



New Banana Cargo Pier

Chiriqui Grande, Republic of Panama

Mueser Rutledge Consulting Engineers (MRCE) conducted a boring exploration program and developed subsurface soil criteria for design of a new 182 meter long banana and general cargo pier at Chiriqui Grande on the Atlantic Coast of Panama. A feasibility study analyzed the cost and practicality of various foundation and structural alternatives for the pier, and a seismic study developed appropriate design parameters to resist earthquakes. Final design incorporated 42 inch diameter steel pipe piles, steel pile caps and stringer beams, a concrete deck, and a steel shed structure. The 140 foot long, 400 ton working load piles were driven into a sand and gravel layer between clay layers about 90 feet below low water.

Conventional load tests demonstrated pile capacity. Provisions have been incorporated to accommodate future crane rails. Dredging was performed to provide a minimum draft of 11m. The initial pier is 182 m by 24m with future provisions to widen to 36 m. Contract drawings were prepared in metric units.