



Exhibit B to the Six-Year Transportation Improvement Plan

**WHATCOM COUNTY
2014-2027 FOURTEEN-YEAR
FERRY CAPITAL PROGRAM**

Overview

This program provides a blueprint for the effective, efficient, and continuing operation of the Whatcom County Ferry System within existing financial constraints. Capital improvements are scheduled based on many years of experience operating and maintaining the system, while complying with applicable regulations.

Inevitably, priorities and available funds for the ferry system will change over the fourteen years projected in this program. Therefore, the intention of the program is to be a guide indicating long-range improvements and anticipated revenues and expenditures. Strict adherence is not required.

Enacted in 1975, Revised Code of Washington (**RCW**) **36.54.015** states “The legislative authority of every county operating ferries shall prepare, with the advice and assistance of the county engineer, a fourteen year long range capital improvement plan embracing all major elements of the ferry system. Such plan shall include a listing of each major element of the system showing its estimated current value, its estimated replacement cost, and its amortization period.”

Table 1: Ferry System Current and Replacement Values – 2011 meets applicable requirements, showing the current value, replacement cost, and amortization periods for the vessels and facilities. The current value of the M/V Whatcom Chief is the book value, calculated from the depreciated original construction cost and any depreciated improvements/major repairs. The facilities’ current value is book value; original cost less depreciation plus depreciated improvements.

RCW 36.81.121 (1) states “...the legislative authority of each county, after one or more public hearings thereon, shall prepare and adopt a comprehensive transportation program for the ensuing six calendar years....and for those counties operating ferries shall also include a separate section showing proposed capital expenditures for ferries, docks, and related facilities. Copies of the program shall be filed with the county road administration board and the secretary of transportation not more than thirty days after its adoption by the legislative authority...” Subsection (2) requires expanded information on how a county will spend all its money on the various facets of the transportation program. This RCW Section was enacted in 1961. The capital expenditure portion of Subsection (1) is satisfied by:

Table 2: Projected Revenues defines the known and/or anticipated sources of operating and capital project funding for the 14-Year Plan.

Table 3: Projected Expenditures includes all other expenditures on the system that meet Subsection (2) requirements. Operational expenditures are delineated between vessel and non-vessel costs. U.S. Coast Guard regulations currently

require the ferries to be dry-docked every two years, however to extend the life, improve reliability and protect our capital investment Whatcom County schedules dry-docking every year for its vessel. The landings are inspected regularly as required by the National Bridge Inspection Standards administered through the Washington State Department of Transportation. The inspection report helps identify and schedule major maintenance and replacement of these facilities.

This RCW section also provides the reporting requirement and timing of program submission, as well as establishing the annual update requirement.

Additionally, the Federal Highway Administration requires all agencies within a Metropolitan Planning Organization to develop and annually update the long range Transportation Improvement Plans and their Biennial Element. Whatcom County updates this 14-Year plan each year and incorporates the results into the Six-Year Transportation Improvement Program.

Major Project Analysis

Gooseberry Point dock improvements include dolphin replacement work which is in the preliminary planning stages for 2014 (est. \$200,000). Electrical system upgrades and terminal painting which are in the preliminary planning stages for 2015 (est. \$175,000). In 2017, preliminary plans are being developed for replacement of the approach span and transfer span decks (est. \$300,000).

Lummi Island dock improvements include dolphin replacement and breakwater repair which are in the preliminary planning stages for 2014 (est. \$200,000). In 2015 preliminary plans are being developed for electrical system upgrades and terminal painting (est. \$175,000) and in 2016 preliminary plans are being developed for the replacement of the approach span and transfer span decks (est. \$450,000).

Major Maintenance/Reconstruction

Pile, dolphin & fender work:

Major pile dolphin and fender work replacement is scheduled as funding and operational periods allow.

Vessel dry-docking:

US Coast Guard regulations require periodic inspections of all ferry vessels. In addition to yearly certifications, each vessel is required to be dry-docked every two years, with an underwater hull survey required as part of the annual certification between dry dockings. Whatcom County schedules dry-docking every year. The engine overhaul, vessel painting, hull repairs, and other major and minor repairs occur during dry-docking. Propulsion engine overhauls occur every third year. Generator engines are overhauled on a six-year cycle. Engines

are replaced every ten to twelve years. Every three to five years, a vessel survey is conducted to assess the vessel's overall condition, establish the fair market value, estimate replacement cost, and provide a detailed hull strength assessment. This survey is used in part to determine the requirements for hull plating and framing replacement, and is also a requirement of the current insurance carrier.

Minor Maintenance

General minor maintenance is continual on the ferry, landings, aprons, and waiting facilities. The costs and extent of the work is unpredictable and frequently, problems must be repaired immediately upon detection. Routine maintenance such as building painting and roof cleaning is more predictable and scheduled in advance.

History of the Ferry System

The ferry system is the only public transportation link for the majority of Lummi Island residents and vehicles to the mainland at Gooseberry Point.

