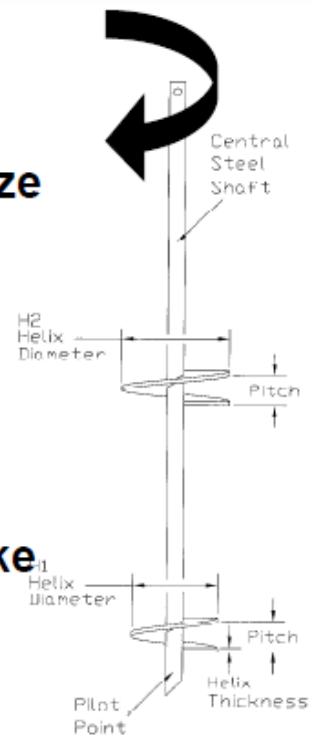


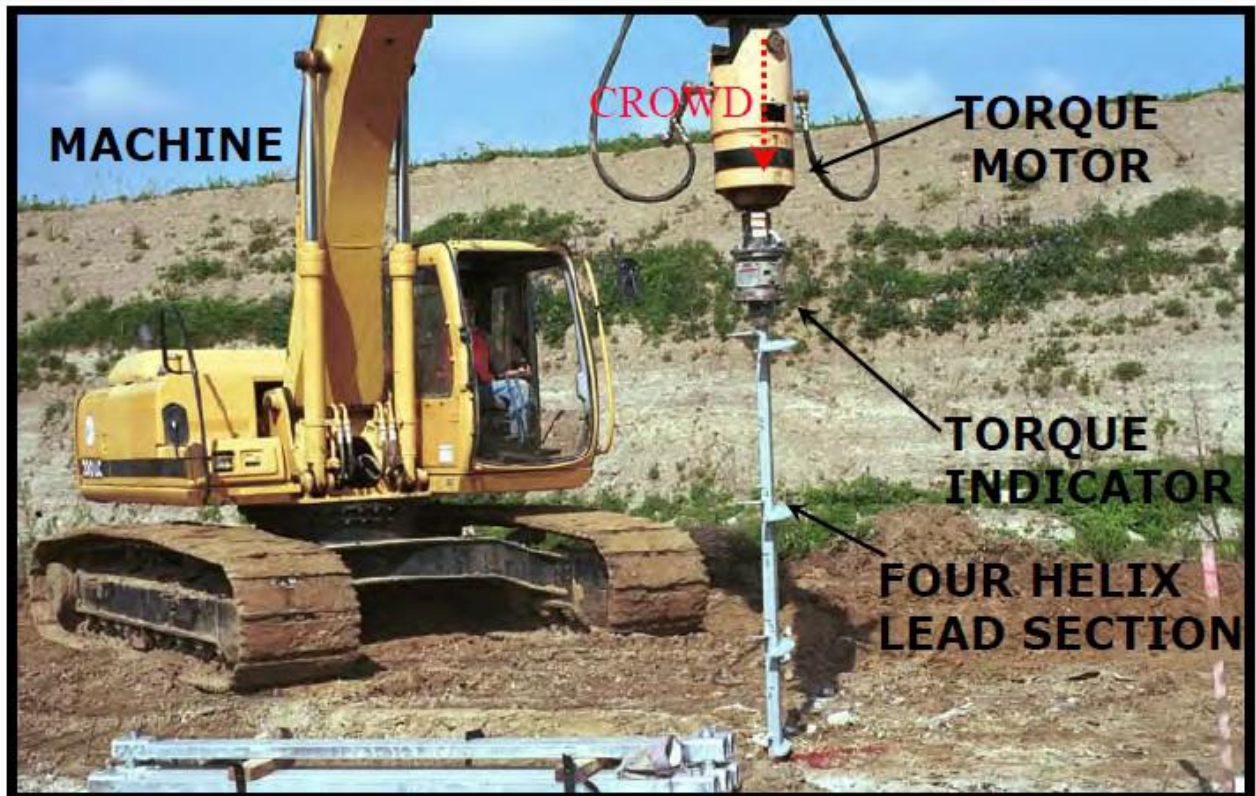
Helical Piles & Anchors - HOW THEY WORK

- Low Soil Displacement Foundation Element Specifically Designed to Minimize Disturbance During Installation
- Consists of One or More Helix Plates Attached to a Central Steel Shaft
- Rotated, or “Screwed” into Soil Much Like a Wood Screw Driven into a Piece of Wood



