



Client Focused
Worldwide Experience
Innovative, Value Added
Practical Solutions

Single Family Residence on Steep Terrain, Pender Harbour, BC for Flechas Architecture



The Flechas residence in Pender Harbour, BC is a new contemporary structure with a spectacular ocean view. To achieve the ocean views, the structure had to be built on very steep terrain, which required completion of a Terrain Stability Assessment. Granitic bedrock comprised the subsurface conditions, and excavation for aseismic design of the building foundations included a 3-m deep concrete vault which was backfilled with compacted engineered sand. Construction also included a geogrid reinforced Lockblock retaining wall up to 3 m in height. The retaining wall was required to provide access to the garage, and to safeguard the stability of the natural slopes along one of the property lines bordering a road. The detailed design, specifications and construction review of the Lockblock system were completed by GES.



GEOTECHNICAL SERVICES

- Terrain Stability Assessment & Foundation Recommendations
- Geogrid-reinforced Lockblock Wall Design, Specifications & Construction Review
- Field Reviews (Subgrade)