



## PORT OF LOS ANGELES CHANNEL DEEPENING PROJECT

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### Briefing Paper – Berths 243 – 245 April 2009

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#### **BACKGROUND**

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The slips at 243-245, formerly Southwest Marine Terminal, have been identified for filling with dredge material as part of the Channel Deepening Project. This disposal site is included in the proposed action of the Final SEIS/SEIR. This action accomplishes several project objectives of the Final SEIS/SEIR: Beneficial reuse of dredge material, capping of existing contaminated sediments within the slips, and creation of a Confined Disposal Facility (CDF) for placement of contaminated sediments generated from other project areas. Extensive coordination with federal and state agencies has concluded this disposal feature meets guidelines to be selected as the preferred alternative under NEPA and CEQA.

#### **DISCUSSION**

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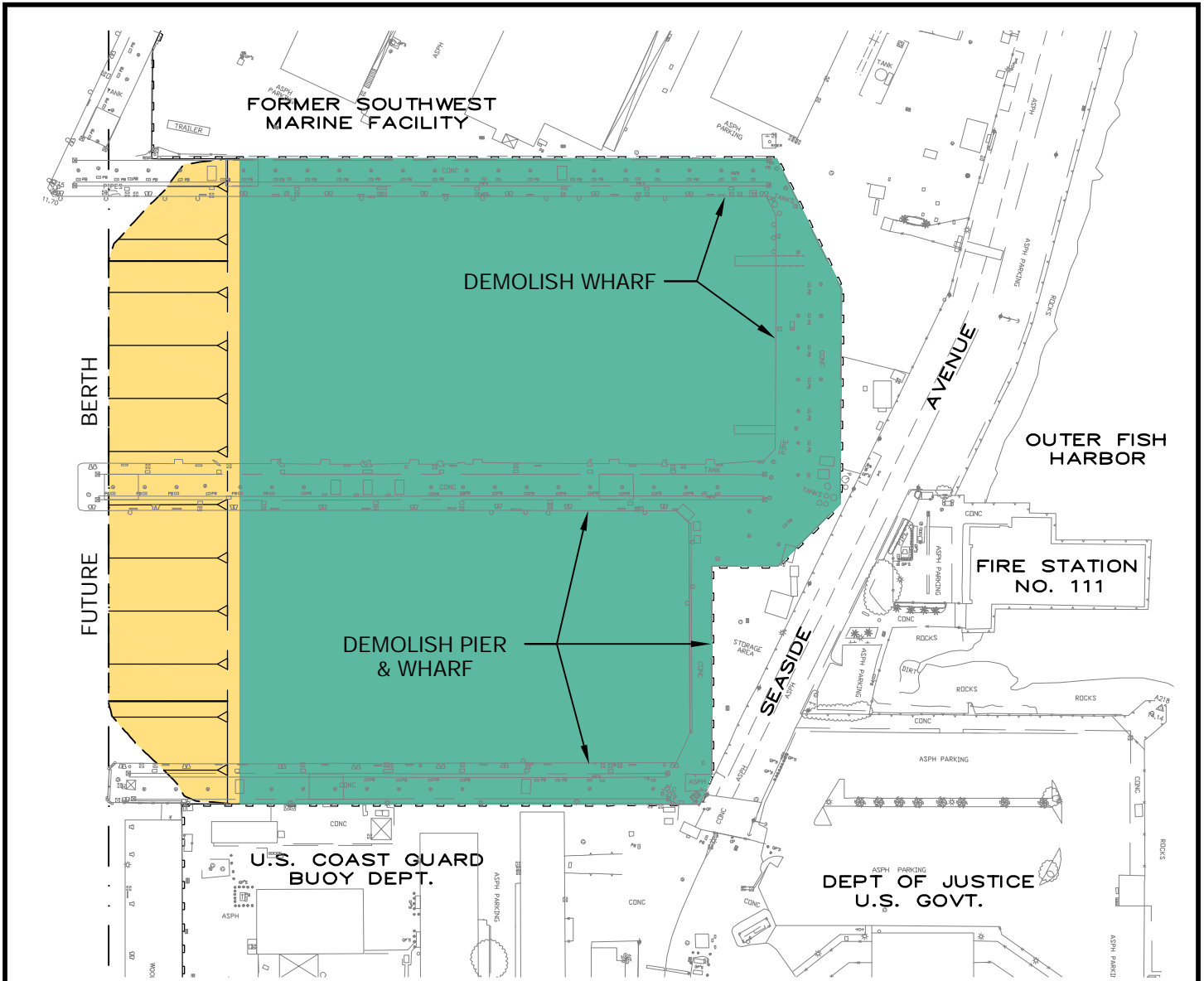
The proposed plan, shown in Figure 1, is the result of geotechnical site investigation and engineering analysis required for construction of a CDF for capping and placement of approximately 80,000CY of contaminated dredge material. Engineering considerations have included: retainment structure static and seismic stability, pathway analysis to prevent future seepage of leachate material, surface capping requirements, coastal engineering for wave stability, and surcharge requirements for long term consolidation and densification of fill materials. Seismic design considerations are the governing factor at POLA. This requires a retainment structure that is limited in deformation under earthquake loading and provides long term stability, thereby also maintaining encapsulation requirements for a CDF. For this purpose we use graded rock dike structure, with a sand berm liner inside the fill area, and a sand cap over the fill site.