INSTALLATION ENERGY

- Must Equal the Energy Required to Penetrate the Soil, plus the Energy Loss Due to Friction
- Provided by the Machine – Consists of Two Parts:
 - **Rotation Energy** – Supplied by the Torque Motor
 - Rotation and Inclined Plane of Helix Provides Downward Thrust
 - A.k.a. *INSTALLATION TORQUE*
 - **Downward Force, or Crowd** – Supplied by the Machine

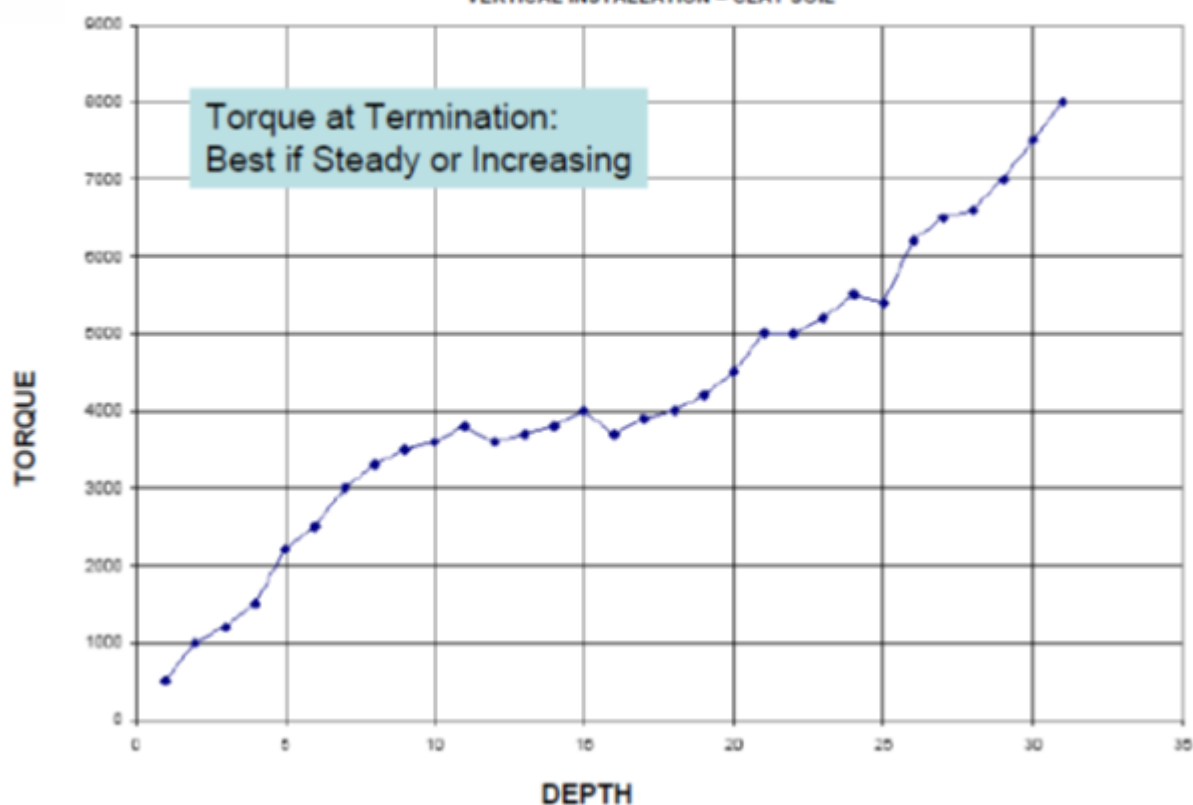


TORQUE - ADVANTAGES

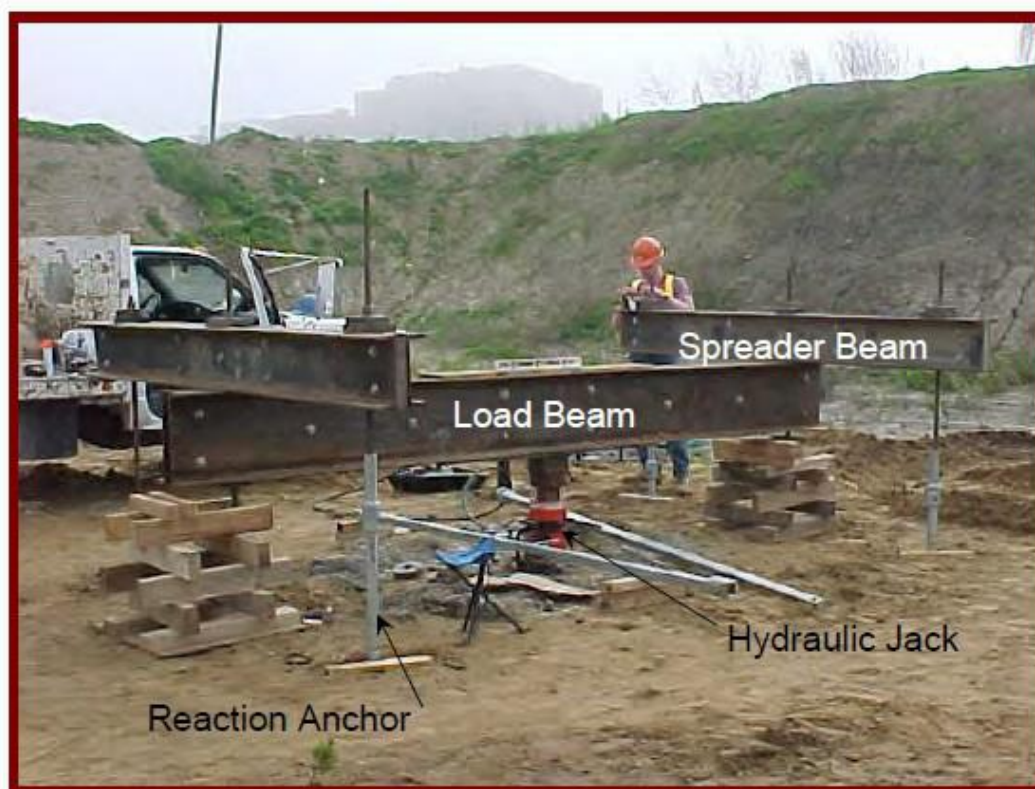
- Provides Excellent Field Control Method of Installation
- Monitors Soil Conditions
