

STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SOUTHEAST REGIONAL DIRECTOR'S OFFICE

PO Box 112506
JUNEAU, AK 99801-7996

PHONE: (907) 465-1763
TTY/TDD: (907) 465-4647
FAX: (907) 465-2016

October 29, 2007

Mr. David C. Miller
Division Administrator
US Department of Transportation
Federal Highway Administration
Alaska Division
PO Box 21648
Juneau, AK 99802

Re: Juneau Access Improvements Financial Plan Update

Dear Mr. Miller,

Enclosed is the 2007 Annual Financial Plan Update (Update) for the Juneau Access Improvements project. The Update was prepared in accordance with the most recent Federal Highway Administration Financial Plan Guidance.

As I explained in my July 25, 2007 letter, this Update is effective September 30, 2007 to coincide with the federal fiscal year. Future updates will be submitted at this time each year.

Sincerely,
DOT & PF-Southeast Region



Malcolm A. Menzies, P.E., L.S.
Regional Director

s/m

encl:

cc: Jack Beedle, PE, Preconstruction Engineer
Reuben Yost, Special Projects Manager

"Providing for the movement of people and goods and the delivery of state services"

**Juneau Access Improvements
Financial Plan
2007 Annual Update
October 2007**

**State Project No.: 71100
Federal Project Number: STP-000S(131)**

Table of Contents

Introduction

Project Description
Project Timeline

Financial Plan Update Sections

1. Cost Estimate
2. Implementation Plan
3. Financing and Revenues
4. Cash Flow
5. Risk Identification and Mitigation Factors

Attachments

Attachment A – Updated Engineer’s Estimate

Attachment B – Updated Engineer’s Estimate – Unit Price Analysis

Attachment C – Updated Zone Locations and Mile Points

Attachment D – 2006-2009 STIP Amendment 13 Need ID 19214

Attachment E – 2006-2009 STIP Amendment 13 Need ID 18359

Attachment F – Financial Plan Update Letter of Certification

Introduction:

This Financial Plan – 2007 Annual Update (Update) is prepared by the Alaska Department of Transportation and Public Facilities (DOT&PF) to satisfy the Project Financial Plan Requirement for \$100-500 million projects established in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The 2006 Initial Financial Plan was prepared in accordance with the May 2000 Federal Highway Administration (FHWA) Financial Plan Guidance and the December 8, 2005 FHWA Memorandum titled “Project Financial Plan Requirements under SAFETEA-LU”. This Update is prepared in accordance with the March 22, 2007 Guidance (2007 Guidance) which superseded the May 2000 Guidance and the December 8, 2005 Memorandum. This Update is in effect for the 2008 Federal Fiscal Year (FFY), October 1, 2007 to September 30, 2008.

Project Description

The April 2006 FHWA Record of Decision (ROD) for the Juneau Access Improvements Project selected Alternative 2B, East Lynn Canal Highway to Katzechin with shuttles to Haines and Skagway, as the proposed action. This alternative will construct a 50.8 mile highway from the end of Glacier highway at Echo Cove around Berners Bay to Katzechin, construct a ferry terminal at the end of the new highway, and run shuttle ferries to both Haines and Skagway from the Katzechin Ferry Terminal.

Project Timeline

An Environmental Impact Statement (EIS) was prepared for the project to satisfy the requirements of the National Environmental Policy Act (NEPA). A Draft EIS was issued in June 1997. A Supplemental Draft EIS was released in January 2005. The Final EIS was released in January 2006. The FHWA issued a ROD on April 3, 2006. A notice of final federal agency actions was published in the Federal Register on April 27, 2006.

The FHWA ROD and the US Department of Agriculture Forest Service (USFS) non-objection to right of way appropriation were challenged in the United States District Court for the District of Alaska by Southeast Alaska Conservation Council, et al. on August 16, 2006. The Project Administrative Record (AR) was filed with the Court on January 29, 2007. After the AR was

filed, all parties agreed to a briefing schedule. Subsequent to establishing a briefing schedule the plaintiffs filed a motion to vacate the briefing schedule until after the required Corps of Engineers (COE) permit is issued and filed a motion to add numerous documents to the AR. On the schedule vacation motion, the Court ruled that briefing on the merits of the case would begin 45 days after the AR issue is resolved. The final brief on the AR was filed July 2, 2007; the Court has yet to rule on the AR motion. Briefing on the merits of the overall complaint will last approximately 150 days, therefore a decision is unlikely before January 2008.

DOT&PF submitted a COE permit application on March 3, 2006. Although the COE was a cooperating agency during preparation of the EIS, it has yet to reach a permit decision. DOT&PF continues to respond to COE questions and currently a permit is expected by the end of 2007. After the permit is received, legal action against the COE is possible, and a request for a temporary injunction by the plaintiffs in the current litigation is likely.

For the purpose of this Update construction is anticipated to begin in Spring of 2008 with completion of the last construction segment in 2020.

1. Cost Estimate

As part of the Final EIS, an Engineer's Estimate and Engineer's Estimate-Unit Price Analysis were prepared for Alternative 2B. These documents were included in the Initial Financial Plan. The Engineers Estimate was based on LIDAR aerial survey data and alignment plan and profile information from the Final EIS Technical Alignment Report.

This Update incorporates the following new information:

- May 2006 Zones 1 through 3 Final Design line and grade adjustments with updated quantities and typical sections as advertised for Project 68937, JNU-Lynn Canal Highway, Echo Cove to Sweeny Creek
- Project 68937, Lynn Canal Highway, Echo Cove to Antler River, Compilation of Bids November 22, 2006 (18 foot wide pioneer road with temporary work bridges)
- Project 68937, Lynn Canal Highway, Echo Cove to Antler River, Compilation of Bids November 24, 2006 (18 foot wide pioneer road without Berners Bay work bridges)

- DOT&PF Lynn Canal Highway Bridge Piles, Materials Supply Contract, December 2006
- DOT&PF Lynn Canal Highway Concrete Girders Materials Supply Contract, December 2006
- DOT&PF Lynn Canal Highway Steel Culverts Materials Supply Contract, December 2006
- Lynn Canal Highway, Phase I, Zone 4 Geotechnical Investigation dated December 2006.
- Zone 4 Preliminary line and grade adjustments with updated quantities and typical sections, May 2007
- 2006-2009 Statewide Transportation Improvement Program (STIP) Amendment #13 (Major), June 2007

In May 2006 DOT&PF advertised for bids to construct a 23 mile section of the Lynn Canal Highway. DOT&PF received approval from FHWA to advertise the project with the agreement that bid proposals would not be opened nor the project awarded until all agency permits were in hand. At the time of that agreement DOT&PF anticipated the remaining permits would be issued by July 2006 which meant field work could begin in the fall. The COE permitting process had several delays such that in August 2006 a permit did not appear imminent. With increasing concern that the 2006 construction season would be lost, Governor Murkowski directed the scope of the first construction project be changed from a full width roadway to a pioneer road. The narrower pioneer road was to be state funded so that permits would not be required to open bids and have the project awarded. The pioneer road contract was awarded in late November under Governor Murkowski's outgoing administration but newly elected Governor Palin ordered the contract terminated shortly after taking office, with direction to advertise the project as a full width facility after a permit is issued. Modifying the scope of the project was a radical change to contracting process, but the bids received gave DOT&PF information as to how contractors perceived the work and a better estimate of what it would cost in the current market.

Also in December 2006 DOT&PF requested and received proposals to furnish materials for three major components of the 23 mile segment. These components were Bridge Piles, Steel Culverts, and Concrete Girders. All three materials supply contracts were awarded although the Concrete Girders contract was terminated for convenience after the award.

The Initial Financial Plan estimate breakdown for Alternative 2B, for costs incurring after the ROD, were as follows:

Highway Design Engineering	\$ 8,000,000
Mitigation	3,000,000
ROW Acquisition	45,000
Highway ICAP	7,183,000
Highway Construction Engineering & Inspection	12,374,000
Highway Contingencies	11,457,000
Avalanche CIP	2,670,000
Maintenance Building	1,000,000
Highway Construction	143,215,000
Katzehin Ferry Terminal	15,700,000
Vessel Construction	53,000,000
SUBTOTAL	\$ 257,644,000
Additional Contingency & Rounding	356,000
INITIAL ESTIMATED COMPLETION COST	\$ 258,000,000

As stated in the Final EIS, the total project cost, including the \$15 million for Preliminary Design, was estimated at \$273 million.

The current updated estimate for Alternative 2B, for costs to be incurred after September 30, 2007 is as follows:

Highway Design Engineering	\$ 14,400,000
Mitigation	1,603,000
ROW Acquisition	1,500,000
Highway ICAP	11,495,000
Highway Construction Engineering & Inspection	13,334,000
Avalanche CIP	3,000,000
Maintenance Building	1,000,000
Highway Construction	222,228,000
Katzehin Ferry Terminal	16,000,000
Vessel Design & Construction	65,000,000
SUBTOTAL	\$ 349,560,000
Rounding	440,000
2007 ESTIMATED COMPLETION COST	\$ 350,000,000

Total project costs, including approximately \$24 million spent to date for Preliminary Design and Final Design, are now estimated at \$374 million.

2. Implementation Plan

In order to facilitate project development the total project was initially broken into 5 zones plus the new shuttle ferries. For this Update the Zone 3 ending point and Zone 4 starting point are changed to reflect current project development plans. This reduces the length of Zone 3 (with a corresponding decrease in cost) and increases the length of Zone 4.

The Initial Zone Descriptions were:

Zone 1: Echo Cove to Antler Slough
Zone 2: Berners Bay Crossing

Update Zone Descriptions are:

Zone 1: Echo Cove to Antler Slough
Zone 2: Berners Bay Crossing

Zone 3: Lace River to Independence Lake
 Zone 4: Independence Lake to Katze hin River
 Zone 5: Katze hin River to Katze hin Ferry
 Terminal

Zone 3: Lace River to Sweeny Creek
 Zone 4: Sweeny Creek to Katze hin River
 Zone 5: Katze hin River to Katze hin Ferry
 Terminal

The location and mile points for each Zone are shown on Attachment C. The Initial cost estimates and Update for constructing each zone are:

<u>Zone</u>	<u>Initial Financial Plan</u>	<u>2007 Update</u>
Zone 1	\$ 20,000,000	\$ 29,440,000
Zone 2	32,000,000	50,170,000
Zone 3	25,000,000	21,600,000
Zone 4*	80,000,000	127,000,000
Zone 5 Highway	21,000,000	24,360,000
Zone 5 Ferry Terminal	16,000,000	16,000,000
Shuttle Ferries	53,000,000	65,000,000
Total Construction	\$ 247,000,000	\$ 333,570,000
Preliminary Engineering, Mitigation & Rounding	11,000,000	16,430,000
Total Cost to Complete Estimate	\$ 258,000,000	\$ 350,000,000

*2007 Zone 4 Update includes \$1.5 million for right-of-way acquisition at Comet, \$1 million for a maintenance building and rest stop to be constructed at Comet, and \$3 million for avalanche program capital costs.

The Initial and Updated estimated advertising year and construction completion year for each zone are:

<u>Initial Financial Plan</u>			<u>2007 Update</u>	
Zone	Advertising Year	Construction Completion Year	Advertising Year	Construction Completion Year
Zone 1	2006	2008	2008	2010
Zone 2	2006	2008	2008	2010
Zone 3	2006	2008	2008	2010
Zone 4A	2007	2010	2011	2013
Zone 4B	NA	NA	2014	2017
Zone 5 Highway	2007	2010	2018	2020
Zone 5 Terminal	2008	2010	2018	2020
1 st Shuttle Ferry	2006	2010	2010	2011
2 nd Shuttle ferry	NA	NA	2018	2019

Note: Zone 4 is shown in two parts for funding purposes as explained below. If this zone is advertised as two separate projects, the actual length of each segment will be determined during final design, based upon available funding and material volumes.

3. Financing and Revenues

The Initial Financial Plan relied on the Funding Considerations section (Section 2.5, pages 2-26 to 2-28) of the Final EIS for financing information, as no funding changes had occurred between release of the Final EIS and submittal of the Initial Financial Plan to FHWA. The 2006-2008 Final Statewide Transportation Improvement Program (STIP) approved in February 2006 contained essentially the same funding information as the Final EIS with regard to the years covered by the STIP.

Both the Final EIS and the Final 2006-2008 STIP anticipated a \$45 million Alaska General Fund (GF) appropriation, separate from state match for federal funds, from the Alaska Legislature for the 2007 state fiscal year. This appropriation ultimately was approved, however prior to its enactment DOT&PF submitted an Authorization for Advance Construction (AC) in order to use

\$88.3 million in federal aid to advertise a construction project from Echo Cove to Sweeny Creek, as explained earlier in this Update. The AC funding request approved by FHWA in May 2006 identified the \$88.3 million would come from the following funding sources: \$13.6 million, project specific federal earmark (HPRL); \$26.5 million, National Highway System (NHS) funding; and \$48.2 Section 144 Bridge (144M) funding. The approved construction funding was in addition to an approved funding request for \$8 million for final design.

