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## **Goods** for Alaska

The Port of Anchorage is Alaska's premier cargo import terminal. Every year it handles more than 3.5 million tons of food, building materials, cars, clothing, cement, fuel and other goods that Alaskans need and use every day to live, work and thrive in our state. The Port is an intermodal transport hub that efficiently connects marine, highway, rail, pipeline and air cargo systems to move goods and fuel to some 200 communities, military bases and other destinations across our State. The Port of Anchorage is a statewide economic driver. Almost half of the cargo crossing its docks is bound for destinations outside of Anchorage, from Homer to Prudhoe Bay. It serves deep-water vessels operating year round to transport cargo faster, cheaper and more reliably than any other means. It is a critical piece of national defense infrastructure that helps keep the United States strong . . . and Alaska produce fresh.

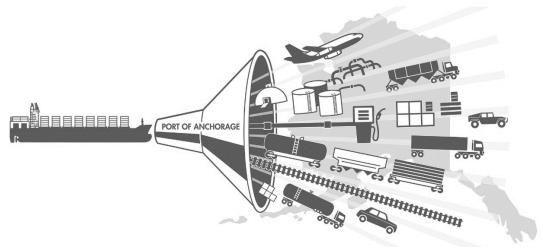


## Port in Anchorage

- The Port of Anchorage is in, owned and operated by the Municipality of Anchorage but it serves all of Alaska
- Imported cargo moves across Anchorage docks to final destinations in homes and businesses of 85 percent of all Alaskans
- More than half of Alaska's population lives within a ninety-minute drive of the Port and threequarters of all state residents live along the road system connected to the Port ... from Homer to Fairbanks, Prudhoe Bay, Tok ... and beyond
- Port cargo is reloaded onto smaller vessels, trucks, trains or air transported from nearby Ted Stevens International Airport to all of Alaska ... including the Aleutians, Interior, Southeast, Western and far-north Alaska
- The Port serves the nation as Alaska's only Department of Defense-designated strategic seaport and deploys equipment and supplies internationally to and from five military installations in our state. It is one of only 23 strategic seaports nationwide

#### **Critical economic infrastructure**

- Port facilities include three general cargo terminals, two petroleum terminals, a dry barge landing, bulk cement-handling, gantry cranes and roll-on/roll-off capability
- Docks are maintained at a full seaway depth of 35 ft.
- The Port has or is adjacent to more than 100 acres of cargo handling and storage yard, 59,200 tons of bulk cement storage and three million barrels of liquid fuel storage
- Port of Anchorage is Alaska's import gateway that handles more ships, tugs and barges than any other deep-water port in the state, including 420 arrivals in 2015
- Most products used in Alaska are transported into our state on container ships and barges. The
  Port of Anchorage handles three-quarters of all Southcentral Alaska/Railbelt-bound,
  waterborne, non-fuel, freight
- 95 percent of all refined petroleum products distributed into Southcentral/Railbelt Alaska passes through the Port of Anchorage valve yard, including virtually all AV gas consumed statewide, jet fuel used at Ted Stevens International Airport and Joint Base Elmendorf-Richardson and liquid fuels for motor vehicles, power utilities, home-heating, etc.
- The Port of Anchorage is an intermodal shipping and transportation hub that connects marine, road, rail, air and pipeline transportation systems that move goods from sources to end users
- The Port of Anchorage is a foreign-trade zone
- The Port of Anchorage's continuous and efficient operation is critical to the economic viability of every region of our state. It is the only Alaska import facility that has capacity to handle and efficiently distribute adequate cargo volume to supply our entire state population



#### Location, location, location

Port of Anchorage's deep-water dock facilities cannot be cost-effectively replicated or replaced:

- Proximity to Alaska population centers
- Port is intermodal cargo-transport hub that facilitates interstate and intrastate distribution via marine, road, rail, air and pipeline systems
- Terminal operations are supported by hundreds of millions of dollars of port-related infrastructure, including freight and fuel handling, storage and transport facilities and pipelines that deliver virtually all jet fuel used at Ted Stevens International Airport and Joint Base Elmendorf-Richardson
- Upper Cook Inlet geography mitigates tsunami risk despite region's extreme seismic activity

#### Then and now

The Port of Anchorage opened shortly after statehood in 1961 with capacity to serve the biggest ships in Alaska. It was the only deep-water port in Southcentral Alaska to survive the 1964 Good Friday Earthquake and resulting tsunamis. Today, after more than half a century of reliable service, the facility is suffering a slow-motion disaster from corrosion and age, and the docks are unlikely to survive another significant earthquake.

