

Denali Commission
Transportation Improvement Program
Fiscal Year 2009 Project Nominations

Waterfront Development Projects

Please send this completed form and associated documents to

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Waterfront Development Projects

**Project Name: Gustavus Transient Vessel Mooring Facility – Denali
Commission project, Phase 2: Breakwater Float**

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1. Project Location:

The Project is located in the Gateway to Glacier Bay National Park: The city of Gustavus, Alaska. The population of about 500 people depends heavily on revenue from tourist traffic generated by the park, and a significant part of the local economy has developed serving the needs of visitors to this natural wonder.



The dock facility and small boat mooring float facility are about 1.5 miles from the township center, and provides access to services in the township and in the park. Local residents, charter fishermen and tourists are currently users of the existing facility.

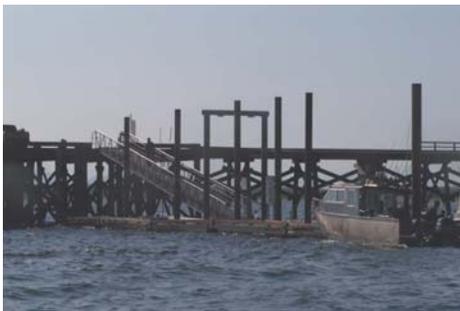
2. Facility Description:

Gustavus, AK does not currently have a man-made harbor. The Transient Vessel Mooring Facility is part of a multi-phase replacement of the existing dock and trestle facility that will enhance the transient mooring facilities, increase small boat capacity, and will modernize the facility. There are two main components of this facility: A Breakwater Float and a Timber Mooring Float. The Breakwater Float will increase mooring capacity for smaller boats and skiffs, while providing improved protection from Icy Passage's strong seas. The Timber Mooring Float further increases moorage capacity and further capitalizes on the protection provided by the breakwater structure.



The new facility will:

- ‡ **Increase operational safety.** The current facility requires that boats jockey for limited mooring, often times in challenging wave conditions.
- ‡ **Reduce maintenance costs.** The facility has been designed to withstand the relatively extreme wave action in Icy Passage.
- ‡ **Provide expanded capacity.** Not only will more temporary moorage be available, but operators can choose moorage that better suits their vessel and business.
- ‡ **Increase small cargo capacity.**



The current primary marine facility was built in the early 1960s to serve five homesteads, and now serves in excess of 500 people. The entire facility is in a deteriorated state, and the existing mooring floats are removed and stored in the fall due to their inability to withstand winter weather. Limited small boat facilities mean that charter operators have to take turns using the current facility when weather allows its use. Even in summer, the small boat facility is unusable during

periods of strong winds due to its alignment with prevailing seas, lack of shelter, and the outdated design.

3. Project Class:

The Transient Vessel Mooring Facility project is a major replacement and capacity-expansion effort. As part of the overall project, the new floats will provide year-round protection from currents for the timber mooring float, establishing the only mooring facility in Gustavus that is not tide-dependent. Portions of the current facility are in need of immediate replacement, and this project is expected to extend the service life of the facility by 30 years.

4. Project Benefits:

The economic health of Gustavus and Glacier Bay National park depends heavily on a fully-functional dock. The benefits of the Transient Vessel Mooring Facility include:



- ‡ **Improved Safety:** The new facility will be built to serve the expanding needs of the community in higher seas and generally poorer weather. Improved capacity will eliminate the need for multiple users to jockey for position along a mooring with limited space. These improvements reduce the liability of the State and City, and reduce wear and damage for users.

- ‡ **Economic advantage:** Improved

access for all small boats will increase through-traffic for the city and increase the transient's time spent there, providing the opportunity to expand services to private boaters and charter customers.

- ‡ **Improved efficiency:** Small boat congestion will be reduced, and operators will spend less time and fuel waiting for space and jockeying for position.
- ‡ **Increased capacity:** Competition for limited mooring will be relieved, and boat operators will feel comfortable spending more time on shore and in the community.
- ‡ **Improved access:** Current boat access to Glacier Bay National Park through the protected waters of Bartlett Cove is highly regulated and limited. Not only will improved dock capacity expand access to the park, but visitors may extend the time they spend there. The location of the proposed harbor will result in tourists driving through the Gateway to Glacier Bay National Park, increasing Gustavus' exposure to tourist dollars.
- ‡ **Reduced maintenance costs:** The new design of the harbor facility as a whole provides better protection to the proposed timber mooring facility. The timber moorage will be able to be left in place over the winter, eliminating the costs of moving and storage. New construction materials result in lower maintenance costs.
- ‡ **Preservation of natural resources.** The Park Service has resisted increased boat traffic in Bartlett Cove due to threats to the humpback whale and other species by focusing increased boat traffic into the portal of Glacier Bay. The proposed project, by alleviating pressures on Bartlett Cove, supports the continuation of a 19-year whale research program being conducted by the National Park Service in Bartlett Cove.