The AC funding approval combined with the design funding approval represented two changes to the anticipated funding scenario portrayed in the Final EIS and Initial Financial Plan. First, the AC estimate did not include use of the \$45 million GF appropriation for the first construction project, as those funds were not yet available (although the use of these funds for part of the AC payback was not precluded). Second, a correspondingly higher amount of NHS funds (\$34.5 million rather than \$15 million) was identified for use on the project. As described below, the current plan for highway and terminal financing as documented in the 2006-2009 STIP returns to the plan in the Final EIS to the extent possible by incorporating the GF amount appropriated in the 2007 State Capital Budget.

The 2006-2009 STIP Amendment 13 Juneau Access entry, Need ID 19214 Glacier Highway MP 40.5-91.1 (Attachment D), shows no project funding for highway design or construction in FFY 07. Pre-existing design funds were sufficient to cover the limited amount of design, permit application, and litigation support effort that occurred during the remainder of FFY 07. The current construction funds programmed are sufficient to advertise a project as soon as a COE permit is issued. No construction funds were actually expended in FFY07, therefore AC conversion (ACC, also known as payback) will not begin until FFY08 at the earliest. The STIP shows \$16 million in design funds for FFY08, consisting of \$11.5 million in earmarked federal funds (including state match) and \$4.5 million from the \$45 million 2006 state GF appropriation.

DOT&PF programmed approximately \$23.5 million of the GF funds for project material purchases, with \$9.2 million under contract for culverts and bridge piling. The remaining funds from the 2006 GF appropriation, combined with most of a \$5 million 2005 GF appropriation, will be used to provide \$21.3 million in ACC. Section 144M Bridge funds will provide \$34 million in ACC during 08 and 09, and the federal aid earmark will provide \$2.3 million in ACC in 09. Assuming a project is advertised using the \$88.3 million AC approval, all but \$30.7 million of the AC amount will be converted by the end of FFY09. State furnished materials will be

incorporated into the project as state matching funds (SM); the un-obligated \$14.3 million in state funds programmed for material purchase can be used to fund construction or be used as AC payback. The total funding available for Zones 1-3 construction is \$111.8 million; if the contract amount matches the \$101.2 million estimate, an additional \$10.6 million will be available for ACC.

The Final EIS estimated that two new shuttles for the selected alternative (in addition to the M/V Aurora) would cost \$53 million and the Katzeihin terminal would cost \$16 million (in 2005 dollars). The 2006-2008 STIP reflected this with a separate AMHS Need ID (#19215); showing \$5 million available for design in FFY 2008. In May 2006 AMHS began the design of a shuttle ferry that could be used as a day boat in Southeast Alaska, including Lynn Canal as an interim measure, until needed as the Katzeihin-Haines shuttle. The preliminary design for the Southeast Shuttle Ferry Project was begun under the AMHS Construct/Lease/Purchase Ferryboats & Terminals (Need ID 18359) funding in the 2006-2008 STIP. Because the vessel will be designed to be capable of use throughout Southeast and may be constructed before it is needed as the Katzeihin-Haines shuttle, the 2006-2009 STIP shows the shuttle funding under the AMHS Need ID 18359 (Attachment E) rather than under a separate Juneau Access Need ID. This is consistent with AMHS' general practice of designing vessels for maximum utility and reflects the fact (as explained in the Final EIS) that NEPA documents project likely AMHS operations, but do not dictate them. Because this vessel will ultimately be used as part of the Lynn Canal Highway system, its cost and funding are included in this Update regardless of its separate STIP Need ID.

Based on the new project estimate in Section 1 of this Update, the remaining cost to complete the project is \$350 million. The 2006-2009 STIP identifies \$73.6 million in state and federal aid funds for the highway and terminal, and \$8.5 million for shuttle ferries. Combined with the \$23.5 million in funds programmed for state purchased materials, there is a total of \$105.6 million in identified funding. This leaves a balance of approximately \$244.4 million that will be identified in future STIPs after 2009.

The Final EIS and the Initial Financial Plan envisioned the use of approximately \$111 million of USC Section 218) (Shakwak or SHAK) funds for the construction of the project: \$57 million for the highway; \$16 million for the Katzeihin terminal; and \$38 million for shuttles. The current Shakwak balance was exhausted by September 30, 2007, however future Shakwak funds may

become available. At this point DOT&PF is not relying on Shakwak as a funding source for the project. The \$244.4 million additional funds required for the project must now come from FFY 2010 and beyond Surface Transportation Program (STP) and other STP-like flexible funds (FF), Section 144M Bridge, Ferry Boat Discretionary (FBDA), and State GF funds.

The Final EIS identified \$7.5 million in additional expected state GF appropriations in 2008 and 2009; with the 2006-2008 STIP showing an anticipated \$3.6 million in 2008. The 2006-2009 STIP does not show additional GF funds anticipated in 2008 or 2009. This reflects that the project is delayed by both litigation and permitting and not all GF funds already appropriated have been used. While future state funds other than match for federal aid are not assured, it is reasonable to assume the state would continue to supplement the federal aid funding for the project, providing \$20 million (in 2007 dollars) spread over the construction period. Given the amount of the state's projected 2009 federal aid program for highways and ferries of approximately \$375 million (2006-2009 STIP Intro page 22), the unpredictability of significant increases in the federal aid program after 2009, and the absence of a state highway program to rehabilitate existing highways, the Department at this time can commit a minimum of \$20 million per year (2007 dollars) to the project from the regular program after 2009. With this level of funding, completion of the project will not occur until 2020, as detailed in the Implementation Plan in Section 2 of this Update.

Sufficient funding is available for construction of Zones 1-3 as soon as permits are issued. Construction of Zones 1, 2, and the first half of Zone 3 will provide access to the dock at Slate Cove. As explained in the Final EIS, DOT&PF may provide interim ferry service from Slate Cove to Haines and Skagway while waiting for funding and construction to proceed to the Katzehein terminal.

Shuttle design and construction will require approximately \$65 million. The design of the first vessel will be completed in late 2008 or early 2009 with currently available funds. The AMHS has indicated it would like to have this vessel for use as a Southeast shuttle including interim Lynn Canal service, therefore construction of the first new shuttle may begin as early as 2010, depending on funding availability. If a new shuttle is not available at the time construction reaches Slate Cove, an existing ferry, likely the M/V Malaspina, can be used for the interim service.

Project Financing Summary (in millions of 2007 \$)

Funds Available for Additional Design:

STIP HPRL*	\$10.5		* highway and ferry terminal
STIP OSF*	4.5		
STIP SM	2.6		
STIP FBDA**	6.6		**shuttle ferry
STIP SHAK**	0.3	Total \$24.5	

Funds Available for Construction:

AC approval	\$88.3	
State materials	23.5	Total \$111.8

AC Conversion:

STIP 144M	\$34.0	
STIP HPRL	2.3	
STIP OSF	21.3	
Post 09 144M	18.1	
Post 09 NHS	9.8	
Post 09 SM	2.8	Total \$88.3

Funds to Complete Project (For Cost to Complete of \$350):

Current STIP Funds	\$82.1
Current Other State GF	23.5
Future State GF	20.0
Future FBDA	45.0
Future 114M	67.5
Future STP & FF	111.9

4. Cash Flow

Section 3 of this Update provides funding information for completion of all design and construction of Zones 1-3, with more than sufficient funds to cover costs. The cost to complete highway design and mitigation is estimated at \$16 million in 2007 dollars; there is \$16 million provided in the STIP in FFY 08. The design cost for shuttles is now estimated at \$6.5 million (10% of total cost); the STIP provides \$7 million in FFY 07 with an additional \$1.4 million available in later years. The cost estimate for Zones 1-3 (which will be advertised in 2008), is \$101.2 million; the available funding including AC is \$111.8 million, with all but \$30.7 million of

the required ACC coming from 2006-2009 STIP or state GF monies. Based on the funding flow described below, this remaining AC would be converted during FFY 2010 and 2011.

Future construction projects will be advertised to coincide with anticipated future funding. As stated above, STIP federal aid funding is anticipated to be available at the rate of \$20 million (\$3.5 M 144M, \$6.5 M FBDA, \$10 M STP, in 2007 dollars) per year from 2010 to mid-2021, with state GF funds averaging \$1.7 million per year during the same period. At this rate, assuming STIP and GF totals increase at the same rate as the inflation in construction costs (estimated at 4-5 percent long term), the first half of Zone 4 can be constructed in 2011-2013, the remainder of Zone 4 in 2014-2017, and Zone 5 and the Katzehin terminal can be constructed in 2018-2020. This represents a moderate use of AC, based on ACC during and immediately after construction. Construction of the second shuttle can occur at the end of the construction schedule, assuming the first shuttle is constructed during 2010-2011 for use as an interim Southeast vessel.

<u>Construction Schedule</u>			<u>ACC Schedule</u>	
Zone and 2007 Cost in millions	Advertising Year	Construction Completion Year	Beginning FFY	Completion FFY
Zone 1 29.4	2008	2010	2008	2008
Zone 2 50.2	2008	2010	2008	2010
Zone 3 21.6	2008	2010	2010	2011
Zone 4A 63.5	2011	2013	2011	2014
Zone 4B 63.5	2014	2017	2015	2019
Zone 5* 40.4	2018	2020	2019	2021
1 st Shuttle 45.6	2010	2011	2010	2017
2 nd Shuttle 12.9	2018	2019	2018	2020

*including ferry terminal

5. Risk Identification and Mitigation Factors

Several factors could negatively affect completion of the project by changing the funding plan. These include cost increases, funding shortfalls, and competition from other major projects. Also, potential funding increases could shorten the completion schedule.

Potential Cost Increases

With the design of Zones 1 through 3 complete, and the cost estimate based on recent unit bid prices, the risk with these construction projects is that delay could cause costs to inflate beyond the funds available (approximately \$112 million). A delay greater than two years would increase costs beyond the available funds even if inflation is at the estimated long term rate of 4-5 percent rather than the higher inflation experienced in the past two years. The potential for delay is fairly high, given the litigation on the FHWA and USFS actions and the possibility of a preliminary injunction once a COE permit is issued. A higher contract price for any of the Zones 1 to 3 projects would require additional use of funds from beyond 2009, which would delay the Zone 4 projects.

The risk of construction cost increases exceeding the rate of increases in project funding is greatest for the two Zone 4 projects. In addition to being further out in years, which could make differences between construction costs and general inflation greater, Zone 4 has the highest potential for cost increases during design due to possible further geotechnical considerations. The design for Zone 4 is still preliminary; changes have been made to the existing preliminary design based upon the geotechnical information to date, however subsurface investigations will need to be conducted and could cause further upward revisions to the estimate during final design. Conversely, better geotechnical information may lead to alignment changes that reduce quantities of excavation and/or embankment, reducing cost estimates.

The preliminary design for Zone 4 has been based on meeting all applicable design standards. During final design of Zone 4, potential increases in construction costs due to difficulty avoiding expensive stabilization techniques may be minimized by location specific design exceptions as well as other design-to-available-funding measures.

Potential Funding Shortfalls

The construction funding plan for Zones 1 through 3 includes the use of materials already purchased: culverts and bridge pilings. The original decision to order these materials was based in part on the concept that these materials could be used on other state projects if delay on this project became too great. The 2007 State capital appropriations bill reflected this by amending \$9.2 million of the original \$45 million to read "Statewide: Road and Bridge Construction Materials". If sufficient delay occurs on the project (no deadline has been set) the Commissioner (current or future) may decide to allocate up to \$9.2 million of materials to other projects. If this were to happen the Juneau Access project would need to replace those materials with other funds, potentially delaying the project further.

Funding for Zones 4 and 5, as well as the shuttle ferries is dependant on future STIPs, which in turn will rely on future federal aid legislation. While it is reasonable to assume that Alaska will continue to receive a similar level of STP and other formula funds (in fact the 2007 Guidance recommends this assumption), future transportation bills may not keep up with the rate of inflation, and/or they may not provide Alaska the same proportional funding. If funding in the years after 2009 is lower than the 2009 baseline of \$375 million, adjusted for inflation, this project, as well as other projects in the state, would be constructed at a slower pace unless additional state funds are made available.

