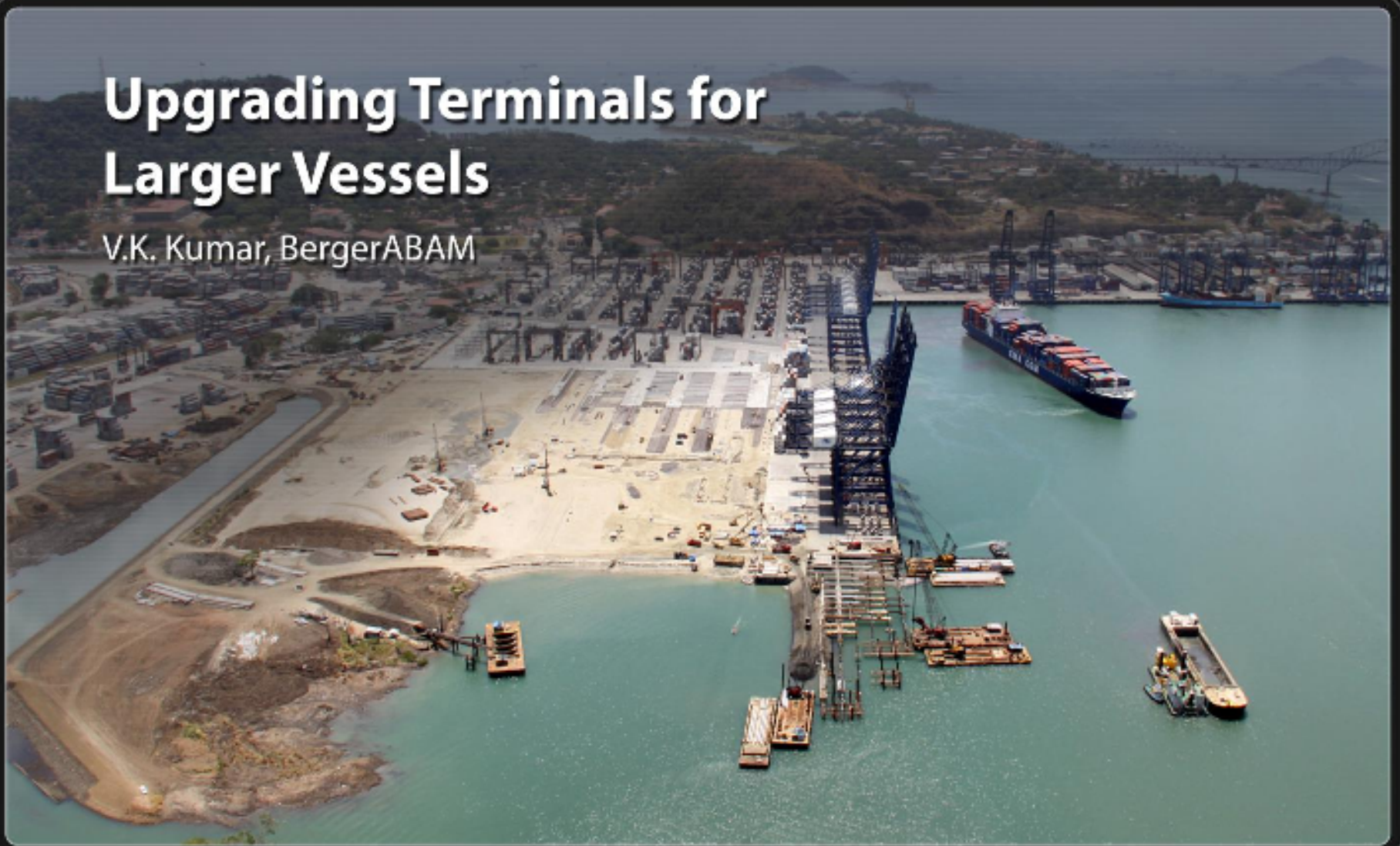


Upgrading Terminals for Larger Vessels

V.K. Kumar, BergerABAM



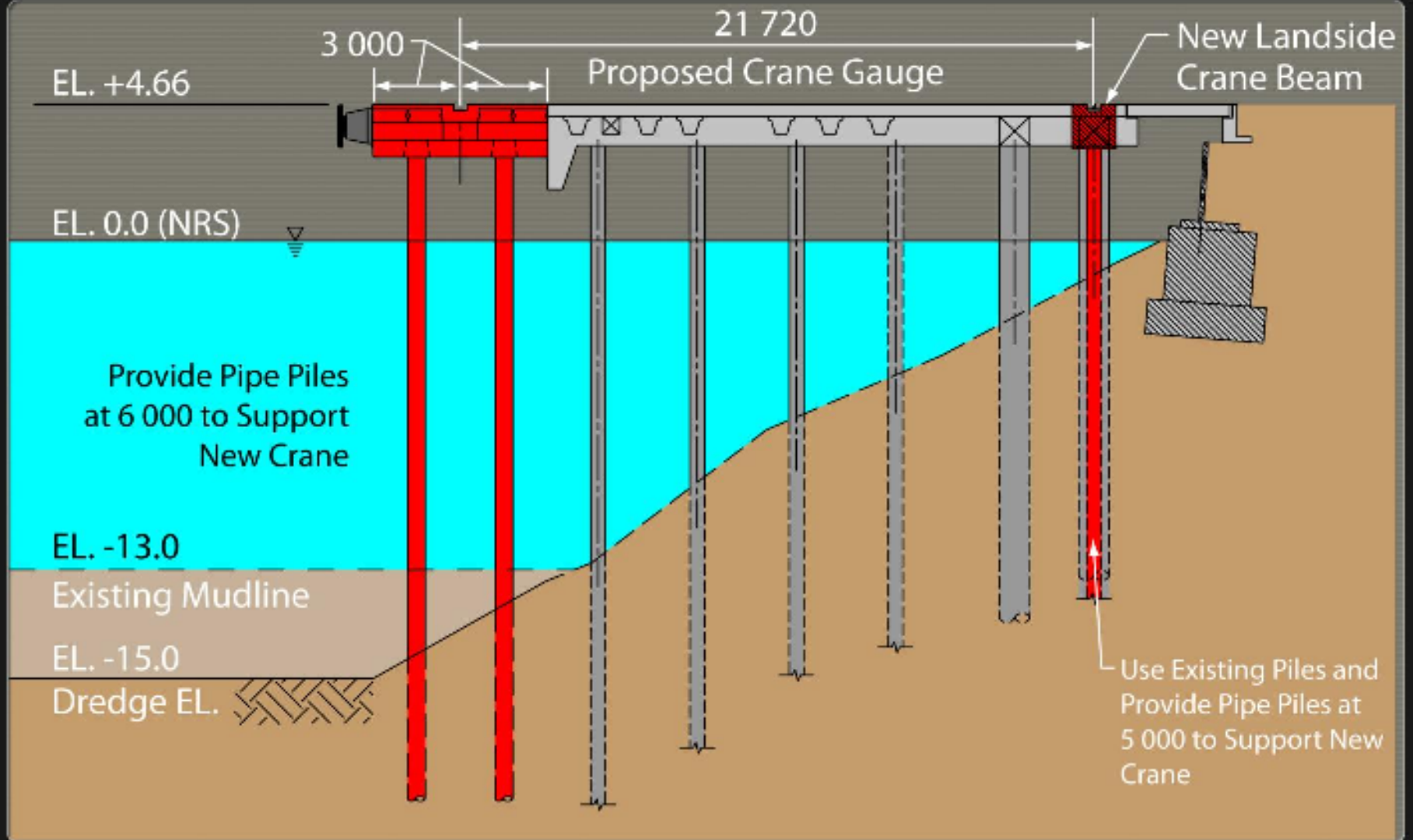
Major Issues and Needs

- Deeper Berths
- Larger and Heavier STS Cranes
- Higher Wheel Loads on Wharf
- Bigger Fenders and Bollards
- Denser Stacking at CY
- RTGs and RMGs at CY

