:

- Developers know which areas have problematic soils, but they're building there anyway.
- The state requires builders to commission a soil report for every new subdivision. But builders frequently ignore their own report's recommendations.
- The reports frequently require builders to keep water from the foundations, with gutters and a slope that drains *away* from the house. But even in areas with highly problematic soil, some builders do neither.
- The reports also typically recommend stronger foundations. But some builders resist them, citing cost.

Regulators and defense attorneys stress that construction is not an exact science. Any new home is going to be less than perfect, and perhaps people pouring hundreds of thousands of dollars into new houses simply need to lower their expectations.

Surely, that's true of some cases. But there's more to it than that.

Much more.

When Shari and Shane Wilson walked into their first meeting with their new lawyer, they were holding hands.

Shari remembers attorney Jim Eckley's warning. This is a huge strain, he said. "Nearly 30 percent of the couples I represent in construction-defect cases end up getting divorced."

"We looked at him and laughed," Shari Wilson recalls. "We never thought it would happen to us."

But, as lawyers who handle construction-defect cases are quick to explain, there is nothing that can prepare a couple for the stress of fighting to keep their home. It takes a huge toll, financially and emotionally.

"The pressure is horrible," Eckley says. "It crushes relationships."

"Most of the time, if the homeowner stays the course, they do get recompense. But it gets dark."

This, for Shari Wilson, is the dark time.

Five years ago, she and Shane found their lot just two miles down the road from their home in Surprise, in a new development called Greenway Parc.

Kaufman and Broad Homes, better known as KB, offered to build the home and put in a pool for just \$210,000.

The Wilsons had no idea that KB had previously run into trouble with government regulators.

The company, which has long been one of the nation's biggest builders, has a history of subpar work, beginning in the 1970s, when it was investigated by the Federal Trade Commission for "unfair and deceptive practices."

According to the consent decree that KB signed to close the case in 1979, the company had promised "top quality homes" -- but actually built houses that didn't even meet minimum standards from the U.S. Department of Housing and Urban Development. (Coincidentally, among the many issues the government cited were soil conditions and cracking foundations.)

In 1991, the Department of Justice slapped the company with a \$595,000 fine for violating the order. Once again, according to the Justice Department's complaint, the company had sold homes with a "major construction defect" and then refused to fix them.

More recently, in 2000, one year before the Wilsons contracted with KB, the Arizona Registrar of Contractors briefly pulled the company's license for shoddy workmanship. But, as the *Arizona Republic* later reported, the builder kept several licenses on file and merely used a different one to keep building.

(KB spokesman Daniel Weidman did not return calls for comment.)

"I had no idea," Shari Wilson says. "It was just a builder."

She soon wised up.

First, the Wilsons found the mold, growing along the baseboards. They were still dealing with that when, about a year after they moved in, they noticed a big crack running across the front porch. No big deal, Shari Wilson thought -- until the rains came.

And suddenly, the front yard collapsed about six inches. At the location of the crack, Wilson says, it heaved, bringing the crack into high relief.

That's never a good thing when kids are running around the place. So Wilson called KB, and the builder sent some people out to take a look. They offered to patch the porch crack.

But Wilson was suspicious. She talked to a friend in the construction industry, who informed her that a front yard collapsing six inches was not something that should be fixed by "patching."

"Tell them you're going to file a complaint with the Registrar of Contractors," the friend suggested.

That did the trick, at least initially. The next day, the builder sent over workers with a jackhammer. They did much more than patch the crack -- they ended up power-shooting dirt under the porch.

Since the day it rained, as it turned out, a gap of more than two feet had developed between the porch and the soil that once sat snugly beneath it.

That wasn't the end of it.

One year later, in 2003, Wilson and her husband pulled up the carpets, hoping to replace them with hardwood floors.

That's when they discovered the 45-foot crack running across the entire foundation.

Apparently, it wasn't just the soil under the porch that had collapsed. The soil under the house had been affected, too.

But when KB sent out a representative to look at the concrete, he insisted it was normal, Wilson says.

That's when the Wilsons hired an engineer. And what he found wasn't normal at all.

It all had to do with the soil.

KB had commissioned a soil report for the development, as required by the state of Arizona. But, the Wilsons' engineer concluded, the company failed to follow the report's recommendations.

The soil report, after all, warned the builders in no uncertain terms: The soil condition "is believed to constitute a serious problem due to extreme settlement potential upon increased moisture content."

In other words: If the soil got wet, it would collapse. In order to build, KB would have to compress the soil, and then keep water from it after construction.

