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Submitted by:

Chair of the Assembly at Request of the Mayor

Prepared by:

Department of Traffic

For reading:

February 13, 2007

Anchorage, Alaska AR 2007-46

A RESOLUTION OF THE ANCHORAGE ASSEMBLY RECOMMENDING APPROVAL OF AN AMENDMENT TO THE ANCHORAGE BOWL 2025 LONG-RANGE TRANSPORTIOAN PLAN TO THE ANCHORAGE METROLPOLITAN ARE TRANSPORTATION SOLUTIONS (AMATS) POLICY COMMITTEE THE ANCHORAGE ASSEMBLY ORDAINS: That the Anchorage Bowl 2025 Long-Range Transportation Plan (LRTP) serves as the document to guide transportation decisions for the Anchorage Bowl and an element of the Anchorage Comprehensive Plan. That a new Chapter 12 is being recommended to be added which illustrates the project Section 2: background, description, funding, effects on population & employment at a planning level, attached hereto as Attachment A. That the existing Anchorage Bowl 2025 LRTP text and table 8 will require changes to reflect Section 3: consistency with the new Chapter 12. These changes are illustrated in the Errata Sheet, attached hereto as Attachment B. That the Assembly has reviewed the proposed amendment to add the Knik Arm Crossing Section 4: project as described in a new Chapter 12 and the Errata Sheet and recommends approval to amend the LRTP to the Anchorage Metropolitan Area Transportation Solutions (AMATS) Policy Committee. Section 5: This resolution shall become effective immediately upon passage and approval by the Anchorage Assembly, PASSED AND APPROVED by the Anchorage Assembly this _____ day of _____ 2007. Chair

ATTEST:

Municipal Clerk

[Attachments]

Attachment A- Chapter 12, "The Knik Arm Crossing Project" (16 pages)

Attachment B- LRTP Errata Sheet (4 pages)

MUNICIPALITY OF ANCHORAGE Summary of Economic Effects - General Government

AR Number: 2007-46 A RESOLUTION RECOMMENDING ADOPTION OF AN AMENDMENT TO THE ANCHORAGE LONG-RANGE TRANSPORTATION PLAN (2025)

Sponsor: Mayor

Preparing Agency: Traffic Department

CHANGES IN EXPENDITURE	S AND REVENU	ES: (1	(Thousands of Dollars)				
			FY03	FY04	FY05		
Operating Expenditures							
1000 Personal Services 2000 Supplies							
3000 Other Services							
4000 Debt Service							
5000 Capital Outlay							
TOTAL DIRECT COSTS:					*******		
Add: 6000 Charges from Others				*			
Less: 7000 Charges to Others							
FUNCTION COST:							
 REVENUES:							
CAPITAL:	**********						
POSITIONS: FT/PT and Temp.							
					_		

PUBLIC SECTOR ECONOMIC EFFECTS:

The Anchorage Long-Range Transportation Plan (LRTP) provides a guide for directing transportation improvements in the Anchorage Bowl. The nearly \$3 billion in transportation improvements recommended in the LRTP provide a significant benefit to the overall economic vitality and the quality of life by improving the accessibility and mobility of goods and people throughout the Anchorage Bowl. Without this plan neither the Municipality nor the Alaska Department of Transportation & Public Facilities are eligible to receive the estimated annual \$60M in federal funding for improving the transportation system of roads, trails, pedestrian safety, and transit.

This Amendment adds the Knik Arm Bridge project to the LRTP roadway list. The bridge component of the project is proposed to be a 8,200 foot, pier supported bridge with causeway approaches that will connect the Mat-Su Borough (at Point McKenzie) to the Municipality of Anchorage north of Cairn Point. The project also includes connections to the Anchorage roadway system via a new road to be constructed following the Anchorage shoreline and western perimeter of Elmendorf Air Force Base at the bottom of the bluff to Cairn Point, which will then continue south, closely following the natural curvature of the shoreline to the Port of Anchorage. The project also includes a cut-and-cover tunnel under Government Hill, either along a Degan Street- or Erickson Street-area alignment that will connect the Port of Anchorage to the A/C Viaduct.

The cost of the project is estimated to be about \$600 million. According to the Knik Arm Bridge and Toll Authority (KABATA) the project will be funded through a combination of public and private money (see Table 1). The private equity portion of the funding is expected to be financed through the collection of a bridge toll.

