

## **SECTION II**

### **SHORE FACILITIES PROJECTS**

**(STATE & NON-STATE OWNED)**



## ACTIVE OR PROGRAMMED PROJECTS

**ACTIVE OR PROGRAMMED PROJECTS - AMHS FACILITIES**

| Project No | Project Title                                          | Need ID | Project Description                                                                                                                                                                                      | Project Cost | Estimated or Actual Obligation Date | Notes                                                                               |
|------------|--------------------------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------|-------------------------------------------------------------------------------------|
| Z681280000 | AMHS GST Ferry Terminal Improvements                   | 28789   | Install new pile supported lift towers with associated bridge lift system. Expand existing dock to provide new bridge abutment and dedicated harbor access gangway and refurbished gangway landing float | \$6,500,000  | FY18                                | Project under Final Design. Obligation expected August 2018.                        |
| Z681450000 | Tenakee Ferry Terminal Improvements                    | 18359   | Replace existing ferry terminal facility.                                                                                                                                                                | \$10,000,000 | FY18                                | Project under Preliminary Design and Environmental Documentation.                   |
| Z685310000 | Prince Rupert Ferry Terminal Replacement               | 17141   | Replace stern berth ferry terminal facility.                                                                                                                                                             | \$13,000,000 | TBD                                 | Awaiting resolution of Buy America issues before advertising for construction bids. |
| Z674660000 | Ketchikan Ferry Terminal Improvements                  | 27450   | Phase 2: Refurbish mooring float and fender system at Berth 3 and construct new waterline at Berth 1 transfer bridge.                                                                                    | \$3,500,000  | Phase 2: FY18                       | Phase 1 construction complete. Phase 2 remains in preliminary design.               |
| Z696240000 | Skagway Ferry Terminal Improvements                    | 13883   | Restore existing concrete float and associated vehicle transfer structures as needed.                                                                                                                    | \$5,500,000  | TBD                                 | Project delayed to further coordination of scope with local municipality.           |
| Z701610000 | AMHS Waste Water Treatment System Upgrades             | 28791   | Upgrade to waste water treatment facilities at Auke Bay, Sitka, Skagway, and Haines.                                                                                                                     | \$2,000,000  | FY18                                | Project under Preliminary Design and Environmental Documentation.                   |
| SAMHS00084 | Auke Bay Ferry Terminal Modifications and Improvements | 29709   | Install new dolphin at stern berth, construction sanitary sewer and shore-tie power connections , and remodel ferry terminal building                                                                    | \$3,000,000  | FY19                                | Project under Preliminary Design and Environmental Documentation.                   |
| SAMHS00088 | AMHS Storage Tank Replacement                          | 30529   | Remove and replace underground fuel storage tanks with above ground tanks at Auke Bay, Skagway, Cordova, Ketchikan, Petersburg, Sitka, Wrangell, and Valdez Ferry Terminals                              | \$800,000    | FY19                                | Project under Preliminary Design and Environmental Documentation.                   |
| Z684640000 | AMHS HNS Ferry Terminal End Berth Facility             | 28669   | Design & construct two new berths at the existing ferry terminal facility to provide end berthing capabilities.                                                                                          | \$25,000,000 | FY18                                | Project under Final Design. Obligation expected August 2018.                        |
| SFHWY00006 | Sand Point City Dock Replacement                       | 29989   | Construct new multi-use dock to serve as Sand Point's ferry terminal.                                                                                                                                    | \$11,000,000 | FY19                                | Project under Final Design. Obligation expected October 2018.                       |

**ACTIVE OR PROGRAMMED PROJECTS - AMHS FACILITIES**

| Project No | Project Title                          | Need ID | Project Description                                                                                        | Project Cost | Estimated or Actual Obligation Date | Notes                                                                                                                   |
|------------|----------------------------------------|---------|------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Z700060000 | Ward Cove AMHS & NOAA Moorage Facility |         | Design & construct a mooring facility, with uplands staging & parking, to support AMHS & NOAA vessel needs | \$8,000,000  | TBD                                 | Offshore structure removal complete. Design and permitting for offshore dredging and marine/uplands facilities ongoing. |