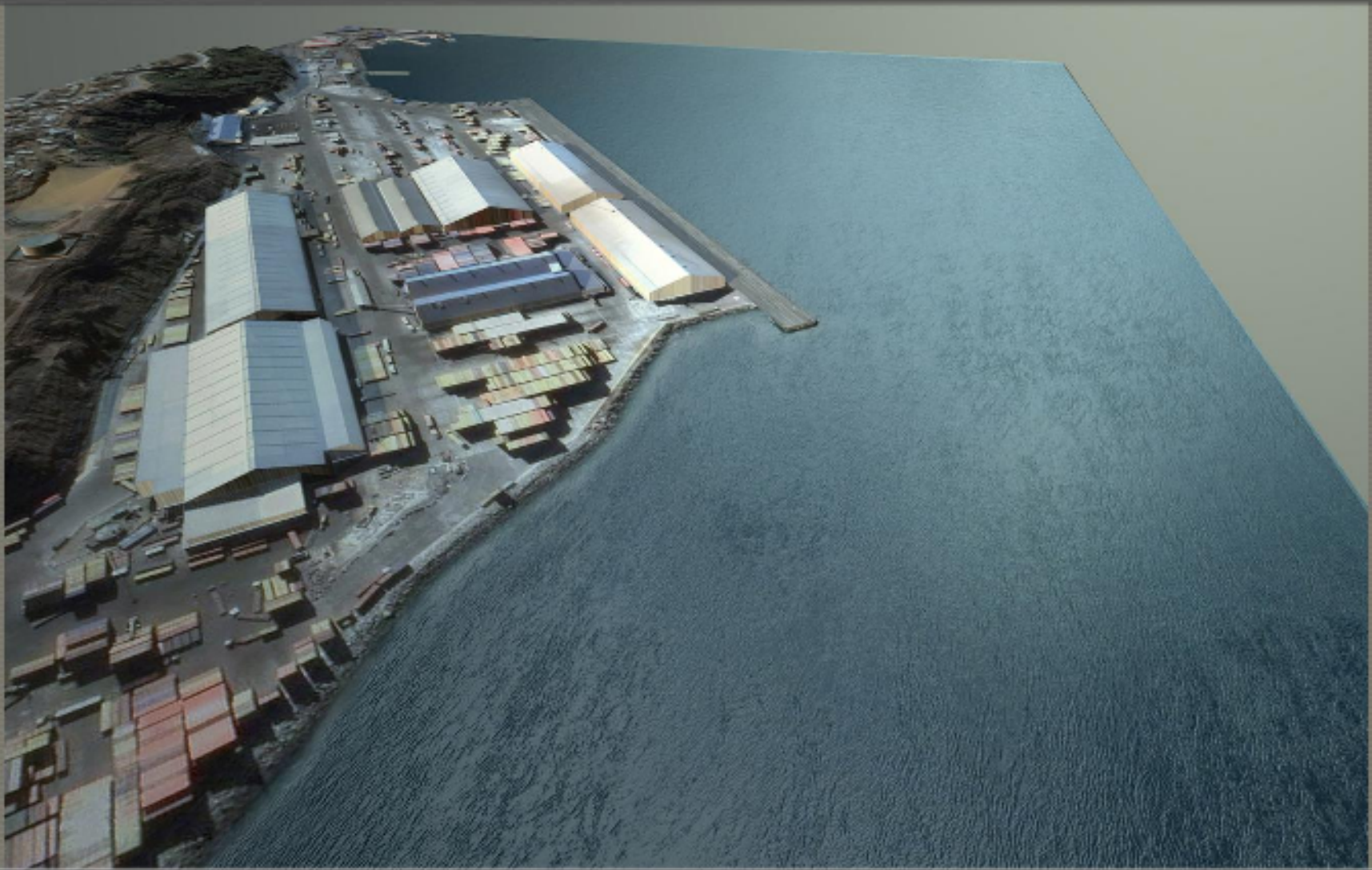
San Vicente Terminal Internacional (SVTI), Chile



