

## **Tenakee Ferry Terminal**

Owner: State of Alaska & City of Tenakee

Contact: City of Tenakee - 907-736-2207

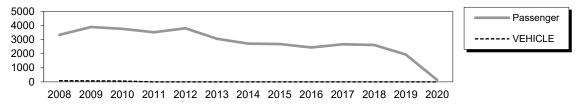
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**Terminal Description:** The Tenakee Springs city dock was constructed in 1978 to provide passenger and light freight service to Tenakee Springs. The latest improvements to the facility, completed in 2021, included the construction of a new city dock with utility building, new mooring/breasting dolphins, a new vehicle staging area, a transfer bridge, and a support float with a hydraulic apron allowing access to LeConte class AMHS vessels. Per Tenakee Springs Municipal Code Chapter 13: *motor vehicles exceeding* 50 inches total width, 10 feet in length, or 1000 lbs are prohibited unless exemption is granted by the city.

The current facility consists of a 46x54 ft main dock section lined with steel fenders on the south side and timber fenders on the east side. All marine facilities are accessed from a 12x212 ft concrete paneled approach dock supported by steel pipe piles extending from the main dock to the shore. The main dock supports a fueling station, a utility building, and a dock crane fixed at the southeast corner. An open steel grate approach extends to the east, perpendicular to the approach dock, with a steel gangway extending southward from the eastern end of the grate to a floating platform supported by a steel pontoon.

A concrete paneled steel pile-supported dock extends west perpendicular to the approach dock and connects a gravel pad to the steel grate transfer bridge to the south. This area also supports the waiting shelter. The transfer bridge extends southward from the gravel pad to a steel pile-supported float equipped with two UHMW fenders, supporting an intermediate ramp leading to a hydraulic-powered apron, providing vehicle and passenger access to the AMHS terminal. AMHS vessels are supported by three steel pile mooring/breasting dolphins, one west of the support float and two east of the main dock, each equipped with UHMW fenders.

The past 12 years of total passenger and vehicle traffic at Tenakee is shown below. The global pandemic caused the decline in 2020.



The most recent above water inspection was completed on December 10, 2022. The most recent fracture critical inspection occurred on December 10, 2022. The most recent underwater inspection occurred on August 18, 2021.

Vessels		
<u>Name</u>	Berthing, Alignment	
LeConte	Port/Starboard	
Tazlina	Port	
Tidal Data		
HTL	18.8	
MHW	13.7	
MLLW	0	
ELW	-5	

Terminal Building	
This facility does not have a terminal building.	
Gen	erator & Building
This facility does not have a generator on-site.	
Utilities @ Dock	
Water:	No
Electric:	Yes
Fuel:	Yes
Sewer:	No

Uplands	
Short-Term Parking:	0
Long-Term Parking:	0
Staging Area:	50'x80' Dock

Approach		
Year Built:	1978	
Approach Structure:	12'x240' concrete deck panels support on steel beam framing and steel pipe piling.	
Steel Coating:	Galvanized	
Anodes	Bents 7, 8, 9, & 10 only	
Lighting:	Jelly Jar	
Condition:	Good	
Design Load:	H15 Truck or 250 psf LL	
	Staging Dock	
Year Built:	2020	
Dock Structure:	52'x73' Combination of a rock fill pad and concrete deck panels supported by steel framing and steel pipe piles.	
Steel Coating:	Galvanized & Ungalvanized	
Anodes	Yes	
Lighting:	Overhead fixtures	
Condition:	New	
Design Load:	H15 Truck or 250 psf LL	

Vehicle Transfer Bridge #1451		
Type:	13'-6"x100' Steel multi-girder	
Year Built:	2020	
Shoreward Support:	Steel pile cap/Steel pipe piles	
Seaward Support:	Steel support float	
Coating:	Galvanized	
Pedestrian Access:	On Bridge	
Lighting:	Overhead fixtures	
Condition:	New	
Load Posting:	N/A	
Design Load:	H15 Truck	

Bridge Support Float		
Type:	40'x40'x7' Flexifloat	
Year Built:	2011	
Ballasted:	Yes	
Ramp & Apron:	Hydraulic	
Anodes:	Yes	
Condition:	Good	

No sounding or cathodic projection readings were taken during this inspection. For the latest structure-to-seawater potential (CP) readings reference the underwater inspection report prepared by Collins Engineers, Inc. August 18, 2021.

	Terminal Projects		
Year	Project #	Project Name	Description
1977	6-77126	Tenakee Dock	Constructed approach and main dock, fender system and mooring structures.
1984	K-83207	Tenakee Ferry Passenger Facility	Constructed steel catwalk, gangways, and barge with steel platform to provide access between vessel and fixed dock for transferring passengers.
1994	N/A	Tenakee Dock Structural Reinforcement (City Funded)	Installed new steel beams between the pile caps along both lines of exterior support piles of the approach and dock. However, these beams are not effective in strengthening vertical load capacity of dock.
2011	69444 / DC01321-00	Tenakee Springs FT Improvements	New 6'x52' steel approach expansion at upper pedestrian access platform, replaced the gangway support wheel, and replaced all float pile guides with removeable style.
2020	Z681450000	Tenakee Springs FT Improvements	Constructed new ferry terminal facility with a vehicle transfer bridge and rubble-mound staging area. Constructed a new City Dock with a utility building. Refurbished existing approach structure. Installed new mooring float.

## **GENERAL FACILITY EVALUATION**

Facility	
Component	Rating
Uplands	8
Dock	6
Fendering System	7
Dolphins	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable
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For a copy of the latest facility inspection reports contact the AK DOT&PF Marine Design Department. Contact information is located in the Comments and Feedback section.