

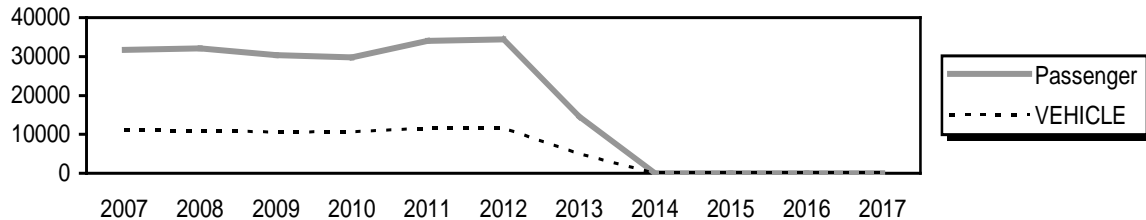
Port Chester Ferry Terminal (Metlakatla)

Mile 3 Walden Point Road

Owner: State of Alaska

Contact: Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

Terminal Description: The Port Chester terminal was constructed in 1987 and is approximately two miles from town. The facility is a side berth designed for LeConte class vessels, and consists of an orthotropic steel deck bridge, seven steel pipe pile dolphins (six breasting and one mooring), an HDPE mooring float, and a steel bridge pontoon. In 2003, the terminal was modified to serve as a homeport for the M/V Lituya, a shuttle ferry operating between Metlakatla and Ketchikan. The past 10 years of total passenger and vehicle traffic for Port Chester is shown below.



A new ferry terminal in Annette Bay has been completed, and ferry operations have moved there; however, the Port Chester facility remains in active operation status. The most recent topside inspection was conducted July 24, 2017. The most recent fracture critical & underwater inspections occurred on August 4, 2016.

| Vessels | |
|------------------|---------------------|
| Name | Berthing, Alignment |
| Lituya / LeConte | Starboard |

| Tidal Data (MLLW 0.0 feet) | |
|----------------------------|------|
| EHW | 19.5 |
| MHHW | 15.4 |
| MHW | 14.4 |
| ELW | -4.5 |

| Terminal Building | |
|-------------------|----------------------|
| Year Built: | 1987 |
| Square Footage: | 576 s.f. |
| Heating System: | Electric |
| Condition: | Poor, out of service |

| Vehicle Transfer Bridge - #0178 | |
|---------------------------------|-----------------------------------|
| Type: | 16' x 132' steel orthotropic deck |
| Year Built: | 1973 |
| Shoreward support: | Steel Beam/Driven Piling |
| Seaward support: | Steel Support Float |
| Coating: | Spray Metallizing |
| Pedestrian Access: | Concrete 4' wide on bridge |
| Lighting: | Jelly Jars, left guardrail |
| Condition: | Poor |
| Load Posting Sign: | N/A |
| Original Design Load: | HS 20-44 |

| Uplands | |
|---------------------|-----------|
| Short-Term Parking: | 8 |
| Long-Term Parking: | 30 |
| Staging Area: | 150 ft |
| Paint Striping: | No |
| Driving Surface: | Chip seal |

| Generator & Building |
|--|
| This facility does not have a generator. |

| Utilities |
|---|
| The terminal building and bridge ramp have city Electric. |

| Bridge Support Float | |
|----------------------|-----------------------------|
| Type: | 40' x 60' Steel Flexi-float |
| Year Built: | 1996 |
| Ballasted: | Yes |
| Ramp lift: | Hydraulic/Cable |
| Apron lift: | Hydraulic/Cable |
| Condition: | Fair |