As shown in Figures 2 , 3 and 4, filling of only one of the existing slips would require a rock dike and sand berm to be placed in the location of the existing pile supported pier. Neither option will afford the opportunity to accommodate disposal of the required contaminated fill volume to complete the project. Construction costs are also included on the figures.

#### **CONCLUSION**

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For the reasons described above, the proposed project meets the requirements for dredge material disposal, project objectives, and economic considerations.



**CONFINED DISPOSAL FACILITY DIKE AND FILL PLAN**

SCALE: 1" = 150'

**LEGEND:**

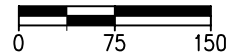
 ROCK DIKE

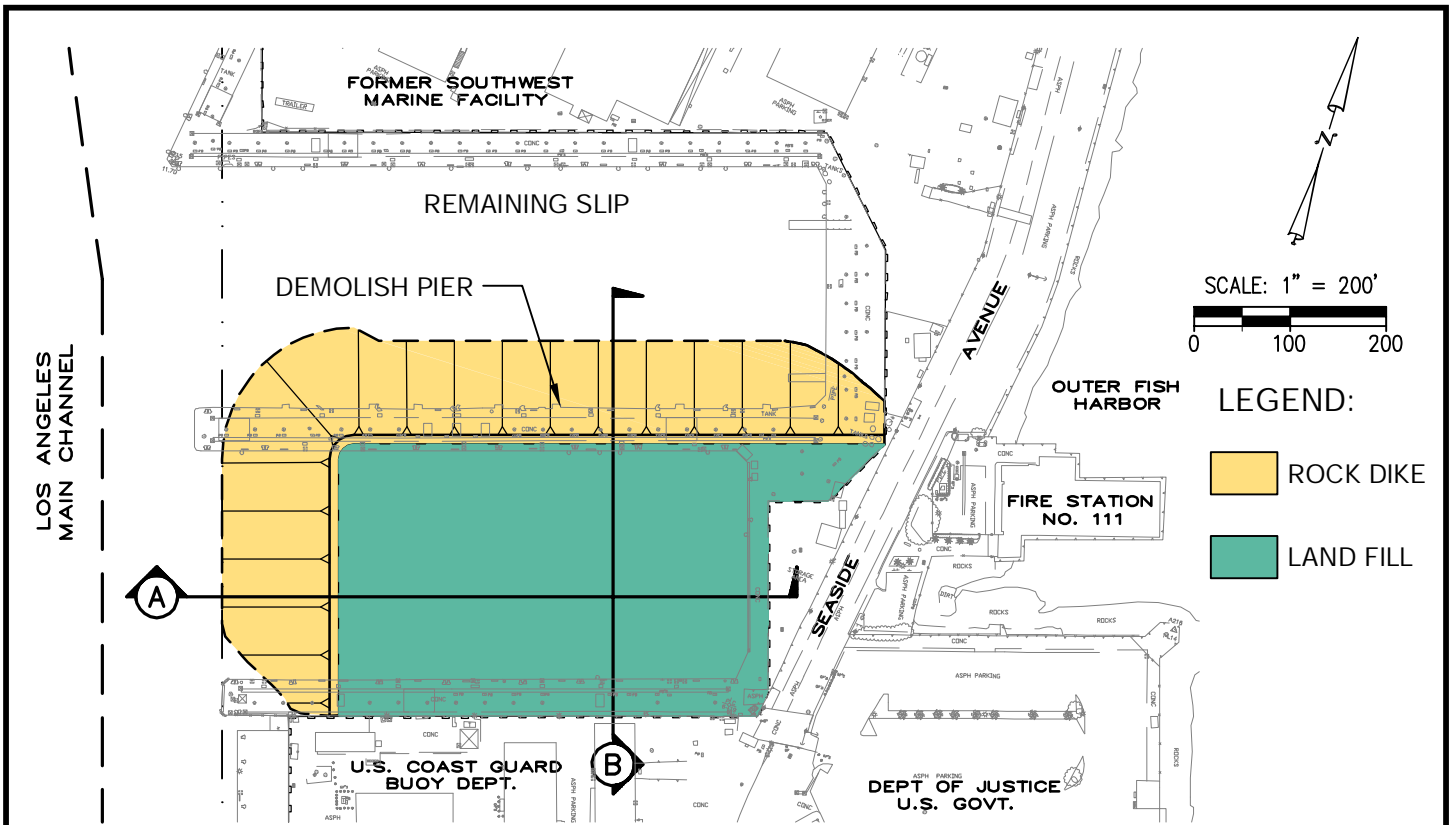
 LAND FILL

<b>CONTAMINATED FILL CAPACITY</b>	80,000 CU YDS
<b>ROCK DIKE VOLUME</b>	186,000 TONS
<b>ROCK DIKE COST</b>	\$4.0 MILLION



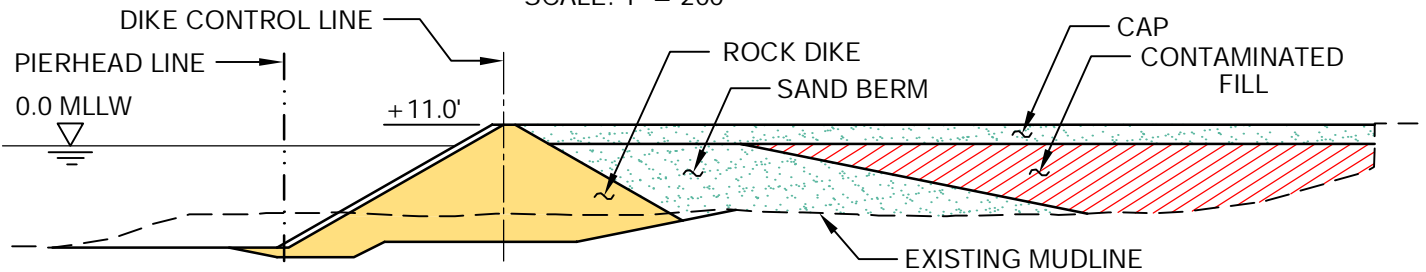
SCALE: 1" = 150'





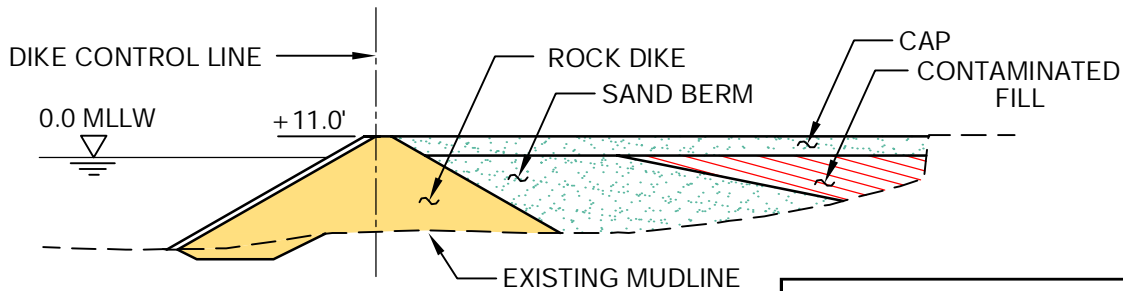
**FILL OPTION #1**

SCALE: 1" = 200'



