



Punta Colonet Port Development

The program included the planning, design, and future construction management of a very large port facility, perhaps the largest in the world, to include the supporting infrastructure for both sea and land access. CH2M HILL was engaged to complete a feasibility study using available existing documentation of the marine, atmospheric, hydrological, geotechnical, and existing infrastructure conditions reported for Punta Colonet and the proposed rail route.

The CH2M HILL Team completed limited field studies of the physical conditions at both the port site and along the rail route to evaluate the feasibility to design, construct, and operate the proposed port development and connecting railroad. Based on available information, the study provided baseline design parameters, cost estimates, schedule, and an evaluation of operational impacts for the basic facilities and infrastructure elements of the proposed port development and railroad. The planned facilities required to meet the program objectives included:

Transportation

Client:

Hutchison Port Holdings & Union Pacific Railroad

Location:

Baja, California Mexico

North Breakwater – 2,250 m (1.4 mi) long with approximately 9,500 35-tonne concrete armor units.

South Breakwater – 3,700 meters (2.3 miles) long with approximately 15,500 35-ton concrete armor units.

Navigation Channel – 21 meters (69 ft) depth at entrance, 200 meters (656 ft) width at entrance – 18 meters (59 ft) depth interior to the harbor.

Quay – Total length approximately 4,000 meters (13,074 ft), 10 container berths at 350 meters (1,148 ft) long each, 40 meters (131 ft) wide.

Container Yard – Approximately 3,500 meters (11,483 feet) long, 570 meters (1,870 feet) wide, 200 hectares (494 acres), and an additional 20 hectares (49 acres) for support facilities.

Service Area for tugs– 385 meters (1,263 feet) of quay length.

Intermodal Rail Yard – 20 working tracks, 10,000 feet (3050 meters) long, one run-around track, and six crossings at 150 feet (46 meters) wide.

Rail Support Yard – 48 tracks, approximately 5,000 feet (1,550 m) long, six arrival and departure tracks, and sixteen (16) additional tracks to support equipment maintenance facilities.

Overland Mainline Rail Corridor – Approximately 210 miles of overland rail including: approximately 90 bridges; 300 culverts; 60 at-grade crossings; and 9 separate tunnels with a total length of approximately 14,150 feet. This rail line required a new border crossing between the U.S. and Mexico and meet all the DHS requirements for crossing the border without stopping.

About CH2M HILL

Headquartered near Denver, Colorado, USA, employee-owned CH2M HILL is a global leader in consulting, design, design-build, operations, and program management for government, civil, industrial and energy clients. The firm's work is concentrated in the areas of water, transportation, environmental, energy, facilities and resources. With US\$6.3 billion in revenue and 23,000 employees, CH2M HILL is an industry-leading program management, construction management and design firm, as ranked by Engineering News-Record and named a leader in sustainable engineering by Verdantix. The firm has been named a FORTUNE 100 Best Companies to Work for five times. Visit us at www.ch2mhill.com, twitter.com/ch2mhill and facebook.com/ch2mhill.