The yearly amounts of 144M, FBDA, and STP funds projected to be allocated to the project, while not inconsequential, would not place too much strain on the state's highway and vessel rehabilitation program. The \$3.5 million per year 144M allocation represents a third of the state's anticipated funds in this category, but is less than a tenth of all bridge funds. The \$6.5 million per year from FBDA represent two thirds of the Alaska set-a-side for this category, however other funds such as Shakwak and/or FTA New Start funds may become available for vessel construction. Also, the AMHS may decide to use more than one existing vessel as a shuttle in the Lynn Canal Highway system, reducing the initial capital outlay required. The \$10 million per year from STP represents less than one sixth of these funds, and may be supplemented by Transportation Enhancement (TE) funds for pullouts, trailheads and rest stops to be included in the project design.

Potential Funding Increases

The anticipated federal funding described in this Update is based on the current Highway Trust Fund situation, with construction costs escalating while federal gas tax revenues lag behind. Up to the present there has not been a consensus in Congress on how to address this issue, so large increases in federal aid have not seemed likely. Current events have led to increased discussion by key members of Congress on the need to raise the federal gas tax to address inflation. A significant increase in federal transportation funding appropriated for state use would enable DOT&PF to commit a greater level of funding to the project, thereby shortening the time to complete construction.

Potential Major Project Competition

The two other large projects requiring construction funds, the Gravina Access Project and the Knik Arm Bridge, have already been allocated the full amount of federal aid shown in their spending plans. Gravina's spending plan relied on supplemental state general funds, however the Governor has indicated the state cannot provide these funds and has directed DOT&PF to identify a lower cost solution. Knik Arm's spending plan relies on private investment. Neither of these projects should be in competition for future funds from the state's federal aid program.

The Glenn Highway to Seward Highway Connection is a major project with the potential to compete for future federal aid funds. This project is currently in the reconnaissance phase, with the 2006-09 STIP showing a post 2009 cost of \$712 million. If this project proceeds through the environmental phase and goes to construction, it may require funds during the same time period as that outlined for the Juneau Access project. The Highway to Highway Connection would be eligible for AMATS Roadway funds as well as NHS funds. Although the Juneau Access project is eligible for NHS funds, the funding plan does not rely on NHS construction funds in order to reduce the likelihood of competition from major NHS upgrade projects.

This Update is based on a conservative estimate of the financial resources DOT&PF will have at its disposal during the next decade. The project completion schedule has been lengthened considerably to be in concert with this conservative financial outlook. The state and/or federal transportation funding situations may change in the near future. Future Financial Plan Updates

will not only revisit costs estimates but will assess the likelihood of greater or lesser levels of project funding.

ATTACHMENT A

UPDATED ENGINEER'S ESTIMATE

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, FULL BUILDOUT Complete 2007 Estimate, Echo to Katz Terminal	AKSAS No.: 71100 Federal No.: Version ID: 12032 Printed: 10/4/2007 10:10:56 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	470	Acre	6,500.00	3,055,000.00
201 (1B)	Clearing - Zones 2,3 & 5	162	Acre	5,000.00	810,000.00
201 (6)	Selective Tree Removal	350	Each	300.00	105,000.00
202 (4)	Removal of Culvert Pipe	530	Linear Foot	10.00	5,300.00
203 (2a)	Rock Excavation, General	5,225,300	Cubic Yard	7.00	36,577,100.00
203 (2b)	Rock Excavation, Station 437+00 to 555+00	742,700	Cubic Yard	10.00	7,427,000.00
203 (3)	Unclassified Excavation	1,752,300	Cubic Yard	4.00	7,009,200.00
203 (5)	Borrow	242,500	Cubic Yard	4.00	970,000.00
203 (10)	Controlled Blasting	414,100	Square Yard	15.00	6,211,500.00
203 (12)	Drain Holes	11,000	Linear Foot	3.00	33,000.00
203 (13a)	15-foot Rock Bolt	110	Each	2,500.00	275,000.00
203 (13b)	25-foot Rock Bolt	110	Each	3,500.00	385,000.00
203 (19)	Barrier Rocks	4,000	Linear Foot	5.00	20,000.00
205 (3)	Foundation Fill	7,261	Cubic Yard	15.00	108,915.00
306(1)	Asphalt Treated Base	103,525	Ton	35.00	3,623,375.00
401 (1)	Asphalt Concrete, Type II; Class B	109,390	Ton	40.00	4,375,600.00
401 (2)	Asphalt Cement, Grade 58-28	11,242	Ton	625.00	7,026,250.00
402 (1)	STE-1 Asphalt for Tack Coat	257	Ton	625.00	160,625.00
501 (1)	Class A Concrete	All required	Lump Sum	6,475,922.00	6,475,922.00
501 (2)	Class A-A Concrete	All required	Lump Sum	850,440.00	850,440.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	18	Each	64,000.00	1,152,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	228	Each	70,000.00	15,960,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, FULL BUILDOUT Complete 2007 Estimate, Echo to Katz Terminal	AKSAS No.: 71100 Federal No.: Version ID: 12032 Printed: 10/4/2007 10:10:56 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
501 (7C)	Precast Concrete Member (118' Decked Bulb Tee)	6	Each	60,000.00	360,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (11)	Precast Concrete Headwall	14	Each	2,000.00	28,000.00
501 (12)	Beaver Slough Bridge - Complete	All required	Lump Sum	1,000,000.00	1,000,000.00
501 (13)	Zone 4 Bridges	2,000	Linear Foot	5,000.00	10,000,000.00
501 (14)	Katzehin R. Bridge	2,730	Linear Foot	6,600.00	18,018,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	2,842,856.00	2,842,856.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	1,049,967.00	1,049,967.00
501 (9)	Screening Structure	9,800	Linear Foot	135.00	1,323,000.00
505 (5)	Furnish Structural Steel Pipe Piles - 24 in dia	7,246	Linear Foot	110.00	797,060.00
505 (5A)	Furnish Structural Steel Piles - HP14X117	788	Linear Foot	71.00	55,948.00
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	15,462	Linear Foot	520.00	8,040,240.00
505 (6A)	Drive Structural Steel Piles - HP14X117	6	Each	6,000.00	36,000.00
505 (6B)	Drive Structural Steel Pipe Piles - 24 in dia	66	Each	7,500.00	495,000.00
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	111	Each	25,000.00	2,775,000.00
501 (9)	Bridge Expansion Joint	726	Linear Foot	1,000.00	726,000.00
507 (1)	Steel Bridge Railing	3,048	Linear Foot	150.00	457,200.00
507 (6)	Safety Railing	1,553	Linear Foot	3.00	4,659.00
511 (1)	Mechanically Stabilized Earth Wall	878,306	Square Foot	35.00	30,740,710.00
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	1,300	Linear Foot	2,000.00	2,600,000.00
602 (3B)	Structural Plate Arch 35' 4" Span, 11' 5' Rise, 7 Gage	202	Linear Foot	3,500.00	707,000.00
603 (17-24)	24 Inch Pipe	26,877	Linear Foot	80.00	2,150,160.00
603 (17-36)	36 Inch Pipe	15,852	Linear Foot	140.00	2,219,280.00
603 (17-48)	48 Inch Pipe	3,924	Linear Foot	190.00	745,560.00
603 (17-60)	60 Inch Pipe	1,774	Linear Foot	290.00	514,460.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, FULL BUILDOUT Complete 2007 Estimate, Echo to Katz Terminal	AKSAS No.: 71100 Federal No.: Version ID: 12032 Printed: 10/4/2007 10:10:56 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
603 (17-72)	72 Inch Pipe	814	Linear Foot	350.00	284,900.00
603 (17-144)	144 Inch Pipe	370	Linear Foot	750.00	277,500.00
606 (1)	W-beam Guardrail	101,700	Linear Foot	25.00	2,542,500.00
606 (11)	Extruder Terminal (ET-2000)	142	Each	2,500.00	355,000.00
606 (12)	Guardrail/bridge Rail Connection	36	Each	2,000.00	72,000.00
610 (3)	Ditch Lining	25	Station	750.00	18,750.00
611 (1A)	Riprap, Class II	4,385	Cubic Yard	10.00	43,850.00
611 (1B)	Riprap, Class IV	187,500	Cubic Yard	8.00	1,500,000.00
611 (3)	Riprap Slope Stabilization	3,222	Square Yard	10.00	32,220.00
614 (1a)	Monumentation with case	198	Each	500.00	99,000.00
615 (1)	Standard Sign	4,072	Square Foot	50.00	203,600.00
618 (1)	Seeding	212	Acre	2,000.00	424,000.00
619 (2)	Matting	59,000	Square Yard	2.00	118,000.00
630 (1)	Geotextile, Separation	178,800	Square Yard	2.00	357,600.00
631 (2)	Geotextile, Erosion Control, Class 1	4,240	Square Yard	2.00	8,480.00
633 (1)	Silt Fence	74,500	Linear Foot	3.65	271,925.00
637 (1)	Reinforced Soil Slope	500	Square Foot	20.00	10,000.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	20,500,000.00	20,500,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	85,000.00	85,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	850,000.00	850,000.00
641 (5)	Preliminary Seeding	47	Acre	2,000.00	94,000.00
641 (6)	Temporary Rock Check Dam	540	Each	50.00	27,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	8	Each	500.00	4,000.00
642 (1)	Construction Surveying	All required	Lump Sum	1,450,000.00	1,450,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, FULL BUILDOUT Complete 2007 Estimate, Echo to Katz Terminal	AKSAS No.: 71100 Federal No.: Version ID: 12032 Printed: 10/4/2007 10:10:56 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
642 (3)	Three Person Survey Party	700	Hour	250.00	175,000.00
644 (1)	Field Office	3	Each	25,000.00	75,000.00
644 (2)	Field Laboratory	3	Each	25,000.00	75,000.00
644 (3)	Curing Shed	All required	Lump Sum	5,000.00	5,000.00
644 (4)	Meal	All required	Contingent Sum	800,000.00	800,000.00
644 (5)	Lodging	All required	Contingent Sum	600,000.00	600,000.00
644 (8a)	Vehicle, 4X4 SUV	216	Each/Month	400.00	86,400.00
644 (8b)	Vehicle, 4X4 ATV	288	Each/Month	150.00	43,200.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	75,000.00	75,000.00
644 (16)	Storage Container	All required	Lump Sum	15,000.00	15,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	3,000	Labor Hour	10.00	30,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	50,000.00	50,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	267,000.00	267,000.00
PROJECT Summary	Pay Items:	85 Items		Subtotal:	222,228,252.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	13,333,695.12
	Indirect Cost Allocation Plan (ICAP)	4.88 %			235,561,947.12
	TOTAL PARTICIPATING				11,495,423.02
	ADDED COSTS (Not part of the Contract)				247,057,370.14
	PROJECT TOTAL				247,057,370.14