**A TYPICAL DIKE & FILL SECTION - OPTION #1**

SCALE: 1" = 20'

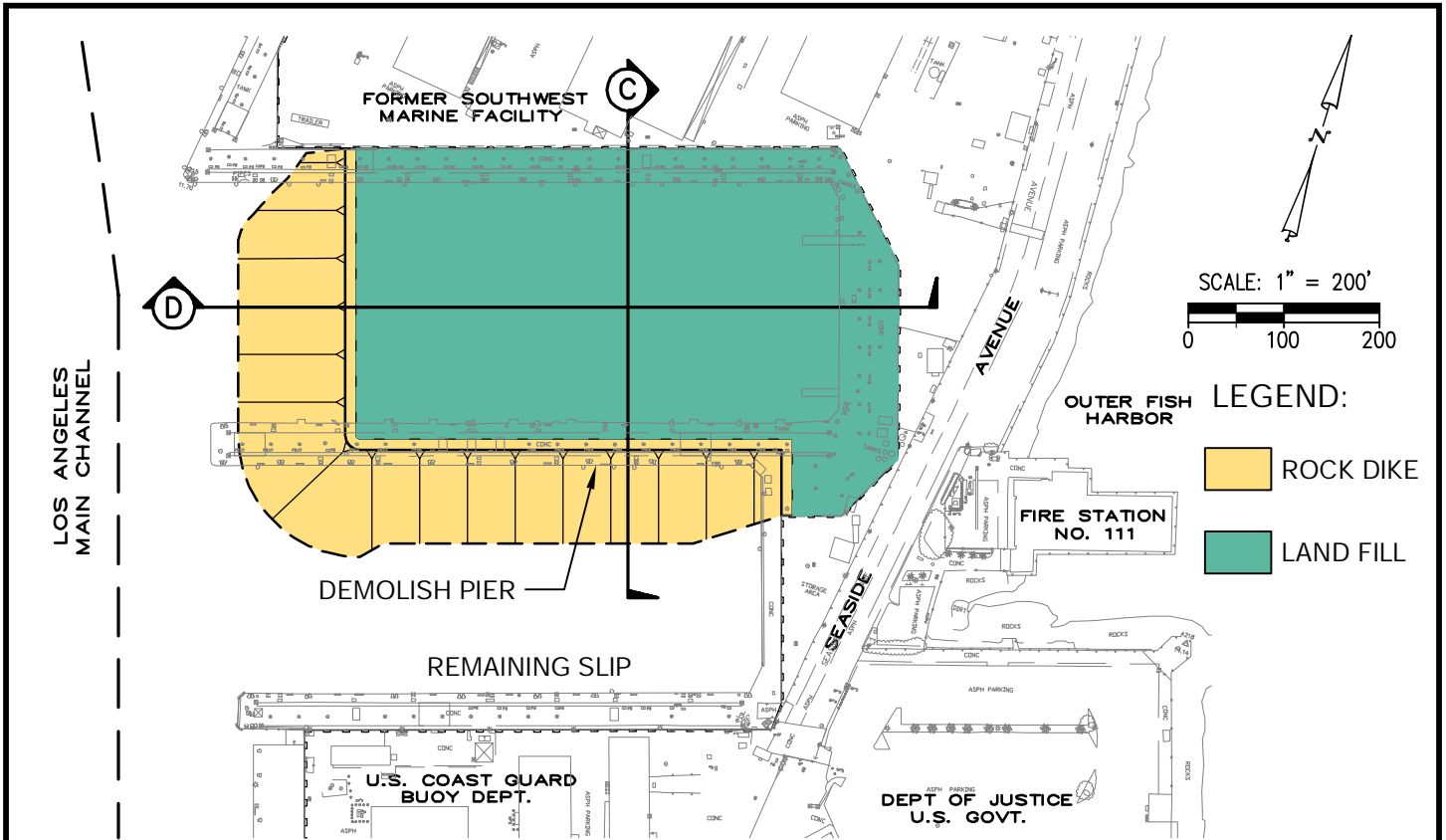


**TYPICAL DIKE & FILL SECTION OPTION #1**

**B**

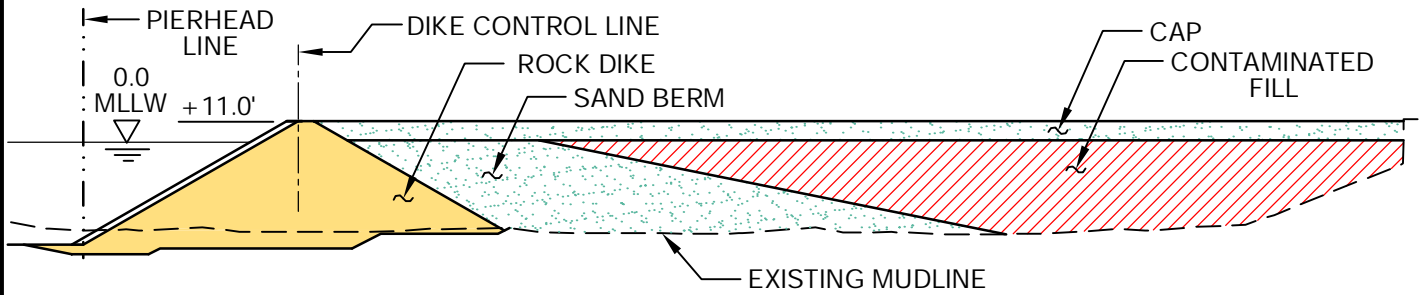
SCALE: 1" = 20'

<b>CONTAMINATED FILL CAPACITY</b>	28,000 CU YDS
<b>ROCK DIKE VOLUME</b>	290,000 TONS
<b>ROCK DIKE COST</b>	\$6.3 MILLION



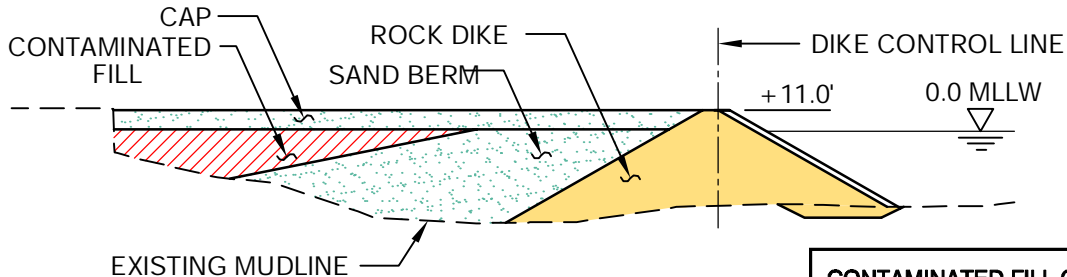