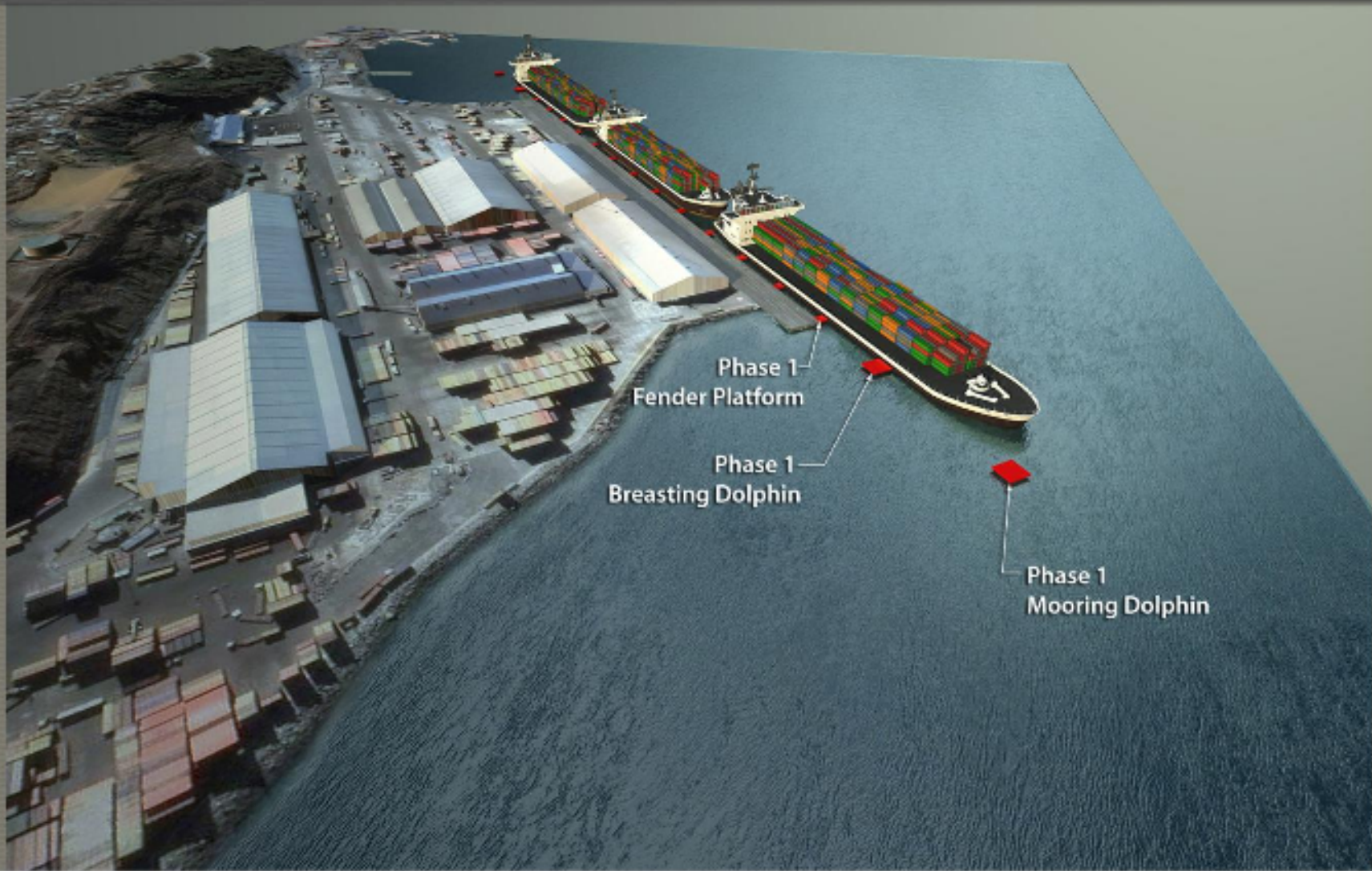
Deepening and Crane Retrofit



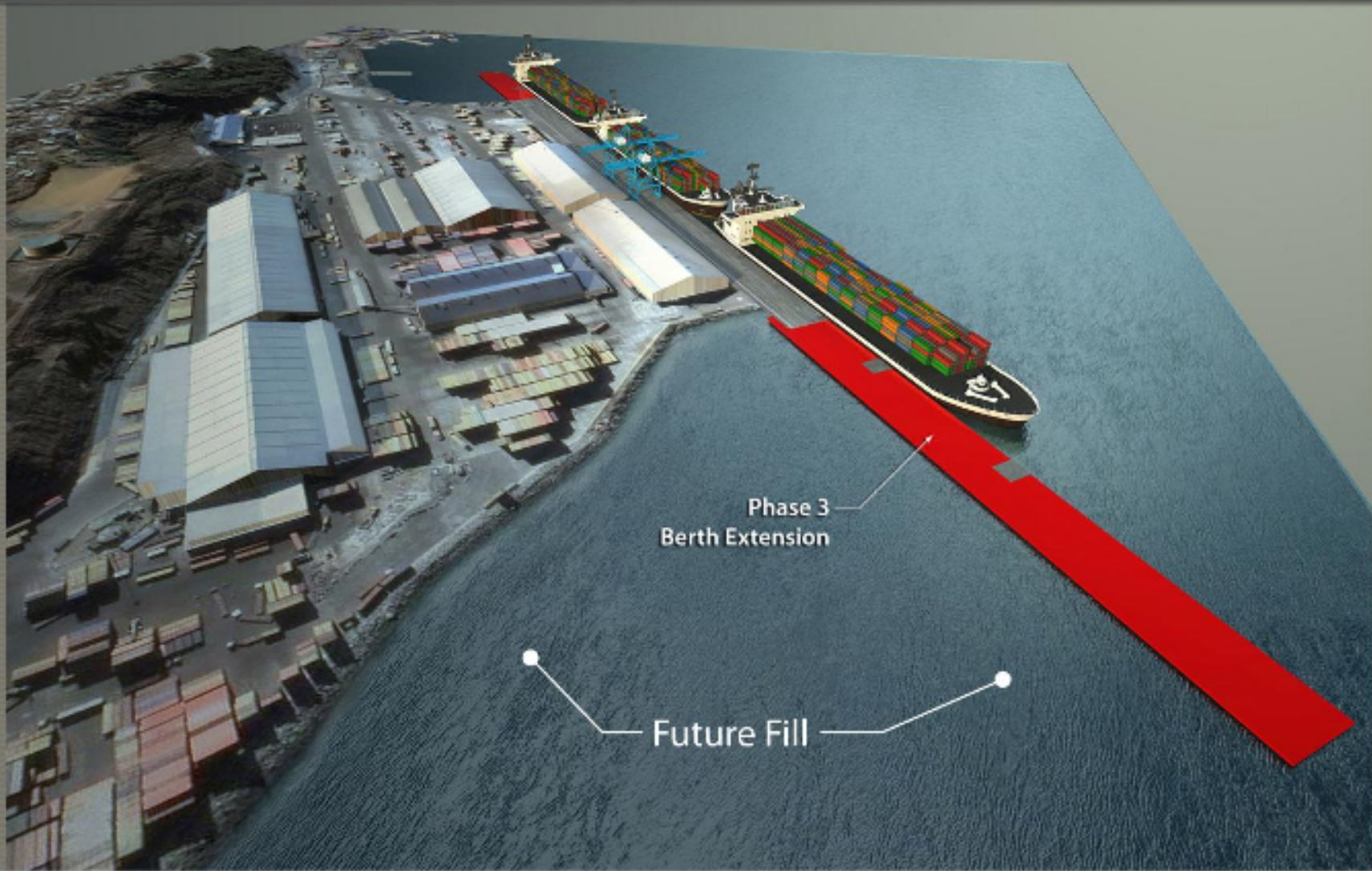
Existing Conditions



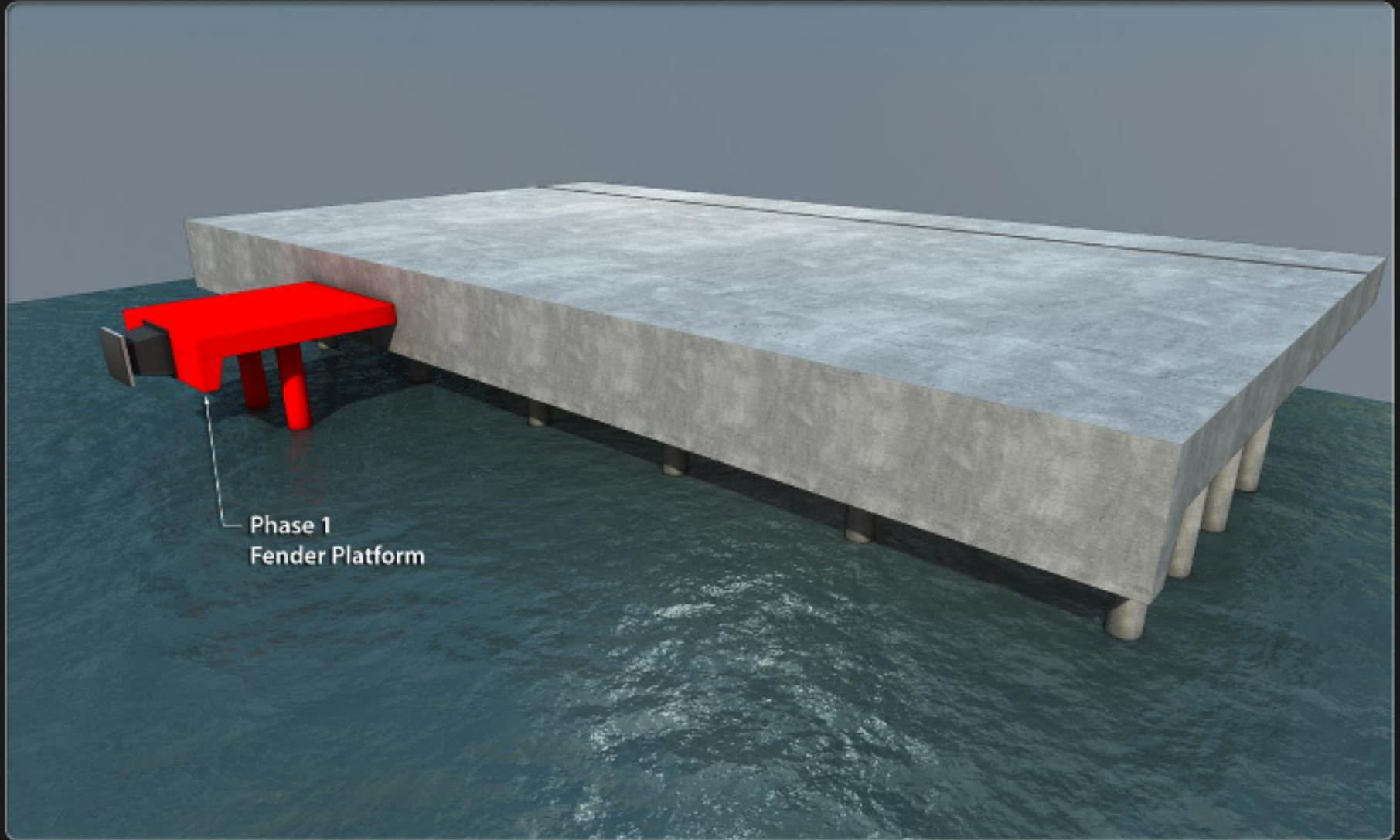
Breasting Platforms and Dolphins



