## **Embarcadero Early Projects**

## Pier 9 Bulkhead Wall and Wharf Substructure Earthquake Safety Retrofit Project



## **About the Project**

Pier 9 is an historic finger pier housing diverse businesses and maritime offices including the San Francisco Bar Pilots and the Water Emergency Transportation Authority (WETA) both of which berth vessels at the Pier that are important for disaster response. The Multi-Hazard Risk Assessment (MHRA) found high Seawall earthquake risk that may damage the bulkhead wharf compromising safety and limiting access to the Pier and along the Promenade. This project focuses on solutions to improve safety by improving the wharf substructure and utilities to better accommodate earthquake movement of the Seawall. Current flood risk is lower here, and thick Bay Muds make improvements to stabilize the Seawall very challenging and costly. For these reasons, seismic stability of the Seawall and improved coastal flood defenses are expected to be part of the longer-term sea level rise adaptation strategy. A separate project is focused on earthquake retrofits of the historic shed.

١	Project Phase		
	*	Planning	
	>	Pre-Design	
		Detail Design	
d		Construction	
d		Closeout	
1		Complete	

	Project Details	Responds to Community Feedback	Project Update, Q1 2023
Port PM:	Matt Bell <u>matthew.n.bell@sfport.com</u>	<ul> <li>Prioritizes life safety and emergency response.</li> </ul>	Pre-Design Status● Needs Assessment:Done Q4/2022
Total Cost:	TBD*	<ul> <li>Protects and preserves maritime resources.</li> </ul>	<ul><li>Alternatives Analysis: In-Progress</li><li>Conceptual Engineer: Start Q3/2023</li></ul>
Duration:	TBD*	✓ Preserves and enhances diversity of	<u>Highlights</u>
Complexity:	Low	jobs. ✓ Enhances and sustains economic and	<ul> <li>Advancing design of a range of alternatives.</li> </ul>
*To be determ	nined at the end of pre-design	ecological opportunities.	

