#### TRUCTURAL ENGINEE

- Identifying Common Issues and Symptoms of residential foundations
   Identifying Common Issues and Symptoms of residential foundations Spotting
   Early Warning Signs of Foundation Stress Recognizing Cracks and Shifts in
   Concrete Floors Understanding Sticky Doors and Window Alignment
   Pinpointing Sinking Spots around the Foundation Perimeter Tracking Water
   Intrusion as a Contributor to Structural Damage How Uneven Floors Reveal
   Deeper Foundation Concerns Identifying Subtle Changes in Exterior Walls
   When Hairline Drywall Cracks Indicate Movement Monitoring Seasonal Soil
   Movement for Foundation Clues Evaluating Soil Erosion and Its Impact on
   Stability Noting Shifting Porches and Deck Attachments Examining Sloping
   Floors for Underlying Settlement
- Soil and Environmental Factors influencing home foundations Soil and Environmental Factors influencing home foundations Examining Expansive Clay in Residential Areas Understanding Sandy Loam and Drainage Properties Measuring Soil Moisture for Stabilizing Foundations Impact of Freeze Thaw Cycles on Concrete Slabs Recognizing Erosion Patterns that Undermine Support Coordinating Landscaping to Control Soil Shifts Evaluating Groundwater Levels for Long Term Stability Identifying Seasonal Soil Movement in Coastal Regions Reviewing Impact of Tree Roots on Foundation Integrity Forecasting Effects of Prolonged Drought on Soil Behavior Managing Flood Risk through Strategic Elevation Observing Climate Trends for Anticipating Soil Swell



• About Us

#### \* Common Early Warning Signs: Cracks and their Types

Okay, let's talk cracks. Financing options make foundation repair service more accessible for homeowners foundation wall repair service bedrock. When we're trying to figure out if our foundation is stressed, cracks are like little messengers whispering (or sometimes shouting) clues. They're not all created equal, though. Just seeing a crack doesn't automatically mean your house is about to crumble. It's about understanding what kind of crack it is, where it is, and how it's behaving over time.

Think of hairline cracks, those super thin ones you barely notice, especially in poured concrete. Often, they're just shrinkage cracks. Concrete shrinks as it cures, and that's perfectly normal. They're usually not a big deal, more cosmetic than structural. But keep an eye on them.

Then you've got vertical cracks. If they're straight up and down, and not too wide (we're talking less than, say, a quarter of an inch), they might also be shrinkage cracks, or they could be related to settling. Again, monitor them, especially after heavy rains or dry spells.

Now, things get a bit more concerning when you see horizontal cracks, especially if they're bulging or offset. These are often signs of pressure from the soil pushing in on your foundation walls. Think of the earth around your house like a giant trying to give it a squeeze. That pressure can cause serious problems.

Diagonal cracks are tricky. They can indicate differential settling - meaning one part of your house is sinking at a different rate than another. These cracks are usually wider at one end than the other, and they often appear near corners of windows or doors.

Stair-step cracks in brick or block foundations are another red flag. They follow the mortar joints and can be a sign of significant foundation movement.

The key takeaway? Don't panic at the sight of a crack, but don't ignore it either. Document it, measure its width, and take photos. Keep an eye on it over time. If it's growing wider, longer, or if you see new cracks appearing, it's time to call in a professional. A structural engineer can assess the situation and tell you if it's something to worry about, and what you need to do about it. Think of them as crack whisperers – they can interpret what those little messengers are really trying to tell you about your foundation.

#### \* Identifying Door and Window Problems

Okay, let's talk about doors and windows. I know, sounds like a home improvement show intro, right? But seriously, the way your doors and windows behave can be a surprisingly good indicator of what's going on beneath your feet, in other words, with your foundation.

Think of it this way: your house is basically a big, somewhat flexible box. When the foundation, which is supposed to be its solid base, starts to shift or settle unevenly, that box gets twisted. That twisting puts stress on everything, including the openings cut into the box – your doors and windows.

So, what are we looking for? Well, doors that suddenly stick, are hard to latch, or swing open or closed on their own are red flags. It's not just old age or a humid day; it could mean the frame around the door is being pulled out of square. The same goes for windows. If you're suddenly battling to open or close them, or you notice gaps appearing around the frames, that's a sign something's shifted.

