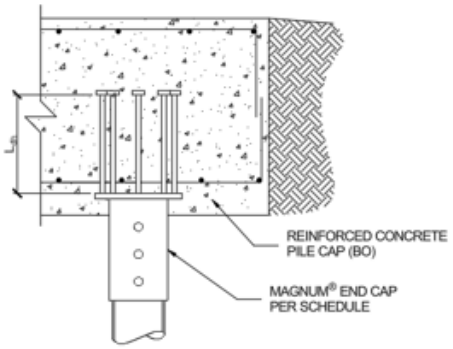
TECHNICAL **BULLETIN**

Creating Stronger Connections with Rebar End Caps

As foundation systems continue to support higher structural loads and more complex geometries, the connection between the helical pile and concrete foundation becomes increasingly critical. MAGNUM® Rebar End Caps are manufactured to create a robust, fixed-head connection that efficiently transfers compression, tension, and bending forces while providing the flexibility to meet project-specific foundation requirements.



Unlike conventional pile embedment methods, which often require deeper pile penetration or thicker concrete sections, MAGNUM® Rebar End Caps utilize welded headed rebar to develop the required structural capacity within the pile cap. This approach creates a rigid connection capable of resisting pile head rotation while optimizing concrete placement and reinforcing layouts.

Adaptable Design for Project-Specific Requirements

No two foundations are identical. MAGNUM® Rebar End Caps are manufactured to match the structural demands and reinforcing requirements of each project. Design variables include:

Rebar quantity and diameter to match required load capacity
Headed or hooked rebar configurations
Specialized plate dimensions and pile connections
Compatibility with a variety of helical pile diameters

This flexibility allows each end cap to be configured for demanding compression, uplift, and bending moment requirements without disrupting surrounding reinforcing steel or increasing concrete volume.

Supporting Complex Foundation Configurations

MAGNUM® Rebar End Caps are commonly used in power transmission, renewable energy, transportation, industrial, and heavy civil projects where fixed-head helical pile foundations improve overall structural performance. Their adaptable design allows them to integrate into a wide range of concrete foundation types, including:

- Column foundations
- Grade beams
- Shear walls
- Equipment foundations
- Custom pile cap configurations

Whether supporting a single pile or a complex foundation system, each end cap is manufactured to match the structural requirements of the project while providing a dependable connection between the helical pile and concrete structure.