Table 1

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THE RESPONDENCE OF THE PROPERTY OF THE PARTY	Sing	поледу	 e falls		igett (i
Federal NHS allocation	\$	56.1	\$ 37.5	\$	93.6
State NHS match		11.2	7.5		18.7
State Capital Improvement Grant		-	15.4		15.4
Federal Capital Improvement Grant		10.0	-		10.0
Toll revenue backed funding sources	•	238.7	 159.7		398.4
Total Initial Construction Funding	<u>\$</u>	316.0	\$ 220.1	<u>\$</u>	536.1

The LRTP is required by federal regulations to be financially constrained. In other words, the estimated cost of the projects must be covered by the projected revenues. The previous financial analysis conducted for the 2005 Anchorage Bowl Long-Range Transportation Plan showed that the amount of estimated future revenues was just barely sufficient to cover the cost of the roadway projects recommended in the Plan. As a result, it is critical to the implementation of the Long-Range Transportation Plan to separate the funding for the Knik Arm Crossing project from the rest of the funding for the LRTP. Towards this end, wording has been included in Chapter 12 which states that, "In order to make a finding of financial constraint for the Knik Arm Crossing, it is necessary to impose the following condition that no additional state funds and no additional federal transportation funds beyond which is currently authorized will be used to finance the project (including both Phase I and II),

KABATA will be responsible for the operation of the bridge with the State of Alaska responsible for maintaining the new roadway connection between the bridge and the terminus of the project at 3rd Avenue

The economic impact of the bridge on the public sector tax revenues and budget needs has been extensively studied as part of the environmental review for the project. Section 4.2.3 Impacts on Community Facilities, Public Services, and Fiscal Conditions of the DEIS states:

"By 2010, Anchorage population would have grown to 297,300, with 111,300 households and 103 schools. Compared with the No-Action Alternative, Anchorage population would be larger by about 2,200 people and 800 households. An additional 500 school children would require about one more school.

Property tax revenues would be \$350.2 million and other taxes would be \$21.4 million. Relative to the No-Action Alternative, this represents an increase of \$2.6 million in property taxes and \$200,000 in other taxes. Government spending would be higher. Anchorage spending would increase by \$5 million. An additional \$500,000 would be included in both the APD and AFD budgets. The ASD budget would increase by \$4.7 million."

Page 4-65 states: "By 2030, Anchorage population would have grown to 345,400, with 129,400 households. The ASD would need about 120 schools to handle its student population of 76,100. The population in Anchorage would continue to grow, but the No-Action Alternative would result in 16,300 more people, or about 6,100 more households than would be the case under the build alternatives. The No-Action Alternative would also have a slightly larger school population (3,600 more students), which would require 6 more schools than would the build alternatives.

Property tax revenues would be \$406.9 million under the build alternatives, but the No-Action Alternative would be about \$19.2 million more. Other taxes would provide revenues of \$24.9 million under the build alternatives, but \$1.2 million more would be raised under the No-Action Alternative. Under the No-Action Alternative, the Anchorage budget would be higher by about \$36.6 million, with the APD and AFD budgets higher by \$6.8 million, and the ASD budget higher by \$35.1 million. Overall, the No-Action Alternative would have higher tax revenues and require higher budgets than would be the case under the build alternatives."

PRIVATE SECTOR ECONOMIC EFFECTS:

The economic impact of the bridge on the private sector has also been extensively studies as part of the environmental review for the project. The report titled "Memorandum on the Economic and Demographic Impacts of a Knik Arm Bridge" published by ISER at UAA in Sept 2005 concludes that the primary effect of the bridge would be a redistribution of population and jobs out of Anchorage and into the Mat-Su. Anchorage population and job growth will be lower with the bridge than it would have been without the bride. According to this report, by the year 2015, the bridge would cause Anchorage population to be 1% lower than it would have been without the bridge. By the year 2020, Anchorage population and jobs would be 2% lower than it would have been without the bridge. By 2025, Anchorage population and jobs would be 3% lower than it would have been without the bridge (page 18, Tables 9 and 10) (http://www.iser.uaa.alaska.edu/Publications/Knik_Report_Sept05.pdf).

