



Cruise Ship Pier Puerta Maya, Cozumel

Pier Extension

Design-build a 486 ft. x 40 ft. pier extension to provide single-side mooring and berthing for cruise ships up to Royal Princess Class, as well as smaller Dream, Fantasy, and Destiny Class ships, plus construction of a 520 ft. x 30 ft. access bridge extending from the existing pier structure to the new pier.

Houston, Texas-based Orion Marine De Mexico, S. De R.L., part of the Orion Marine Group network of companies, was awarded the project and assigned SEC to lead the design.

Additional structures include an intermediate multi-pile supported breasting dolphin and mooring dolphin on the outer end of the pier and four large-diameter mono-pile mooring dolphins spaced at the head of the pier. The structures are accessible via interconnecting personnel walkways.

The access bridge, main pier platform, and outer mooring structures are concrete structures supported by steel-pipe piles, which penetrate the underlying rock foundation layer and fixed with cast-in-place reinforced concrete sockets drilled into the rock. The rock sockets and pile structure connections were engineered to resist a 100-year wind wave event and maximum vessel mooring and berthing loads. Water depths at the site vary from 36 ft. to over 72 ft., with variable rock foundation depths and variable pile lengths and sizes throughout the structure.

The design life of the access bridge, pier, and structures is 50 years.

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Completed

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Nature of Responsibility

Gary Schneider, P.E., Project Manager and Design QC Manager.
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