## PROJECT NEEDS

**PROJECT NEEDS - STATE FACILITIES**

| Location                   | Project Title                                                                                                                                               | Need / Description                                                                                                            | Estimated Cost | Notes                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Cordova                    | Analyze Wave Forces on Sectional Bridge Support Floats                                                                                                      | Estimate wave forces and structural strength of float systems to determine if future modifications/strengthening is required. | \$50,000       | No activity. Program project for design.                                                                                                        |
| Cordova                    | Side Berth Container Van Modifications                                                                                                                      | Investigate and design improvements to allow safe loading of 40-foot container vans.                                          | \$750,000      | No activity. Program project for design.                                                                                                        |
| Yakutat                    | RoRo Improvements                                                                                                                                           | Investigate viability of providing roll on/roll off capabilities for ferry terminal operations                                | \$50,000       | Preliminary evaluation underway. Comparing existing ferry terminal site with other site in Yakutat Bay.                                         |
| AMHS Terminals System-Wide | Mooring Dolphin Replacements (Auke Bay East, Haines, Pelican, Skagway, Wrangell, Kake)                                                                      | Remove & replace older mooring dolphin structures as needed.                                                                  | \$15,000,000   | Prioritize structures/locations by condition & need. Phase construction over multiple years or combine with other capital improvement projects. |
| AMHS Terminals System-Wide | Cathodic Protection Anodes                                                                                                                                  | Monitor existing & place new cathodic protection anodes at various ferry terminals, system-wide.                              | \$500,000      | Anode replacement work being conducted as part of other projects.                                                                               |
| AMHS Terminals System-Wide | Transfer Bridges and Floats Paint Coating Refurbishment ( <i>Auke Bay East &amp; West, KTN Berths 1 &amp; 2, Petersburg, Haines, Wrangell, Metlakatla</i> ) | Replace/repair protective paint coatings and conduct other structural repairs or refurbishment where required.                | \$3,000,000    | Prioritize bridges by condition & need. Phase construction over multiple years.                                                                 |
| AMHS Terminals System-Wide | Box Girder Transfer Bridge Floor Beam Modifications (Ketchikan, Whittier, Auke Bay)                                                                         | Investigate and design improvements to correct cracking issues present at the first floor beams of several box girder bridges | \$1,000,000    | Prioritize bridges by condition & need. Phase construction over multiple years.                                                                 |
| AMHS Terminals System-Wide | Synchrolift System Retrofit (Haines, Valdez, Whittier)                                                                                                      | Design improvements to provide secondary breaking system in the event of failure of the primary lift system.                  | \$2,000,000    | Prioritize bridges by condition & need. Phase construction over multiple years.                                                                 |
| AMHS Terminals System-Wide | Fracture Critical Transfer Bridge Retrofit (Ketchikan, Whittier, Auke Bay, Wrangell, Petersburg, Haines)                                                    | Design improvements to provide redundant load path for fracture critical transfer bridges                                     | \$5,000,000    | Prioritize bridges by condition & need. Phase construction over multiple years.                                                                 |

**PROJECT NEEDS / NON-STATE FACILITIES**

| Location           | Project Title             | Need / Description                                                                                                         | Estimated Cost | Notes                                                           |
|--------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------|
| Chenega / Tatitlek | FVF Berthing Improvements | Investigate dock and vehicle loading ramp improvements to allow berthing and cargo transfer by FVF vessels.                | \$2,000,000    | Project need, scope and estimated cost uncertain. Low priority. |
| Pelican            | FVF Berthing Improvements | Investigate dock and vehicle loading ramp improvements or new terminal to allow berthing and cargo transfer by FVF vessel. | \$2,000,000    | Project need and scope uncertain. Low priority.                 |