With respect to the impact of the Knik Arm Bridge on Municipal property values, the only currently available information is found in the Draft EIS for the Knik Arm Bridge prepared by KABATA. Section 4.1.1.2.4 Indirect Impacts under Build alternatives, addresses property values. This section essentially states that with the bridge there would be a lower demand for housing in Anchorage resulting in slower appreciation in housing values that would otherwise occur with the population and economic growth that is predicted regardless of whether the bridge is built or not. This effect would be expected to be greater in the Chugiak-Eagle River area than in the Anchorage Bowl. In Section 4.9.3 Reasonably Foreseeable Future Actions Affecting the Environment, Table 4.5 lists 45 different events that could happen within the next 20 years that could increase the demand for housing, such as the Natural Gas Pipeline or new Airborne Brigade with 2,600 new soldiers to the area. These events, among others, would also affect housing demand and property values. Project economists estimate the shifted population and employment from the MOA would be replaced in 3 or 4 years at current growth rates, and thus affects would not be that substantial.

Prepared by:

Jon R. Spring

Senior Transportation Planner

Telephone: 343-7994

MUNICIPALITY OF ANCHORAGE

ASSEMBLY MEMORANDUM

No. AM 149-2007

Meeting Date: February 13, 2007

From:

MAYOR

Subject:

A RESOLUTION OF THE ANCHORAGE ASSEMBLY RECOMMENDING APPROVAL OF AN AMENDMENT TO THE ANCHORAGE BOWL 2025 LONG-RANGE TRANSPORTATION PLAN TO INCLUDE THE KNIK ARM CROSSING.

On behalf of the Knik Arm Bridge and Toll Authority (KABATA) the Administration requests the Municipal Assembly to consider an amendment to the Anchorage Bowl Long-Range Transportation Plan (LRTP) 2025 to include the Knik Arm Crossing Project. The Municipal Assembly is being asked to formally recommend approval of the amendment to the Anchorage Metropolitan Area Transportation Solutions (AMATS) Policy Committee, which will then transmit the same to the Federal Highways Administration.

KABATA was established by the Alaska Legislature with the specific mission to "...develop, stimulate, and advance the economic welfare of the state and further the development of public transportation systems in the vicinity of the Upper Cook Inlet with construction of a bridge to span Knik Arm and connect the Municipality of Anchorage and the Matanuska-Susitna Borough" (Alaska Statutes [AS] 19.75.011). The project has now advanced to the Draft Environmental Impact Statement phase and a preferred alternative has been identified. In order for the Knik Arm Crossing project to receive a Record of Decision (ROD) from the Federal Highway Administration, it is necessary for the project to be included in the Anchorage Long-Range Transportation Plan and complete an Air Quality Conformity Determination. The alternative which was the subject of the Draft EIS and is the project carried forward in this amendment to the LRTP is described below.

The total length of the project from the intersection of Point MacKenzie and Burma Roads to the A/C Couplet and Ingra/Gambell Couplet is approximately 19 miles. The preferred alternative assumes construction of a 8,200 foot, pier supported bridge with causeway approaches that extend 2,000 feet from the western shore and 3,300 feet from the eastern shore. The project would be phase-constructed, with an initial minimum two-lane bridge and a connection to the A/C Couplet in Phase 1 with an expansion of the bridge to four lanes and connection to the Ingra/Gambell Couplet constructed in Phase 2.

On Anchorage side of the project, within the AMATS boundary, the project follows the Anchorage shoreline and western perimeter of Elmendorf Air Force Base at the bottom of the bluff to Cairn Point, and then continues south, closely following the natural curvature of the shoreline. The project includes a cut-and-cover tunnel under Government Hill, either along a Degan Street- or Erickson Street-area alignment.

Three key issues that pertain to the adoption of this amendment include:

1. The creation of a firewall between the financing of the Knik Arm Crossing project and the rest of the projects in the LRTP.