- **Torque is a Direct Measure of Soil Shear Strength**
- Predicts Holding Capacity of the Soil
- Helical Piles/Anchors Can be Installed to Specified Torque

INSTALLATION LOG – TORQUE VS. DEPTH

SSI75 w/ 8, 10, 12 & 14 in HELICES, LENGTH 31 FT
VERTICAL INSTALLATION – CLAY SOIL



Compression Load Test



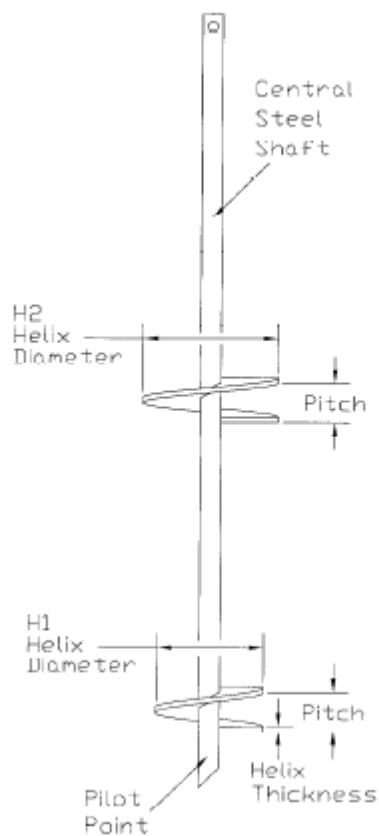
HELICAL PILES

NEW CONSTRUCTIONS – FOUNDATIONS AND SLABS



Screw Piles Supporting Structural Slab

Access Limitations



Foundation Underpinning with Helical Piles

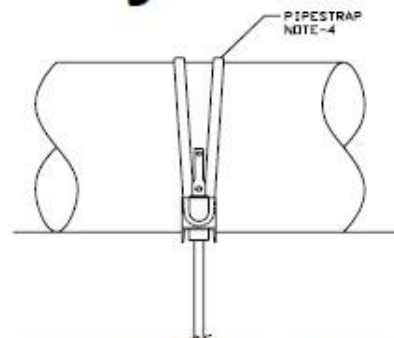
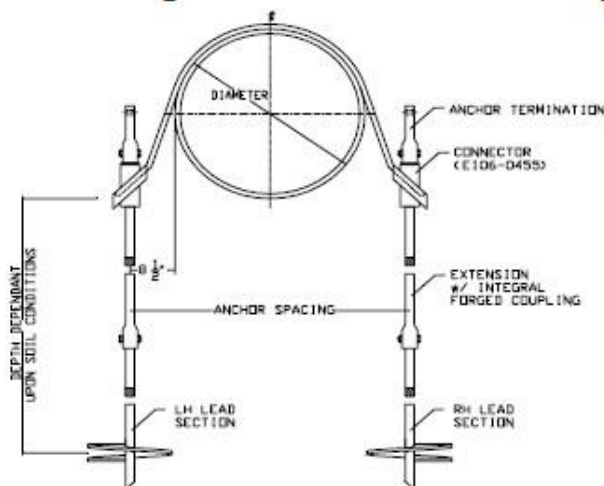