The engineering report, in fact, specifically recommended that before construction, KB needed to compact the soil to 90 percent. And it needed to do so for three solid feet. That way, the foundation -- which sits about a foot and a half deep -- would rest on solid ground, not silty sand that was ready to collapse at the slightest sprinkling.

But that's not what happened.

When engineers hired by the Wilsons ran tests, they found good evidence that the builders had compressed only *two* feet. And they'd only compacted to 72 percent, not 90, in some areas, according to their report.

Cutting those corners probably saved KB no more than \$800 per lot, says Scott Warga, the chief forensic consultant at Phoenix-based National BuildMasters, who frequently does technical work for Wilson's lawyer.

But if you multiply that savings by the hundreds of homes in the development, it adds up to some serious cash.

Unfortunately, it also left Shari Wilson's foundation resting on only six inches of solid soil, and even that soil wasn't fully compacted. A little water would be fatal.

But KB hardly took care to keep the foundation dry.

For example: Building codes require that land slope away from the foundation at a minimum grade of 2 percent.

The builders hadn't done that, either, according to the Wilsons' engineer's report.

So the water didn't drain away from the house.

The soil below the foundation wasn't properly compacted.

The Wilsons' engineers came to a horrifying conclusion:

"[W]e anticipate an additional collapse of the site soils, which is expected to cause further damage to the structure, unless immediate measures are taken."

(KB's lawyers did not return calls for comment. In court filings, the company denies the Wilsons' claims, arguing that it has made "a good-faith attempt . . . to rectify any and/or all alleged construction defects and damages.")

The Wilsons' engineers completed their report a year and a half ago. Because KB didn't cough up the money to fix the house, Shari Wilson says, they've been fighting KB in court ever since.

It's been two steps back for every step forward. Just when KB seemed to be acknowledging the house's problems, Wilson says, its lawyers announced a new strategy: The company would be blaming them on its subcontractors.

It's a pretty common step in construction-defect cases -- but it's a slap in the face to a homeowner who's already been fighting her builder for two years.

"I never hired any of these people," Shari Wilson says. "I hired KB to build me a house. And it's not my responsibility to worry about the people they've hired!"

Even worse: The strategy is sure to slow the case down. A dozen subcontractors will now have to hire lawyers, file responses, and spend hours studying the evidence that's already been in litigation for months.

Wilson had thought Eckley was being dramatic when he talked about couples divorcing.

Then it happened to her. The Wilsons filed for divorce last winter.

"And now I'm stuck in this house as a single mom," Shari Wilson says. "And they still won't fix it."

The USDA keeps a highly detailed database of every type of soil in Arizona. It's not meant for amateurs, but if experienced researchers download the data and type in any given address, it explains what soils are there and what their composition is.

Questions about expansive soils have become so common that the USDA keeps special maps online for both Greater Phoenix and Greater Tucson, color-coded to show the level of soil expansiveness. Much of Phoenix itself is green: low expansion, okay to build. Tempe, too, looks good.

It's mostly in areas of newer growth -- places like, say, Anthem -- where the map turns blood red, which indicates highly expansive soil.

"The soil is so expansive in some of these places, it's like rocket fuel," says Warga, the National BuildMasters consultant. "You just water it a little and watch the house blast off."

Construction-defect attorneys believe there's good reason that places like Anthem, and Gilbert, weren't developed for so long.

"Until recently, the builders didn't really work in the real hot spots," says attorney Dicks. "They did hit areas. But when the building boom happened, they just built like crazy and threw caution to the wind."

Indeed, while the existence of expansive soils is often a shock to home buyers, who have no idea that their house is sitting on "rocket fuel," it's no shock at all to their builder.

Those detailed USDA maps, after all, were compiled in 1968. Long before Anthem was even a blip on I-17.

"This is public information," Booth, the former state inspector, says. "Anyone with even a slight willingness to study the issue can find out all they need to know about it."

"These builders are never taken by surprise," he adds, "although sometimes as a ploy they pretend to be taken by surprise in order to placate the homeowners."

Sure, the department of real estate requires that state-mandated soil reports be made available to home buyers, and even keeps them online. But most of the dozen homeowners who discussed their construction problems with *New Times* didn't recall getting them, or knowing where to look online.

To a person, they say the developer never raised the issue or told them that the soils were problematic.

It's not like, say, lead-based paint, where it's likely to be disclosed in 18-point type. Even though homeowners could probably stop some of the problems if they knew they were supposed to keep water from their foundation, they aren't given the warning.

There is, perhaps, a reason for that.

In Arizona, a builder must only guarantee a home warranty for two years. After that, the state registrar won't accept a complaint about shoddy workmanship, nor is the builder legally compelled to fix most problems.