Following is a brief chronology outlining the history of the Whatcom County Ferry System.

YEAR EVENT

- 1926 Lummi Shore Road from Bellingham was completed and a ferry, the Central, owned by Whatcom County and large enough to hold six small Model-T Fords started making scheduled runs between Lummi Island and Gooseberry Point.
- 1929 The slightly larger Chief Kwina replaces the Central.
- 1950 Gooseberry Point terminal built.
- 1962 The M/V Whatcom Chief begins service.
- 1978 Lummi Island terminal is relocated.
- 1982 New lift mechanism installed on transfer span at Lummi Island.
Gooseberry Point pier refurbished
- 1987 Gooseberry Point Transfer span, wing walls and dolphins replaced
- 1997 Major refurbishment of Gooseberry point landing accomplished
- 2002 20-Year Plan Phase 1 Process and report completed.
- 2005 Major Status Report on Ferry System
- 2006 Lummi Island Dock preservation project (Bearing Seats Rebuild).
Major corrosion repair to vessel hull.
Completed design package for a 35-car replacement vessel.
Completed design package for urgent electrical/structural terminal repairs.
First Rate Increase in 5 years.
- 2008 Rate Increase
- 2009 Rate adjustment

- 2009 Emergency wing wall replacement on Lummi Island
- 2010 Emergency wing wall replacement on Lummi Island
- 2011 Rate increase and long term lease with the Lummi Nation
- 2012 Planning and design for the remote control installation at Lummi Island and the wing wall replacement at Gooseberry Point.
- 2013 Gooseberry Point terminal wooden wingwalls replaced with modern steel-pile supported wingwalls.
- 2013 Lummi Island terminal transfer span and apron remote control system installed.

FERRY SYSTEM CURRENT AND REPLACEMENT VALUES - 2011

VESSELS

Current Statistics		<i>M/V Whatcom Chief</i>	
LENGTH (ft)		94	
BEAM (ft)		44	
DISPLACEMENT (tons)		78	
YEAR BUILT		1962	
CAPACITY -- Passengers		100	
CAPACITY -- Cars		20	
CURRENT INSURED VALUE - 2011		\$950,000	
TOTAL CURRENT VALUE - 2011⁽¹⁾			\$950,000
Replacement Statistics			
YEAR		2011	
CAPACITY -- Passengers		100	
CAPACITY -- Cars		20	
REPLACEMENT VALUE - 2011 ⁽²⁾		\$4,840,000	
TOTAL - REPLACEMENT VALUE - 2011			\$4,840,000

FACILITIES

LOCATION	YEAR BUILT	REPLACE MENT YEAR	CURRENT BOOK VALUE ⁽⁴⁾	REPLACEMENT VALUE - 2009 ⁽⁵⁾
Lummi Island Landing				
Transfer Span	1982	2022	\$195,000	\$1,990,000
Dock	1978	2018	\$23,000	\$360,000
Dolphins/Wingwall ⁽³⁾	1978	2018	\$485,000	\$1,750,000
Parking Lots	2005	2045	\$50,000	\$85,000
Passenger Waiting/Office	1978	2018	\$10,000	\$25,000
Subtotal - Lummi Island Landing			\$763,000	\$4,210,000
Gooseberry Point Landing				
Transfer Span	1987	2027	\$445,000	\$2,200,000
Dock	1997	2037	\$87,000	\$590,000
North and South Wingwalls	2009, 2010	2037, 2038	\$326,000	\$326,000
Dolphins/Wingwall ⁽³⁾	1997	2037	\$640,000	\$1,750,000
Subtotal - Gooseberry Point Landing			\$1,498,000	\$4,866,000
TOTAL FACILITIES VALUE			\$2,261,000	\$9,076,000
TOTAL VESSEL & FACILITIES VALUE			\$3,211,000	\$13,916,000

NOTES:

- (1) Depreciated Columbia Sentinel Engineers (2011) Value plus Depreciated Improvements
- (2) Appreciated Columbia Sentinel Engineers (2011) Replacement Value
- (3) Replace with Steel Pilings
- (4) Estimated using a 40-year life and straight-line depreciation (including depreciated improvements)
- (5) Replacement value based on cost estimates by Art Anderson Associates (2009)

Lummi Island Ferry 14-Year Capital Program							
All \$ in 000's Revenues 2014-2020							
Category	2014	2015	2016	2017	2018	2019	2020
Punch Card Fares (3)	\$ 1,085	\$ 1,377	\$ 1,175	\$ 1,202	\$ 1,231	\$ 1,261	\$ 1,292
Cash Fares (4)	271	344	294	300	308	315	323
(Memo 55% of Operating Cost) (1)	1,356	1,721	1,469	1,502	1,539	1,577	1,615
MVFT Deficit Subsidy	145	145	145	145	145	145	145
County Road Fund Subsidy	1,110	1,424	1,225	1,251	1,280	1,310	1,341
Total Revenues	2,611	3,290	2,839	2,898	2,964	3,032	3,101
Total Expenditures (2)	2,924	3,514	3,172	3,080	2,845	2,911	2,979
Net Unfunded	313	224	333	182	(119)	(121)	(122)