**FILL OPTION #2**

SCALE: 1" = 200'



**TYPICAL DIKE & FILL SECTION - OPTION #2**

SCALE: 1" = 20'



**DIKE & FILL SECTION - OPTION #2**

SCALE: 1" = 20'

CONTAMINATED FILL CAPACITY	38,000 CU YDS
ROCK DIKE VOLUME	248,000 TONS
ROCK DIKE COST	\$5.4 MILLION



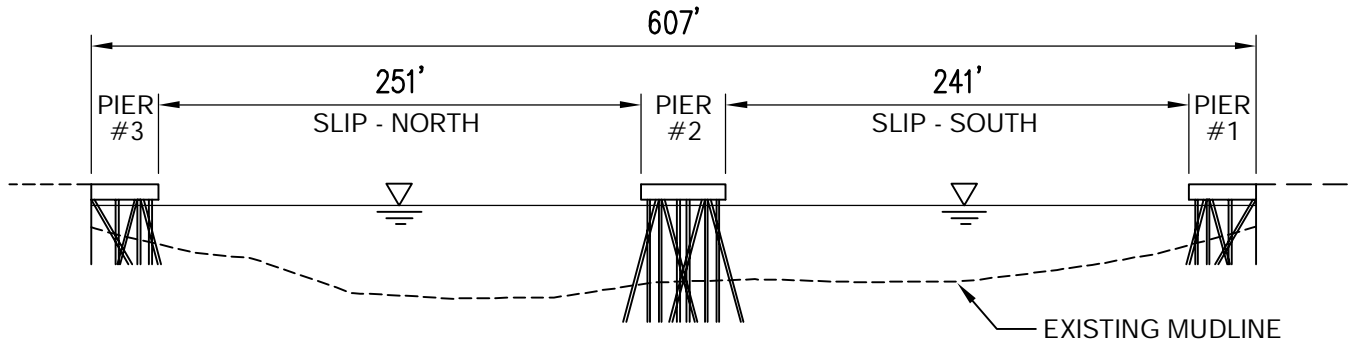
**THE PORT OF LOS ANGELES**  
ENGINEERING DIVISION P.O. BOX 151 SAN PEDRO, CA. 90733-0151