Infill Structure and Berth Extension

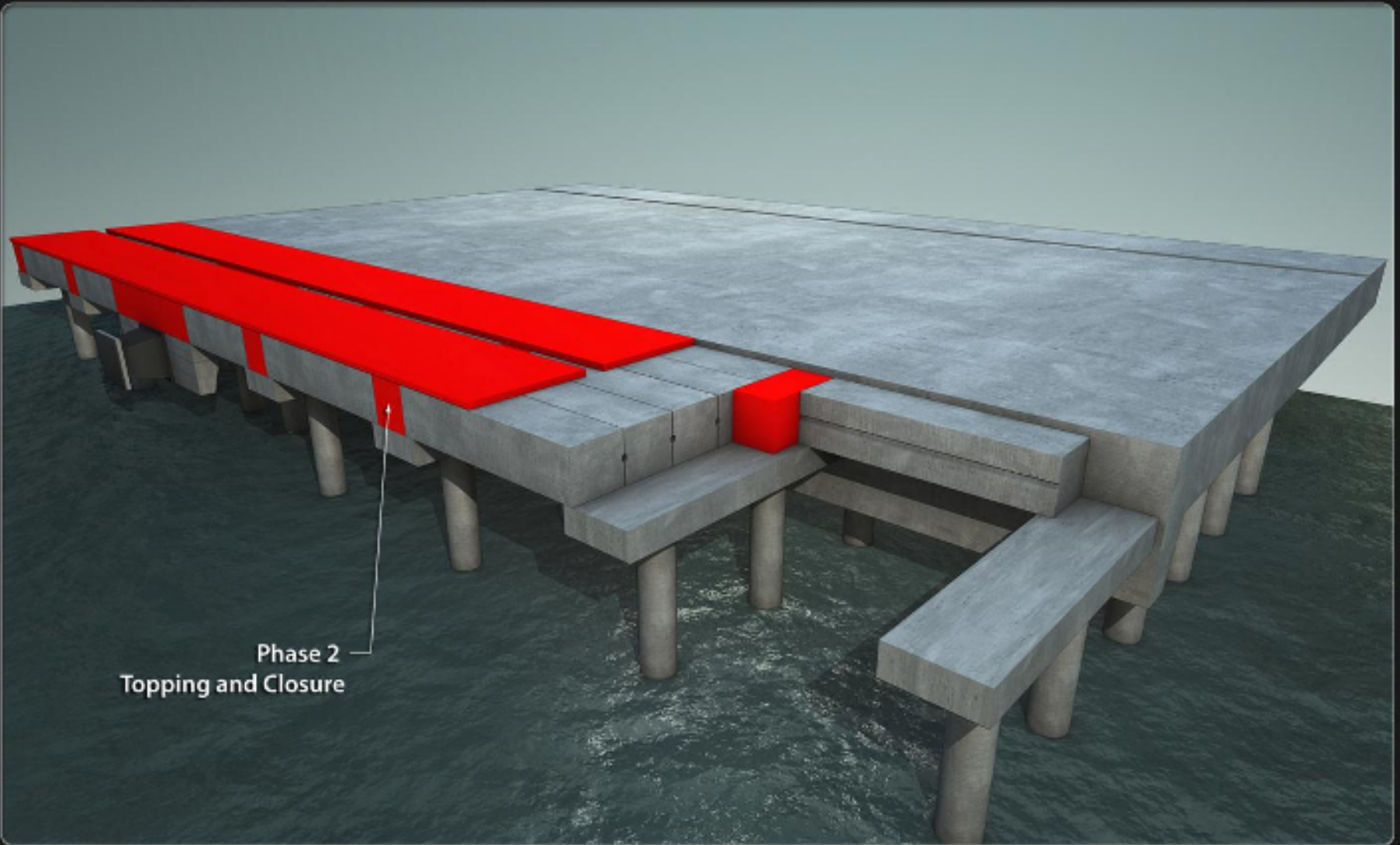


Construction Sequence – Phase 1



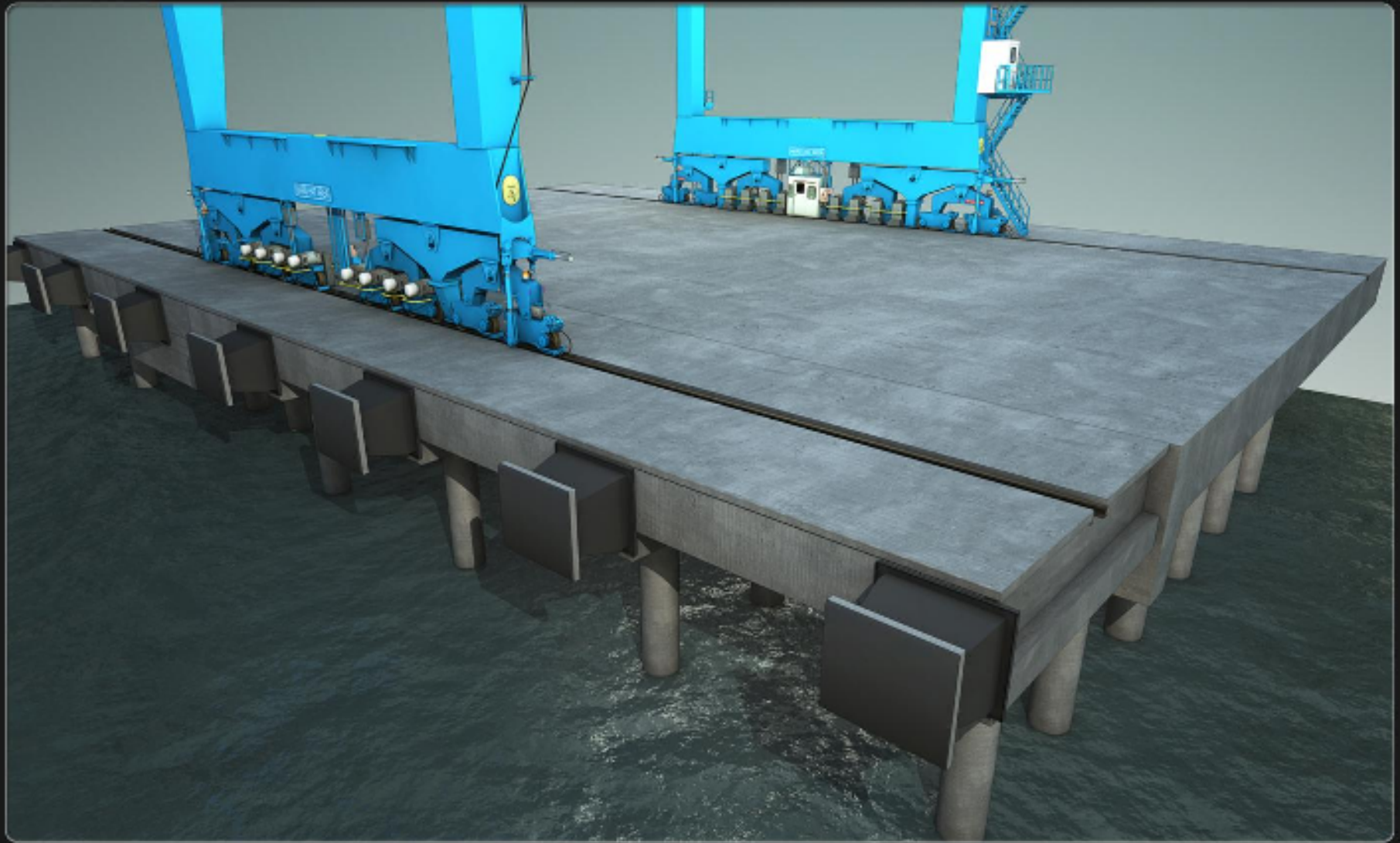
Phase 1
Fender Platform

Construction Sequence – Phase 2



Phase 2