| Dolphins | | | | | | | |
|----------|---------------|--------------------------|-------------|--------|-------|-------|-------------------------|
| Dolphins | Dolphin Piles | Fender Support | Fender Face | Anodes | Built | Cond. | Notes |
| W4 | 2B, 1V | 4V | Ekki Timber | No | 1987 | Fair | Red Navlight |
| W3 | 2B, 1V | 4V | Ekki Timber | No | 1987 | Fair | |
| W2 | 2B, 1V | 4V | Ekki Timber | No | 1987 | Fair | |
| MFR2 | 1B, 1V | See Mooring Float | | No | 2003 | Good | |
| MRF1 | 1B, 1V | | | No | 2003 | Good | |
| WRS1 | 2B, 1V | See Bridge Support Float | | No | 2003 | Good | |
| N1 | 1V | Floating Fender | | No | 2003 | Good | |
| S1 | 1V | Floating Fender | | No | 2003 | Good | |
| ERS1 | 2B, 1V | See Bridge Support Float | | No | 2003 | Good | |
| E1 | 2B, 1V | 4V | Ekki Timber | No | 1987 | Fair | |
| E2 | 2B, 1V | - | - | No | 2003 | Good | Windsock & Red Navlight |

LEGEND

ERS1 = East Bridge Support Float Restraint Dolphin
V = Vertical Steel Pipe Piling

MFR1 = Mooring Float Restraint Dolphin
B = Battered Steel Pipe Piling

| Mooring Float | | | | | | | |
|---------------|-----------|-------------|---------------|-------|------------|-------|-------|
| Platform | Size | Fender Face | Float | Built | Decking | Cond. | Notes |
| MF | 40' x 25' | UHMW | Steel Pontoon | 2003 | Fiberglass | Good | |

| Catwalks / Gangways / Platforms | | | | | | | |
|---------------------------------|--------------|----|--|-------|----------------|-------|-------|
| # | From | To | Length / Style / Main Members | Built | Safety Chains? | Cond. | Notes |
| P1 | Bridge Float | | 22' / Platform | 2003 | — | Good | |
| G1 | P1 | E1 | 57'4" / Gangway / 2.5"x2.5" Bottom Chord | 2003 | No | Good | |
| C1 | E1 | E2 | 40' / Catwalk / 10"x10" Tube Girders | 2003 | Yes | Good | |

| Terminal Projects | | | |
|-------------------|----------------------|---|--|
| Year | Project # | Project Name | Description |
| 1974 | S-0927(1) | Ferry Terminal Facilities at Metlakatla | Original construction of terminal uplands, vehicle transfer and mooring structures. |
| 1987 | A70002 | Metlakala Ferry Terminal | Relocated the terminal roughly 1/2 mile to the east. Removed existing timber dolphins; reinstalled steel transfer bridge and support float. Constructed new float platform, apron & lift system, and five steel mooring dolphins. Installed new electrical & lighting systems. |
| 1996 | 75269 / STP-0927 (4) | Metlakatla Ferry Terminal Pontoon Upgrade | Removed and replaced the original bridge support float. Installed a re-designed bridge-barge connection weldment and new hinge to seaward end of the bridge. |
| 2004 | 68208 / STP-0927 (6) | Metlakatla Ferry Terminal Modifications | Removed dolphin W1 and the bridge support float restraint dolphins. Installed new restraint dolphins for the bridge float on south ends. Constructed new mooring float east of the bridge and two floating fender dolphins on either side of the bridge for all-tide mooring. Installing access gangway & catwalk to east dolphins. Upgraded the electrical power utilities on the bridge. |