The previous financial analysis conducted for the 2005 Anchorage Bowl Long-Range Transportation Plan showed that the amount of estimated future revenues was just barely sufficient to cover the cost of the roadway projects recommended in the Plan. As a result, it is critical to the implementation of the Long-Range Transportation Plan to separate the funding for the Knik Arm Crossing project from the rest of the funding for the LRTP. Towards this end, wording has been included in Chapter 12 which states that, "In order to make a finding of financial constraint for the Knik Arm Crossing, it is necessary to impose the following condition that no additional state funds and no additional federal transportation funds beyond which is currently authorized will be used to finance the project (including both Phase I and II),

2. Mitigation of the impacts of the cut-and-cover tunnel and approaches on the Government Hill neighborhood.

There is a concern regarding the impacts of the cut-and-cover tunnel on the air quality, noise, and neighborhood cohesion on the historic Government Hill neighborhood. Additional wording needs to be included in the amendment (similar to that which was used to describe the mitigation measures that are to be considered during the design of the highway-to highway project through Fairview) to protect the neighborhood as much as possible from adverse impacts from the project. The Planning and Zoning Commission is expected to propose such language at their February 12th meeting.

3. Timing of complementary road projects

The Knik Arm Crossing project works best with the Highway-to-Highway project and Ingra-Gambell connector. Although many trips crossing the Knik Arm Bridge will be destined to downtown, most will be traveling to destinations scattered throughout the Anchorage Bowl. A direct connection from the Knik Arm Bridge to the freeway system via a new Ingra-Gambell connection over Ship Creek will be needed to efficiently handle these bridge-related trips. As a result, it is recommended that the Highway-to-Highway project and Ingra-Gambell project be accelerated as fast as possible. KABATA has committed to funding a reconnaissance study of the Ingra-Gambell connector upon the start of the Knik Arm Crossing construction.

The Planning & Zoning Commission held a public hearing on January 29, 2007 and continued their deliberations until February 12 at which time a recommendation and resolution is expected on the proposed amendment to the LRTP. The recommendation of the P&Z will be made available for Assembly consideration prior to final action by the Assembly.

THE ADMINISTRATION RECOMMENDS APPROVAL OF THE RESOLUTION RECOMMENDING THE KNIK ARM CROSSING AMENDMENT TO THE ANCHORAGE BOWL 2025 LONG RANGE TRANSPORTATION PLAN.

Prepared by: Lance Wilber, AICP, Director, Traffic Department

Concurred by: Denis C. LeBlanc, Municipal Manager

Respectfully submitted: Mark Begich, Mayor

Attachments:

 Attachment 1– PZC Issue/Response 020507 (8 pages)

Attachment 2 – PZC Issue/Response 021207 (8 pages)

Chapter 12. The Knik Arm Crossing Project

Introduction

previous chapters, the LRTP endorsed the completion of the Knik Arm Crossing project's environmental and This LRTP is amended to include an additional chapter on the Knik Arm Crossing project. As noted in the Crossing Draft Environmental Impact Statement and Draft Section 4(f) Evaluation" in September 2006. A public review of the Knik Arm Crossing Amendment to the Long-Range Transportation Plan was initiated engineering studies, but it stopped short of including the Knik Arm Crossing project as part of the planned roadway network, partly because transportation policy makers wanted to make their decision based on the project's environmental impact. This information became available with the release of the "Knik Arm shortly thereafter. This amendment includes the following actions:

Introduction 1 Background 1 Project Description 2 Funding 4 Population and Employment Growth ... 8 Future Transportation Impacts ..10

- Amends the LRTP to include the Knik Arm Crossing project as a regionally significant project.
 - Extends the planning horizon of the Anchorage Bowl LRTP to 2027.
- Supports the designation of the project alignment as part of the National Highway System and updated the Official Streets and Highways plan to reflect such designation.
 - Adopts the regional Air Quality Conformity determination on the project in accord with the Clean Air Act.

These steps are required by federal law (23 USC 134) for all projects considered regionally significant.

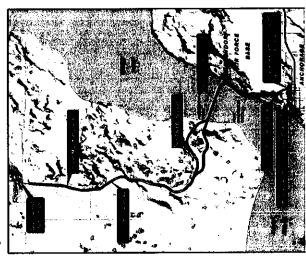
Background

construction of a bridge to span Knik Arm and connect the Municipality of Anchorage and the Matanuska-Susitna Borough" (Alaska Statutes [AS] The Alaska Legislature established KABATA in 2003 as a public corporation and an instrumentality of the State of Alaska within the Alaska Department of Transportation and Public Facilities (ADOT&PF). The specific mission of KABATA is to "...develop, stimulate, and advance the economic welfare of the state and further the development of public transportation systems in the vicinity of the Upper Cook Inlet with 19.75.011).