Topping and Closure

Construction Sequence – Phase 3



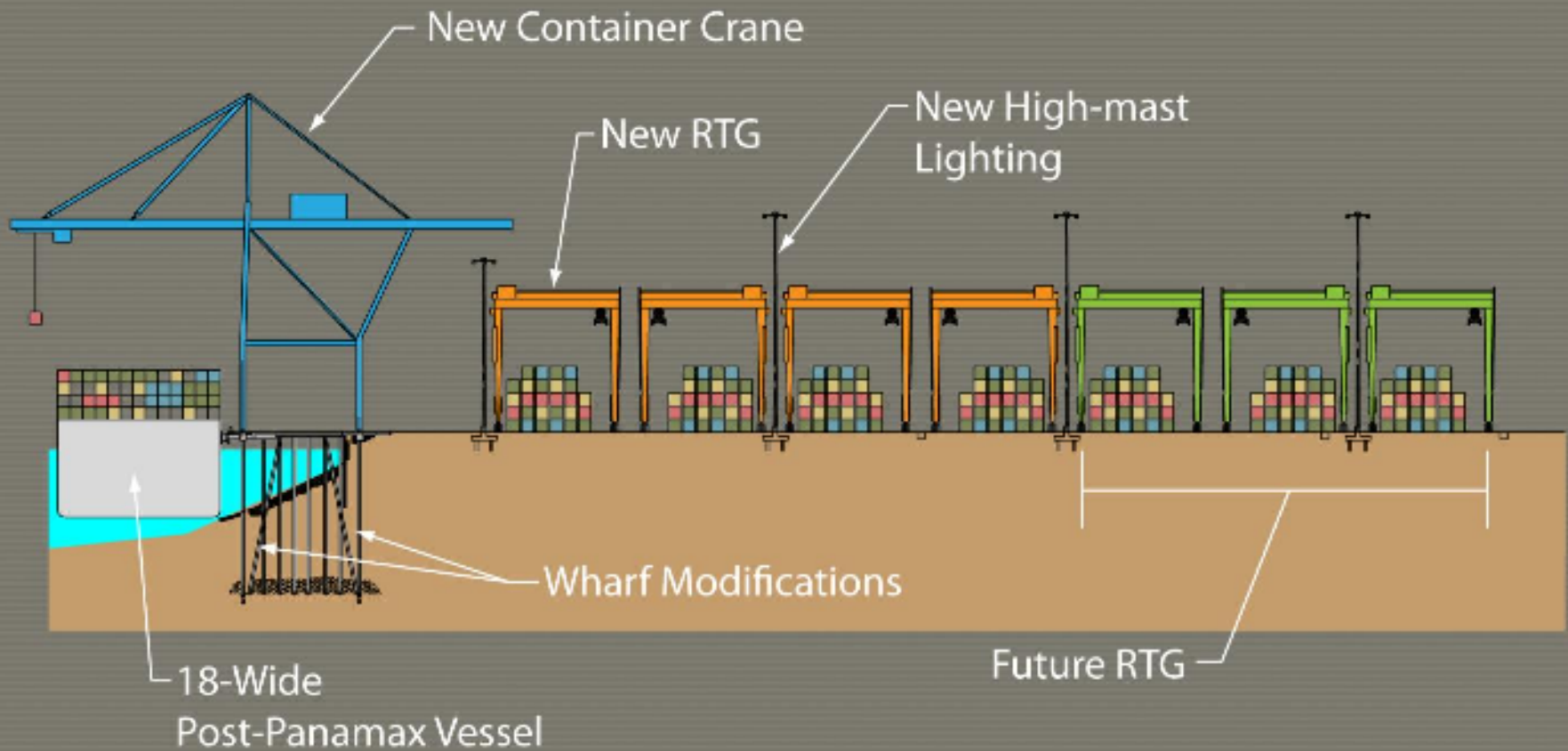
Completed Project



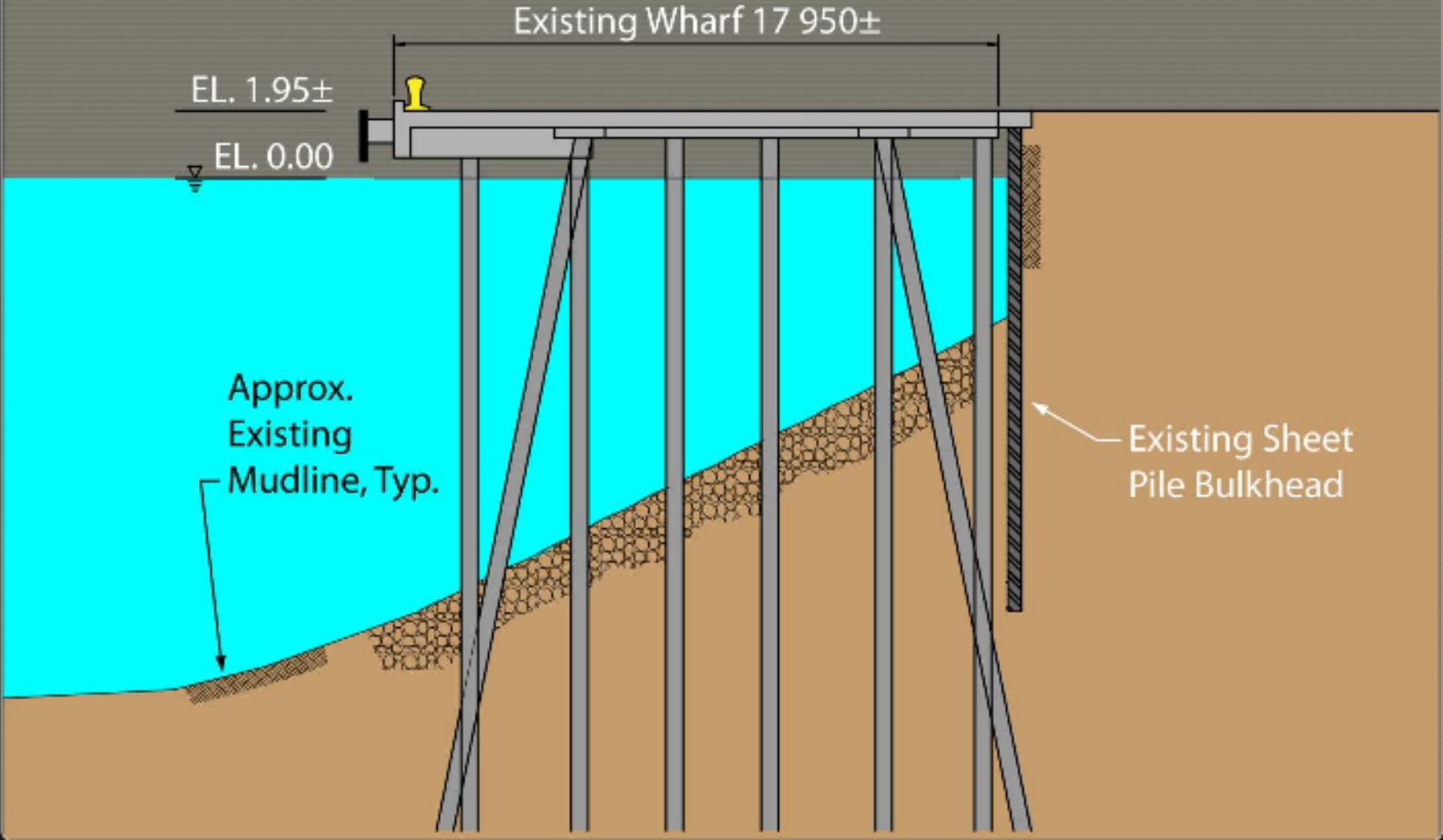
Santa Marta International Container Terminal, Colombia