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT	AKSAS No.: 68519 Federal No.: Version ID: 8363 Printed: 10/4/2007 9:45:01 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	150	Acre	6,500.00	975,000.00
201 (6)	Selective Tree Removal	150	Each	300.00	45,000.00
202 (4)	Removal of Culvert Pipe	530	Linear Foot	10.00	5,300.00
203 (2a)	Rock Excavation, General	466,400	Cubic Yard	7.00	3,264,800.00
203 (2b)	Rock Excavation, Station 437+00 to 555+00	742,700	Cubic Yard	10.00	7,427,000.00
203 (3)	Unclassified Excavation	132,100	Cubic Yard	4.00	528,400.00
203 (10)	Controlled Blasting	80,000	Square Yard	15.00	1,200,000.00
203 (12)	Drain Holes	6,000	Linear Foot	3.00	18,000.00
203 (13a)	15-foot Rock Bolt	60	Each	2,500.00	150,000.00
203 (13b)	25-foot Rock Bolt	60	Each	3,500.00	210,000.00
205 (3)	Foundation Fill	1,911	Cubic Yard	15.00	28,665.00
306(1)	Asphalt Treated Base	23,500	Ton	35.00	822,500.00
401 (1)	Asphalt Concrete, Type II; Class B	24,260	Ton	40.00	970,400.00
401 (2)	Asphalt Cement, Grade 58-28	2,517	Ton	625.00	1,573,125.00
402 (1)	STE-1 Asphalt for Tack Coat	59	Ton	625.00	36,875.00
501 (1)	Class A Concrete	All required	Lump Sum	321,362.00	321,362.00
501 (2)	Class A-A Concrete	All required	Lump Sum	117,300.00	117,300.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	12	Each	64,000.00	768,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	6	Each	70,000.00	420,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (11)	Precast Concrete Headwall	5	Each	2,000.00	10,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	156,590.00	156,590.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT	AKSAS No.: 68519 Federal No.: Version ID: 8363 Printed: 10/4/2007 9:45:01 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	103,448.25	103,448.25
505 (5)	Furnish Structural Steel Pipe Piles - 24 in dia	1,656	Linear Foot	110.00	182,160.00
505 (6)	Drive Structural Steel Pipe Piles - 24 in dia	24	Each	7,500.00	180,000.00
507 (1)	Steel Bridge Railing	1,048	Linear Foot	150.00	157,200.00
507 (6)	Safety Railing	1,553	Linear Foot	3.00	4,659.00
511 (1)	Mechanically Stabilized Earth Wall	22,306	Square Foot	35.00	780,710.00
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	50	Linear Foot	2,000.00	100,000.00
602 (3B)	Structural Plate Arch 35' 4" Span, 11' 5' Rise, 7 Gage	52	Linear Foot	3,500.00	182,000.00
603 (17-24)	24 Inch Pipe	5,097	Linear Foot	80.00	407,760.00
603 (17-36)	36 Inch Pipe	2,704	Linear Foot	140.00	378,560.00
603 (17-48)	48 Inch Pipe	874	Linear Foot	190.00	166,060.00
603 (17-60)	60 Inch Pipe	324	Linear Foot	290.00	93,960.00
603 (17-72)	72 Inch Pipe	114	Linear Foot	350.00	39,900.00
603 (17-144)	144 Inch Pipe	120	Linear Foot	750.00	90,000.00
606 (1)	W-beam Guardrail	1,800	Linear Foot	25.00	45,000.00
606 (11)	Extruder Terminal (ET-2000)	12	Each	2,500.00	30,000.00
606 (12)	Guardrail/bridge Rail Connection	12	Each	2,000.00	24,000.00
611 (1A)	Riprap, Class II	1,385	Cubic Yard	10.00	13,850.00
611 (3)	Riprap Slope Stabilization	1,716	Square Yard	10.00	17,160.00
615 (1)	Standard Sign	880	Square Foot	50.00	44,000.00
618 (1)	Seeding	50	Acre	2,000.00	100,000.00
619 (2)	Matting	1,000	Square Yard	2.00	2,000.00
630 (1)	Geotextile, Separation	2,000	Square Yard	2.00	4,000.00
631 (2)	Geotextile, Erosion Control, Class 1	1,240	Square Yard	2.00	2,480.00
633 (1)	Silt Fence	5,000	Linear Foot	3.65	18,250.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT	AKSAS No.: 68519 Federal No.: Version ID: 8363 Printed: 10/4/2007 9:45:01 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
637 (1)	Reinforced Soil Slope	500	Square Foot	20.00	10,000.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	2,500,000.00	2,500,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	10,000.00	10,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	150,000.00	150,000.00
641 (5)	Preliminary Seeding	25	Acre	2,000.00	50,000.00
641 (6)	Temporary Rock Check Dam	171	Each	50.00	8,550.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	2	Each	500.00	1,000.00
642 (1)	Construction Surveying	All required	Lump Sum	500,000.00	500,000.00
642 (3)	Three Person Survey Party	450	Hour	250.00	112,500.00
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (3)	Curing Shed	All required	Lump Sum	5,000.00	5,000.00
644 (4)	Meal	All required	Contingent Sum	400,000.00	400,000.00
644 (5)	Lodging	All required	Contingent Sum	300,000.00	300,000.00
644 (8a)	Vehicle, 4X4 SUV	108	Each/Month	400.00	43,200.00
644 (8b)	Vehicle, 4X4 ATV	144	Each/Month	150.00	21,600.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	25,000.00	25,000.00
644 (16)	Storage Container	All required	Lump Sum	5,000.00	5,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	10,000.00	10,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	55,000.00	55,000.00
PROJECT Summary	Pay Items:	69 Items		Subtotal:	26,482,324.25
	Construction Engineering (Percentage)	6%		CENG Subtotal	1,588,939.46 28,071,263.71
	Indirect Cost Allocation Plan (ICAP)	4.88 %			1,369,877.67
	TOTAL PARTICIPATING				29,441,141.38
	ADDED COSTS (Not part of the Contract)				

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT	AKSAS No.: 68519 Federal No.: Version ID: 8363 Printed: 10/4/2007 9:45:01 AM
--	--	---

Basic Bid

<i>Item Number</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Amount</i>
	PROJECT TOTAL				29,441,141.38

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8422 Printed: 10/4/2007 9:38:44 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	18	Acre	5,000.00	90,000.00
201 (6)	Selective Tree Removal	50	Each	300.00	15,000.00
203 (5)	Borrow	242,500	Cubic Yard	4.00	970,000.00
203 (19)	Barrier Rocks	4,000	Linear Foot	5.00	20,000.00
205 (3)	Foundation Fill	4,050	Cubic Yard	15.00	60,750.00
306(1)	Asphalt Treated Base	2,225	Ton	35.00	77,875.00
401 (1)	Asphalt Concrete, Type II; Class B	4,640	Ton	40.00	185,600.00
401 (2)	Asphalt Cement, Grade 58-28	380	Ton	625.00	237,500.00
402 (1)	STE-1 Asphalt for Tack Coat	12	Ton	625.00	7,500.00
501 (1)	Class A Concrete	All required	Lump Sum	5,928,000.00	5,928,000.00
501 (2)	Class A-A Concrete	All required	Lump Sum	691,740.00	691,740.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	6	Each	64,000.00	384,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	210	Each	70,000.00	14,700,000.00
501 (7C)	Precast Concrete Member (118' Decked Bulb Tee)	6	Each	60,000.00	360,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (12)	Beaver Slough Bridge - Complete	All required	Lump Sum	1,000,000.00	1,000,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	2,585,000.00	2,585,000.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	903,375.00	903,375.00
505 (5)	Furnish Structural Steel Pipe Piles - 24 in dia	5,590	Linear Foot	110.00	614,900.00
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	15,162	Linear Foot	520.00	7,884,240.00
505 (6B)	Drive Structural Steel Pipe Piles - 24 in dia	42	Each	7,500.00	315,000.00
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	108	Each	25,000.00	2,700,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8422 Printed: 10/4/2007 9:38:44 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
501 (9)	Bridge Expansion Joint	726	Linear Foot	1,000.00	726,000.00
507 (1)	Steel Bridge Railing	1,340	Linear Foot	150.00	201,000.00
606 (1)	W-beam Guardrail	2,000	Linear Foot	25.00	50,000.00
606 (11)	Extruder Terminal (ET-2000)	20	Each	2,500.00	50,000.00
606 (12)	Guardrail/bridge Rail Connection	20	Each	2,000.00	40,000.00
611 (1A)	Riprap, Class II	3,000	Cubic Yard	10.00	30,000.00
615 (1)	Standard Sign	176	Square Foot	50.00	8,800.00
618 (1)	Seeding		Acre	2,000.00	0.00
631 (2)	Geotextile, erosion Control, Class 1	3,000	Square Yard	2.00	6,000.00
633 (1)	Silt Fence	2,000	Linear Foot	3.65	7,300.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	4,000,000.00	4,000,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	5,000.00	5,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	50,000.00	50,000.00
641 (5)	Preliminary Seeding		Acre	2,000.00	0.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	100,000.00	100,000.00
642 (3)	Three Person Survey Party	50	Hour	250.00	12,500.00
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	25,000.00	25,000.00
644 (16)	Storage Container	All required	Lump Sum	5,000.00	5,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	10,000.00	10,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	11,000.00	11,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8422 Printed: 10/4/2007 9:38:44 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
PROJECT Summary	Pay Items:	46 Items		Subtotal:	45,128,080.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	2,707,684.80 47,835,764.80
	Indirect Cost Allocation Plan (ICAP)	4.88 %			2,334,385.32
	TOTAL PARTICIPATING				50,170,150.12
	ADDED COSTS (Not part of the Contract)				
	PROJECT TOTAL				50,170,150.12

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8162 Printed: 10/4/2007 9:39:32 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	126	Acre	5,000.00	630,000.00
201 (6)	Selective Tree Removal	150	Each	300.00	45,000.00
203 (2a)	Rock Excavation, General	595,600	Cubic Yard	7.00	4,169,200.00
203 (3)	Unclassified Excavation	654,800	Cubic Yard	4.00	2,619,200.00
203 (10)	Controlled Blasting	68,000	Square Yard	15.00	1,020,000.00
203 (12)	Drain Holes	5,000	Linear Foot	3.00	15,000.00
203 (13a)	15-foot Rock Bolt	50	Each	2,500.00	125,000.00
203 (13b)	25-foot Rock Bolt	50	Each	3,500.00	175,000.00
205 (3)	Foundation Fill	1,300	Cubic Yard	15.00	19,500.00
306(1)	Asphalt Treated Base	21,800	Ton	35.00	763,000.00
401 (1)	Asphalt Concrete, Type II; Class B	22,460	Ton	40.00	898,400.00
401 (2)	Asphalt Cement, Grade 58-28	2,335	Ton	625.00	1,459,375.00
402 (1)	STE-1 Asphalt for Tack Coat	54	Ton	625.00	33,750.00
501 (1)	Class A Concrete	All required	Lump Sum	226,560.00	226,560.00
501 (2)	Class A-A Concrete	All required	Lump Sum	41,400.00	41,400.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	12	Each	70,000.00	840,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (11)	Precast Concrete Headwall	9	Each	2,000.00	18,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	101,266.00	101,266.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	43,143.75	43,143.75
505 (5A)	Furnish Structural Steel Piles - HP14X117	788	Linear Foot	71.00	55,948.00
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	300	Linear Foot	520.00	156,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8162 Printed: 10/4/2007 9:39:32 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
505 (6A)	Drive Structural Steel Piles - HP14X117	6	Each	6,000.00	36,000.00
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	3	Each	25,000.00	75,000.00
507 (1)	Steel Bridge Railing	660	Linear Foot	150.00	99,000.00
603 (17-24)	24 Inch Pipe	5,780	Linear Foot	80.00	462,400.00
603 (17-36)	36 Inch Pipe	4,608	Linear Foot	140.00	645,120.00
603 (17-48)	48 Inch Pipe	560	Linear Foot	190.00	106,400.00
603 (17-60)	60 Inch Pipe	340	Linear Foot	290.00	98,600.00
603 (17-72)	72 Inch Pipe	390	Linear Foot	350.00	136,500.00
606 (1)	W-beam Guardrail	600	Linear Foot	25.00	15,000.00
606 (11)	Extruder Terminal (ET-2000)	4	Each	2,500.00	10,000.00
606 (12)	Guardrail/bridge Rail Connection	4	Each	2,000.00	8,000.00
610 (3)	Ditch Lining	25	Station	750.00	18,750.00
611 (3)	Riprap Slope Stabilization	1,506	Square Yard	10.00	15,060.00
615 (1)	Standard Sign	816	Square Foot	50.00	40,800.00
618 (1)	Seeding	44	Acre	2,000.00	88,000.00
619 (2)	Matting	58,000	Square Yard	2.00	116,000.00
630 (1)	Geotextile, Separation	128,000	Square Yard	2.00	256,000.00
633 (1)	Silt Fence	50,000	Linear Foot	3.65	182,500.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	2,000,000.00	2,000,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	10,000.00	10,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	250,000.00	250,000.00
641 (5)	Preliminary Seeding	22	Acre	2,000.00	44,000.00
641 (6)	Temporary Rock Check Dam	369	Each	50.00	18,450.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	6	Each	500.00	3,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8162 Printed: 10/4/2007 9:39:32 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
642 (1)	Construction Surveying	All required	Lump Sum	250,000.00	250,000.00
642 (3)	Three Person Survey Party	200	Hour	250.00	50,000.00
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (4)	Meal	All required	Contingent Sum	400,000.00	400,000.00
644 (5)	Lodging	All required	Contingent Sum	300,000.00	300,000.00
644 (8a)	Vehicle, 4X4 SUV	108	Each/Month	400.00	43,200.00
644 (8b)	Vehicle, 4X4 ATV	144	Each/Month	150.00	21,600.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	25,000.00	25,000.00
644 (16)	Storage Container	All required	Lump Sum	5,000.00	5,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	30,000.00	30,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	51,000.00	51,000.00
PROJECT Summary	Pay Items:	60 Items		Subtotal:	19,425,122.75
	Construction Engineering (Percentage)	6%		CENG Subtotal	1,165,507.37
	Indirect Cost Allocation Plan (ICAP)	4.88 %			20,590,630.12
	TOTAL PARTICIPATING				1,004,822.75
	ADDED COSTS (Not part of the Contract)				21,595,452.87
	PROJECT TOTAL				21,595,452.87