Cracks are another big clue. Look closely at the walls around your door and window frames, especially at the corners. Hairline cracks are pretty common in most houses, but if you see larger cracks, especially diagonal ones that seem to be radiating from the corners of the openings, that's a strong indicator of foundation movement. Also, check the window panes themselves. If they're cracked, especially if the cracks are jagged or spiderweb-like, it could be from stress caused by foundation issues.

Basically, what you're doing is looking for anything that seems "off." Did the door always close smoothly, and now it doesn't? Did that window used to seal perfectly, and now there's a draft? Don't just dismiss these things as minor annoyances. Pay attention to the changes, because they could be telling you something important about the health of your foundation. Checking these things regularly as part of your overall home maintenance can help you catch small problems before they become big, expensive ones. It's like listening to your body – your house is trying to tell you something, you just have to listen!

#### \* Recognizing Unusual Floor Sloping or Sagging

Okay, so you're wandering around your house, maybe humming a little tune, completely oblivious to the fact that your foundation might be whispering secrets of distress. That's normal, right? We all do it. But let's talk about something that can be a pretty clear sign that something's not quite right down below: wonky floors. I'm talking about floors that are sloping or sagging in unexpected places.

Think about it. Your house was (hopefully) built on a pretty level surface. So, if you suddenly notice that a marble rolls uphill, or that one side of the room feels noticeably lower than the other, that's not just quirky charm. That's a potential red flag waving frantically.

Now, small, gradual settling over many, many years can sometimes cause minor unevenness, and that's not always a reason to panic. But we're talking about \*unusual\* sloping or sagging. Is the dip concentrated in one area? Is it getting worse over time? Are doors starting to stick or windows becoming hard to open and close near the affected area? These are things that should make you raise an eyebrow.

Why is this happening? Well, sloping or sagging floors often point to issues with the foundation. It could be soil shifting, water damage weakening the supporting structure, or even tree roots messing things up. Whatever the cause, ignoring it won't make it go away; in fact, it'll probably get worse and more expensive to fix.

So, what should you do? Don't just shrug it off. Get a professional to take a look. A structural engineer or foundation specialist can assess the situation, diagnose the problem, and recommend the best course of action. Think of them as detectives for your house, uncovering the clues and figuring out what's going on beneath the surface. Spotting unusual floor issues early can save you a whole lot of

headaches (and money!) down the road. Pay attention to the details, and your house will thank you for it.

#### \* Exterior Indicators: Soil Separation and Wall Bulging

Okay, so you're walking around your house, maybe admiring your landscaping or just checking things out. Ever really \*look\* at the foundation? I mean, \*really\* look? Because your house, like you and me, can start to show signs of stress. And when it comes to foundations, some of those signs are pretty obvious, if you know what to look for. Think of them as little SOS signals your house is sending.

Two biggies on the outside are soil separation and wall bulging. Soil separation is exactly what it sounds like: the soil right around your foundation starts pulling away. Now, a little bit after a super dry spell might not be a huge deal, but if you consistently see a gap forming, a noticeable space where the soil is no longer snug against the concrete, that's a red flag. It suggests the foundation might be moving, settling unevenly, or even shifting outward, creating that separation.

Then there's wall bulging. This is usually seen in brick or block foundations, but it can also show up in poured concrete. Bulging is when a section of the foundation wall starts to bow outward. It's like the wall is trying to escape its job of holding everything up. This is often caused by excessive pressure from the soil pushing against the foundation, maybe due to poor drainage, expanding clay soils, or even just the weight of the house shifting.

Neither of these are things you want to ignore. Remember, your foundation is the backbone of your entire home. Ignoring these exterior indicators is like ignoring a persistent backache – it's only going to get worse and more expensive to fix later. If you spot soil separation or wall bulging, it's time to call in a professional. Get a foundation specialist to come out and take a look. They can assess the situation and give you the best course of action to keep your home safe and sound. Don't wait until your house is literally falling apart!