Terminal	Age (years)	Condition in 2014	
Terminal 1 (general cargo)	55	Min. Thickness: 0.15" (67% loss)	
Terminal 2 (cargo containers)	47	Min. Thickness: 0.20" (55% loss)	
Terminal 3 (cargo containers)	41	Min. Thickness: 0.18" (59% loss)	
POL 1 (petroleum, oil and lubricants)	51	Min. Thickness: 0.15" (67% loss)	
POL 2 (cement, petroleum, oil and lubricants)	21	Min. Thickness: 0.13" (71% loss)	

Engineering studies show that Port of Anchorage docks are severely corroded and its wharf piles have been classified as being in poor condition since 2000. Anchorage currently spends more than \$5 million

annually to maintain operational capacity of existing wharf piles and other aging Port infrastructure, but this work does little to enhance the facility's earthquake survivability.

This situation imperils Alaska's economy because the State does not have cargo import capacity or infrastructure that could adequately substitute for the Port of Anchorage if it is significantly damaged by an earthquake or other disaster. All other Southcentral Alaska deep-water ports combined do not have the cargo-import capacity to cost-effectively replace the Port of Anchorage, and alternative transport modes have other challenges. Trucking goods to Anchorage from lower-48 suppliers, for example, can be as fast as ship transport but typically costs two or more times as much per pound, depending upon fuel prices and other factors. Barge transport can cost less than ship transport, but barges carry significantly



Anchorage spends \$3 million to repair about 100 severely corroded wharf piles each year. The port has a total of 1,423 wharf piles.

less cargo and typically take ten days or more compared with three days by ship, and barge operations are highly weather dependent. Air transport is significantly faster than ship transport, but can cost four or more times as much and has severe size and weight limitations. And there are no lower-48 rail or pipeline options for importing goods into Alaska.

The aging Port of Anchorage docks are the single biggest hazard to Alaska's import supply chain because they are a single point of failure and are (currently) unlikely to survive another major earthquake. Unlike the lower-48 states, Alaska does not have population density that economically supports redundant facilities or cargo-handling capacity to substitute for the Port of Anchorage. Consequently, the most cost-effective way to safeguard Southcentral Alaska import capacity is to replace the Port of Anchorage's existing docks with modern facilities that are designed and constructed to survive a 1,000-year seismic event, which exceeds the 1964 earthquake. Key portions of the new fuel and cargo facilities will be designed to be operational within seven days of any anticipated earthquake so that the port could support regional disaster recovery efforts any time of the year.

### Port modernization project

The Port of Anchorage's aging infrastructure has far exceeded its economic and design life, and the terminals are too small and shallow to efficiently handle most modern cargo container ships that are commonly used for West Coast and trans-Pacific shipping.

- The Port modernization project is not a port expansion project. It is a necessary reconstruction project that will:
  - o Enable safe, reliable and cost-effective Port operation
  - o Improve resiliency to enable facilities to survive extreme seismic events and Cook Inlet's harsh marine environment with minimal operation disruption for at least 75 years
  - Update facilities to improve operational efficiency and sustainably accommodate modern shipping operations (e.g., support larger, deeper draft vessels, etc.)
  - Optimize facilities to accommodate changing statewide economic and market needs (e.g., petroleum product shipments are increasing significantly faster than general cargo growth due to Flint Hills refinery closure in 2014)
  - Optimize project scope, schedule and budget to deliver practical, timely and cost effective port modernization project
- The project is anticipated to last seven years and will utilize Alaska firms and employ some 300 Alaska workers during peak construction phases
- Construction will be phased/managed to enable continuous port and tenant operations
- Construction on the cargo terminals will not commence until the project is fully funded to minimize costs and potential disruption to port and tenant operations.

The Anchorage Port modernization project is projected to cost approximately \$550 million to complete, depending upon permitting and fund availability. The project started work with \$127 million in hand. Approximately \$18 million was committed at the close of 2015 for pre-design and pre-permitting activities necessary to develop budget and schedules and initiate permit applications. The project needs an additional \$421 million for completion as soon as 2022. Port officials intend to construct a \$6 million test-pile project in 2016 and are proceeding to design and permit the first phase of the project to start construction in 2017.

