## Memorandum

To:	Annette Kreitzer, Haines Borough Manager
From:	John Daley PE, R&M Consultants, Inc.
Subject:	Lutak Dock Phase 3
Date:	April 10, 2022
Project #:	2898.01

The purpose of this memo is to outline various factors related to the currently proposed Phase 3 of the Lutak Dock project and to discuss the potential for mining support.

The current dock renovation project removes approximately 560 feet of sheet pile bulkhead dock face and approximately 1 acre of useable uplands. The proposed project provides a rip rap protected slope with dolphin moorage. This is similar to the ADOT ferry terminal berth to the east of the project. The proposed project also includes the construction of about 1.8 acres of new uplands near the proposed renovated boat launch ramp.

Phase three of the proposed project was recently modified to include a 40 feet wide by 65 feet long pipe pile supported concrete deck access trestle. This acts like a small section of dock and is intended to provide ship to shore access for general purpose cargo transfer. The ramp as proposed would be suitable for most types of containerized cargo. It would have an industrial load capacity of 600 pounds per square foot or more.

In 2016, as part of the Lutak Dock Design and Development Project, R&M was directed to investigate the potential for including mineral export infrastructure at the Lutak Dock site. At that time R&M produced a memo that pointed to the use of the former US Army Fuel Tank Farm site at Tanani Point. Key findings of the 2016 memo included identification of the need for 7 to 10 acres of uplands, a large concentrate storage building (CSB), and related support facilities near the dock. The memo and ideas were based on ore export in a bulk carrier vessel.

Our understanding is the mine operators have recently indicated the potential for use of sealed shipping container to transport ore. This would be technically feasible. If advanced, ANY facility capable of supporting typical industrial containerized cargo could conceivably be used to support ore export. This includes the existing AML RO RO Dock and the proposed Phase 3 access trestle. The ability of an industrial dock to handle a container of ore is much the same that any road or highway that could handle a truck with a container of building materials or consumer goods could also handle a container of ore.

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The revised Phase 3 was not specifically designed to support mining operations. It never came up in our discussions and was not a design requirement. Phase 3 simply provides a very minimal ship to shore connection that could be used for multi-purpose access and cargo operations. Its 40 feet wide as opposed to the over 560 feet of access that you have now and will lose with this project.

It is important to note that there are very little uplands associated with the current Lutak Dock (just over 4 acres total). Many cargo facilities have industrial yards measured in the 10s of acres. It is our understanding that AML does the bulk of their container storage at a different site. The proposed project removes approximately 1 acre of uplands adjacent to the dock face and creates about 1.8 acres near the proposed renovated boat launch ramp. To our knowledge there is no specific plans for the land use in this area. The new uplands could be used for cargo operations, boat launch trailer parking, boat repair, or other uses.