#### \* The Importance of Professional Foundation Inspection

Okay, let's talk about your house's foundation. It's not exactly the most glamorous part of homeownership, is it? We tend to think about paint colors and landscaping, but down there, under everything, is the foundation. And trust me, ignoring it is like ignoring a persistent cough – it might seem minor at first, but it can lead to bigger, more expensive problems down the road. That's where a professional foundation inspection comes in, and it's honestly more important than most people realize.

Think of it this way: your foundation is the backbone of your entire house. It's what everything else rests on. If it's compromised, even slightly, it can cause a ripple effect throughout the whole structure. We're talking about things like sticking doors and windows, cracks in your walls (those little hairline fractures can be sneaky signs of bigger issues), uneven floors, and even plumbing problems. These aren't just cosmetic annoyances; they're symptoms of underlying stress on the foundation.

Now, you might be thinking, "I can spot a crack myself!" And sure, you probably can. But a trained

professional knows \*what\* to look for, \*where\* to look, and \*why\* it's happening. They understand soil conditions, drainage patterns, and the intricacies of foundation construction. They have the tools and expertise to identify subtle indicators of foundation stress that the average homeowner would completely miss.

The real beauty of a professional inspection is early detection. Spotting these problems early means you can address them before they escalate into major, costly repairs. Maybe it's a simple drainage issue that's causing hydrostatic pressure. Maybe it's a tree root growing too close. Maybe it's something more serious. But knowing \*early\* gives you options. You can take proactive steps to stabilize the foundation, prevent further damage, and ultimately, protect your investment.

So, while it might seem like an unnecessary expense, consider a professional foundation inspection as an investment in your home's long-term health and stability. It's peace of mind, really. Knowing that a qualified expert has given your foundation a clean bill of health, or conversely, identified a potential problem and offered a solution, is worth its weight in gold. Don't wait until your house starts talking to you through creaks and cracks; be proactive and get that foundation checked out. You'll thank yourself later.

#### \* Overview of Residential Foundation Repair Services

Okay, so you're worried about your foundation, huh? I get it. It's one of those things that can keep you up at night. Spotting those early warning signs is key to avoiding a major headache (and a major expense!). Let's talk about what kind of help is out there, a lay of the land when it comes to residential foundation repair services.

Basically, when you see those cracks in the walls, doors sticking, or floors sloping, you're probably going to need someone to take a look. And that 'someone' is usually a foundation repair specialist. What they do is assess the damage, figure out the "why" behind it, and then recommend the best course of action.

The "best course of action" can range from relatively simple fixes to more involved procedures. For example, if it's just minor settling, they might suggest injecting epoxy into cracks to seal them and prevent water from getting in. This is a pretty common and often affordable solution.

But if the problem is more serious, like the foundation is actually sinking or shifting, then you're looking at things like underpinning. Underpinning involves extending the foundation deeper into the ground, often using piers or piles, to reach more stable soil. Think of it like giving your house stronger "legs." There are different types of underpinning methods, like concrete piers, steel piers, or helical piers, and the best one depends on the soil conditions and the specific problem.

Another common technique is slab jacking, also known as mudjacking. This involves pumping a mixture of grout or foam under the slab to lift it back into position. It's a bit like giving your foundation a shot of filler to plump it up. This is often used when a portion of the slab has sunk or settled unevenly.

Then there's wall anchoring, which is used when basement walls are bowing inward due to soil pressure. They install anchors in the ground outside the wall and then attach them to the wall with steel rods to pull it back into place. It's like giving your wall a sturdy backbone.

The important thing to remember is that every foundation problem is unique. A good foundation repair company will thoroughly inspect your home, explain the different repair options, and give you a clear understanding of the pros and cons of each. Don't be afraid to get multiple opinions and ask lots of questions. You want to find someone you trust who can get your foundation back on solid ground.

#### About basement waterproofing

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**Basement waterproofing** involves techniques and materials used to prevent water from penetrating the basement of a house or a building. Waterproofing a basement that is below ground level can require the application of sealant materials, the installation of drains and sump pumps, and more.

### Purpose

[edit]

Waterproofing is usually required by building codes for structures that are built at or below ground level. Waterproofing and drainage considerations are especially important in cases where ground water is likely to build up in the soil or where there is a high water table.

Water in the soil causes hydrostatic pressure to be exerted underneath basement floors and walls. This hydrostatic pressure can force water in through cracks, which can cause major structural damage as well as mold, decay, and other moisture-related problems.