5. Transportation System Connections:

While not directly multi-modal, the Timber Mooring Float provides much-needed moorage for boat users from neighboring communities, and facilitates connections through the Gustavus Airport.

The timber mooring float function is not impacted by tides, unlike the existing small boat moorage along the nearby Salmon River, and improves access for small freight items.

6. Project Stage:

Preliminary Design: Complete

NEPA Documents: February, 2009

Final Design and Bid-ready Documents: May, 2009

7. Community Support:

The community has provided the following support documents:

City of Gustavus, Resolution 2008-13 in support of the facility, **Appendix A**

National Park Service letter of support, **Appendix B**

Public support, **Appendix C**

8. Maintenance:

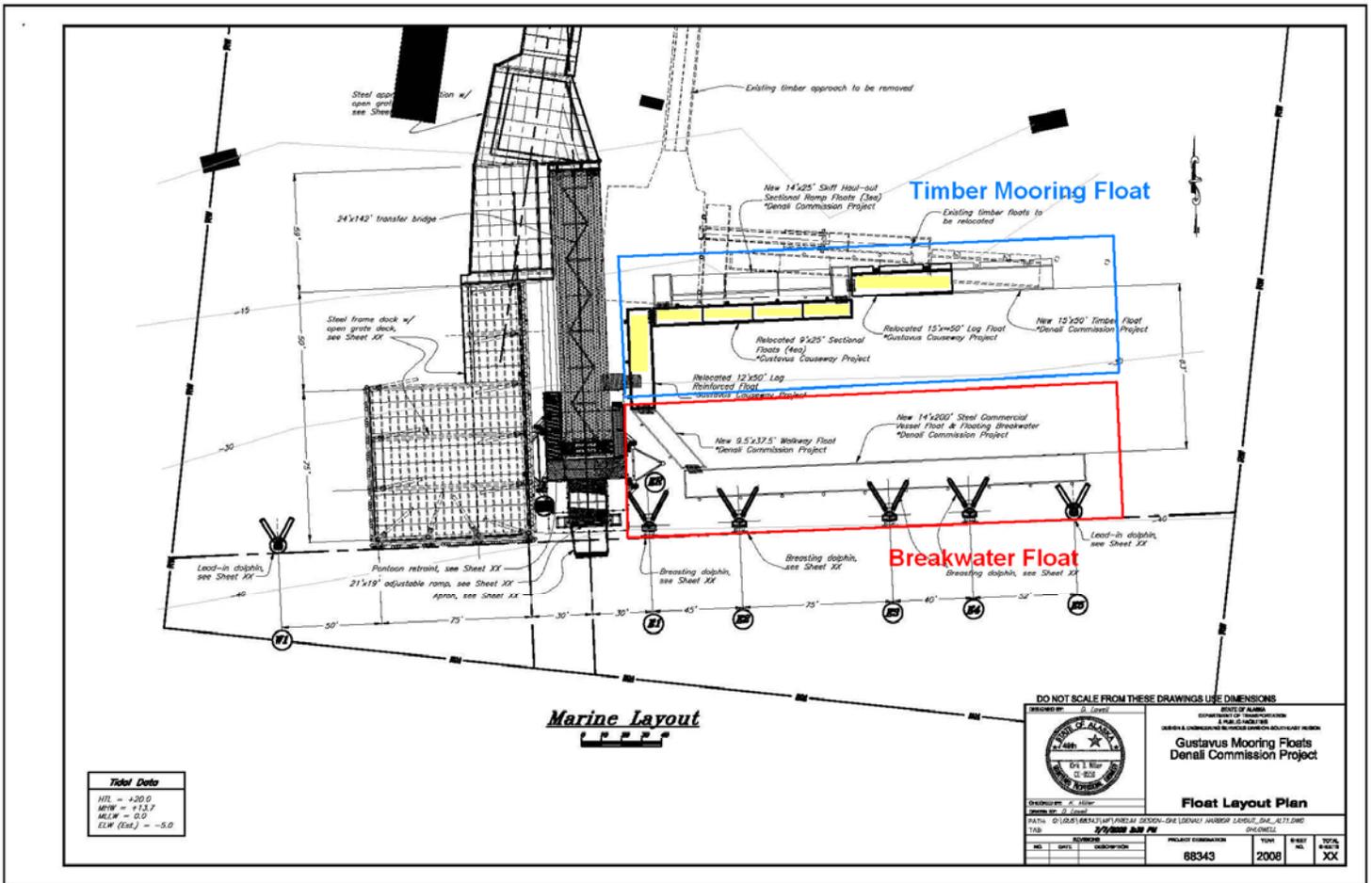
The City of Gustavus will be assuming ownership and maintenance responsibility for the float facility, as acknowledged in Resolution 2008-13, attached. The construction of the harbor is a joint effort with the State of Alaska's Department of Transportation and Public Facilities, which is currently managing the replacement of the existing dock and trestle facility. Through this partnership, the State can take advantage of current projects to reduce mobilization costs, and the relatively "young" City of Gustavus can benefit from the State's experience managing projects of this scope.