Lummi Island Ferry 14-Year Capital Program							
All \$ in 000's Revenues 2021-2027							
Category	2021	2022	2023	2024	2025	2026	2027
Punch Card Fares	\$ 1,325	\$ 1,358	\$ 1,392	\$ 1,427	\$ 1,464	\$ 1,504	\$ 1,539
Cash Fares	331	339	348	357	366	376	385
(Memo 55% of Operating Cost) (1)	1,657	1,697	1,740	1,784	1,830	1,880	1,924
MVFT Deficit Subsidy	145	145	145	145	145	145	145
County Road Fund Subsidy	1,437	1,482	1,533	1,585	1,623	1,678	1,735
Total Revenues	3,239	3,324	3,418	3,514	3,598	3,703	3,804
Total Expenditures (2)	3,051	3,122	3,198	3,275	3,356	3,443	3,520
Net Unfunded	(187)	(202)	(220)	(240)	(242)	(260)	(283)

Note 1: After Subtracting the MVFT Deficit Subsidy. Budgeted for 57% fare recovery based on historical results.

Note 2: As Shown On Table 2, including capital expenditures.

Note 3: Equal to 80% of Fares

Note 4: Equal to 20% of Fares

Lummi Island Ferry 14-Year Capital Program
All in 000's Table 2 Expenditures 2014-2027 Page 1

Category	2014	2015	2016	2017	2018	2019	2020
Operating Expenses							
Vessel Operations							
Personnel	1,019	1,039	1,060	1,081	1,103	1,125	1,148
Fuel & Operating Supplies	670	690	711	732	754	777	800
Insurance	49	50	52	54	55	57	59
Other Operating Expenses	184	191	199	207	215	224	233
Total Vessel Operations	1,922	1,971	2,022	2,074	2,127	2,182	2,239
Other Operations							
Administration	250	255	260	265	271	276	282
Parking Lots							
Lummi Island	6	12	13	13	13	14	14
Gooseberry Pt.	14	91	92	92	95	98	101
Staging Areas							
Lummi Island	15	15	16	16	17	17	18
Gooseberry Pt.	8	8	8	9	9	9	10
Docks							
Lummi Island	44	44	45	45	46	47	48
Gooseberry Pt.	265	265	266	266	267	267	268
Total Operating Expenses	2,524	3,164	2,722	2,780	2,845	2,911	2,979
Capital Expenditures							
Major Vessel Upgrades	-	-	-	-	-	-	-
Gooseberry Point							
Docks	200	175	-	300	-	-	-
Staging	-	-	-	-	-	-	-
Parking	-	-	-	-	-	-	-
Lummi Island							
Docks	200	175	450	-	-	-	-
Staging	-	-	-	-	-	-	-
Parking	-	-	-	-	-	-	-
Total Capital Program Costs	400	350	450	300	-	-	-
Total Costs	2,924	3,514	3,172	3,080	2,845	2,911	2,979

Lummi Island Ferry 14-Year Capital Program							
All in 000's Table 2 Expenditures 2014-2027 Page 2							
Category	2021	2022	2023	2024	2025	2026	2027
Operating Expenses							
Vessel Operations							
Personnel	1,171	1,194	1,218	1,242	1,267	1,292	1,318
Fuel & Operating Supplies	824	849	874	900	927	955	984
Insurance	60	62	64	66	68	70	72
Other Operating Expenses	242	252	262	272	283	292	301
Total Vessel Operations	2,297	2,357	2,418	2,481	2,546	2,609	2,675
Other Operations							
Administration	287	293	299	305	311	317	323
Parking Lots							
Lummi Island	15	15	16	16	17	17	18
Gooseberry Pt.	104	107	110	114	117	121	124
Staging Areas							
Lummi Island	18	19	20	20	21	21	22
Gooseberry Pt.	10	10	10	11	11	18	19
Docks							
Lummi Island	50	51	53	54	56	58	60
Gooseberry Pt.	270	271	272	275	277	280	280
Total Operating Expenses	3,051	3,122	3,198	3,275	3,356	3,443	3,520
Capital Expenditures							
Major Vessel Upgrades	-	-	-	-	-	-	-
Gooseberry Point							
Docks	-	-	-	-	-	-	-
Staging	-	-	-	-	-	-	-
Parking	-	-	-	-	-	-	-
Lummi Island							
Docks	-	-	-	-	-	-	-
Staging	-	-	-	-	-	-	-
Parking	-	-	-	-	-	-	-
Total Capital Program Costs	-	-	-	-	-	-	-
Total Costs	3,051	3,122	3,198	3,275	3,356	3,443	3,520