(Homeowners can generally file a lawsuit up to eight years after purchase, but lawsuits are no guarantee of remedial action -- and they typically involve major expense.)

Sometimes, the worst cracking doesn't happen until it's too late.

Since the problems are often revealed only after the foundation gets wet, buyers purchasing in the middle of a drought -- like, say, the record-setting one we're in now -- may not notice anything is wrong until it's too late to get it fixed.

James Judge, for instance, noticed his home in Anthem was cracking about a year after he moved in. But though he contacted his builder, Del Webb, to get the place patched, the worst damage didn't show up until after last year's rainy spring.

That's when the doors wouldn't open. And the cracks got so big, he could stick a pen into them.

Now, Judge says, the problems are multiplying. "After the rain, it's just been nonstop cracking."

He didn't even know the state registrar was an option until consulting a lawyer this winter. By then, the house was more than two years old.

It was too late -- never mind that he still had a mortgage that would take decades to pay off.

At some point, people like Judge turn to the Internet. And it's only then -- when, say, they Google "Arizona" and "soil" -- that they find the USDA maps online and realize they're smack in the middle of the red problem zone.

When that happens, the homeowner often ends up on the phone with Philip D. Camp, the state soil scientist for the USDA's Natural Resources Conservation Service.

The callers explain that they had no idea they had soil problems, that the warranty has run out. Maybe the builder told them the problem was cosmetic, and agreed to patch one or two. But now the cracks are getting worse.

"We field some very gut-wrenching calls," Camp admits. "So many people don't know where to go for help."

And he doesn't know where to send them. Once the house is built, all the detailed mapping in the world can't save them.

"These are people who've put their life savings into a home, or saved up for a retirement home here," Camp says, and there is frustration in his voice. "It's really quite sad."

If it weren't for the musty, closed-off feeling in Bernice Kaleta's house in Sun City

Grand, a visitor could be forgiven for assuming that Kaleta's just stepped out for a walk.

Dry dishes are tilted neatly in the drainer. Clothes hang in the closet. Perfume bottles are ready to be spritzed at the bathroom counter.

Bernice Kaleta hasn't set foot in this house for almost four years.

This is not her choice. Bernice Kaleta is 89 years old, and even though, until recently, she was spry enough to enjoy daily mile walks, she had no desire to leave.

This was the home where she intended to spend the rest of her life.

She never meant to spend four years shuttling between one apartment and another, living in a constant state of uncertainty, hoping each six-month apartment lease will be the last.

She never meant to spend a good chunk of her social security check on rent, when she and her late husband had saved to pay off their mortgage.

She came to this home in Sun City Grand to be close to her son Ron, a retired middle school teacher who was leaving Michigan for Arizona.

The reason she abandoned this house in Sun City Grand is mold.

The house is infested with mold, according to reports from an environmental services company. And, after Bernice Kaleta lived in it for two years, "I was noticing mental lapses," says Ron Kaleta.

When he took Bernice to the doctor, the doc identified mold as the culprit. He said her immune system was on overload, Ron says, and ordered her out of the house.

In the year and a half since, Ron has ferried her to the doctor's office 143 times for blood work and treatment.

"One hundred and forty-three times," Ron Kaleta says, mournfully. "She's had almost 400 needle pokes. She's been poked so much they can't find her veins."

Part of the problem, it must be acknowledged, was stucco that was applied incorrectly, says Kaleta's attorney, Jim Eckley. (Yes, the same Jim Eckley who's representing Shari Wilson.)

But the other part is expansive soils, and water that got into the house's foundation. Inspectors found a crack in the slab running from the garage to the rear of the house. Smaller cracks, too, run along the window panes and walls.

Closer examination, Eckley says, showed that the main wall had separated from the foundation, probably because of the cracking and settling.

Moisture was coming in -- and that meant mold.

Moisture was the last thing the Kaletas, as lifelong Midwesterners, thought they'd have to worry about in Arizona.

One of the first major housing developments for senior citizens, Sun City had a national name, and a reputation for quality, even as the original development was followed by offshoots: Sun City West, Sun City Festival, Sun City Grand.

Ron Kaleta didn't know enough to be suspicious.

He remembers discussing the options with the salesman. After talking about this and that, the salesman asked about gutters.

"Do we need them?" Ron asked.

"Well," the salesman replied, laughing, "we get seven or eight inches of rain here a year. What do you think?"

Kaleta was never the kind of guy who wanted to file a lawsuit. He recalls, back in Michigan, slipping on ice in front of a Chinese restaurant. He was disgusted when a stranger rushed up and offered himself as a witness, just assuming Kaleta would want to sue.