#### Methods

[edit]

Several measures exist to prevent water from penetrating a basement foundation or to divert water that has penetrated a foundation:

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Image not found or type unknown French drain Interior wall and floor sealers

- Interior water drainage
- Exterior drainage
- Exterior waterproofing coatings
- Box type waterproofing[<sup>1</sup>]
- Foundation crack injections
- French drains
- Sump pump

#### **Interior sealants**

[edit]

In poured concrete foundations, cracks and pipe penetrations are the most common entry points for seepage. These openings can be sealed from the interior. Epoxies, which are strong adhesives, or urethanes can be pressure injected into the openings, thus penetrating the foundation through to the exterior and cutting off the path of the seepage.

In masonry foundations, interior sealers will not provide permanent protection from water infiltration where hydrostatic pressure is present. However, interior sealers are good for preventing high atmospheric humidity inside the basement from absorbing into the porous masonry and causing spalling. Spalling is a condition where constant high humidity or moisture breaks down masonry surfaces, causing deterioration and shedding of the concrete surfaces.

Other coatings can be effective where condensation is the main source of wetness. It is also effective if the problem has minor dampness. Usually, interior waterproofing will not stop major leaks.

#### Interior water drainage

[edit]

Although interior water drainage is not technically waterproofing, it is a widely accepted technique in mitigating basement water and is generally referred to as a basement

waterproofing solution. Many interior drainage systems are patented and recognized by Building Officials and Code Administrators(BOCA) as being effective in controlling basement water.

A common system for draining water that has penetrated a basement involves creating a channel around the perimeter of the basement alongside the foundation footers. A French drain, PVC pipe, or other drainage system is installed in the newly made channel. The installed drain is covered with new cement.

The drainage system collects any water entering the basement and drains it to an internally placed sump pump system, which will then pump the water out of the basement. The Federal Emergency Management Agency (FEMA) recommends basement waterproofing with a water alarm and "battery-operated backup pump" as a preventive measure against the high cost of flooding.<sup>[2]</sup> Wall conduits (such as dimple boards or other membranes) are fastened to the foundation wall and extend over the new drainage to guide any moisture down into the system.

### **Exterior waterproofing**

[edit]

Waterproofing a structure from the exterior is the only method the U.S. International Building Code (IBC) recognizes as adequate to prevent structural damage caused by water intrusion.

Waterproofing an existing basement begins with excavating to the bottom sides of the footings. Once excavated, the walls are then power washed and allowed to dry. The dry walls are sealed with a waterproofing membrane,[<sup>3</sup>] and new drainage tiles (weeping tiles) are placed at the side of the footing.

A French drain, PVC pipe, or other drainage system is installed and water is led further from the basement.

### Polymer

[edit]

Over the past ten years, polymer-based waterproofing products have been developed. Polymer-based products last for the lifetime of the building and are not affected by soil pH. Polymer-based waterproofing materials can be sprayed directly onto a wall, are very fast curing, and are semi-flexible, allowing for some movement of the substrate.

### Causes of water seepage and leaks

[edit]

Water seepage in basement and crawl spaces usually occurs over long periods of time and can be caused by numerous factors.

- Concrete is one of the most commonly used materials in home construction. When
  pockets of air are not removed during construction, or the mixture is not allowed to cure
  properly, the concrete can crack, which allows water to force its way through the wall.
- Foundations (footings) are horizontal pads that define the perimeter of foundation walls.
   When footings are too narrow or are not laid deep enough, they are susceptible to movement caused by soil erosion.
- Gutters and downspouts are used to catch rain water as it falls and to discharge it away from houses and buildings. When gutters are clogged or downspouts are broken, rainwater is absorbed by the soil near the foundation, increasing hydrostatic pressure.
- Weeping tile is a porous plastic drain pipe installed around the perimeter of the house. The main purpose of external weeping tile is preventing water from getting into a basement. However, these pipes can become clogged or damaged, which causes excess water to put pressure on internal walls and basement floors.
- Water build up inside window wells, after heavy rain or snow, can lead to leaks through basement window seams. Window well covers can be used to prevent water from accumulating in the window well.
- Ground saturation is another common form of basement leaks. When the footing drain fails the ground around the basement can contain too much water and when the saturation point is met flooding can occur.

