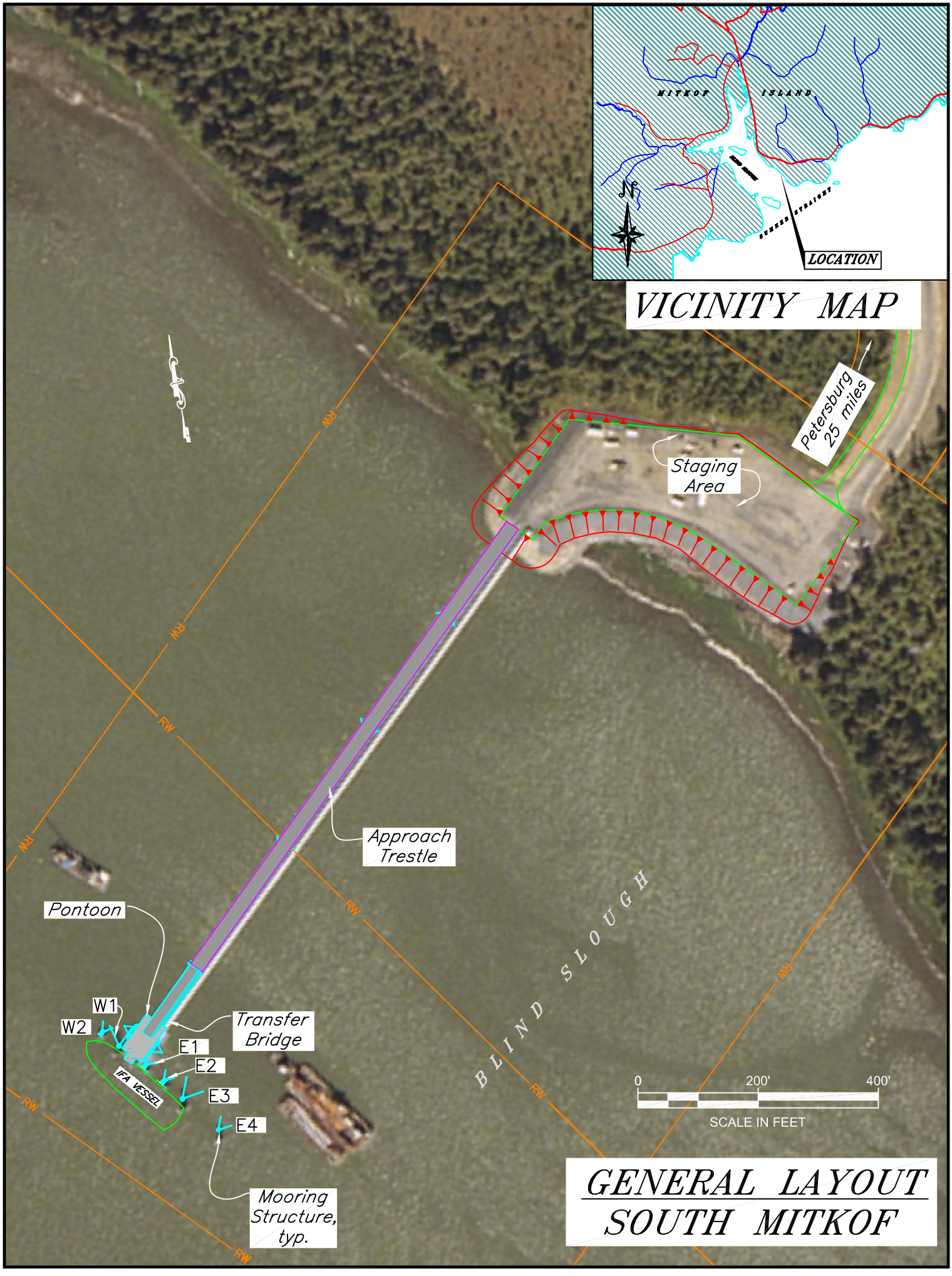

MITKOF ISLAND
LOCATION
N
VICINITY MAP
Petersburg 25 miles
Staging Area
Approach Trestle
Pontoon
W1
W2
Transfer Bridge
E1
E2
E3
E4
IFA VESSEL
Mooring Structure, typ.
BLIND SLOUGH
RW
0
200'
400'
SCALE IN FEET
GENERAL LAYOUT
SOUTH MITKOF

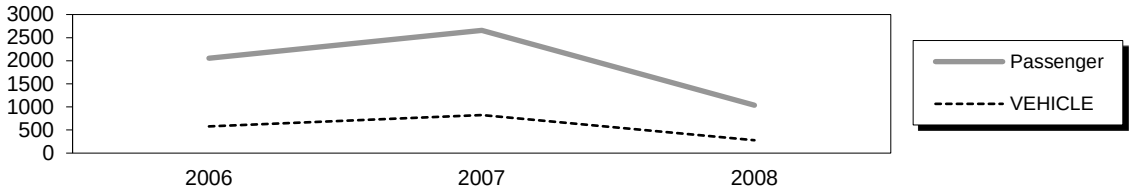
South Mitkof Ferry Terminal

Mile 25 South Mitkof Hwy.