Wharf and Yard Section



Existing Wharf



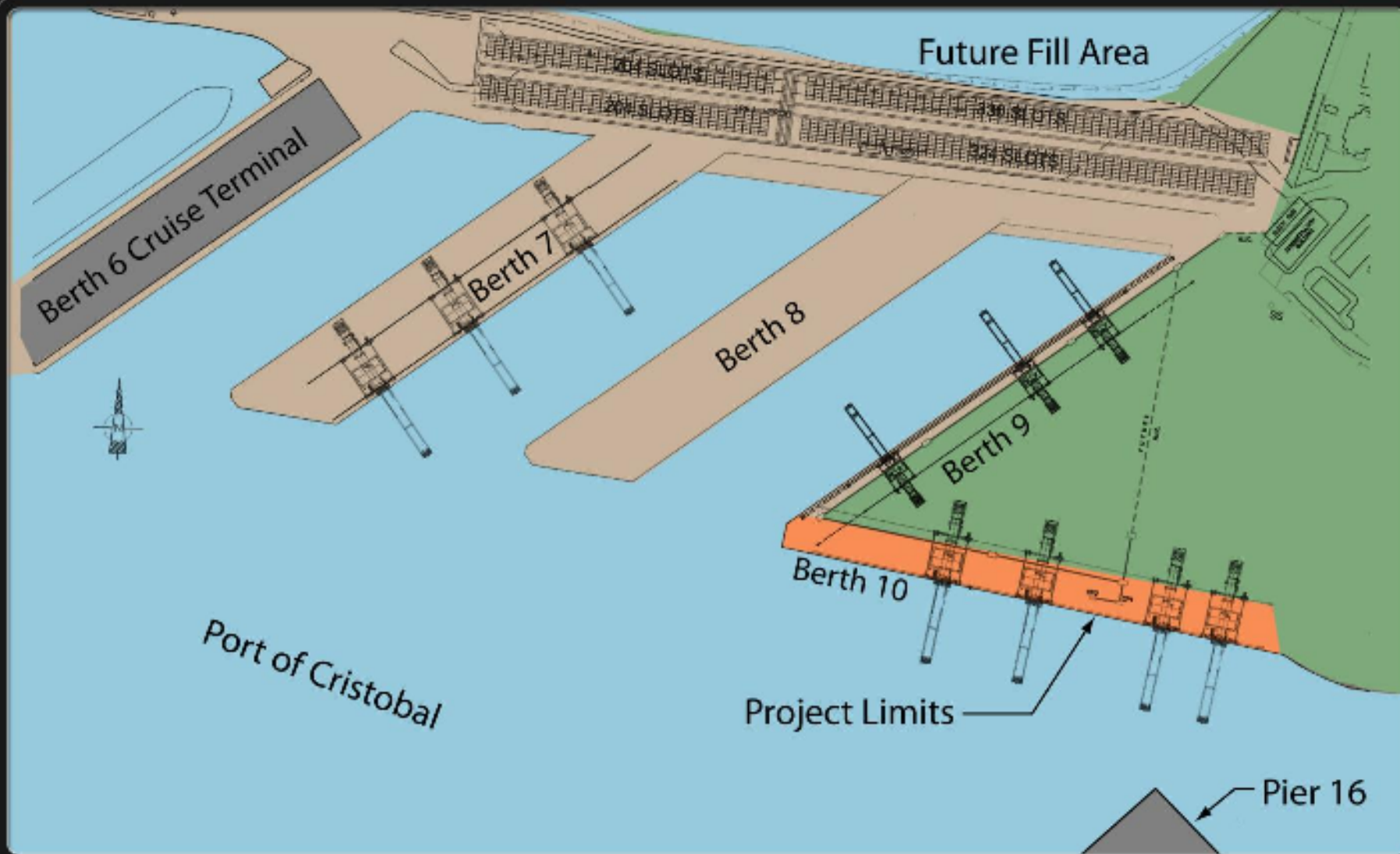
Wharf Modifications



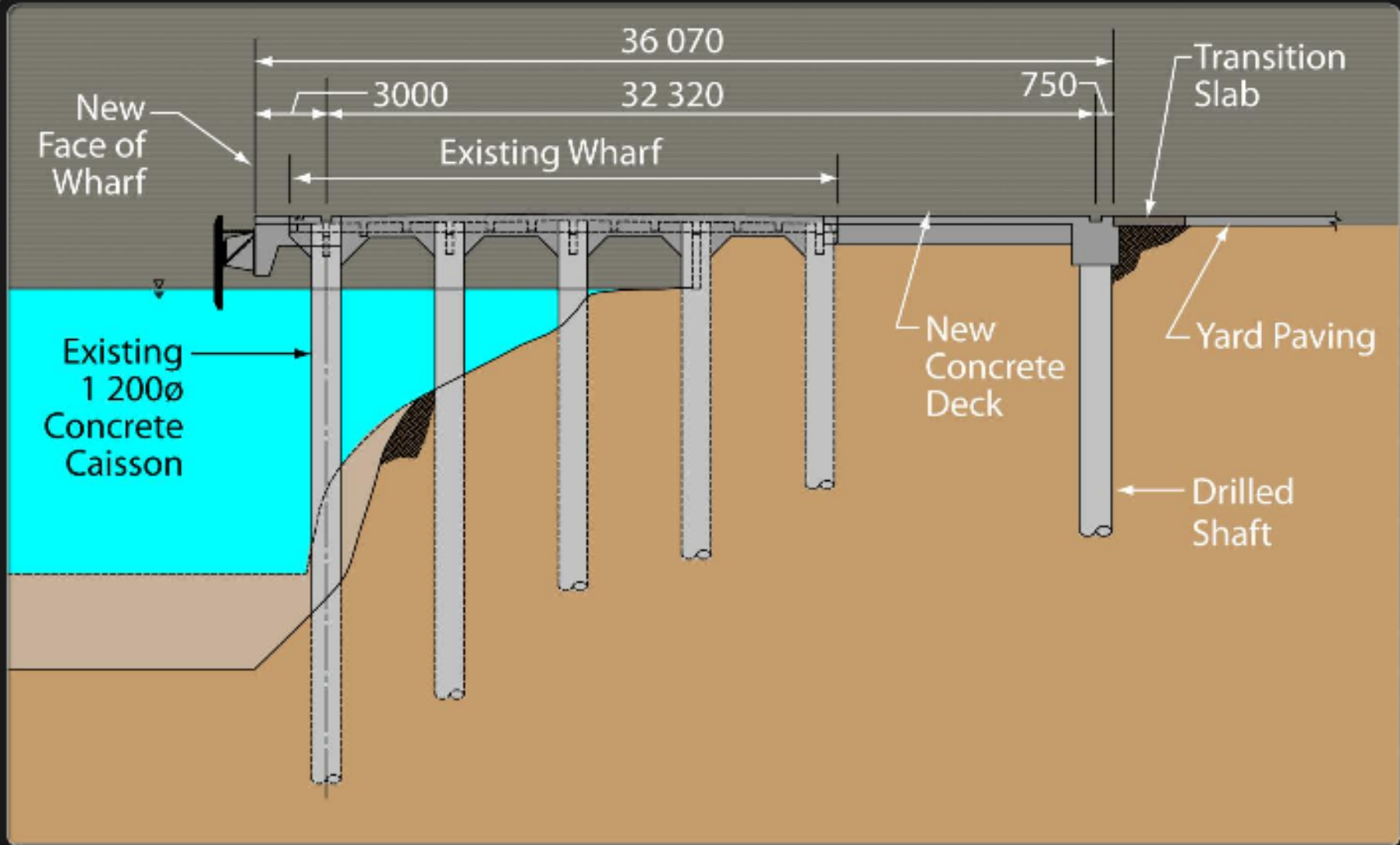
Panama Ports Company Berth 10



