



CIVIL CONSTRUCTION DIVISION



GROUND IMPROVEMENT GRAIN BIN SYSTEMS

As increasing yields necessitate expansion in grain storage and drying capacity, Helitech Civil Construction Division is here to ensure your grain system will stand for generations to come.

As grain towers reach higher into the sky, the loads they place on the ground magnifies. If the soil beneath the bin is too compressible or has relatively low strength characteristics, it can spell disaster.

Ground Improvement Solutions

Helitech offers a wide range of solutions to meet project demands and soil condition requirements including: Aggregate Piers (also called Vibratory Stone Columns, VSCs, or rammed aggregate piers), Vibratory Concrete Columns (VCCs), Controlled Modulus Columns (CMCs), and Auger Cast Piles.

Aggregate Piers

For many soil conditions, the most cost effective ground improvement solution for today's agriculture industry are Aggregate Piers.

Aggregate Piers are a ground improvement technique where dense columns of compacted stone are constructed to increase bearing pressures in areas of soft soils. Additionally, Aggregate Piers are used to mitigate settlement under structural footings. The aggregate piers are designed and installed in groups to improve the ground's ability to support structures.

Helitech CCD has the expertise to design and construct a cost-competitive ground improvement plan to greatly improve the bearing capacity and settlement performance of the site.

VCCs and CMCs

For projects with tighter settlement tolerance, Vibratory Concrete Columns (VCCs) or Controlled Modulus Columns (CMCs) can be used to improve the underlying soils.

VCCs and CMCs are forms of ground improvement similar to Vibratory Stone Columns (VSCs). The difference being Concrete Columns are constructed more rigidly to further reduce the settlement characteristics of the underlying soil.

As both CMCs and VCCs are more rigid, these systems will require a load transfer platform consisting of several feet of crushed stone in order to transfer the loads.

Auger Cast Piles

Helitech CCD also offers conventional Auger Cast Pile type foundations for projects with strict settlement tolerances.

Completed Projects

Below is a sampling of completed Grain Bin System projects by Helitech Civil Construction Division:

- Fertilizer Plant, Chemical Storage - UAN Tanks - Iowa
- Siemer Milling - Grain Bin and Milling Facility - Teutopolis, IL
- Grain Bin Silo System - Central Illinois

 EARTH SHORING

 GROUND IMPROVEMENT

 DEEP FOUNDATIONS

 AGGREGATE PIERS / VSCs

 MICROPILES

 GROUTING

Experienced
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