**BERTHS 243-245  
FILL NORTH SLIP OPTION #2**

SCALE: AS SHOWN

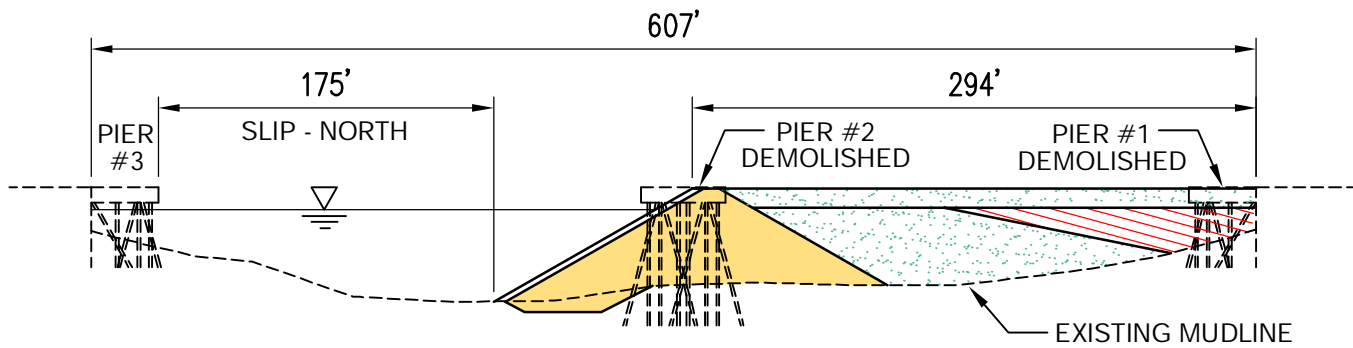
DATE: 04-21-09

TITLE: FIGURE 3



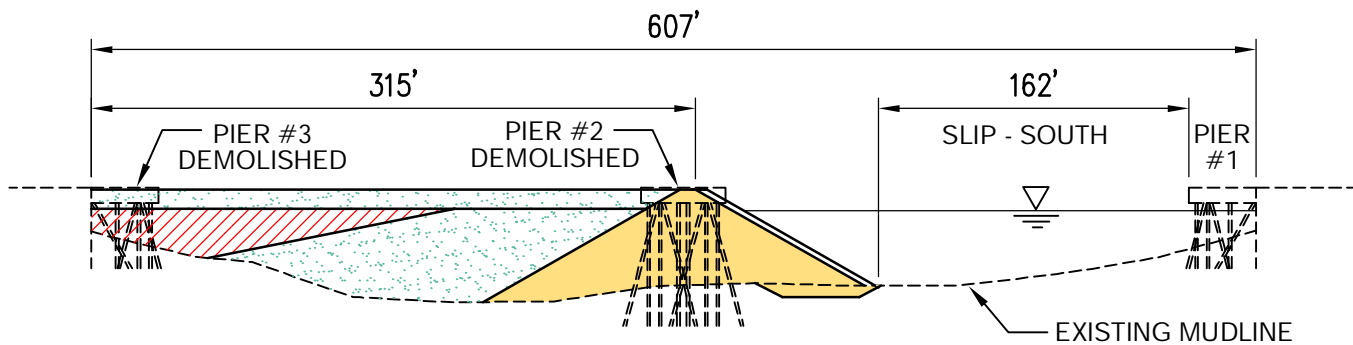
**BERTHS 243-245 - EXISTING SECTION**

SCALE: 1" = 100'



**CDF OPTION #1**

SCALE: 1" = 100'



**CDF OPTION #2**

SCALE: 1" = 100'