Maintenance costs for the float have increased vastly in recent history, due in large part to the decrepit state of the existing facility. An estimated \$2000 per year is spent relocating the floats seasonally, and this cost has been more than doubled by recent repairs to the aging facility. Within the last year the facility was damaged by high seas. The maintenance team took advantage of locally-available scrap for as much of the repair as possible, but still spent an estimated \$3,000 on bull rails and piling sleeves. The repairs did not stand up to the churning seas, and the facility has once again been hobbled together with scraps.

The replacement of the existing mooring facility reduces maintenance costs in two major ways. The new Breakwater Float provides a sturdy platform for mooring and breakwater protection to the timber mooring floats, reducing damage caused by rough weather. The new Breakwater Float also eliminates the need to move the timber mooring float seasonally. With

regular maintenance, the life of the project is expected to be 50 years of service to the community. In addition to reduced maintenance costs, the proposed harbor facility increases utility by moving the facility out from shore and repositioning it so that boats with a deeper draft can utilize the facility.

The illustration below shows how the Gustavus Harbor Project increases the utility of the harbor area, and compliments the reconstruction of the dock and trestle. The dashed lines illustrate the current configuration, and arrows show how old components (highlighted with yellow) are utilized in the new facility, reducing overall cost and environmental impact of waste.



A full-page layout is available in **Appendix D**.

9. Provide design and/or construction financial contributions in the table below:

The City of Gustavus and the Alaska Department of Transportation and Public Facilities (ADOT&PF) are requesting \$1.3 million dollars in funding from the Denali Commission for construction of the Breakwater Float. We acknowledge that this is in excess of the traditional

cap on funds, but we point out that ADOT&PF's commitment on the harbor project is more than four times the Denali Commission match required under policy.

The entire harbor project is estimated to cost \$1.8 million dollars. If the Denali Commission grants our funding request, the City of Gustavus will request a \$500-thousand dollar appropriation from the legislature for construction of the remaining Timber Mooring Floats, and the ADOT&PF would support this request.

The table below illustrates how the State/City commitment compares to Denali Commission requirements.

Total Harbor Costs:	\$ 1,800,000.00
Steel Breakwater (Denali Commission commitment)	\$ 1,300,000.00
Timber Mooring (State commitment)	\$ 500,000.00

State required match for request: 9.03%	\$ 117,390.00
State commitment to total project, percentage:	28%
State commitment as percentage of Denali request:	38%
State commitment/required commitment:	4.26

It is State policy to match any Denali Commission grant with 9.03% of the request, a total of \$117,390 dollars for this request. In construction of the entire harbor facility, the State's commitment will be approximately \$500-thousand dollars for construction of the Timber Mooring Floats, 4.26 times the policy-mandated match for the \$1.3 million dollar float, and almost 28% of the total project costs.

Other Funding Source/s	Describe Sponsor	Funding Amount	Percent of Total Project
State of AK appropriation	City/DOT partnership	\$500,000.00	28%