Project Description

Borough (Mar-Su), as noted on Figure 12-1. The total length of the project from the intersection of Point MacKenzie and Burma Roads to the A/C The Knik Arm Crossing project is a roadway and bridge crossing of Knik Arm connecting the Municipality of Anchorage (MOA) and the Mat-Su Couplet and Ingra/Gambell Couplet is approximately 19 miles. The preferred alternative assumes construction of a 8,200 foot, pier supported bridge with causeway approaches that extend 2,000 feet from the western shore and 3,300 feet from the eastern shore. The project would be

Figure 12-1 The Knik Arm Crossing Project

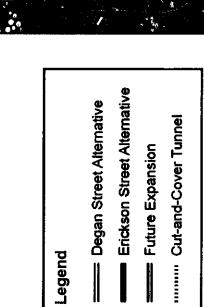


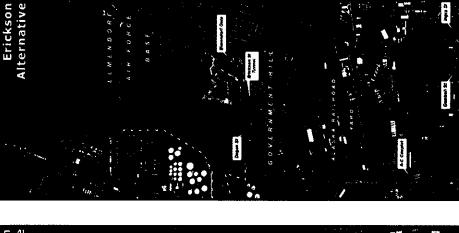
phase-constructed, with an initial minimum two-lane bridge and a connection to the A/C Couplet in Phase 1 with an expansion of the bridge to four lanes and connection to the Ingra/Gambell Couplet constructed in Phase 2. The project is classified as a rural principal arterial in the Mat-Su and across Knik Arm, transitioning to an urban principal arterial in Anchorage in the vicinity of the Port of Anchorage (POA). The following page describes in more detail the part of the project within the MOA and AMATS LRTP boundary.

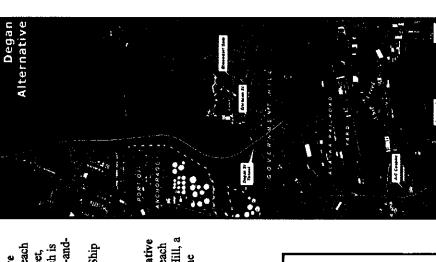
In Anchorage, the project follows the Anchorage shoreline and western perimeter of Elmendorf Air Force Base at the bottom of the bluff to Cairn Point, and then continues south, closely following the natural curvature of the shoreline. The project includes a cut-and-cover tunnel under Government Hill, either along a Degan Street- or Erickson Street-area alignment. Initial construction would include a connection to the existing A-C Couplet. Due to the impact of the bridge traffic on downtown streets, work on the design of the connection to a new viaduct (elevated bridge) across the Ship Creek rail yard to connect with the Ingra-Gambell Couplet should begin as soon as possible after the bridge is opened. Figures 12-2 and 12-3 depict the project in more detail.

Figure 12-2. Key features of the Degan Alternative Phase I include a four-lane roadway (two-lanes in each direction), a cut-and-cover tunnel under Degan Street, and a connection to the A/C Coupler. Phase 2, which is basically the same for both alternatives includes on-and-off ramps and an additional connection to the Ingra/Gambell Couplet via a new viaduct over the Ship Creek area

Figure 12-3. Key features of the Erickson Alternative Phase 1 include a four-lane roadway (two-lanes in each direction), on and off ramps north of Government Hill, a tunnel under Erickson Street, and a connection to the A/C Couplet.



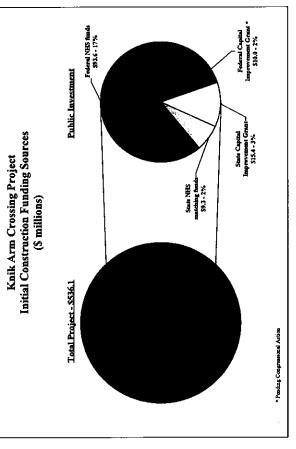




Alaska Legislature appropriated \$93.6 million of the \$232 million of federal-aid highway funds originally earmarked by Alaska's Congressional the other LRTP projects discussed in the body of the LRTP. In other words, the project would not require any future federal or state funding for According to KABATA's conceptual financial plan, the Knik Arm Crossing project would have no effect on the ability to finance or implement delegation for the Knik Arm Crossing in the SAFETEA-LU transportation bill. The Alaska Legislature also authorized state matching funds of construction, operations and maintenance, or future capacity requirements, beyond what the Alaska Legislature has already appropriated. The