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - ZONE 4, SWEENEY CK TO KATZ R., FULL BUILDOUT 2007 Preliminary Estimate	AKSAS No.: 68967 Federal No.: Version ID: 11275 Printed: 10/4/2007 9:40:22 AM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	320	Acre	6,500.00	2,080,000.00
203 (2a)	Rock Excavation, General	4,118,500	Cubic Yard	7.00	28,829,500.00
203 (3)	Unclassified Excavation	954,200	Cubic Yard	4.00	3,816,800.00
203 (10)	Controlled Blasting	264,000	Square Yard	15.00	3,960,000.00
306(1)	Asphalt Treated Base	51,850	Ton	35.00	1,814,750.00
401 (1)	Asphalt Concrete, Type II; Class B	52,660	Ton	40.00	2,106,400.00
401 (2)	Asphalt Cement, Grade 58-28	5,500	Ton	625.00	3,437,500.00
402 (1)	STE-1 Asphalt For Tack Coat	120	Ton	625.00	75,000.00
501 (13)	Zone 4 Bridges	2,000	Linear Foot	5,000.00	10,000,000.00
501 (9)	Screening Structure	9,800	Linear Foot	135.00	1,323,000.00
511 (1)	Mechanically Stabilized Earth Wall	856,000	Square Foot	35.00	29,960,000.00
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	1,250	Linear Foot	2,000.00	2,500,000.00
602 (3B)	Structural Plate Arch 35' 4" Span, 11' 5' Rise, 7 Gage	150	Linear Foot	3,500.00	525,000.00
603 (17-24)	24 Inch Pipe	14,840	Linear Foot	80.00	1,187,200.00
603 (17-36)	36 Inch Pipe	7,930	Linear Foot	140.00	1,110,200.00
603 (17-48)	48 Inch Pipe	2,300	Linear Foot	190.00	437,000.00
603 (17-60)	60 Inch Pipe	990	Linear Foot	290.00	287,100.00
603 (17-72)	72 Inch Pipe	250	Linear Foot	350.00	87,500.00
603 (17-144)	144 Inch Pipe	250	Linear Foot	750.00	187,500.00
606 (1)	W-beam Guardrail	92,200	Linear Foot	25.00	2,305,000.00
606 (11)	Extruder Terminal (ET-2000)	95	Each	2,500.00	237,500.00
611 (1B)	Riprap, Class IV	184,500	Cubic Yard	8.00	1,476,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - ZONE 4, SWEENEY CK TO KATZ R., FULL BUILDOUT 2007 Preliminary Estimate	AKSAS No.: 68967 Federal No.: Version ID: 11275 Printed: 10/4/2007 9:40:22 AM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
614 (1a)	Monumentation with case	190	Each	500.00	95,000.00
615(1)	Standard Sign	2,000	Square Foot	50.00	100,000.00
618 (1)	Seeding	112	Acre	2,000.00	224,000.00
630 (1)	Geotextile, Separation	46,000	Square Yard	2.00	92,000.00
633 (1)	Silt Fence	15,000	Linear Foot	3.65	54,750.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	10,000,000.00	10,000,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	50,000.00	50,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	300,000.00	300,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	500,000.00	500,000.00
670(1)	Painted Traffic Markings	All required	Lump Sum	125,000.00	125,000.00
PROJECT Summary	Pay Items:	33 Items		Subtotal:	109,283,700.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	6,557,022.00 115,840,722.00
	Indirect Cost Allocation Plan (ICAP)	4.88 %			5,653,027.23
	TOTAL PARTICIPATING				121,493,749.23
	ADDED COSTS (Not part of the Contract)				
	PROJECT TOTAL				121,493,749.23

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - ZONE 5, KATZEHIN R TO FERRY TERMINAL, FULL BUILDOUT 2007 Preliminary Estimate	AKSAS No.: 68967 Federal No.: Version ID: 11374 Printed: 10/4/2007 9:41:32 AM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	18	Acre	5,000.00	90,000.00
203 (2a)	Rock Excavation, General	44,800	Cubic Yard	7.00	313,600.00
203 (3)	Unclassified Excavation	11,200	Cubic Yard	4.00	44,800.00
203 (10)	Controlled Blasting	2,100	Square Yard	15.00	31,500.00
306(1)	Asphalt Treated Base	4,150	Ton	35.00	145,250.00
401 (1)	Asphalt Concrete, Type II; Class B	5,370	Ton	40.00	214,800.00
401 (2)	Asphalt Cement, Grade 58-28	510	Ton	625.00	318,750.00
402 (1)	STE-1 Asphalt For Tack Coat	12	Ton	625.00	7,500.00
501 (14)	Katzehin R. Bridge	2,730	Linear Foot	6,600.00	18,018,000.00
603 (17-24)	24 Inch Pipe	1,160	Linear Foot	80.00	92,800.00
603 (17-36)	36 Inch Pipe	610	Linear Foot	140.00	85,400.00
603 (17-48)	48 Inch Pipe	190	Linear Foot	190.00	36,100.00
603 (17-60)	60 Inch Pipe	120	Linear Foot	290.00	34,800.00
603 (17-72)	72 Inch Pipe	60	Linear Foot	350.00	21,000.00
606 (1)	W-beam Guardrail	5,100	Linear Foot	25.00	127,500.00
606 (11)	Extruder Terminal (ET-2000)	11	Each	2,500.00	27,500.00
611 (1B)	Riprap, Class IV	3,000	Cubic Yard	8.00	24,000.00
614 (1a)	Monumentation with case	8	Each	500.00	4,000.00
615 (1)	Standard Sign	200	Square Foot	50.00	10,000.00
618 (1)	Seeding	6	Acre	2,000.00	12,000.00
630 (1)	Geotextile, Separation	2,800	Square Yard	2.00	5,600.00
633 (1)	Silt Fence	2,500	Linear Foot	3.65	9,125.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - ZONE 5, KATZEHIN R TO FERRY TERMINAL, FULL BUILDOUT 2007 Preliminary Estimate	AKSAS No.: 68967 Federal No.: Version ID: 11374 Printed: 10/4/2007 9:41:32 AM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
640 (1)	Mobilization And Demobilization	All required	Lump Sum	2,000,000.00	2,000,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	10,000.00	10,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	100,000.00	100,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	100,000.00	100,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	25,000.00	25,000.00
PROJECT Summary	Pay Items:	28 Items		Subtotal:	21,909,025.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	1,314,541.50 23,223,566.50
	Indirect Cost Allocation Plan (ICAP)	4.88 %			1,133,310.05
	TOTAL PARTICIPATING				24,356,876.55
	ADDED COSTS (Not part of the Contract)				
	PROJECT TOTAL				24,356,876.55

ATTACHMENT B

UPDATED ENGINEER'S ESTIMATE -- UNIT PRICE ANALYSIS

Juneau Access
Engineer's Estimate – Unit Price Analysis Update

Prepared by
Jack D. Beedle, P.E.
Preconstruction Engineer
SE Region Department of Transportation & Public Facilities

September 2007

Update

The 2005 Engineer's Estimate – Unit Price Analysis (Analysis) was for Juneau Access Alternatives 2B and 3. Since the date of the Record of Decision all engineering has focused on the Selected Alternative 2B. This 2007 Engineer's Estimate – Unit Price Analysis Update (Update) is for Alternative 2B only.

The following events have occurred since the 2005 Analysis and are factored into this 2007 Update:

- DOT&PF completed design for the portion of the Lynn Canal Highway from Echo Cove to Sweeny Creek.
- October 20, 2006, Bid Opening for Juneau Sunny Point Intersection Improvements.
- November 22, 2006, Bid Opening for Juneau – Lynn Canal Highway, Echo Cove to Antler River. (18' wide Pioneer Road with work bridges).
- November 24, 2006, Bid Opening for Juneau – Lynn Canal Highway, Echo Cove to Antler River. (18' wide Pioneer Road without Berners Bay work bridges).
- November 27, 2006, Bid Opening for Lynn Canal Highway / Bridge Materials – Precast Concrete.
- November 27, 2006, Bid Opening for Lynn Canal Highway / Bridge Materials – Steel Culvert.
- November 29, 2006, Bid Opening for Lynn Canal Highway / Bridge Materials – Steel Piles.
- December 2006 Lynn Canal Highway, Phase 1, Zone 4, Geotechnical Investigation completed.

These events are important for the following reasons:

- Completion of the design from Echo Cove to Sweeny Creek provided accurate quantities for estimating and bidding purposes.

- The Bid Opening for Sunny Point provided information on unit costs for a large project in Juneau with the construction work occurring in 2007 and 2008.
- For the Lynn Canal Highway Bid Openings; the bids were rejected for the November 22 Bid Opening; bids were awarded and later cancelled for the November 24 Bid Opening as well as the November 27 Precast Concrete Bid Opening; and bids were awarded for the November 27 Steel Culverts and the November 29 Steel Pile Bid Openings. All of these Bid Openings provided actual unit prices for the Lynn Canal Highway for construction activities that would have occurred in 2007 and 2008.
- The December 2006 Geotechnical Investigation resulted in changed quantity estimates for Zone 4. Some quantities such as rock excavation decreased while other quantities such as MSE walls increased.

Overview

There are several factors that affect estimated unit bid prices for large remote construction projects like the Juneau Access project.

1. Large quantities will provide economies of scale that can result in unit prices significantly lower than usual Southeast Alaska unit prices.
2. Unlimited use of off road equipment can result in lower unit prices.
3. Numerous access points from which to construct the project can result in lower unit prices.
4. Barge access points at Slate Cove near Berner's/Lace and Antler/Gilkey River Crossings and at Katzechin Ferry Terminal near the Katzechin River Crossing allows use of economical over length and overweight components in construction of the major river crossings.
5. Perhaps the most significant factor is that there will be no public access or utility conflicts that usually slow down construction during the duration of the project. This will result in lower unit prices for almost every bid item on the project.

Working around buildings and maintaining traffic flow generally can impact efficiency, productivity and unit bid prices by 50% or more. The Juneau Access Project will not contend with private vehicle traffic or work in proximity to buildings any time during construction.

The importance of this last factor is demonstrated by the Juneau Cascade Point Road Project. Bid in December 2004 and constructed in 2005; this 20 foot wide by 3.2 mile long project's total price was \$810,000, approximately \$250,000 per mile. The project was constructed in the same area as the Juneau Access Project and had no private vehicle traffic, utilities, or buildings to contend with. The Cascade Point Road Project included clearing, culverts, excavation and embankment. It did not include base, pavement, and guardrail. A similar project being built while maintaining traffic control would be expected to cost over \$500,000 per mile.

Methodology

Quantities were calculated for each pay item for Juneau Access Alternative 2B. Unit prices are primarily based on the October 20, 2006 Bid Opening for Juneau Sunny Point Intersection Improvements Project and on the five Juneau Access Lynn Canal Highway Projects which had bid openings in November 2006. The Juneau Access Alternative 2B quantities (updated to reflect current quantity estimates) were multiplied by the established unit price to obtain each pay item's estimated cost.

Item 201 (1A) Clearing

Per Acre

The 2005 Analysis was for a lump sum bid item. For this 2007 Update, the clearing bid item has been converted to the acre to be consistent with the November 2006 Juneau Access Bids.

Both the November 22, 2006 and November 24, 2006 Bid Openings contained clearing per acre as a bid item. The November 24, 2006 bid is used in this Update since the unit prices remained essentially the same and it is the later of the two bids.

The November 24, 2006 Bid Opening contained 152 Acres of Clearing from Echo Cove to Antler River included in the Basic Bid and 130 acres of clearing from Lace River to Sweeny Creek included in the Additive Alternate. The low bids per acre were \$6,535 for the Basic Bid and \$5,000 for the Additive Alternate. One bidder bid \$6,533 for the Basic Bid and \$6,535 for the Additive Alternate; the other bid \$15,000 and \$5,000 for this same work.

Based on these bids, the unit price was established as \$6,500 per acre.

Depending on the ROW transfer agreement with USFS, the value of timber harvested within the ROW (estimated at \$400,000 in the Socioeconomic Report) could reduce the bids for this item in the future.

Item 203 (2) Rock Excavation

Per Cubic Yard

The 2005 Analysis also included rock excavation per cubic yard.

Based on current design and additional geotechnical investigations since the 2005 Analysis; the quantity of Item 203 (2) Rock Excavation has decreased from 6,475,600 cubic yards to 5,968,000 cubic yards and the quantity for Item 203 (3) Unclassified Excavation has increased from 933,300 cubic yards to 1,752,300 cubic yards during this Update.

The 2006 Lynn Canal Highway bids did not include Item 203 (2) Rock Excavation as a bid item.

For the purpose of this Update the 2005 Analysis was reviewed and the August 2002 Ketchikan Airport- West Taxiway Construction Project was considered to be still valid, but needed to be revised to reflect inflation in the interim. The average of the three low bids was \$5.46 per cubic yard (see the 2005 Analysis).

A recent project considered as a valid comparison project is the Ketchikan Airport Runway Safety Area Expansion and Runway Overlay Project which had a bid opening on January 16, 2007. This project included 1,379,500 cubic yards of embankment. This embankment had to come from a designated rock obstruction and be embanked into the project. Some limitations were placed on the size and timing of blasting shots to maintain operation of the adjacent Ketchikan International Airport. The three low bids for this bid item were \$5, \$6.75, and \$7.50 for an average of \$6.42 per cubic yard.