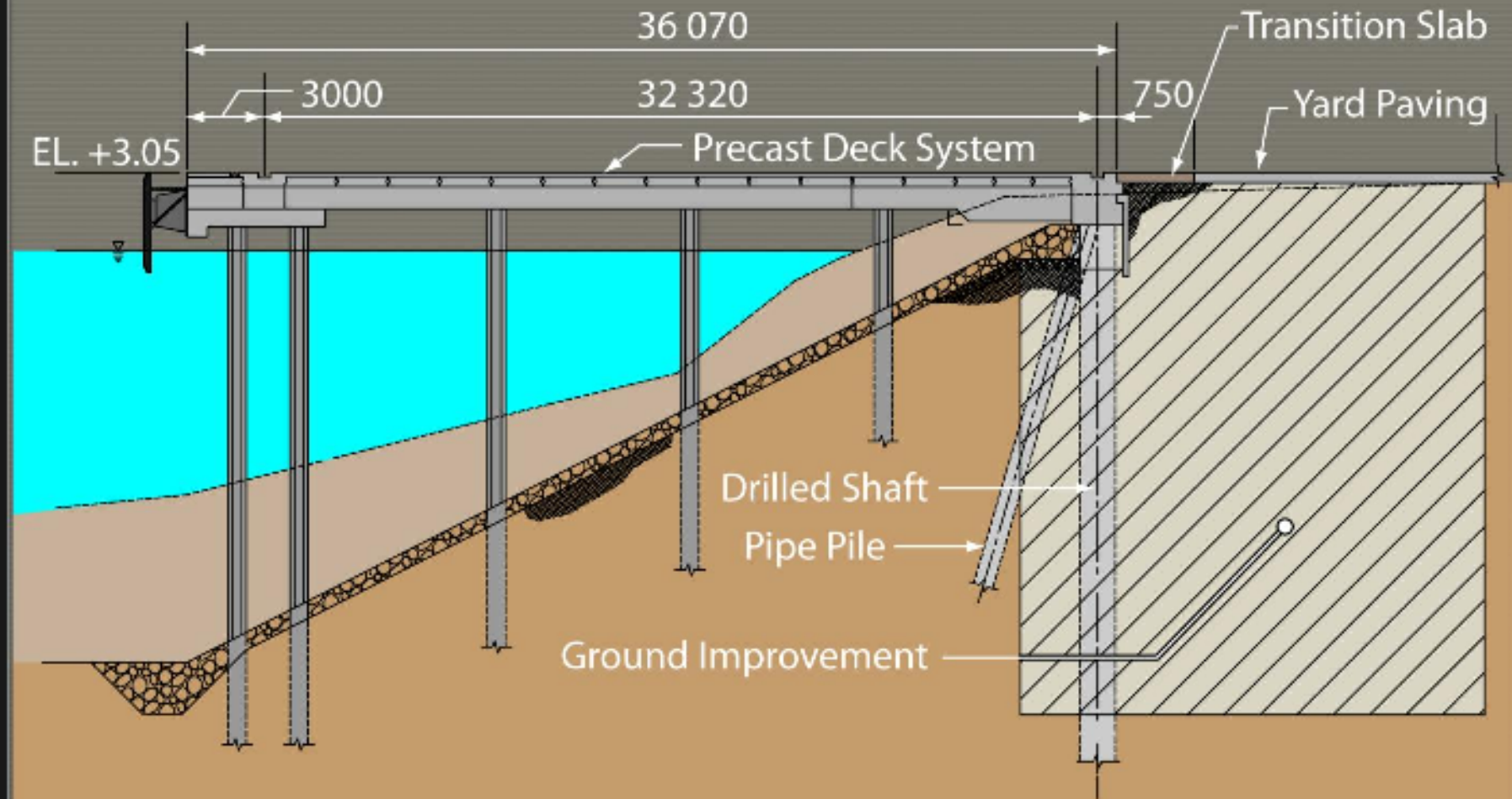
Site Plan



Modified Wharf Section



New Wharf Section



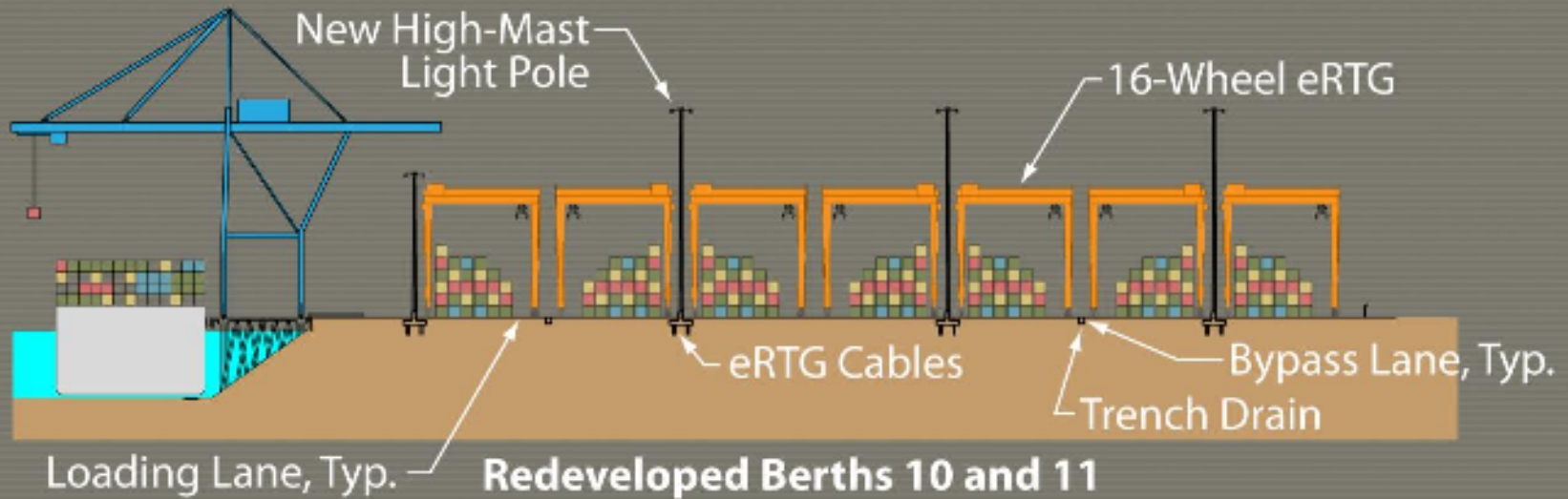
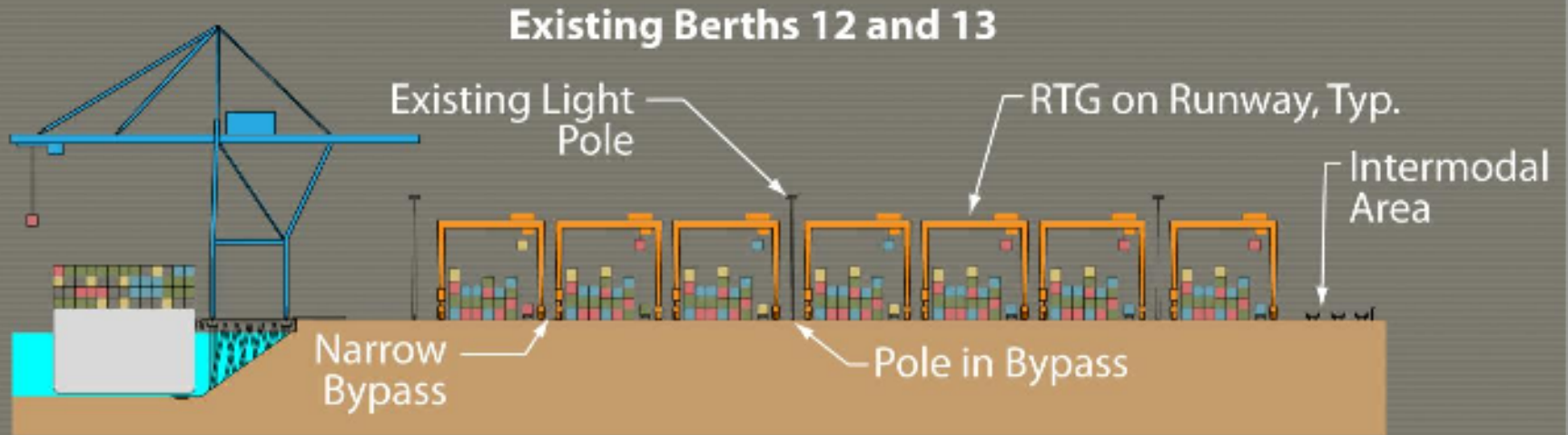
Completed Project