That wasn't how he lived his life.

But Kaleta was appalled by what happened with his mother's house. Her builder, Del Webb, hired a company to clean the mold, but wouldn't hire someone to test after the cleaning, to make sure it was gone, Kaleta says. (The Kaletas eventually hired their own testing company; the mold was still there.)

And Del Webb wouldn't deal with the other issues, Eckley says. Once Ron Kaleta hired a lawyer, the lawyer got a copy of the soil report. And that lawyer, Eckley, told him that the builders knew the soil had the potential to expand.

They knew they were supposed to keep moisture from the foundation. They knew that gutters were a good idea. They knew they were supposed to slope the lot away from the house.

They just didn't do it.

Del Webb's attorney, Roger W. Strassburg, referred all questions to a company spokeswoman, Jacque Petroulakis. Petroulakis declined an interview, but issued a written statement saying that the company, a division of Pulte Homes, is "fully committed to customer satisfaction and quality."

Because the case is in litigation, Petroulakis wouldn't discuss specifics. She noted only that Del Webb wants "whenever possible to work with homeowners to avoid litigation and address their issues directly."

In court filings, the company has blamed the problems on its subcontractors.

As construction experts tell it, expansive soils aren't a death sentence. They just need to be acknowledged and dealt with.

In particular, houses built on expansive soil need extra-strength foundations. And they need techniques to keep water from the foundation.

The problem is that builders fail to do it.

This isn't, for the most part, a case of a lousy subcontractor doing a sloppy job, construction-defect lawyers say. These are design flaws -- and ones that, for the most part, saved the builders a few bucks.

Take the matter of grading. In most cases, municipal building codes require a 2 percent slope away from the house. The idea is to channel water downhill, away from the foundation.

But builders know they can fit more houses onto the acreage if they keep yards small -- and a 2 percent slope in the side yard requires space.

So, says Phoenix attorney Dicks, they'll just ignore the report and put in a lesser grade.

"I just did a case where 90 percent of the homeowners got a grade of less than 0.2 percent," he says. "Not 2 percent. Point-two percent. Well, you can imagine where the water's going to go."

A joint 2003 study from the National Association of Home Builders/American Society of Home Inspectors found that a full 42 percent of home inspectors reported drainage not sloping away from the house as a problem they've witnessed. Pettice, the chief inspector for the state registrar, says it's a major problem his staff sees.

Same issue with gutters. The International Code Council, which writes the rules that govern construction, doesn't require gutters on new homes unless the house has a basement.

But the state-mandated soil report often notes that the builder needs to channel roof runoff away from the foundation. That means gutters, and a downspout, Dicks says.

It's another recommendation that mostly goes ignored.

After all, while the cost of gutters is estimated at less than \$2,000 per house, the builder may well be multiplying that cost by every house in a development the size of Sun City Grand.

That adds up.

Ken Walsh, a professor of construction engineering and management at San Diego State University, was a practicing engineer in Phoenix for almost nine years. He says that builders aren't eschewing gutters out of ignorance -- it's a risk they've calculated and decided to take.

The fact is, Walsh says, even in areas with highly expansive soil, not every home will be affected. The soil can vary significantly even from lot to lot in the same development.

Maybe, in a group of 100 homes, 10 will have cracking and two will have serious problems. That still means 88 are more or less okay.

And while extensive testing would likely reveal exactly which lots will develop problems, the state doesn't mandate testing on each site, only that there be one test for the development.

Builders today, Walsh says, don't make money by carefully planning each site.

They do it by building hundreds of homes in a row, homes that are more or less identical.

They don't have time, or money, to engineer each individual home precisely for the lot it's being built on.

And their other solution -- building every house for the worst-case scenario, as if the soil were highly expansive everywhere -- is flawed for a similar reason.

"If a builder said, 'We're going to solve this problem, and have the best engineered solution so that these homes have no problem,' most of the homes in Arizona would be very overbuilt," Walsh says.

And that adds to cost.

And though better foundations might make more owners happy in the long run, it doesn't solve the problem of how to attract *buyers* when the builder down the street is offering granite countertops and a Jacuzzi for the same price . . . and both foundations look the same.

Instead, many builders' solution, Walsh says, has been to take the chance that some homeowners -- people like Bernice Kaleta -- may end up very, very unhappy.

Even when, in fact, it means ignoring their own engineers.

Take, for example, Bernice Kaleta's two-bedroom in Sun City Grand.

Typically, in construction-defect cases, the problems are apparent. Builders can't say they don't exist, so they blame their subcontractors.

And subcontractors, who are dependent on the builders for their livelihood, hire a lawyer to defend themselves, but don't really fight with fire, homeowners' attorneys say.