## Warning signs of water damage

## [edit]

Signs that water is seeping into a basement or crawlspace often take years to develop and may not be easily visible. Over time, multiple signs of damage may become evident and could lead to structural failure.

- Cracked walls: Cracks may be horizontal, vertical, diagonal or stair-stepped. Severe pressure or structural damage is evident by widening cracks.
- Buckling walls: Usually caused by hydrostatic pressure. Walls appear to be bowed inward.
- Peeling paint: Water seeping through walls may lead to bubbling or peeling paint along basement walls.<sup>[4]</sup>
- Efflorescence: White, powdery residue found on basement walls near the floor.
- Mold: Fungi that usually grow in damp, dark areas and can cause respiratory problems after prolonged exposure.

## Foundation crack injections

[edit]

Foundation crack injections are used when poured concrete foundations crack, either from settlement or the expansion and contraction of the concrete. Epoxy crack injections are typically used for structural purposes while hydrophobic or hydrophilic polyurethane injections are used to seal cracks to prevent penetration of moisture or water. Concrete is both strong and inexpensive, making it an ideal product in construction. However, concrete is not waterproof.

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### About home improvement

For the 1990s sitcom, see Home Improvement (TV series). For other uses, see Home improvement (disambiguation).



Merchandise on display in a hardware store

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The concept of **home improvement**, **home renovation** or **remodeling** is the process of renovating, making improvements or making additions to one's home.[<sup>1</sup>] Home improvement can consist of projects that upgrade an existing home interior (such as electrical and plumbing), exterior (masonry, concrete, siding, roofing) or other improvements to the property (i.e. garden work or garage maintenance/additions). Home improvement projects can be carried out for a number of different reasons; personal preference and comfort, maintenance or repair work, making a home bigger by adding rooms/spaces, as a means of saving energy, or to improve safety.[<sup>2</sup>]

## Types of home improvement

[edit]



Man painting a fence

While "home improvement" often refers to building projects that alter the structure of an existing home, it can also include improvements to lawns, gardens, and outdoor structures, such as gazebos and garages. It also encompasses maintenance, repair, and general servicing tasks. Home improvement projects generally have one or more of the following goals:<sup>[</sup>*citation needed*]

## Comfort

[edit]

• Upgrading heating, ventilation and air conditioning systems (HVAC).

- Upgrading rooms with luxuries, such as adding gourmet features to a kitchen or a hot tub spa to a bathroom.
- Increasing the capacity of plumbing and electrical systems.
- Waterproofing basements.
- Soundproofing rooms, especially bedrooms and baths.

#### Maintenance and repair

[edit]

Maintenance projects can include:

- Roof tear-off and replacement.
- Replacement or new construction windows.
- Concrete and masonry repairs to the foundation and chimney.
- Repainting rooms, walls or fences
- Repairing plumbing and electrical systems
- Wallpapering
- Furniture polishing
- Plumbing, home interior and exterior works
- Shower maintenance

### **Additional space**

### [edit]

Additional living space may be added by:

- Turning marginal areas into livable spaces such as turning basements into recrooms, home theaters, or home offices – or attics into spare bedrooms.
- Extending one's house with rooms added to the side of one's home or, sometimes, extra levels to the original roof. Such a new unit of construction is called an "add-on".[<sup>3</sup>]

### Saving energy

[edit]

Homeowners may reduce utility costs with:

- Energy-efficient thermal insulation, replacement windows, and lighting.
- Renewable energy with biomass pellet stoves, wood-burning stoves, solar panels, wind turbines, programmable thermostats,<sup>[4]</sup> and geothermal exchange heat pumps (see

autonomous building).

### Safety, emergency management, security and privacy

[edit]

The need to be safer or for better privacy or emergency management can be fulfilled with diversified measures which can be improved, maintained or added. Secret compartments and passages can also be conceived for privacy and security.