KABATA was established by the Alaska Legislature \$9.3 million when it provided spending authority for as a toll authority, and the toll revenue generated by potential for tolls means that KABATA can borrow expense. Tolls provide ongoing revenue, and the users is expected to pay for most of the cost of the federal funds.

the project based on work performed by Wilber-Smith KABATA. Remaining net toll revenue would then be construction and all of the operation and maintenance expansion. After initial construction, traffic levels are projected to provide adequate toll revenue to support used to pay principal and interest on loans, provide funds for construction. Money from toll collection maintaining the crossing, the cost of collecting the returns to investors, and fund investment in future tolls, and general and administrative expenses of Associates, KABATA's traffic and revenue would first be used to pay for operating and



stipulate that a financial plan demonstrate the consistency of proposed transportation investments with available projected sources of revenue. The existing and planned sources of funds available to pay for the project. The sections that follow present this information. For more information see description of the Knik Arm Crossing project includes estimates of costs that would be required to implement the project as well as estimates of the "Knik Arm Crossing Project Conceptual Plan Overview" (March 2006) Federal planning requirements for metropolitan areas

Cost Estimate for Initial Construction

Preliminary engineering estimates (independently confirmed by a Federal Highway Administration cost estimate review) indicate project costs for initial construction through opening clustering around \$530-\$540 million (in 2005 dollars). Initial construction includes improvements to existing roadways and development of connectors in the Mat-Su Borough, the bridge and approaches, a road below the bluff around Cairn Point and behind the Port of Anchorage, and a tunnel under Government Hill, ultimately connecting to the A/C Couplet. A toll plaza and lanes are also included in the initial construction. Project cost information for the project's initial construction, including contingency costs, is included in Table 12-1.

Proposed Funding Package for Initial Construction

The funding package to complete the initial construction of the project is anticipated to consist of approximately \$128 million in toll revenue backed financing and approximately \$128 million in public investment, or 76 percent and 24 percent, respectively, of initial construction costs. The projected funding package for initial construction, including jurisdictional allocations between Anchorage and the Mat-Su, is included in Table 12-2. The previous financial analysis conducted for the 2005 Anchorage Bowl Long-Range Transportation Plan showed that the amount of estimated future revenues was just barely sufficient to cover the cost of the roadway projects recommended in the Plan. As a result, it is critical to the implementation of the Long-Range Transportation Plan to separate

the funding for the Knik Arm Crossing project from the rest of the funding for the LRTP. In other words, there shall be no diversion of additional funds to the Knik Arm Crossing project beyond the amount of federal and state money already allocated (see table 12-2).

	Table 12-1				
	Mat-Su road work	64)	ı	69	30.0
	Toll plaza and lanes		8.5		8.5
	Toll bridge and abutments		181.7		181.6
	Cairn Point/below the bluff road		62.5		•
٩	Government Hill cut-and-cover tunnel		63.3	١	
ì	Total Initial Construction Costs	63	\$ 316.0 \$ 220.1	S	220.1
		I		Į	

363.3

63.3

536.1

S

17.0

Table 12-2

0.1 \$ 536.1	\$ 22	\$ 316.0	Total Initial Construction Funding \$ 316.0 \$ 220.1 \$ 536.1
159.7 398.4	15	238.7	Toll revenue backed funding sources
- 10.0		10.0	Federal Capital Improvement Grant
15.4 15.4	-	•	State Capital Improvement Grant
7.5 18.7		11.2	State NHS match
\$ 37.5 \$ 93.6	₩ 69	\$ 56.1	Federal NHS allocation

Cost Estimates for Future Expansion

for the Mat-Su road improvements. Projected cost information for expected future expansion requirements is included in the Table 12-3. superstructure, and Mat-Su road improvements at some point in the Nevertheless, KABATA's financial feasibility model demonstrates estimates. The Ingra/Gambell connection is estimated to cost \$219 that there would be sufficient surplus toll revenues available to pay Ingra/Gambell interconnection, the addition of a lane to the bridge upgrades are estimated at \$43 million in 2006 dollars, but are not estimated to cost \$130 million in 2006 dollars. The Mat-Su road future. Total anticipated future expansion costs are projected at \$392 million in 2006 dollars based on preliminary engineering fraffic forecast and capacity analysis indicates the need for an million in 2006 dollars and the bridge deck lane addition is expected to be required within the LRTP planning horizon.

