

# HAINES BOROUGH LUTAK DOCK DESIGN & CONCEPT DEVELOPMENT



www.LutakDock.com

## Project Overview:

Lutak Dock is a deep water port originally constructed in 1953. Modifications, repairs and partial replacements to the dock have been incrementally occurring since 2003 in order to maintain the dock's working condition. Through this project, the Haines Borough is considering options for replacing or refurbishing the Lutak Dock with the purpose of:

- Securing the integrity of the existing facility;
- Maintaining existing working area and functionality;
- Maximizing life expectancy; and
- Providing a design that allows for expansion of the facility in the event of future demand.

### Alternative 1A & 1B:

#### Encapsulation

Encapsulating the dock structure with new sheet pile walls, keeping the existing dock size and functionality.

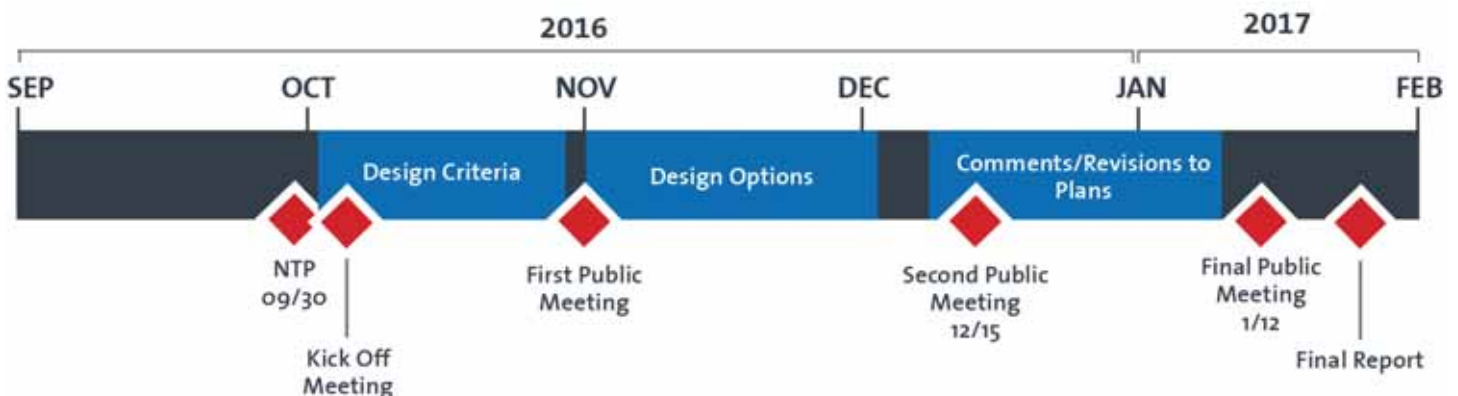
### Alternative 2: Platform Dock

Replacing the existing dock with a like size and capacity facility.

### Alternative 3: Dolphins & Transfer Bridge

Reinforcing the existing dock using a combined sheet pile bulkhead and pipe pile supported platform dock.

A summary table of the alternatives analysis is provided on the back of this sheet. 



Visit the project website: [www.LutakDock.com](http://www.LutakDock.com)

### For more information contact:

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Table 1: Lutak Dock Replacement, Alternatives Analysis Summary

Alt. No.	Description	Pros	Cons	Level of Service	Capital Cost
1A	Encapsulate using Modified Diaphragm	<ul style="list-style-type: none"> <li>Efficient and cost effective</li> <li>Maintains existing footprint</li> <li>Accommodates current users including pass cargo operations</li> <li>Reclaim about ½ acre uplands at cells 5, 6, and 7</li> </ul>	<ul style="list-style-type: none"> <li>Pile driving risk during construction</li> <li>Encapsulates existing sheets and poor quality fill</li> </ul>	<ul style="list-style-type: none"> <li>High</li> </ul>	<ul style="list-style-type: none"> <li>\$37,300,000</li> </ul>
1B	Encapsulate using Modified Diaphragm	<ul style="list-style-type: none"> <li>Efficient and cost effective</li> <li>Maintains existing footprint</li> <li>Accommodates current users including pass cargo operations</li> </ul>	<ul style="list-style-type: none"> <li>Pile driving risk during construction</li> <li>Encapsulates existing sheets and poor quality fill</li> <li>Does not reclaim uplands at cells 5, 6, and 7</li> </ul>	<ul style="list-style-type: none"> <li>High</li> </ul>	<ul style="list-style-type: none"> <li>\$31,900,000</li> </ul>
2	Platform Dock (Steel Pile-Supported Concrete Deck)	<ul style="list-style-type: none"> <li>All new facilities</li> <li>Higher level of seismic performance</li> <li>Maintains existing footprint and reclaims ½ acre uplands at cells 5, 6, and 7</li> <li>Accommodates current users including pass cargo operations</li> </ul>	<ul style="list-style-type: none"> <li>Highest cost</li> </ul>	<ul style="list-style-type: none"> <li>High</li> </ul>	<ul style="list-style-type: none"> <li>\$61,000,000</li> </ul>
3	Dolphins and Transfer Bridge	<ul style="list-style-type: none"> <li>Least cost</li> <li>All new facilities</li> </ul>	<ul style="list-style-type: none"> <li>Lose approximately 1.7 acres of uplands</li> <li>Lose ability to use pass pass for cargo operations</li> <li>Lose ability to side load over dock face</li> </ul>	<ul style="list-style-type: none"> <li>Medium</li> </ul>	<ul style="list-style-type: none"> <li>\$24,100,000</li> </ul>