Owner: Inter Island Ferry Authority (IFA)

Terminal Manager: N/A

Terminal Description: South Mitkof is a new side-loading facility constructed in 2006 consisting of a modular ticketing office, secure (fenced) staging area, 900-foot long steel approach, steel transfer bridge, steel support float and five steel pile mooring dolphins. The IFA northern route has not been operational since 2008. South Mitkof's total passenger and vehicle traffic between 2006 and 2008 is shown below.



The above water inspection was completed June 28, 2017. The most recent fracture critical & underwater inspections occurred on August 6, 2016.

Vessels	
Name	Berthing, Alignment
Prince of Wales / Stikine / FVF	Starboard

Tidal Data (MLLW 0.0 feet)	
EHW	20.0
MHHW	15.5
MHW	14.3
ELW	-5.0

Modular Ticketing Office	
Year Built:	2006
Square Footage:	N/A
Heating System:	N/A
Fuel Storage:	N/A
Fire Protection:	N/A
Condition:	New

Generator Compartment	
Year Built:	2006
Square Footage:	200 s.f.
Heating System:	Oil Furnace
Fuel Storage:	550 gal. AST & Daytank
Fire Protection:	N/A
Condition:	New

Uplands	
Short-Term Parking:	60 cars
Long-Term Parking:	N/A (gates locked between vessels)
Staging Area:	1200 lineal feet, 8 lanes
Paint Striping:	No
Driving Surface:	Gravel

Bridge Approach	
Type:	900' x 24' pile-supported steel fram
Year Built:	2006
Shoreward support:	Steel Beam/Driven Piling
Seaward support:	Steel Beam/Driven Piling
Pedestrian Access:	Covered walkway, guardrail separation
Lighting:	Light Posts 20' o.c.
Anodes on piles:	Yes
Condition:	New

Bridge Support Float	
Type:	40'x70' Flexifloat
Year Built:	2006
Ballasted:	Yes
Ramp lift:	Hydraulic
Apron lift:	Hydraulic
Anodes:	Yes
Condition:	New

Vehicle Transfer Bridge	
Type:	16'x143' twin box beam
Year Built:	2006
Shoreward support:	Steel Beam
Seaward support:	Steel Support Float
Coating	Wasser Paint
Pedestrian Access:	Covered walkway, guardrail separation
Lighting:	Tubuloid fixtures on guardrail; overhead fixtures in pedestrian walkway
Condition:	New
Load Posting Sign:	N/A
Original Design Load:	AASHTO HS 20/85 psf

Utilities		
	at terminal	at ramp
Electrical:	Yes	Yes
Water:	Yes (Tank Fill)	No
Sewer:	No	No
Telephone:	No	No
Cable TV:	No	No
Fuel:	Yes (AST)	No

Dolphins						
Dolphins	**Dolphin Piles**	**Fender Type**	**Anodes**	**Built**	**Cond.**	**Notes**
W2	2B, 1V	Steel panel, UHMW face	Yes	2006	New	
W1	2B, 1V	UHMW Floating	Yes	2006	New	
E1	2B, 1V	Steel panel, UHMW face	Yes	2006	New	
E2	2B, 1V	Steel panel, UHMW face	Yes	2006	New	
E3	2B, 1V	UHMW Floating	Yes	2006	New	
E4	2B, 1V	UHMW Floating	Yes	2006	New	
ER	3V	-	Yes	2006	New	
WR	3V	-	Yes	2006	New	

LEGEND
V = Vertical Steel Pipe Piling
B = Battered Steel Pipe Piling
ER = East Bridge Support Float Restraint Dolphin

Terminal Projects			
Year	**Project #**	**Project Name**	**Description**
2006	67833 / MGS-MGE-STP-0003(65)	South Mitkof Ferry Terminal	New ferry terminal constuction. Uplands consisted of blasting and filling earthwork; parking lot-staging area grading; secuirty fencing. Built new ticket office & generator shed; all mooring and vehicle transfer structures.