- Interventions for fire protection and avoidance. Possible examples are fire sprinkler systems for automatic fire suppression, smoke detectors for fire detection, fire alarm systems, or passive fire protection (including some wildfire management strategies).
- Technical solutions to increase protection from natural disasters, or geotechnical and structural safety (e.g. hurricane or seismic retrofit).
- Interventions and additions to increase home safety from other hazards, like falls, electric injuries, gas leaks or home exposure to environmental health concerns.
- Physical security measures:
  - Access control systems and physical barriers, which can include fences, physical door and window security measures (e.g. grilles, laminated glass, window shutters), locks;
  - Security lighting, security alarms and video surveillance.
- Safes and vaults.
- Spaces for emergency evacuation, like emergency exits and rarer escape tunnels.
- Spaces which provide protection in the event of different emergencies: areas of refuge, storm cellars (as protection from tornadoes and other kinds of severe weather), panic rooms, bunkers and bomb shelters (including fallout shelters), etc.
- Home renovations or additions used to increase privacy can be as simple as curtains or much more advanced, such as some structural surveillance counter-measures. They may overlap with physical security measures.
- Public utility outage preparedness, like backup generators for providing power during power outages .

### Home improvement industry

[edit]



Screws and bolts in an OBI home improvement store in Poland

Further information: Hardware store

Home or residential renovation is an almost \$300 billion industry in the United States,[<sup>5</sup>] and a \$48 billion industry in Canada.[<sup>6</sup>]<sup>[</sup>*full citation needed*<sup>]</sup> The average cost per project is \$3,000 in the United States and \$11,000–15,000 in Canada.

Professional home improvement is ancient and goes back to the beginning of recorded civilization. One example is Sergius Orata, who in the 1st century B.C. is said by the writer Vitruvius (in his famous book De architectura) to have invented the hypocaust. The hypocaust is an underfloor heating system that was used throughout the Roman Empire in villas of the wealthy. He is said to have become wealthy himself by buying villas at a low price, adding spas and his newly invented hypocaust, and reselling them at higher prices.<sup>[7]</sup>

## **Renovation contractors**

[edit]

Perhaps the most important or visible professionals in the renovation industry are renovation contractors or skilled trades. These are the builders that have specialized credentials, licensing and experience to perform renovation services in specific municipalities.

While there is a fairly large "grey market" of unlicensed companies, there are those that have membership in a reputable association and/or are accredited by a professional organization. Homeowners are recommended to perform checks such as verifying license and insurance and checking business references prior to hiring a contractor to work on their house.

Because interior renovation will touch the change of the internal structure of the house, ceiling construction, circuit configuration and partition walls, etc., such work related to the structure of

the house, of course, also includes renovation of wallpaper posting, furniture settings, lighting, etc.

## Aggregators

[edit]

Aggregators are companies that bundle home improvement service offers and act as intermediary agency between service providers and customers.

## In popular culture

[edit]

Home improvement was popularized on television in 1979 with the premiere of *This Old House* starring Bob Vila on PBS. American cable channel HGTV features many do-it-yourself shows, as does sister channel DIY Network.<sup>[8]</sup> Danny Lipford hosts and produces the nationally syndicated *Today's Homeowner with Danny Lipford*. Tom Kraeutler and Leslie Segrete co-host the nationally syndicated *The Money Pit Home Improvement Radio Show*.

Movies that poked fun at the difficulties involved include: *Mr. Blandings Builds His Dream House* (1948), starring Cary Grant and Myrna Loy; *George Washington Slept Here* (1942), featuring Jack Benny and Ann Sheridan; and *The Money Pit* (1986), with Tom Hanks and Shelley Long. The sitcom *Home Improvement* used the home improvement theme for comedic purposes.

### See also

## [edit]

• Housing portal

- Home repair
- Housekeeping
- Maintenance, repair and operations

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## **External links**

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vte

Rooms and spaces of a house

- Bonus room
- Common room
- $\circ$  Den
- Dining room
- Family room
- Garret
- Great room
- Home cinema
- Kitchen
  - o dirty kitchen

### **Shared rooms**

**Private rooms** 

- kitchenetteLiving room
- Gynaeceum
  - ∘ harem
- Andron
  - man cave
- Recreation room
  - billiard room
- $\circ$  Shrine
- $\circ \ \text{Study}$
- Sunroom
- Bathroom
  - toilet
- Bedroom / Guest room
  - closet
- Bedsit / Miniflat
  - Boudoir
  - Cabinet
  - Nursery