The 2005 Analysis established a unit price of \$6.50 per cubic yard for all rock excavation and did not distinguish between normal rock excavation and more difficult rock excavation situations.

Item 203 (2) Rock Excavation
Per Cubic Yard (cont.)

For this Update based on the 2002 and 2007 Ketchikan Airport Projects the unit price for general rock excavation has been set at \$7 per cubic yard. Additionally approximately 742,700 cubic yards of rock excavation in the most difficult section has been estimated at \$10 per cubic yard.

Therefore this Update includes 5,225,300 cubic yards of rock excavation at \$7 per cubic yard and 742,700 cubic yards of rock excavation at \$10 per cubic yard for an average price of \$7.37 per cubic yard or \$.87 per cubic yard more than the unit price from the 2005 Analysis.

Additionally to compensate for the extra cost to haul and embank the rock excavation from elsewhere on the Project between the two Berner's Bay Bridges, 242,500 cubic yards of Borrow at \$4 per cubic yard is included in this Update. This effectively increases the unit price of rock excavation for this Update to \$7.54 per cubic yard.

Item 203 (3) Unclassified Excavation

Per Cubic Yard

The 2005 Analysis also included unclassified excavation per cubic yard.

Based on current design and additional geotechnical investigations since the 2005 Analysis, the quantity of Item 203 (3) Unclassified Excavation has increased from 933,300 cubic yards to 1,752,300 cubic yards.

The 2006 Lynn Canal Highway bids did not include unclassified excavation per cubic yard. The 2006 Sunny Point Project included 37,765 cubic yards of unclassified excavation however the two bids were \$10 and \$1 per cubic yard which is too big of a variation to establish a unit price and the work was not similar to the Juneau Access work. The projects from the 2005 Analysis are still considered valid comparison projects however they are now six to seven years old. The January 2007 Ketchikan Airport project included 760,000 cubic yards of unclassified excavation however this item also required rock excavation and special grading.

Looking at additional recent projects in Southeast Alaska, the Wrangell Airport RSA Extension Project which bid on May 11, 2006 and is currently under construction was determined to be a valid comparison project for this bid item. The Wrangell Project included 245,000 cubic yards of unclassified excavation. The three low bids were \$4, \$6, and \$7 for this bid item. While the average of these three bids is \$5.67 per cubic yard the Wrangell Airport work includes 1/7 the volume of Juneau Access and also must be accomplished while working within the restrictions of an operating jet airport.

Based on the Wrangell Project the unit price for unclassified excavation for this item was set at \$4 per cubic yard which is the unit price bid by the low bidder who is currently building the Wrangell Airport Project.

This represents a \$1.50 per cubic yard increase from the 2005 Analysis for this bid item.

Item 203 (10) Controlled Blasting Per Square Yard

The 2005 Analysis also included controlled blasting per square yard as a bid item.

Based on current design and additional geotechnical investigations since the 2005 Analysis the quantity of Item 203 (10) Controlled Blasting has decreased from 594,500 square yards to 414,100 square yards.

The 2006 Lynn Canal Highway bids did not include Item 203 (10) Controlled Blasting as a bid item. The Projects used in the 2005 Analysis are now eight to nine years old. There are no recent projects in Southeast Alaska that included controlled blasting as a major bid item.

There are however two smaller projects that included controlled blasting (per linear foot) as minor pay items. They are the January 20, 2005 Glacier Highway and Trail Head Project which included 53,000 linear foot (21,200 square yards) and the June 27, 2006 South Tongass Highway Project which included 20,480 linear foot (8,192 square yards) as pay items. Both of these projects included working with short traffic closures and in close proximity to houses and utilities. The Ketchikan Project had only one bidder at \$17.50 per square yard. The Glacier Highway Project had three bidders at \$30, \$18.75, and \$16.25 per square yard.

Based on the Juneau Access Project being twenty times larger with no traffic or utilities the unit price for this Update was set at \$15 per square yard. This is a \$5 per square yard increase from the 2005 Analysis.

Item 306 (1) Asphalt Treated Base

Per Ton

The 2005 Analysis included Item 307 (3) EATB per square yard as the treated base. This Update instead uses 103,525 tons of Asphalt Treated Base (ATB) to reflect the current design.

The November 2006 Lynn Canal Highway Bid Openings did not include Asphalt Treated Base as a bid item.

For the purpose of this Update, the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this pay item. The Sunny Point Project's Bid Opening was in October 2006 however the majority of the Asphalt Treated Base will not be placed until the 2008 construction season.

The Sunny Point Project included 13,900 tons of ATB and the bids were \$45 and \$40 per ton. This ATB must be placed while dealing with an ADT of 30,000 vehicles per day.

The \$42.50 average per ton for the Sunny Point Project was reduced by approximately 15% to account for the additional cost of dealing with the heavy traffic in the delivery and placement of the ATB to arrive at the \$35 per ton unit price included in this Update.

Item 401 (1) Asphalt Concrete Pavement

Per Ton

The November 2006 Lynn Canal Highway Pioneer Road bid openings did not include Asphalt Concrete Pavement as a bid item.

The 2005 Analysis included 104,397 tons of Asphalt Concrete Pavement whereas this Update includes 109,390 tons.

For the purpose of this Update the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this bid item. The Sunny Point Intersection Improvements Project's Bid Opening was in October 2006 however the majority of the paving will not take place until 2008.

The Sunny Point Project included 8,180 tons of Asphalt Concrete, SP, Type B Pavement and the bids were \$58 and \$55 per ton. This pavement includes a special durable aggregate that must be imported from out of town. It must also be placed while dealing with an ADT of 30,000 vehicles per day.

The \$56.5 average per ton bid for the Sunny Point Project was reduced by 15% for the cost of importing the aggregate and by 15% for the increased cost of dealing with heavy traffic in the delivery and placement of the pavement to arrive at the \$40 per ton unit price included in this Update.

This represents a \$17 per ton increase over the 2005 Analysis.

Item 401 (2) Asphalt Cement

Per Ton

Since the 2005 Analysis, prices for oil products have increased substantially. The 2005 Analysis included 6,264 tons of Asphalt Cement. This Update includes 11,242 tons of Asphalt Cement. The increase is primarily attributed to changing from EATB to ATB.

The November 2006 Lynn Canal Highway Bid Openings did not include Asphalt Cement as a bid item. For the purpose of this Update, the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this bid item. The Project is located in Juneau so mobilization and handling costs are similar. The Sunny Point Project Bid Opening was in October 2006 however the majority of the paving will not take place until 2008.

The Sunny Point Project included 1,120 tons of Asphalt Cement and the two bids were \$630 and \$600 per ton.

Based on the Sunny Point Project, the Update has set the unit price for Asphalt Cement at \$625 per ton.

Since the price of the Asphalt Cement is for materials supply only and is not impacted by traffic impacts during construction (these impacts are taken into account in the Asphalt Concrete Pavement Item), a reduction is not calculated into this bid item.

This represents a \$375 per ton increase over the 2005 Analysis.

Item 501 (7A, 7B, 7C) Precast Concrete Member
Per Each

The 2005 Analysis established a per linear foot cost for all Lynn Canal Highway Bridges. Section 501 (12) of this Update establishes linear foot estimates for bridges within the Sweeny Creek to Katzechin River and Katzechin River to Katzechin Ferry Terminal sections.

With the completion of the design for the Lynn Canal Highway from Echo Cove to Sweeny Creek, quantities were established for the individual bridge components. The November 22 and 24 Lynn Canal Highway Bid Openings only included contractor furnished "Work Bridges" which were to provide construction equipment access. They are not comparable bridges to the permanent bridges and cannot be used for this Update.

The November 27, 2006 Lynn Canal Highway/Bridge Materials – Precast Concrete Bid Opening plus the October 2006 Sunny Point Intersection Improvements Bid Opening can be used to establish the unit price for these items.

Item 501 (7C) Precast Concrete Member (118' Decked Bulb Tee). The November 27, 2006 Lynn Canal Highway/Bridge Materials – Precast Concrete included six of these members for \$221,680.00 total or \$36,946.67 per each.

This price was for 118' Decked Bulb Tees furnished to Juneau but not installed.

The October 2006 Sunny Point Project included 14 each Precast Concrete Members (119'x4'-6" Girders). The two bids for these girders furnished and installed was \$60,000 and \$50,000 per each. These girders are 1' longer however there were 14 compared to the six in the Lynn Canal Highway bid. These Sunny Point girders will be installed in late 2007 or early 2008.

Item 501 (7A, 7B, 7C) Precast Concrete Member

Per Each (cont.)

Taking a conservative approach, the \$60,000 installed price was established as the unit price for the Lynn Canal Highway 118' Decked Bulb Tees.

Dividing the installed price (\$60,000) by the furnished price (\$36,946.67) resulted in a multiplier of 1.6. This multiplier can be used to establish the installed price for different length girders.

Item 501 (7A) Precast Concrete Member (128' Decked Bulb Tee). The November 27, 2006 bid included six each for a total of \$239,840 or \$39,973.33 each. Installed price is $\$39,973.33 \times 1.6 = \$63,957.33 = \$64,000$ per each.

Item 501 (7B) Precast Concrete Member (143' Decked Bulb Tee). The November 27, 2006 bid included 120 each for a total of \$5,293,318 or \$44,110.98 each. Installed price is $\$44,110.98 \times 1.6 = \$70,517.56$, for the Update we use \$70,000. The slight rounding down is due to the large number of girders (120) in Juneau Access compared to the number (14) used to calculate the 1.6 multiplier.

Item 501 (9) Screening Structure Per Linear Foot

The 2005 Analysis included Item 637 (2) Screening Structure per Lump Sum. This Update contains Item 501 (9) Screening Structure per Linear Foot. This change reflects current design quantities and incorporates preliminary recommendations of the December 2006 Lynn Canal Highway, Phase 1, Zone 4, Geotechnical Investigation.

The purpose of the screening structures is to restrict the Gran Point and Met Point Sea Lion Haulouts from access and view. The area to be restricted extends 3000' either side from the main haulout areas. Where the roadway is in a thru-cut within the 3000' restricted areas it will not require separate screening structures and the cost is included in the rock excavation item. The screening structures will consist of a concrete jersey barrier with a 3-4' high screening fence on top or an 8' high chain link fence with screening fabric. Since final design is not completed to determine the length of jersey barrier with screening fence or screening fence, all screening structures are estimated at the higher jersey barrier with screening fence unit price.

This Update includes an increased amount of screening structure compared to the 2005 Analysis. This increase is based on preliminary design and recommendations from the Geotechnical Investigation in the vicinity of the haulouts.

For the purpose of this Update the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this pay item. The Sunny Point Project's bid opening was in October 2006; however the barriers and fences will not be installed until 2008. Therefore this bid was considered to reflect 2008 unit prices.

Item 501 (9) Screening Structure
Per Linear Foot (cont.)

The Sunny Point Project included 1,698 linear foot of concrete barrier. This barrier is 42" high, compared to the usual 32" height and will serve as a visual as well as a sound barrier. The Sunny Point bids for this item were \$90 and \$40 per linear foot. The average of the two bids is \$65 per linear foot. This estimate establishes \$75 per linear foot as the price for the concrete jersey barrier.

The Sunny Point Project also included 880' of 6' high chain link fence and the bids were \$30 and \$20 per linear foot, for an average of \$25 per linear foot.

The Sunny Point fence is 6' high whereas the fence on top of the concrete jersey barrier is only 3-4' high. To be conservative, the chain link fence was established as \$25 per linear foot. Adding the screening fabric was established as \$10 per square foot or \$35 per linear foot. Therefore the estimated price for the screening structures is:

Jersey Barrier (\$75) + Chain Link Fence (\$25) + Screening Fabric (\$35) = \$135 per linear foot.

Item 501 (12) Bridge

Linear Foot

The 2005 Analysis used an estimated linear foot length for all bridges from Echo Cove to Katzehin Ferry Terminal.

This Update uses the completed design quantities plus the November 27 and 29, 2006 Lynn Canal Highway Bridge Materials Bid Openings and October 2006 Sunny Point Bid Opening results to establish unit prices for all bridges with completed designs between Echo Cove and Sweeny Creek. (See Sections 501 (7A, 7B, 7C) and 505 (5, 5A, 5C)).

For the Lynn Canal Highway Sections between Sweeny Creek and Katzehin River and from Katzehin River to Katzehin Ferry Terminal, linear foot estimates were prepared based on similar bridges in the Echo Cove to Sweeny Creek Section.

For the Sweeny Creek to Katzehin River section the bridges are mostly single span with cast in place footings. These bridges are estimated at \$5,000 per linear foot. This is a \$600 per linear foot increase from the 2005 analysis.