\$ 391.9 \$ 108.0 43.2 2 % **2** 284.0 219.2 S Total Future Expansion Costs Mat-Su road upgrades Bridge deck lane addition Ingra/Gambell connector **Fable 12-3**

43.2 129.5 219.2

Proposed Funding Package for Future Expansion

including the Mat-Su road upgrades which are expected to be beyond has not been done to determine if there would be sufficient toll funds funding sources between Anchorage and the Mat-Su in present value backed financing if they are opened in 2023. However, an analysis available to finance the Ingra-Gambell connection if it was needed combination of accumulated surplus toll revenues and toll revenue the LRTP planning horizon. For more information on this funding earlier. Table 12-4 shows jurisdictional allocation of anticipated dollars for all of the anticipated future expansion requirements, potential future expansion requirements can be paid for from a The KABATA financial feasibility model shows that all of the scenario see the "Knik Arm Crossing Project Conceptual Plan Overview" (March 2006).

	Table 12-4							
S	AMATS LRTP (pre-existing) Toll revenue backed funding sources	643	26.0 \$	6-9	108.0	8	26.0	
ē.	Total Future Expansion Funding	S	283.9	S)	283.9 \$ 108.0 \$ 391.9	S	391.9	

Note: "AMATS LRTP (pre-existing)" is LRTP programming related to the Glenn/Seward Highway connection.

Project Operations and Maintenance

under the National Highway System (NHS). Given the regional significance of the project, it is recommended that the landside connections linking owned by KABATA including the bridge, the approaches, and the toll facilities. KABATA has also entered into a Memorandum of Understanding for debt service, returns to private equity and investment in future expansion to serve growing traffic demand. The financial feasibility analysis for the operation and maintenance of this project therefore assumes that no state or federal funds will be used to maintain and operate the facilities with the Mat-Su Borough and ADOT&PF to assign the operations and maintenance of the roads on the Mat-Su side of the crossing to ADOT&PF In modeling the financial feasibility of the project, KABATA assumed that toll revenues would first be used to pay for operating and maintaining the crossing, the cost of collecting the tolls, and general and administrative expenses of KABATA. Any remaining revenues would then be used the Knik Arm Bridge to the existing Anchorage road network, including the future Ingra-Gambell connection be listed as part of the National Highway System. As a result of this designation, the ADOT will be responsible for the maintenance of these facilities.

Conclusions

into an agreement to take on the responsibility to maintain the landside connections required to link the bridge to the existing Anchorage roadway In order to make a finding of financial constraint for the Knik Arm Crossing, it is necessary to impose three conditions. First, no additional state construction of the Ingra-Gambell connection over Ship Creek will need to be delayed until 2023 or after. Third, the State of Alaska will enter or federal money will be used to finance the project (including both Phase I and II) beyond that which is currently authorized. Second, the

Population and Employment Growth

the bridge (on population and employment) will be slow at first but will accelerate as the supporting infrastructure (roads, schools, and utilities) is developed. Due to the opening of the bridge, Anchorage is projected to lose 4,900 households (or 12,900 people) and 5,800 jobs to the Mat-Su Borough that it would otherwise be expected to capture (by 2027). on the relative share of population, households, and jobs growth between the Municipality of Anchorage and the Mat-Su Borough. The impact of employment. However, by providing access to a large supply of vacant land in the Mat-Su borough, the Knik Arm Crossing will have an impact As Table 12-5 reports, the Knik Arm Crossing project is expected to have little effect on the overall regional growth in terms of population and

Table 12-5. Projected 2027 Population, Households and employment (jobs)

220,400	197,100	524,600	221,000	196,900	009'279	Total Region
50,200	67,600	185,500	45,000	62,500	171,600	Total Mat-Su area
170,200	129,500	339,100	176,000	134,400	352,000	oral Anchorage area

Source: Draft Memorandum on the Economic and Demographic Impacts of a Knik Arm Bridge, ISER, September 2005.