**SECTION III**

**VESSEL INFORMATION TABLE**

# Alaska Marine Highway System

## Vessel Information Table

| Updated January 2018         | Matanuska   | Malaspina   | Tustumena  | Columbia   | Leconte     | Aurora      | Kennicott | Fairweather | Chenega | Lituya |
|------------------------------|-------------|-------------|------------|------------|-------------|-------------|-----------|-------------|---------|--------|
| Date Built                   | 1963        | 1963        | 1964       | 1974       | 1974        | 1977        | 1998      | 2004        | 2005    | 2004   |
| Length (feet)                | 408         | 408         | 296        | 418        | 235         | 235         | 382       | 235         | 235     | 181    |
| Beam (feet)                  | 74          | 74          | 59         | 85         | 57          | 57          | 85        | 60          | 60      | 50     |
| Displacement (long tons)     | 5,569       | 5,552       | 3,067      | 7,683      | 2,132       | 2,132       | 7,503     | 787         | 787     | 647    |
| Loaded Draft (feet-inches)   | 16'-11 5/8" | 16'-11 3/8" | 14'-4 1/2" | 17'-6 1/8" | 13'-10 7/8" | 13'-10 7/8" | 17'-6"    | 8'-6"       | 8'-6"   | 10'-6" |
| International Tonnage: Gross | 9,214       | 7,302       | 4,529      | 13,009     | 3,124       | 3,124       | 12,635    | 3,442       | 3,420   | n/a    |
| (cubic capacity) Net         | 3,824       | 2,496       | 1,451      | 4,932      | 987         | 987         | 3,790     | 1,032       | 1,026   | n/a    |
| Domestic Tonnage: Gross      | 3,029       | 2,928       | 2,174      | 3,946      | 1,328       | 1,280       | 9,978     | 1280        | 1333    | 99     |
| (cubic capacity) Net         | 1,235       | 1,494       | 898        | 2,683      | 566         | 453         | 7,354     | 870         | 827     | 66     |
| Horsepower @ Service Speed   | 7,400       | 8,000       | 5,100      | 12,350     | 4,300       | 4,300       | 13,380    | 15,360      | 15,360  | 2,000  |
| Service Speed (knots)        | 16.5        | 16.5        | 13.8       | 17.3       | 14.5        | 14.5        | 16.75     | 32          | 32      | 11.5   |
| Fuel Use (Gallons/hour) *    | 234         | 270         | 151        | 397        | 188         | 190         | 354       | 600         | 600     | 55     |
| Crew Capacity                | 50          | 50          | 37         | 66         | 24          | 24          | 56        | 10          | 10      | 4      |
| Passenger Capacity           | 499         | 499         | 174        | 499        | 300         | 300         | 499       | 250         | 250     | 149    |
| Staterooms - 4 berth         | 4           | 46          | 8          | 44         | n/a         | n/a         | 48        | n/a         | n/a     | n/a    |
| Staterooms - 3 berth         | 23          | 0           | 0          | 0          | n/a         | n/a         | 0         | n/a         | n/a     | n/a    |
| Staterooms - 2 berth         | 80          | 26          | 17         | 56         | n/a         | n/a         | 56        | n/a         | n/a     | n/a    |
| ADA Staterooms (4 b)         | 0           | 0           | 0          | 0          | n/a         | 0           | 3         | n/a         | n/a     | n/a    |
| ADA Staterooms (2 b)         | 1           | 1           | 1          | 3          | n/a         | n/a         | 2         | n/a         | n/a     | n/a    |
| Total Staterooms             | 108         | 73          | 26         | 103        | 0           | 0           | 109       | 0           | 0       | 0      |
| Total Berths                 | 247         | 238         | 68         | 294        | n/a         | n/a         | 320       | 0           | 0       | 0      |
| Vehicle Capacity (lane-ft.)  | 1,760       | 1,760       | 720        | 2,680      | 680         | 680         | 1,600     | 720         | 720     | 360    |
| (Qty of 20 foot vehicles)    | 88          | 88          | 36         | 134        | 34          | 34          | 80        | 36          | 36      | 18     |
| Van Capacity - Booking Limit | 12          | 14          | 10         | 16         | 9           | 9           | 20        | 5           | 5       | 2      |

\*Gallons per hour fuel consumption figures are averages based on weekly engineering reports, and include fuel usage to generate heat and electricity.