For the Katzehin River to Katzehin Ferry Terminal bridges (including the Katzehin River Bridge) the cost per linear foot are estimated at \$6,600. This is a \$2,200 per linear foot increase from the 2005 analysis.

Item 505 (5, 5A, 5C) Furnish Structural Steel Piles
Per Linear Foot

The November 29, 2006 Lynn Canal Highway/Bridge Materials – Steel Piles Contract purchased all the steel piling for all bridges from Echo Cove to Sweeny Creek. This contract is for furnishing and delivering the piles to Juneau.

Item 505 (5) Furnish Structural Steel Pipe Piles – 24 inch Diameter. The November 29, 2006 Bid included 5,628 linear feet for \$628,929 or \$110 per linear foot, and this price is used for this item in the Update.

Item 505 (5A) Furnish Structured Steel Piles – HP 14x117. The November 29, 2006 Bid included 788 linear feet for \$55,554 or \$71 per linear foot, and this price is used for this item in the Update.

Item 505 (5C) Furnish Structured Steel Pipe Piles – 48 inch Diameter. The November 29, 2006 Bid included 15,160 linear feet for \$7,366,244 or \$486 per linear foot for the bare pipe. Since some of the piles are galvanized an average unit price is included in this Update. The extra cost for galvanizing is \$480,556.17 which brings the average unit price to \$517.60. For the purpose of this Update a unit price of \$520 per linear foot was used.

Item 511 (1) Mechanically Stabilized Earth Wall

Per Square Foot

The 2005 Analysis included Item 637 (1) MSE Wall, 543,790 square foot. Based on current design and additional geotechnical investigations, this Update includes 878,306 square foot of MSE Wall. This represents a 62% increase in the quantity of MSE Wall.

The 2005 Analysis for MSE Walls was reviewed and the projects are still considered valid for comparison purposes. These projects were all bid five to six years ago. The 2005 Analysis established the unit price for MSE Wall at \$31 per square foot.

Two recent SE Region projects with MSE Walls were also reviewed. The October 2006 Sunny Point Intersection Improvements Project in Juneau had 37,905 square foot of MSE Wall – Pattern Finish bid at \$50 and \$90 per square foot. The June 2006 South Tongass Highway Project in Ketchikan had 4,993 square foot of MSE Wall at \$35 per square foot (only one bidder).

The Sunny Point Project had higher per square foot costs, however its footings were on soil and some footings required working below the water table which required dewatering. The Sunny Point Project also had some relatively low walls so that the foundation contributed to higher unit prices.

Based on the 2005 Analysis Projects and the 2006 Ketchikan South Tongass Project, the unit price for MSE Wall is established at \$35 per square foot, a \$4 per square foot increase from 2005.

Items 603 (17-24), (17-36), (17-48), (17-60), (17-72), (17-144)
24", 36", 48", 60", 72", and 144" Pipe
Per Linear Foot

Both the November 22, 2006 and November 24, 2006 Lynn Canal Highway Bid Openings included Pipe per linear foot as a bid item. The contractors bid the same amounts for these items on both of their bids.

All pipe for the portion of the Lynn Canal Highway from Echo Cove to Sweeny Creek was purchased under the November 27, 2006 Lynn Canal Highway/Bridge Materials – Steel Culvert. These materials will be furnished to the contractor for the Lynn Canal Highway, and therefore the materials prices will not change.

From the November 22 and 24, 2006 Bid Openings the average price bid for the two bidders, for pipe, was from 6 – 22% lower for the Additive Alternate Pipe (Lace River to Sweeny Creek) than for the same quantity of pipe in the Basic Bid (Echo Cove to Antler River). This reflects the easier construction in the Additive Alternative portion of the project.

Since the terrain from Sweeny Creek to the Katzeihin Ferry Terminal is similar to the Basic Bid terrain, this Update has set the unit prices for pipe at the average of the two bids for the Basic Bid for each item. This higher unit price was even used for the section of work between Lace River and Sweeny Creek which represents an increase of \$220,174 over the average price actually bid for pipe work within this section.

Unit Price Comparison between the 2005 Analysis and the 2007 Update are as follows:

	<u>2005 Analysis</u>	<u>2007 Update</u>
24" Pipe	\$45/LF	\$80/LF
36" Pipe	\$59.50/LF	\$140/LF
48" Pipe	\$76.50/LF	\$190/LF
60" Pipe	N/A	\$290/LF
72" Pipe	\$108/LF	\$350/LF
144" Pipe	N/A	\$750/LF

Item 606 (1) W-Beam Guardrail
Per Linear Foot

The 2006 Lynn Canal Highway Bid Openings were for a Pioneer Road only and did not include W-Beam Guardrail as a bid item.

For the purpose of this Update the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this pay item.

The Sunny Point Project's Bid Opening was in October 2006 for W-Beam Guardrail to be installed in the 2008 construction season.

The Sunny Point Project included 12,101 linear foot of W-Beam Guardrail and the bids were \$25 and \$50 per linear foot.

This guardrail will be installed in 2008 while dealing with 30,000 ADT.

This Update established a unit price of \$25 per linear foot for the East Lynn Canal Highway because the contractor will not have to deal with traffic during installation, and this item is for a much larger volume of work.

This represents a \$9 per linear foot increase over the 2005 analysis.

Item 611 (1) Riprap Per Cubic Yard

The 2005 Analysis also included riprap per cubic yard as a bid item.

Based on current design and additional geotechnical investigations, since the 2005 Analysis, the quantity of riprap has decreased from 574,500 cubic yards to 191,885 cubic yards.

The riprap for the Juneau Access Project will be generated onsite from Project Rock Excavation quantities. The rock excavation bid item includes drilling, shooting, and embanking or disposing of the rock and the rock excavation quantity includes more than enough rock to meet the Project's riprap requirements. Therefore the unit price for riprap only needs to include any additional cost for sorting and placing the riprap on the slopes.

This Update includes 187,500 cubic yards of Class IV Riprap and 4,385 cubic yards of Class II Riprap. For this Update the cost of sorting riprap has been estimated at \$4 per cubic yard and the additional cost of placing riprap at \$4 per cubic yard or \$8 total to sort and place all classes of riprap. All of the Class II Riprap is between the Berner's Bay bridges which require some additional haul from the rock cut. This additional cost is estimated at \$2 per cubic yard.

Therefore for this Update Class II Riprap is estimated at \$10 per cubic yard and Class IV Riprap at \$8 per cubic yard. For the 2005 Analysis all riprap was estimated at \$6 per cubic yard.

Item 640 (1) Mobilization and Demobilization
Per Lump Sum

The 2005 Analysis established the Mobilization and Demobilization at approximately 7.5% of the total Engineer's estimate for all bid items.

This value is confirmed by the October 2006 Sunny Point Project where the average for the two bidders for this item was 7.4%.

The November 22 and 24, 2006 Lynn Canal Highway Project bid Mobilization and Demobilization separately for the Basic Bid and Additive Alternate work. Bids for this work ranged from 3.4% to over 39% with no apparent pattern to the bids. Due to the nature of the bid conditions it is felt that some of this is front loading and/or covering uncertainties.

This Update has increased the Mobilization and Demobilization to approximately 10% to cover the uncertainties reflected in the November 22 and 24 Lynn Canal Highway bids for this item.

Item – Highway Contingency

The first half of the project from Echo Cove to Sweeny Creek has been completely designed and all culvert pipe and bridge support piles have been purchased so the cost to acquire them has been set. For the entire project, the estimate relies primarily on much smaller projects where the work will be completed in 2007 and 2008. These comparison projects are being constructed while maintaining traffic and while working in close proximity to residential areas.

The 2005 Analysis used comparison projects from all over the State in an attempt to find similar items with similar quantities. In most cases the projects were many times smaller than Juneau Access and the estimate applied factors to arrive at a Juneau Access estimate. While the thinking that Juneau Access will receive lower unit prices due to the large volumes of work, ability to use large off-road vehicles, and work with no traffic or residential impacts is still considered valid, it is felt that these factors will have to wait to be applied to later Annual Updates. This will allow the bids generally received for final build-out of the first sections to confirm that these factors have resulted in reduced costs. For this Update, it was decided to use November 2006 Juneau Access bids on unit prices that applied and to use unit prices for other projects in SE Alaska that are currently under construction. This methodology resulted in higher unit prices and an additional contingency is not required.

Additionally, for all projects beyond 2008 future STIPs will include an inflation factor such that the inflation is built into the funding flow. Therefore project funding should be adequate regardless of the year a particular segment is constructed.

Item – Construction Engineering

This item covers the cost for state forces to inspect, monitor and document the Contractor's construction activities. This project will not require traffic control monitoring or utility construction inspection. On large projects the Construction Engineering is a lower percent

of the Engineer's Estimate than on smaller projects. Construction engineering for this Update is estimated at 6%. While the percentage is lower than in the 2005 Analysis, the total amount is higher due to the increase in the estimate for the construction contract work.

Item – 4.88% ICAP

The indirect Cost Allocation Plan (ICAP) is an overhead rate assessed by DOT&PF on all capital projects. For State Fiscal Year 2008 the rate for FHWA Highway projects has been set at 4.88%. This rate is .58% higher than for the 2005 Analysis and is applied to the higher Update estimate.

Item – Preliminary Development

This item is to cover the cost of project development, State legal expenses, design and final permitting. The design from Echo Cove to Sweeny Creek has been completed. The final design from Sweeny Creek to the Katzehin Ferry Terminal will be completed with these funds. This includes ongoing legal support, final design, Geotechnical investigations, and final permitting.

Item – Mitigation

Structural Items:

The FEIS provided itemized mitigation costs totaling approximately \$10 million, with \$7 million in structural features to meet FEIS commitments, and \$3 million for monitoring, fee in lieu payments, and a replacement recreational cabin. The structural features (bridges over anadromous fish streams, bridge extensions over the banks of three rivers, wildlife underpasses on the Antler/Lace peninsula, and 9,800 feet of screening structures at sea lion haulouts) are included as pay items in the Engineer's Estimate and as such are captured in the project construction costs.

After the FEIS and Record of Decision two bridges were added to the design, and have been added to the overall project cost. The Record of Decision included a commitment to bridge all anadromous fish streams. In the spring of 2006 field studies in the Antler/Lace peninsula identified a new tributary of the Lace River that contains rearing Coho salmon. Also, EPA asked, as part of its elevation of the ACOE permit application, that all wetlands adjacent to anadromous fish streams in the Berners Bay area be bridged. Consequently DOT&PF has included a bridge over this stream and adjacent wetlands in its revised ACOE application. The cost of this bridge is included in this Update as Item 501 (12) Beaver Slough Bridge – Complete, \$1,000,000.

During the permit application review period agencies requested we consider locating a wildlife underpass in the Katzechin flats area, and during summer 2006 soil and hydraulic field studies DOT&PF design staff identified an appropriate location. The cost of this bridge is included in Item 501 (12) Bridge Per Linear Foot.

Non-structural items:

The FEIS committed to approximately \$1.7 million for detailed bear, goat, moose, and wolverine population monitoring. These studies are in progress and the funds are encumbered. The FEIS also committed to ongoing bald eagle nests surveys and video monitoring of Gran Point sea lion haulout, with both to continue for five years after construction. Given that construction has been delayed, and funding for project completion will be over a greater period, an additional \$62,000 per year needed to be added to the original estimate. This Item now allows ten years or \$620,000 for this commitment.

The FEIS committed to \$780,000 in fee in lieu for impacts to intertidal and sub tidal habitat, and established a list of priority mitigation projects to be funded. This commitment was the result of the EFH consultation with NMFS. The two highest priority projects are acquisition of a privately held parcel on Pt Bridget peninsula and a sub tidal enhancement. An RSA has been executed with UAF for design, site selection, and post

construction monitoring of the marine enhancement; \$172,000 has been encumbered. The enhancement, estimated to cost between \$50,000 and \$70,000, will be constructed as soon as NMFS is issued a permit. The Southeast Alaska Land Trust is negotiating for the mitigation parcel, estimated to cost approximately \$400,000. At this time \$608,000 is included for this commitment.

The FEIS did not include fee in lieu for forested palustrine wetlands, as no compensatory wetland restoration or protection projects within the affected watersheds were identified, and wildlife underpasses were considered as adequate wetland mitigation. However, during permit application review EPA and the USF&WS requested fee in lieu for offsite wetland conservation acquisition, and the USFS has identified private parcels within the National Forest that meet agency requirements. Based on this DOT&PF included an additional \$315,210 in its revised permit application, which is included in this Update to meet this commitment for sub tidal enhancement and land acquisition.

The commitment to provide a new prefabricated recreational cabin in Berners Bay to replace the loss of remote recreation remains. The USFS estimated this cost to be \$50,000 in 2005. \$60,000 is included in this Update to meet this commitment.