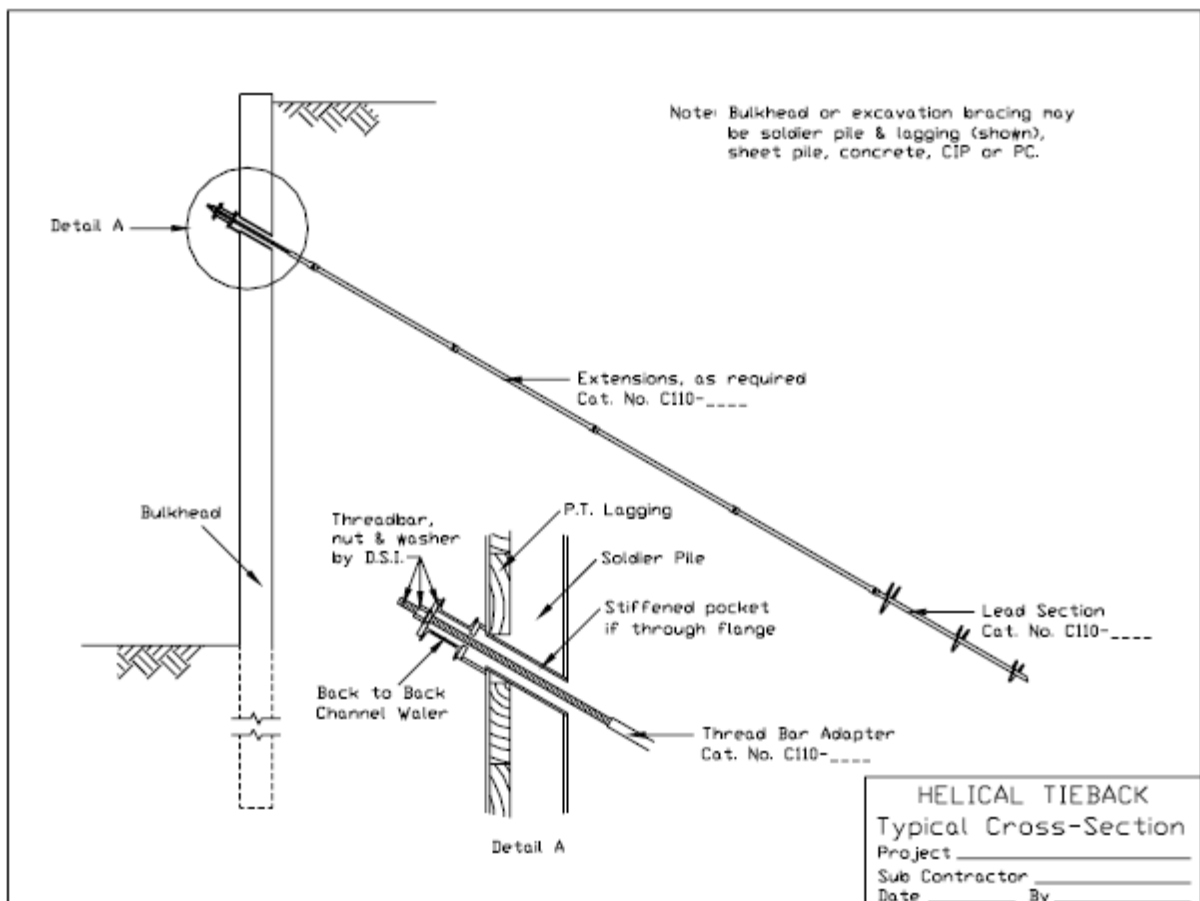
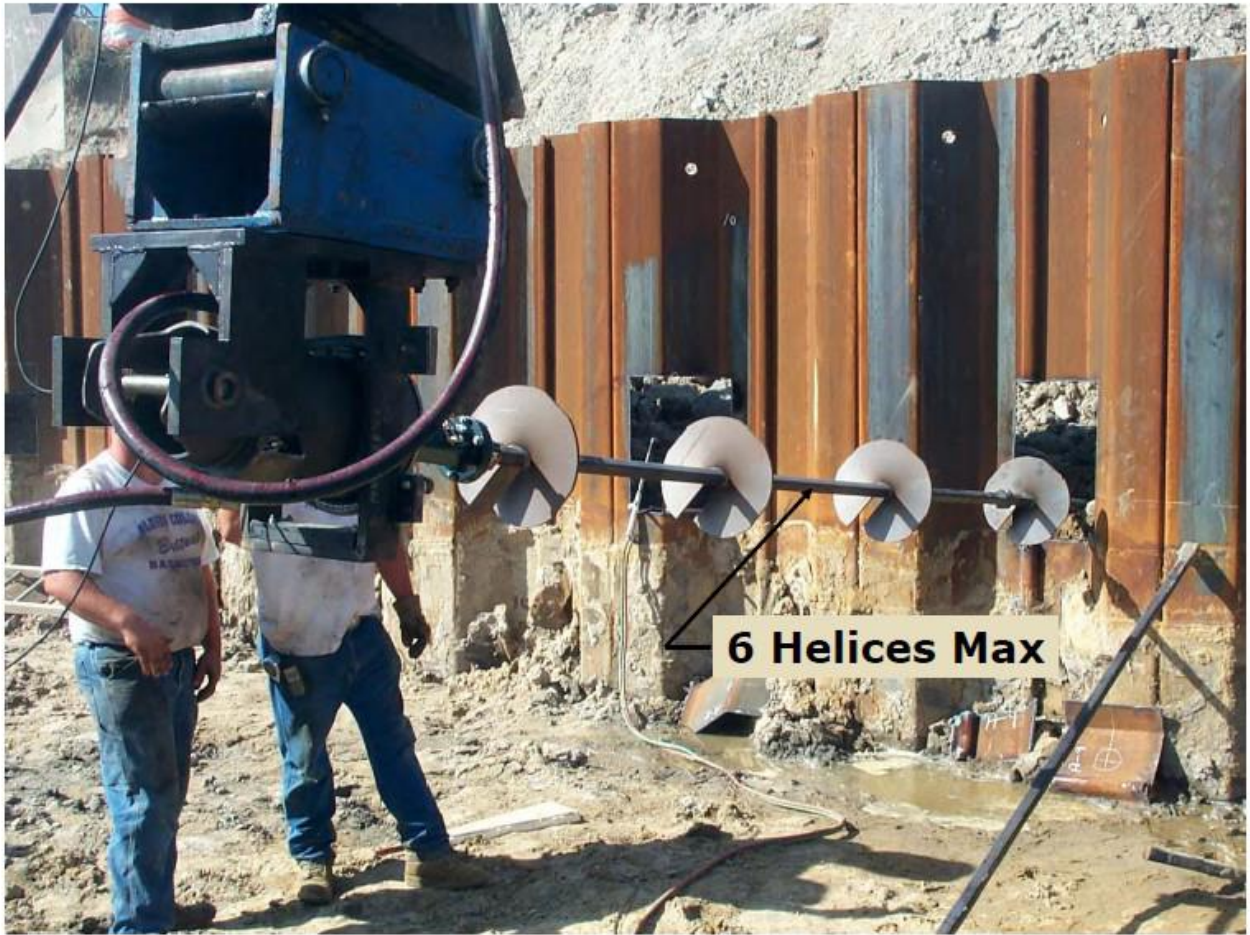
Repair Brackets

Raising Building with
Repair Brackets

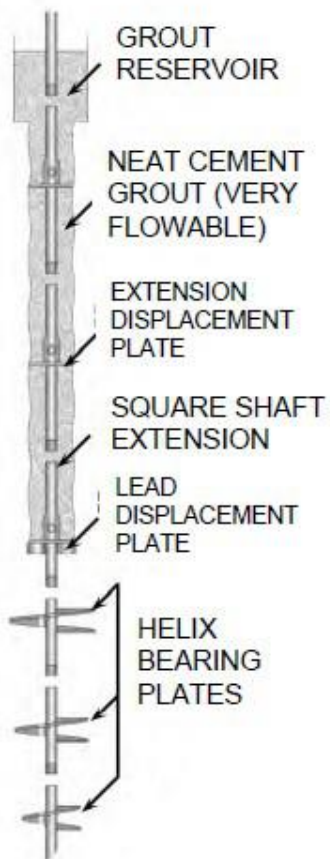


Pipeline Buoyancy Control





Soil Screws for Soil Nail Walls



GROUT RESEVOIR