Observations

1. The IFA has not operated the northern route since 2008. AMHS scheduled monthly RT sailings from Juneau to South Mitkof (Petersburg) and Coffman Cove between July and September of 2016 & 2017.
2. The uplands parking and staging areas were paved in 2008, along with the 26-mile South Mitkof Highway. The staging and parking areas are divided by an 8-foot chain-link fence with separate entry and exit gates. A portable ticket office is parked inside of the staging area between the gates.

Observations (continued)

The ticket office was removed from the property at some point prior to the ’13 inspection.

There is damage to the chain link fence in the staging area due to snow removal.

Two electrical vaults adjacent to the beginning of the approach trestle were not adjusted when the uplands was paved, and water ponds on their lids create a hazard for short-circuiting.

3. Elastomeric bearing pads are creeping out from between the open-grate decking and the approach/bridge frame.
4. The LT shoreward bridge bearings are difficult to access due to the overhang of the pedestrian walkway.
5. The 2010 Fracture Critical (FC) inspection found broken anchor bolts under Girders 2 & 5 @ Bent 3, and Girders 1, 4 & 5 @ Bent 16. The anchor bolt under Girder 4 @ Bent 6 is cracked along the base weld. Damages were confirmed on the 2014 FC inspection and still exist.
6. Bridge alignment cables between seaward bridge roller bearings are completely slack.
7. The gap between the girder bottom flange and the seaward bearing plate has been filled in with caulking. Moisture is backing up and rust water is seeping out.
8. Several sheared off bolts in the seaward bridge bearing were discovered during the 2011 inspection. The connection is between the base plate of the girder roller and the support frame on the float. Bolts were installed upside down (double nuts UP) and the bolts were sheared off at the heads. Cause of bolt failure largely unknown. Within a month of the inspection, a Contractor was hired to replace all fasteners with new A325 galvanized bolts.

   One base bolt, on the left (south) roller bearing, was found sheared-off on the 2013 inspection. This was confirmed on the 2015 inspection. And once again, two (2) bolts were found sheared off on the 2017 inspection. There is no known cause for this damage.
9. The anodes on the floats are 100% consumed. The anodes on the mooring dolphins have 50-70% remaining and are half buried in the shore bottom mud. Trestle bent piers have 80-90% anodes remaining and are half buried in the shore bottom mud. Cathodic potential (CP) readings for mooring structures E1 – 4 and float restraint structures average -0.82V. CP readings on trestle piers average -1.00V. The CP readings for mooring structures W1 -2 average -0.77V. The cutoff for adequate protection is -0.8V, so CP readings less negative indicate the steel piles are freely corroding. Depth to mudline elevations, taken with leadline readings at locations along the bridge support float in 2015, average -22’ MLLW.
10. Stainless steel utility cabinets mounted on the ramp & apron, for electrical and hydraulic power, are collecting water from condensation. Exposed metal fittings & conduit within the cabinets have significant white rust and some brown rust.
11. This facility has not been utilized for ferry service since 2008. The facility does not see regular use or inspection that would normally occur if the facility was operational. Continue to monitor and service at regular intervals in order to minimize potential maintenance issues that may occur.

Inspection Summary

Structure	Priority	Recommendations
Category I - Safety Repairs		
Approach Trestle	1	Re-weld the anchor bolts to the bent caps where they're broken off and cracked.
Category II - Rehabilitation Work		
Transfer Bridge	2	Install bolts at seaward roller bearing frame, monitor the creep of elastomeric bearing pads beneath the decking. Tighten the bridge alignment cables on the float to 'just slack' condition. Improve access to the LT shoreward bridge bearings by installing a remote greasing station, or an access platform.
Anodes	3	Install new 50# anodes on the bridge support float. Shorten the cables for hanging anodes on the mooring structures and trestle piers.
Utilities - Bridge	4	Drill drain holes in bases of all utility cabinets.

Inspection Summary (continued)		
Structure	Priority	Recommendations
Category II - Rehabilitation Work		
Uplands	5	Raise the elevation of electrical vaults adjacent to the beginning of the approach trestle to eliminate the ponding hazard.
Bridge Support	6	Monitor the condition of the UHMW-faced rubber fenders - the UHMW has cracked on other projects. Also monitor the seaward bridge roller bearings & bolts between the base plate of roller assembly & support frame on float. Repair coating failure on bridge support float.
Staging Area	7	Design/install a gate in the chain-link fence for pushing snow out of the back of the staging area.
Approach Trestle	8	Clear brush from south side of trestle to expose "No Trespassing" sign.
Ramp	9	Replace missing life ring in enclosure at intermediate ramp.
Category III - Upgrades Needed		
Nothing required.		