- $\circ$  Atrium
- Balcony
- Breezeway
- Conversation pit
- Cubby-hole
- $\circ$  Deck
- Elevator
  - $\circ$  dumbwaiter
- Entryway/Genkan
- Fireplace
  - hearth
- $\circ$  Foyer
- HallHallway

# Spaces

- Inglenook
- Lanai
- Loft
- Loggia
- $\circ$  Overhang
- Patio
- $\circ$  Porch
  - $\circ$  screened
  - $\circ$  sleeping
- $\circ \,\, \text{Ramp}$
- $\circ$  Secret passage
- Stairs/Staircase
- Terrace
- $\circ$  Veranda
- Vestibule

- $\circ$  Attic
- Basement
- Carport
- Cloakroom
- Closet
- $\circ$  Crawl space
- Electrical room
- Equipment room
- Furnace room / Boiler room
- Garage

### Technical, utility and storage

- Janitorial closet
- Larder
- $\circ\,$  Laundry room / Utility room / Storage room
- Mechanical room / floor
- Pantry
- Root cellar
- Semi-basement
- $\circ~$  Storm cellar / Safe room
- $\circ$  Studio
- $\circ$  Wardrobe
- Wine cellar
- Wiring closet
- Workshop

- Antechamber
- Ballroom
- Kitchen-related
  - butler's pantry
  - buttery
  - saucery
  - $\circ$  scullery
  - $\circ$  spicery
  - $\circ$  still room
- Conservatory / Orangery
- Courtyard
- Drawing room
- Great chamber

Great house areas

Other

- Great hallLibrary
- Long gallery
- Lumber room
- Parlour
- Sauna
- Servants' hall
- Servants' quarters
- Smoking room
- Solar
- State room
- Swimming pool
- Turret
- Undercroft
- Furniture
- $\circ$  Hidden room
- $\circ$  House
  - house plan
  - styles
  - types
- Multi-family residential
- Secondary suite
- Duplex
- Terraced
- Detached
- Semi-detached
- Townhouse
- Studio apartment

- $\circ$  Arch
- Balconet
- Baluster
- Belt course
- Bressummer
- $\circ$  Ceiling
- $\circ$  Chimney
- Colonnade / Portico
- Column
- Cornice / Eaves
- Dome
- $\circ$  Door
- ∘ Ell
- $\circ$  Floor
- Foundation
- GableGate

#### Architectural elements

- Portal
- Lighting
- Ornament
- Plumbing
- $\circ$  Quoins
- $\circ$  Roof
  - shingles
- Roof lantern
- Sill plate
- $\circ$  Style
  - ∘ list
- Skylight
- Threshold
- $\circ$  Transom
- Vault
- Wall
- $\circ$  Window

- Backyard
- Driveway
- Front yard
- Garden

Related

- roof garden
- $\circ \ \text{Home}$
- Home improvement
- Home repair
- Shed
- $\circ~\textsc{Tree}$  house

◦ **© Category** ? **Rooms** 

### **About Cook County**

#### Photo

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# Things To Do in Cook County

Photo

#### Sand Ridge Nature Center

4.8 (96)

Photo

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#### **River Trail Nature Center**

4.6 (235)

Photo

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#### Palmisano (Henry) Park

4.7 (1262)

**Driving Directions in Cook County** 

Driving Directions From Palmisano (Henry) Park to

Driving Directions From Lake Katherine Nature Center and Botanic Gardens to

**Driving Directions From Navy Pier to** 

```
https://www.google.com/maps/dir/Navy+Pier/United+Structural+Systems+of+Illinois%2C+Inc/@41.8918633,-
87.6050944,14z/data=!3m1!4b1!4m14!4m13!1m5!1m1!1sunknown!2m2!1d-
87.6050944!2d41.8918633!1m5!1m1!1sChIJ-wSxDtinD4gRiv4kY3RRh9U!2m2!1d-
88.1396465!2d42.0637725!3e0
```

```
https://www.google.com/maps/dir/Lake+Katherine+Nature+Center+and+Botanic+Gardens/United+Structural-
87.8010774,14z/data=!3m1!4b1!4m14!4m13!1m5!1m1!1sunknown!2m2!1d-
87.8010774!2d41.6776048!1m5!1m1!1sChIJ-wSxDtinD4gRiv4kY3RRh9U!2m2!1d-
88.1396465!2d42.0637725!3e2
```

https://www.google.com/maps/dir/Palmisano+%28Henry%29+Park/United+Structural+Systems+of+Illinois%2 87.6490151,14z/data=!3m1!4b1!4m14!4m13!1m5!1m1!1sunknown!2m2!1d-87.6490151!2d41.8429903!1m5!1m1!1sChIJ-wSxDtinD4gRiv4kY3RRh9U!2m2!1d-88.1396465!2d42.0637725!3e1