This Update includes a total of \$1,603,210 (rounded to \$1,603,000) to meet mitigation commitments.

Item – Right of Way

This item is to cover the estimated cost of acquiring right of way to construct the State Highway Maintenance Station and public rest area. The estimate has increased for this Update to reflect the intention of purchasing the Comet Camp and Existing Maintenance Building. The current estimate is \$1,500,000.

Item – Maintenance Building and Public Rest Stop

This item covers the cost of constructing a Maintenance Station and Public Rest Stop at Comet for Alternative 2B. The Comet Maintenance Station is estimated at \$1,000,000 to include public restroom facilities.

Item – Avalanche Control CIP

This item is to cover the cost of constructing ammunition storage units, weather stations, and repeaters and to obtain all avalanche maintenance equipment. Costs are taken from the Snow Avalanche Report and increased from \$2,670,000 in the 2005 Analysis to \$3,000,000 in this Update.

Item - Highway Construction Total

The cumulative effect of new Pay items, different Pay Units, Revised Unit Prices and Quantities and current ICAP, over the 2005 Analysis – Engineer's Estimate is to increase the Alternative 2B Highway Construction Total estimate by approximately \$67,565,000.

Items – Terminal Construction and Vessel Construction

The Terminal Construction estimate has changed from \$15,700,000 in the 2005 Analysis to \$16,000,000 in this Update.

The 2005 Analysis estimated the Katzeihin Ferry Terminal as a stand alone project which was consistent with the approved STIP. The 2005 Analysis included the design of the Katzeihin Ferry Terminal Construction Estimate. This Update includes the Katzeihin Ferry Terminal design costs in the overall project design engineering estimate which is consistent with the current STIP which includes the Ferry Terminal with the Highway.

The Vessel Construction Estimate has increased from \$53,000,000 in the 2005 Analysis to \$65,000,000 in this Update, based on AMHS preliminary estimates for the first shuttle and a steel vessel construction cost increase estimate prepared by the original FEIS Marine Segments Report consultant.

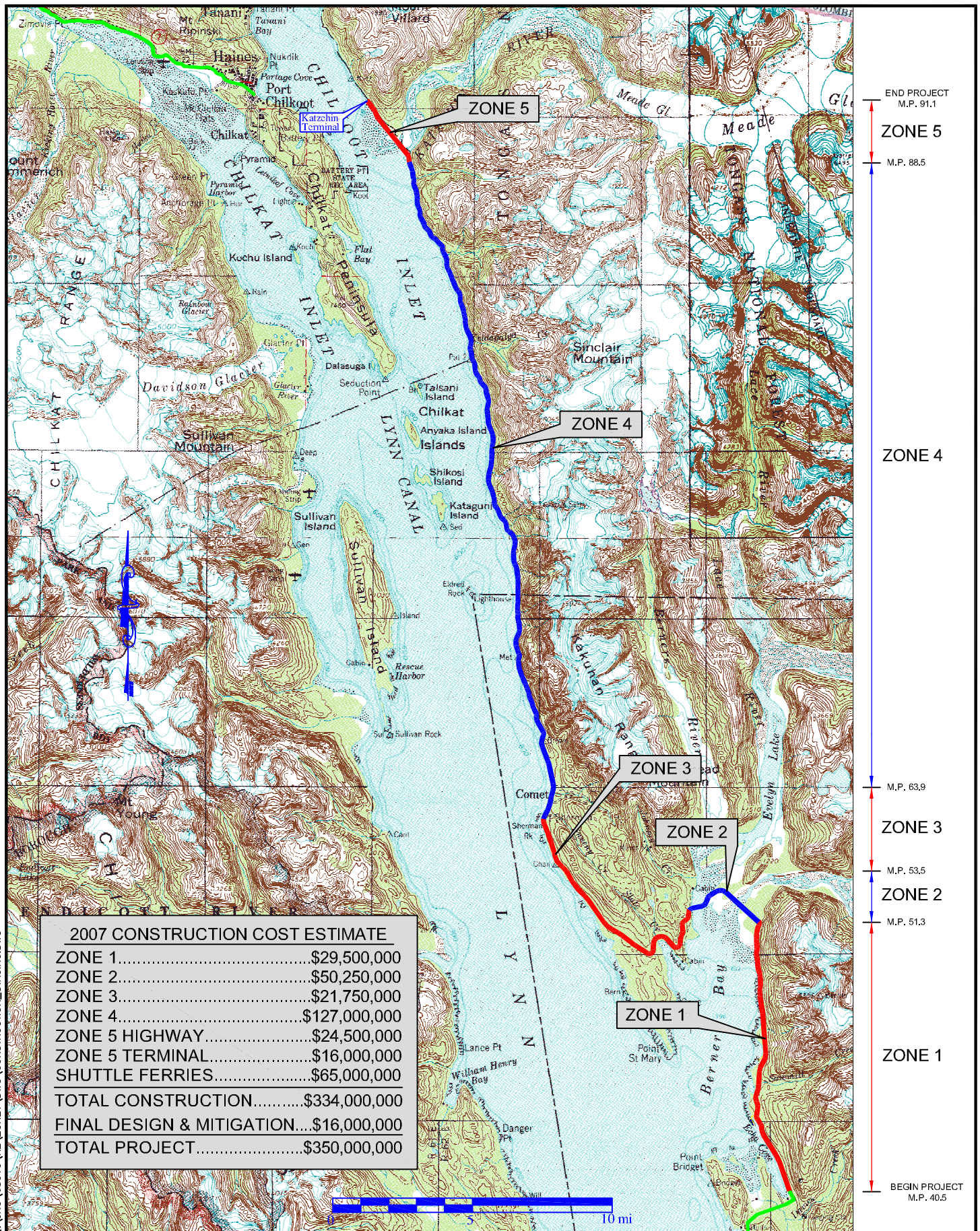
Estimate Summary

The current updated estimate for Alternative 2B, for costs to be incurred after September 30, 2007 is as follows:

Highway and Ferry Terminal Design Engineering	\$14,400,000
Mitigation	\$1,603,000
ROW Acquisition	\$1,500,000
Highway Construction ICAP	\$11,495,000
Highway Construction Engineering & Inspection	\$13,334,000
Avalanche CIP	\$3,000,000
Maintenance Building & Public Rest Stop	\$1,000,000
Highway Construction	\$222,228,000
Katzehin Ferry Terminal	\$16,000,000
Vessel Design & Construction	\$65,000,000
SUBTOTAL	\$349,560,000
Rounding	\$440,000
<u>TOTAL</u>	<u>\$350,000,000</u>

Note: The value of culvert and pipe materials purchased (\$9,157,386) has not been subtracted from this Update Estimate.

ATTACHMENT C
UPDATED ZONE LOCATIONS AND MILE POINTS



ATTACHMENT D

2006-2009 STIP AMENDMENT 13 NEED ID 19214

2006-2009 Alaska Statewide Transportation Improvement Program Amendment 13 (Major) Approved

Need ID: 19214 Region: Southeast

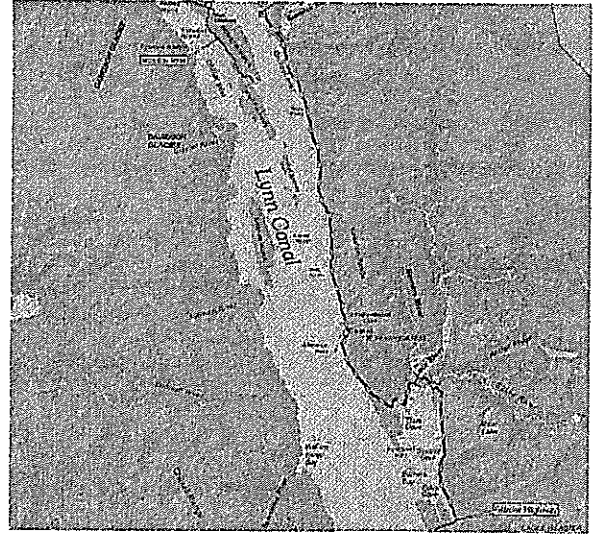
Place Name:

Title:

Juneau Access: Glacier Highway MP 40.5-91.1

Project Description:

Extend State Route 7 northward from its current terminus to the north side of the Katzeihin River delta, in a series of stages, per the preferred alternative in the Final Environmental Impact Statement (EIS) and construct terminal near Katzeihin River.



PHASE	FUNDING	FFY07	FFY08	FFY09	After FFY09
All amounts x1,000 dollars					
Design	HPRL	0	10,465.4	0	
Design	NHS	0.0	0	0	
Design	OSF	0	4,495.7	0	
Design	SM	0.0	1,038.8	0	
Construction	144M	0	24,000.0	10,000.0	
Construction	218A	0.0	0.0	0.0	
Construction	ACC	0	-45,304.3	-12,250.0	
Construction	HPRL	0.0	0.0	2,250.0	
Construction	NHS	0	0	0.0	
Construction	OSF	0	21,304.3	0	
Construction	PSF	0	0.0	0.0	
Construction	SM	0.0	0.0	0	
Totals:		0.0	16,000.0	0.0	100,715.0



ATTACHMENT E

2006-2009 STIP AMENDMENT 13 NEED ID 18359

2006-2009 Alaska Statewide Transportation Improvement Program Amendment 13 (Major) Approved

Need ID: 18359 Region: Marine Highways

Place Name:

Title:

MARINE HIGHWAY Ferry:

Design/Construct/Lease/Purchase Ferryboats & Terminals

Project Description:

Design/construct/lease/purchase ferryboats and terminals for the Southeast Alaska Transportation Plan (SATP) implementation.



PHASE	FUNDING	FFY07	FFY08	FFY09	After FFY09
All amounts x1,000 dollars					
Design	FBDA	5,378.9	557.8	633.3	
Design	SHAK	275.0	0	0	
Design	SM	1,344.7	139.4	158.3	
Totals:		6,998.6	697.2	791.6	65,000.0

Program Type: FERR
Primary Work: Ferry Boats
Secondary Work:
Special Financial:

Project Status	Year
Project Start:	2006
Environmental Clearance:	
Construction Funded:	
Right of Way Authorized:	

Election District(s):

99

PEB Score:

Criteria:

N/A

Borough/Census Area:

VARIOUS BOROUGHS

Municipal Planning Organization (MPO):

non-MPO

Average AADT:

Sponsor:

ADOT/PF

Pavement Rating: N/A

Predominant Functional Class: Unclassified



28 June 2007

VARIOUS BOROUGHS p. 14



ATTACHMENT F

FINANCIAL PLAN UPDATE– LETTER OF CERTIFICATION

3132 Channel Drive
Juneau, Alaska 99801

PHONE: (907) 465-3900
TEXT: (907) 465-3652
FAX: (907) 586-8365

OFFICE OF THE COMMISSIONER

Juneau Access Improvements
Alternative 2B
Financial Plan
2007 Annual Update

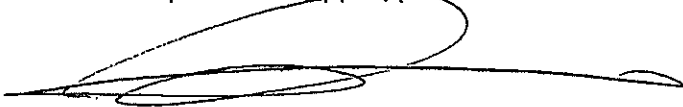
Letter of Certification

The State of Alaska Department of Transportation & Public Facilities (DOT&PF) has developed the 2007 Financial Plan Annual Update (Update) for Juneau Access Improvement Alternative 2B, Project Number STP-000S(131), in accordance with the requirements of Section 106, Title 23, and the Financial Plan guidance issued by the Federal Highway Administration (FHWA). The plan provides detailed cost estimates to complete the project and the estimates of financial resources to be utilized to fully finance the project.

The cost data in the Update include a realistic estimate of future costs based on engineers' estimates and the expected construction cost escalation. While the estimates of financial resources rely upon assumptions regarding future economic conditions and demographic variables, they represent realistic estimates of monies to fully fund the project.

We believe the Update provides an accurate basis upon which to schedule and fund Juneau Access Improvements Alternative 2B. The Department will continue to review and update the financial plan for each Federal Fiscal Year, as explained in the July 25, 2007 letter from DOT&PF Southeast Regional Director Menzies to FHWA Alaska Division Administrator Miller.

To the best of our knowledge and belief, the Update as submitted herewith, fairly and accurately presents the financial position of Juneau Access Improvements Alternative 2B cash flows, and expected conditions for the project's construction. The financial forecasts in the Update are based on our judgment of the expected project conditions and our expected course of action. We believe that the assumptions underlying the Update are reasonable and appropriate. Further, we have made available all significant information that we believe is relevant to the Update and, to the best of our knowledge and belief, the documents and records supporting the assumptions are appropriate.



Leo von Scheben, P.E., L.S., M.B.A Commissioner

Oct 26, 2007

Date