Observations

1. The chip seal surface on the staging area placed in 1994 has failed and has numerous large potholes. The roadway requires additional aggregate surface course and should be graded to drain.
2. A modular terminal building was installed in 1985 but the facility sits unused. The building has been vandalized and is in need of maintenance. There are many deficiencies such as, rotting siding and door framing, broken windows, no stairs and ramp at the entrance, and failed exterior finish. Water and sewer services are needed and the building should be modified to comply with ADA requirements, if the terminal building is to be used in the future. No operating agreement exists between AMHS and the community covering operation, maintenance, or security, so the building remains unused.
3. The transfer bridge was built in 1974 and used in an earlier terminal located closer to town. The bridge was salvaged, re-coated with spray metalizing in 1996, and relocated to the present site. The bridge appears to have reverse camber along its length. Currently, 85% of the coating is covered in white rust and 25% bare corroded patches, while the remaining surface is freely corroding. The bridge abutment is a tied-back spread footing that supports the approach bearings. The shoreward bridge bearing beam swivels around a pin, which has corroded and worn a jagged and elongated hole on the top flange of the beam. Looking shoreward, the right box girder bearing at the abutment has 1/4-inch wear into the bearing pin with minor surface corrosion. There are sections of expanded metal on the deck that are loose, while some sections are torn. The bridge alignment cables are slack.
4. The seaward bridge bearings, intermediate ramp, and apron are supported by a Flexifloat pontoon system. The pontoon is guided by two 3-pile restraint dolphins and the bridge bears on rollers mounted to the float. The bearings and restraints are in good condition. Touch-up paint coatings have failed on the topside of the Flexifloats, and rust covers 25% of the surface area. Rubbing from the UHMW skids of the mooring float gangway have worn away the coating of the float in this area.
5. The deck of the mooring float appears to be in good condition. The hawse mast on deck is bent, may have been too high & impacted the ship while berthing. The 2011 underwater report found that bolts for hanger strops are loose on mooring float pontoons, and the most recent above water inspection found the majority of the hanger strap bolts covered in a light surface rust.
6. All mooring structures are in good condition. Previous inspections noted the dolphin caps were spray metallized in the past and they now show signs of light surface rust. All the piling are brown in color due to bleed-through corrosion and failure of the galvanized coating. There are extra/old mooring cables that are lying on the caps of dolphin E1. There is no hawse mast on dolphin W2. Masts are bent on dolphin W3.
Cathodic potential (CP) readings for the mooring & restraint structures average -0.68V. The cutoff for adequate protection is -0.8V, so the steel piles are freely corroding. Depth to mudline elevations, taken with leadline readings at locations along the fender line in 2015, range from -22' to -29' MLLW.
7. Gangway lights were turned on during daylight hours during our inspection.
8. The M/V Lituya broke loose from her moorings while tied up overnight at this terminal on January 30, 2009 and went aground on Scrub Island nearby. She was safely re-floated and taken to ASD shipyard for repairs later on that day.

| Inspection Summary | | |
|--|----------|---|
| Structure | Priority | Recommendations |
| <i>Category I - Safety Repairs</i> | | |
| Mooring Float | 1 | Tighten the bolts to the hanger strops on the mooring float pontoons. |
| <i>Category II - Rehabilitation Work</i> | | |
| Dolphins | 2 | Install and maintain anodes on all submerged steel. |
| Transfer Bridge | 3 | Re-paint bridge, repair shoreside bearing beam, and replace the shoreward hinge pins and plates. Tighten the bridge alignment cables at the seaward bridge bearing. Rehab the non-skid coating on the transition plate between the bridge and apron. Replace damaged sections of expanded metal on the apron. Repair broken conduit leading from the apron to the ramp. Discourage recreational skiffs from tying up to the float and tapping in to the catwalk lighting circuit. |
| Waiting Shelter | 4 | Refurbish/replace or remove existing waiting shelter. Existing building structure is not being utilized. |

| Inspection Summary (continued) | | |
|--|----------|--|
| Structure | Priority | Recommendations |
| <i>Category II - Rehabilitation Work</i> | | |
| Bridge Pontoon | 5 | Replace the surface paint coating on all Flexifloat units. Install channel skids beneath the mooring float gangway. |
| Dolphin E1 | 6 | Remove the extra/old mooring cables. |
| Mooring Float | 7 | Straighten/replace bent & damaged hawse masts. |
| <i>Category III - Upgrades Needed</i> | | |
| All Facilities | 8 | The new Annette Bay facility is the home-port location for the M/V Lituya. IFA is currently berthing at Port Chester, until modifications at Annette Bay are made for the IFA vessels. Eventually the Port Chester facility will no longer be needed. Existing structures could be removed/relocated or facility may be abandoned in near future. Deficiencies noted will be obsolete if this terminal is removed. |