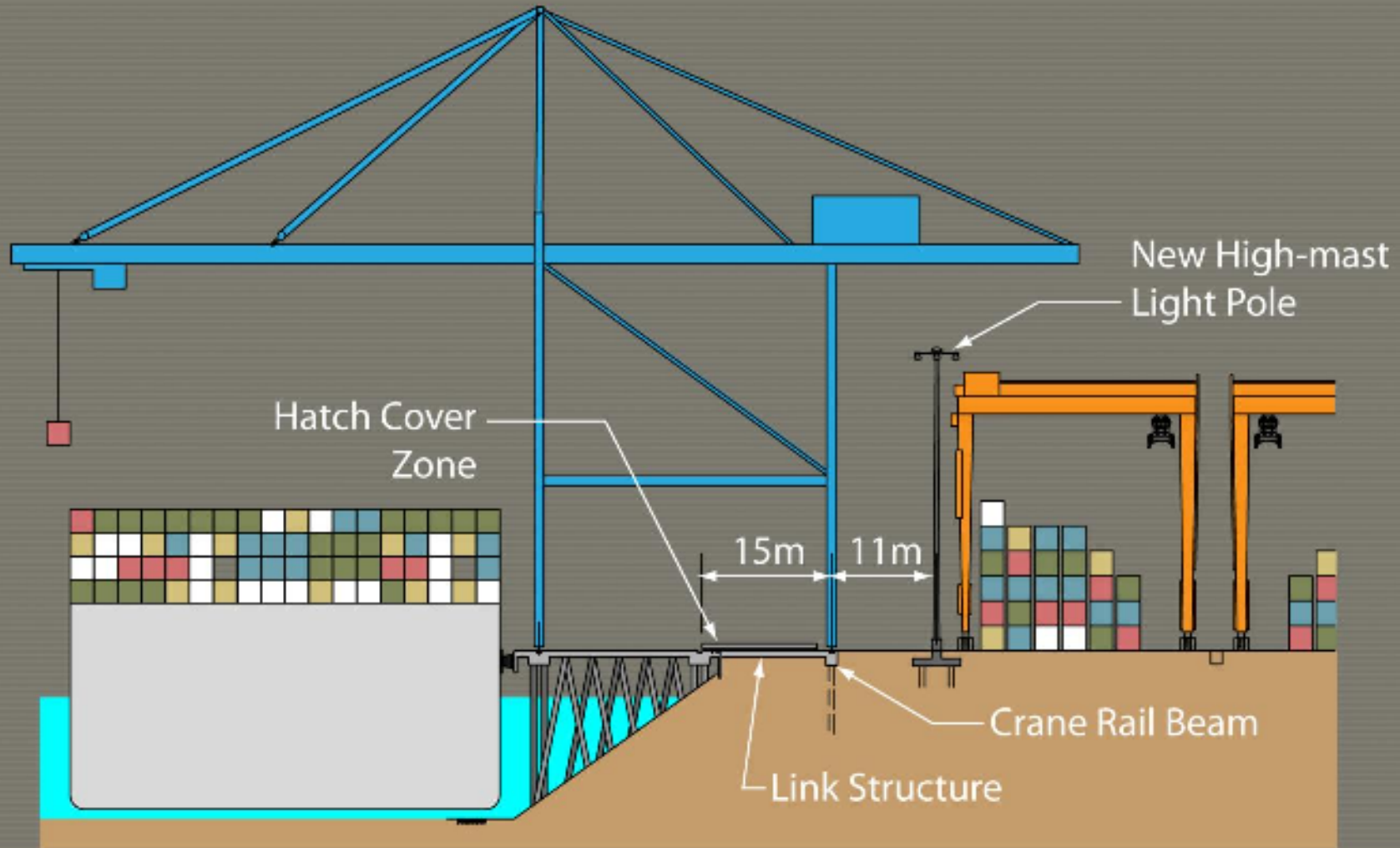
Manzanillo, Mexico



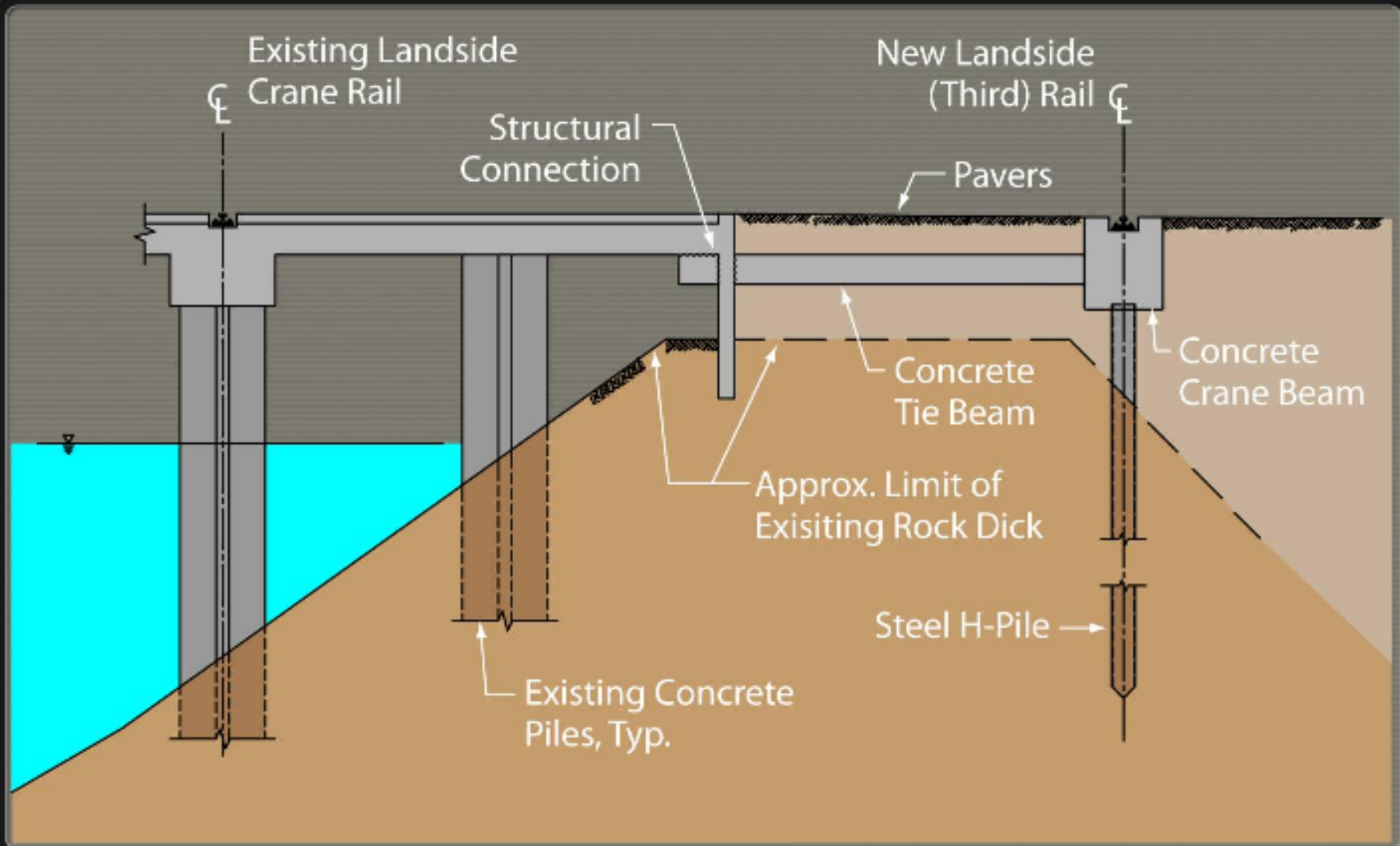
Wharf and Yard Section



Third Rail for 100' Gauge Cranes



New Landside Crane Rail



Berth Deepening