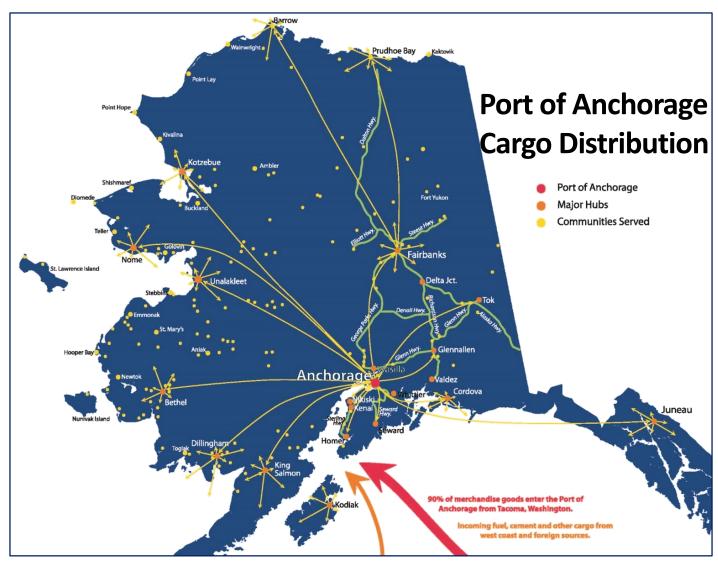
Port of Anchorage Modernization Project Phases and Fund Sources

Phase	Task	Cost	Funds Required	Construction
1	Northern extension stabilization and replace POL 1 fuel and cement berth	\$127 million	\$0	2017-2018
2	Replace terminal 2 and terminal 3	\$290 million	\$290 million	2018-2022
3	Replace POL berth 2	\$35 million	\$35 million	2019 or later
4	Complete northern extension stabilization (remove additional 10 acres)	\$88 million	\$88 million	2019 or later
5	Terminal 3 demolition	\$8 million	\$8 million	2022 or later
Total		\$547 million	\$421 million	

## **Funding Alternatives**

The Municipality of Anchorage asked the Alaska Legislature to include a \$290 million Port of Anchorage Modernization proposition with in the 2016 State General Obligation (GO) bond initiative. If legislators and then voters approve the GO Port bond proposition in November 2016, then replacement dock construction will begin in 2018 with minimal impact on shipping schedules or costs. If, on the other

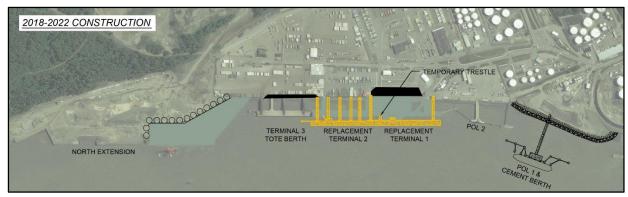
hand, the State does not fund the Port modernization project, then another fund source must be identified. There is no cost-effective alternative to modernizing the Port of Anchorage. There is not another port location in Southcentral Alaska that has the Port of Anchorage's combination of proximity to population centers, cargo handling and transportation infrastructure and geographic protection from extreme weather and tsunamis. It would take time to identify, investigate and select alternative funding mechanisms, and this delay would extend the Port's hazard exposure and increase operating and project development costs. Ultimately, without state funding, the final project costs would have to be passed onto port users as a tariff that would be paid by every individual and business that receive goods shipped through the Port of Anchorage. This tariff would ultimately cost every household in the Port service area an average of between \$850 and \$1,000 – a few cents at a time every time they purchase a gallon of milk, loaf of bread, new automobile, sheet of plywood . . . and every other product shipped through the Port.

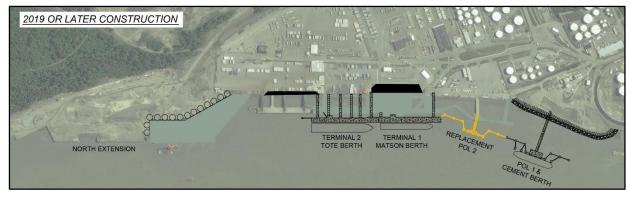


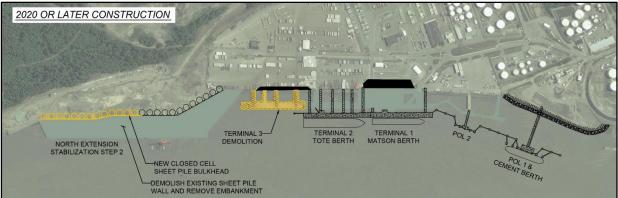
Source: <u>Alaska's Lifeline: Cargo Distribution Patterns from the Port of Anchorage to Southcentral, Northern, Western and Southeast Alaska</u>, Published Feb. 2011. By: University of Alaska Anchorage College of Business and Public Policy Dept. of Logistics and Port of Anchorage, Municipality of Anchorage.

# Port of Anchorage Modernization Project – Proposed Construction Schedule









The Port Modernization Project's 2016 test-pile construction program and 2017-2018 north extension stabilization, upland expansion and POL 1 replacement work is funded. All remaining project phases are unfunded.