But something interesting happened in Bernice Kaleta's case, two years after she filed suit.

The soils report for Kaleta's property called for a post-tension slab, which is basically a foundation that's specially designed to withstand more pressure, like the pressure a home feels if it's on expanding, or collapsing, soil. But the builder, Del Webb, had instead used a floating slab, which is cheaper -- but likely to crack and move under the pressure of expanding soils.

Del Webb blamed the subcontractor. In this case, it was a local company called Bebout Concrete, according to court filings.

But this time, Bebout wasn't silent.

In January, Bebout's lawyer filed an affidavit noting that his company hadn't ignored the soils report. Instead, it had taken its direction from its employer, Del Webb.

Del Webb had gotten the soils report. And then, Bebout claimed, the builder had talked the engineers into running more tests -- and agreeing to a cheaper slab instead.

(Petroulakis, the Del Webb spokeswoman, declined to comment on Bebout's allegations.)

"I can tell you I was in meetings with various people from Del Webb with the soil engineers," Bebout explained in a deposition for the Kaleta case obtained by *New Times*, "where Del Webb was vehement about the fact that they did not want to spend the extra money on post-tension slabs."

And they didn't just do it at the Kaleta house, Bebout said.

They did it across parts of Sun City Grand, on hundreds of homes.

And they did it, Bebout alleged, in other Del Webb projects, like the sprawling development northeast of Sun City: Anthem.

Anthem has been plagued by soil problems. Nearly a dozen complaints have been filed with the Arizona Registrar of Contractors. There's a class-action suit pending.

All those problems, if Bebout is to be believed, could have been avoided.

According to a letter also entered into evidence by Bebout's attorney, Del Webb became aware of the soil problems in Anthem around 2001.

"Recommendations were made at the time to resolve the slab problem by revising the design criteria of the slab design," company president Jim Bebout wrote. "Webb rejected proposals . . . citing cost concerns over the proposed redesigns."

Kaleta's lawyer, Eckley, says the more expensive foundation would have cost Del Webb only about \$2,100 per house. (Bebout did not return calls for comment. His attorney, Steven Harrison, declined comment because the case is still ongoing.)

"They trashed her health for \$2,100," Eckley says.

Even when the builder insisted on using the less expensive foundation, Bebout had another idea. Bebout suggested building special barriers around the foundations to keep moisture out, according to his letter, and even offered to do it for about \$150 per home.

Again, Del Webb said no.

"[I]n its fervor to save money, Webb rejected the proposal, citing the additional cost of \$150 per lot as being unreasonable," Bebout wrote, "and instead elected to do nothing to mitigate the threat of slab moisture infiltration."

It was a stunning piece of information, even if it only confirmed what attorneys like Jim Eckley had long suspected.

It meant that the foundation problems weren't an accident.

It meant that they could have been avoided -- possibly for as little as \$150 -- but Del Webb refused.

"This is the kind of stuff being done behind closed doors," Eckley says, jubilant.

For all the importance of the filing, though, Bernice Kaleta was not there to celebrate. A few weeks after the affidavit was filed, she had a heart attack.

She spent four days in February at the Del E. Webb Memorial Hospital. She's currently at a rehabilitation center.

Ron Kaleta wasn't the kind of guy who filed lawsuits, yet he, along with his mother, ended up filing one.

He also wasn't the kind of guy who sees a shrink. But he did.

He went to talk to the psychologist because he's been tormented by guilt: It was he who brought his mom out to Arizona. It was he who picked out her house.

He remembers his father, a screw machine operator who made \$5.25 an hour.

"It was a dirty, noisy, stinky job," he says. "And I think about how hard he worked, and how much they saved to pay off that mortgage in Michigan. And then I think about what happened to it all."

His mother has paid nearly \$25,000 in rent over the past three years -- some \$750 a month from her \$1,260 social security check. And all her hard-earned money is tied up in a house that, technically, is worthless.

She can't resell it, not without putting more money into fixing it. And she can't live in it.

And so Ron Kaleta is angry, too. Angry about the shortcuts that Del Webb took, and angry that they now won't take responsibility for fixing them.

If they knew the area had soil problems, he says, why not just tell them?

Why not urge them to put on gutters?

And why not tell them that, for an extra \$2,000, they could have a post-tension slab, and explain why it mattered?

Kaleta would have said yes, he insists.

Instead, he's stuck spending thousands, and watching as the builder stalls and his mother's home sits empty.

And she sits in a rehab center.

"They don't seem to care about her at all," he says, and his voice breaks as he squints into the Arizona sun. "I think they're just waiting for her to die."