

Alchatek

CASE STUDY
GEOTECHNICAL / DEEP SOIL STABILIZATION

GARAGE CONVERTED INTO A BEDROOM MONTANA

Stabilizing Deep Soil to Prevent a *Garage from Breaking Away*

A property owner in Montana contacted a local geotech contractor about a garage converted into a bedroom that lacked drainage, compacted soil, and a proper footing, and had begun sinking and pulling away from the house.

JOB COMPLETION TIME
8 *hours*

PRODUCT
AP Lift 430

01 What made this job *difficult.*

GARAGE CONVERTED INTO A BEDROOM MONTANA

The garage lacked effective rainwater drainage, thoroughly compacted supporting soil, and a proper foundation with a footing like the rest of the house. For these reasons, it had sunk several inches. The 'new bedroom' was beginning to break away from the rest of the house, and the property owner found cracks in the siding and wanted to make sure there would be no further movement.

THE CONSTRAINT

several inches

SUNKEN

KEY CONDITION

The garage lacked effective rainwater drainage, thoroughly compacted supporting soil, and a proper foundation with a footing like the rest of the house.

THE GOAL

The property owner wanted to make sure there would be no further movement.

AT A GLANCE

3 ft **INJECTION SPACING** along the footing of the house	**17 points** **DUAL-TUBE INJECTION POINTS** installed along affected area	**8 & 4 ft** **INJECTION DEPTHS** at each injection point	**30 minutes** **CURE TIME** structural polymer cured in place

02 What was specified, *and how it went in.*

AP LIFT 430

These technicians chose to implement the Deep Lock® process to stabilize the soil at all levels with minimal imposition or downtime to the property owner.

THE MATERIAL

AP Lift 430

STRUCTURAL POLYMER

A multi-use structural polymer ideal for compacting soil, filling voids, and lifting slabs and structures.

THE METHOD

01	02	03	04
Identify	**Install**	**Inject**	**Confirm**
The crew identified the exact parameters of all the unstable soil.	Installed a pair of injection tubes every three feet along the footing of the house in the affected area, totaling 17 dual-tube injection points.	Created a high-strength durable polyurethane footer with AP Lift 430, injecting the structural polymer to depths of both eight and four feet at each injection point.	Performed injections until significant backpressure was reached to confirm full soil compaction.

THE DEEP LOCK® PROCESS

Stabilize the soil at all levels with minimal imposition or downtime to the property owner.

AP Lift 430 was injected at both eight and four feet at each point, creating a high-strength, durable polyurethane footer.

03 What the result was, *and what confirmed it.*

CURE TIME

This highly efficient 'surgical strike' style job was executed by a crew of two within eight hours. No heavy equipment or messy excavation was needed. The structural polymer was cured in place within 30 minutes of injection. Water won't erode it; insects cannot eat or bore into it. The property owner's new bedroom is now sitting on stable soil.

CURE TIME

30 *minutes*

The structural polymer was cured in place within 30 minutes of injection.

NO HEAVY EQUIPMENT

A crew of two completed the job within eight hours, with no heavy equipment or messy excavation.

Water won't erode the cured polymer, and insects cannot eat or bore into it.

THE RESULT

The property owner's new bedroom is now sitting on stable soil.

START THE CONVERSATION

Send us the job.
We will send back an approach.

Send us the soil report or the failure photos and Technical Services will return a written approach within two business days.

TECH SUPPORT

404 · 618 · 0438

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Alchatek

Alchatek manufactures polyurethane resins, chemical grouts, and injection equipment for infrastructure repair: leak sealing, soil stabilization, concrete lifting, and seawall repair. Headquarters in Tucker, Georgia, with a bonded warehouse in Reno, Nevada.

Information in this document is believed accurate at the date of publication. Product performance depends on site conditions and application; consult the current Technical Data Sheet, which is the controlling document.