



Nicholson Construction Company is a recognized innovator in the use of rock and soil anchors throughout North America. With over 40 years of unparalleled experience, including the installation of the first permanent anchored walls and first dam tiedown projects in the U.S., Nicholson develops innovative and practical rock and soil anchor solutions to meet the engineering and construction challenges faced by our clients.

Anchors are used to provide preloading of the structural systems by applying a lock-in tension load in the anchor tendon, which can be comprised of threaded bar or high strength strands. The tendon is then bonded to competent rock or soil by a cement-based grout. Anchors may be hundreds of feet deep and typically carry working loads of 50 to 200 tons, with some rock anchors for dam stability applications achieving loads over 1,000 tons. Permanent anchors incorporate a variety of corrosion protection systems each of which are applicable to specific soil/rock conditions, budget and level of acceptable risk. In both temporary and permanent retaining applications, rock and soil anchors have proven to be a viable and cost-effective alternative to conventional cantilever retaining walls and internally braced systems.

For dam stabilization, temporary excavation support, permanent retaining walls, anchored marine bulkheads and landslide control, Nicholson anchor systems have been used cost effectively and successfully throughout the U.S. Nicholson routinely works with engineers at the design phase to assist in development of cost effective and constructible solutions in the full range of ground conditions.

COMMON USES:

- To support walls against lateral earth and water pressures in earth retaining structures.
- To secure landslides, rock cuts, tunnels, shafts and deep excavations.
- To resist tensile uplift on basements due to an elevated groundwater table or expansive soils.
- To resist overturning or sliding forces in dam stability projects.