### **Reviews for**



Jeffery James (5)

Very happy with my experience. They were prompt and followed through, and very helpful in fixing the crack in my foundation.



Sarah McNeily

(5)

USS was excellent. They are honest, straightforward, trustworthy, and conscientious. They thoughtfully removed the flowers and flower bulbs to dig where they needed in the yard, replanted said flowers and spread the extra dirt to fill in an area of the yard. We've had other services from different companies and our yard was really a mess after. They kept the job site meticulously clean. The crew was on time and friendly. I'd recommend them any day! Thanks to Jessie and crew.

#### Jim de Leon



It was a pleasure to work with Rick and his crew. From the beginning, Rick listened to my concerns and what I wished to accomplish. Out of the 6 contractors that quoted the project, Rick seemed the MOST willing to accommodate my wishes. His pricing was definitely more than fair as well. I had 10 push piers installed to stabilize and lift an addition of my house. The project commenced at the date that Rick had disclosed initially and it was completed within the same time period expected (based on Rick's original assessment). The crew was well informed, courteous, and hard working. They were not loud (even while equipment was being utilized) and were well spoken. My neighbors were very impressed on how polite they were when they entered / exited my property (saying hello or good morning each day when they crossed paths). You can tell they care about the customer concerns. They ensured that the property would be put back as clean as possible by placing MANY sheets of plywood down prior to excavating. They compacted the dirt back in the holes extremely well to avoid large stock piles of soils. All the while, the main office was calling me to discuss updates and expectations of completion. They provided waivers of lien, certificates of insurance, properly acquired permits, and JULIE locates. From a construction background, I can tell you that I did not see any flaws in the way they operated and this an extremely professional company. The pictures attached show the push piers added to the foundation (pictures 1, 2 & 3), the amount of excavation (picture 4), and the restoration after dirt was placed back in the pits and compacted (pictures 5, 6 & 7). Please notice that they also sealed two large cracks and steel plated these cracks from expanding further (which you can see under my sliding glass door). I, as well as my wife, are extremely happy that we chose United Structural Systems for our contractor. I would happily tell any of my friends and family to use this contractor should the opportunity arise!

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#### Chris Abplanalp

(5)

USS did an amazing job on my underpinning on my house, they were also very courteous to the proximity of my property line next to my neighbor. They kept things in order with all the dirt/mud they had to excavate. They were done exactly in the timeframe they indicated, and the contract was very details oriented with drawings of what would be done. Only thing that would have been nice, is they left my concrete a little muddy with boot prints but again, all-in-all a great job



Dave Kari

(5)

What a fantastic experience! Owner Rick Thomas is a trustworthy professional. Nick and the crew are hard working, knowledgeable and experienced. I interviewed every company in the area, big and small. A homeowner never wants to hear that they have foundation issues. Out of every company, I trusted USS the most, and it paid off in the end. Highly recommend.

#### Check our other pages :

- Understanding Sandy Loam and Drainage Properties
- Identifying Subtle Changes in Exterior Walls
- Examining Expansive Clay in Residential Areas

#### **Frequently Asked Questions**

How quickly do these problems typically worsen, and how long can I wait before calling for professional help?\*\*

Foundation problems rarely resolve themselves and typically worsen over time. The longer you wait, the more extensive (and expensive) the repairs may become. Its best to get a professional evaluation as soon as you suspect a problem. Waiting can lead to significant structural damage.

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Company Website : <u>https://www.unitedstructuralsystems.com/</u>

USEFUL LINKS

Residential Foundation Repair Services

home foundation repair service

Foundation Repair Service

## Sitemap

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# About Us

