

# **5 Things To Know BEFORE Repairing Your Foundation**



**SEJANT**  
FOUNDATION  
RESTORATION

## Introduction

**“5 Things to Know BEFORE Repairing Your Foundation”** is a concise overview of the most important things you'll need to know before starting your foundation restoration project.

This guide clarifies and dispels misinformation about foundation restoration, providing further understanding of the entire process, enabling you to make a more informed decision.

In this guide, you'll learn:

- How to avoid pitfalls of foundation restoration
- To maximize your restoration investment
- How to ensure proper compliance with your local municipality regulations and codes so you can protect your home

By the end of this guide, you'll have a clear understanding of the foundation restoration process, so you can make a more informed decision.

# #1: Is My Foundation Settling?

The first thing you need to know is if your foundation is settling. Signs of a settling foundation could include:

- Cracks in your foundation
- Sloping walls or floors
- Buckling or cracking drywall
- Doors not closing properly
- Windows and doors are difficult to operate

## What Causes Foundation Settling?

Foundation settling means the soil underneath your home is moving. Schedule a free home assessment with one of our team members so we can:

1. Confirm the location of the soil settling
2. Measure the extent of the settling
3. Provide an action plan to permanently stop the settling

Our biggest imperative is to provide you with knowledge so you can make the right decision for you and your family.

## The Big Takeaway

It's important to find out what you're dealing with in order to put an action plan in place. When it comes to soil moving and your foundation settling, the faster you act the better, to mitigate any further damage to your home.

## #2: What Type of Pile Should I Use?

### What's a pile?

A coated steel pipe used to permanently restore the integrity of your home's foundation.

### Why does the type of pile matter?

Since each foundation restoration project is unique, understanding the variables involved will determine pile selection. Soil condition, structure size, space available, among other factors, best determines the type of pile used.

### What are the differences between piles?

- **Pin Pile/Hammered Pile** - A small diameter pipe, ranging from 2 to 6 inches that's hammered into the ground. Typically used for loose soil found in Western Washington.
- **Push Pile** - A small diameter pipe pushed into the ground using a hydraulic ram until it reaches load-bearing rock. The weight of the structure becomes the resistance mass which keeps the pile in place. Push piles are not ideal for lighter loads, like a 1-story home or garage, as it will not provide enough resistance to push the pile to reach load bearing capacity.
- **Helical Pile** - A small diameter pipe fitted with screw-like plates. The plates pull (instead of push) the pile into place. A hydraulic motor is used to turn the pile into the soil. Installation is faster and more efficient than push piles and isn't reliant on a heavy structure to reach capacity.

### Who Determines What Kind of Pile Is Used?

A Geotech (soil expert / dirt engineer) in partnership with a structural engineer will specify the type of pile needed to restore your foundation.

### The Big Takeaway

Long term performance (structural integrity) of your foundation restoration depends on a pile design specified by an independent, licensed Geotech Engineer and Structural Engineer. If you choose to partner with us, we're happy to recommend Geotechs and Structural Engineers we've worked with.



## #3: Do I Need Permits For My Project?

It is **absolutely critical** you get permits for your project, no matter the size. Even if it's a small project. Why? Foundation restoration is considered a modification to a structural aspect of the house, thus a building permit is required.

### Permits Provide:

1. Compliance with your municipality's building codes
2. A record of repair with your municipality
3. Documentation of the repair
4. Ensures proper repair
5. Protection for any future sales transactions of your home by validating repairs

### Obtaining a Permit Requires:

1. Consulting a Geotech - You'll need to consult a licensed Geotech Engineer to determine soil condition / stability, pile type recommendation, on site special inspection, and installation documentation
2. Consulting a Structural Engineer - You'll need to consult a licensed Structural Engineer to provide load calculations and determine the type, quality, and spacing of piles
3. Construction Permit - You'll need to obtain a construction permit to begin your project

This may sound like a lot — don't worry. We can recommend trusted Geotech and Structural Engineers, as well as facilitate the permitting process.

### The Big Takeaway

Permits ensure you're working within the law, and following the correct process. This means your home will be fixed correctly the first time, giving you peace of mind that your home's foundation is restored permanently.

## #4: What's a Geotech Engineer?

A Geotech Engineer, also called a Geotech, is a dirt expert / soil engineer who determines the makeup of the soil under your foundation.

### **What's the role of the Geotech Engineer during the project?**

Along with determining the soil type, the Geotech is required (under the permit) to perform an on-site "special inspection," compiling a data log of correct pile depth. This information helps us provide you with the right foundation solution.

### **Where do I find a Geotech?**

We're happy to connect you with a trusted Geotech.

### **The Big Takeaway**

**No municipality** will let you install any piles without first consulting with a Geotech. It's critical you consult with one before you begin your project. Plus, they provide you assurance of accurate soil analysis, correct pile type, and placement for long term performance of your foundation restoration.

## #5 - Structural Engineer

### **What is a Structural Engineer?**

A Structural Engineer is an expert who analyzes, designs, plans, and researches structural components / systems to achieve design goals and ensure the safety of your home's foundation.

### **What is the role of the structural engineer during the project?**

A Structural Engineer provides meticulous load calculations and determines:

- The type of piles to use
- The quantity of piles needed
- The spacing of piles

Those calculations create a design to safely transfer building loads (weight of the structure) through the foundation/piles to the supporting soil.

### **How do I find a Structural Engineer?**

We're happy to connect you with a trusted Structural Engineer.

### **The Big Takeaway**

The involvement of a structural engineer is critical to the success of your project. Their expertise provides you assurance of a correct pile installation for long term performance.

## Summary

Your home is one of your most valuable investments. Our aim is to help you protect it. We look forward to the opportunity to partner with you in restoring the foundation of your home.

If you have any questions, please reach out to either of us.

Kris Smith, *Director of Installations*  
Kris@SejantNorthWest.com

Kim Moore, *Director of Operations*  
Kim@SejantNorthWest.com

## About The Authors

We're Kris Smith and Kim Moore — good to meet you!

We have over two decades each of experience in the construction industry, and have a passion for educating homeowners so they are aware of their options, and understand the foundation restoration process.

Our ultimate goal is to provide our clients with the highest level of expertise, communication, and promptness.

### What's In a Name?

We're often asked "What does Sejant (sē-jənt) mean?"

In the brainstorming exercise of naming our business, we came across the word "sejant", an Old French word dating from the late 15th century used to describe an animal, typically a lion, sitting upright. Immediately, we knew the name "Sejant" was fitting, as we strive to **sit upright** in **business** and in **life**.

If you have any questions, please reach out to us personally.

Kris Smith, *Director of Installations*  
Kris@SejantNorthWest.com  
206.407.9792

Kim Moore, *Director of Operations*  
Kim@SejantNorthWest.com  
206.948.0023