In its "Memorandum on the Economic and Demographic Impacts of a Knik Arm Bridge:" (September 2005), ISER listed the following assumptions regarding the economic effects of the bridge that might have an effect on transportation patterns in the region:

- A bridge results in a modest shift in basic sector activity from Anchorage to Point MacKenzie region of the Mat-Su Borough. This is most likely to be warehousing and other businesses that require large amounts of land. The accompanying shift would initially be modest and some workers at these jobs might commute from Anchorage.
- Over the longer term there will be a modest shift in some other basic sector jobs to the Mat-Su Borough that would other wise locate in anchorage, for example, tourism and recreation. •

- Growth in the other basic industries in the Mat-Su Borough, including mining and timber, is not significantly impacted by the bridge.
- The bridge increased the attractiveness of commuting by workers living in the Mat-Su Borough but working in Anchorage. However, the increase is limited by the number of Anchorage jobs that pay enough to support the cost of a commute.
- source of new commuters will be the result of job separations. In other words, newly hired workers that are new to the region are the most likely to choose to commute. Currently employed workers are less likely to consider a move. Most Anchorage workers in jobs with a wage high enough to consider commuting will continue to choose not to commute. The largest
- The growth of support jobs in the Mat-Su Borough does not significantly increase their draw from the Anchorage market. (Only a limited number of Anchorage residents make shopping trips to the Mat-Su Borough.)
- Population growth in the Mat-Su Borough is constrained by the number of jobs in the Borough and the number of residents who commute to jobs outside the Borough (primarily Anchorage).
- Increased access to developable land in the Mat-Su Borough will not result in an absolute reduction in population in Anchorage. Some of the projected increase in population in the Greater Anchorage-Mat-Su Borough region will choose to live in Anchorage.

raffic on the Glenn Highway coming into Anchorage which is about the same with or without the bridge. Since the primary impact of in order to determine its impacts as well as the potential need and timing of roadway improvements needed to accommodate the bridge traffic. According to the regional model results, the opening of the bridge does not seem to have a significant effect on the amount of network. As a result, it is important to analyze the effect of this traffic on the existing and planned Anchorage transportation network Based on regional model estimates prepared by HDR, Inc. it is predicted that about 33,500 vehicles will cross the Knik Arm Bridge per day by the year 2027. If this projection becomes reality, it would add a significant amount of traffic to the Anchorage roadway Future Transportation Impacts of the Knik Arm Bridge on the Anchorage Transportation System the bridge traffic is expected to be in downtown Anchorage, the analysis focuses on this area.

In order to conduct this analysis, the following three scenarios were developed and analyzed:

Scenario 1 - The Knik Arm Bridge with the Ingra-Gambell connection in Anchorage as well as all roadway improvements recommended in the adopted AMATS Long-Range Transportation Plan. Scenario 2 - The Knik Arm Bridge with an A/C Couplet roadway connection but no Ingra-Gambell connection; all roadway improvements recommended in the adopted AMATS Long-Range Transportation Plan are included. Scenario 3 - The Knik Arm Bridge with only an A/C Couplet roadway connection (no Ingra-Gambell connection) and all LRTP improvements except for the Glenn Highway-to-Seward Highway connection.

Scenario

According to the DEIS report prepared by the KABATA, the Ingra-Gambell connection from Government Hill across Ship Creek to 3rd Avenue will be needed by the year 2023 in order to alleviate traffic congestion on the existing A/C Viaduct.

connection. It appears from this result, that the A/C viaduct will still be heavily used carrying about 25,850 trips per day (compared to a little over 16,000 in 2005). Given the relatively rapid drop-off of traffic south of 6th Ave. it appears that most of the bridge traffic on traffic coming over Ship Creek into Anchorage, 44% is expected to travel over the A/C Viaduct and 56% over the new Ingra-Gambell the A/C couplet is destined to downtown. The Ingra-Gambell connection to the highway-to-highway project makes that routing more thus appears that the Ingra-Gambell connection is an essential improvement needed to relieve the traffic congestion in the core of the efficient for travelers coming from Port McKenzie with destinations to other parts of the Anchorage Bowl outside of downtown. It Figure 12-4 from this AMATS analysis shows the distribution of traffic that is projected to occur as a result of Scenario 1. Of the

downtown (as elaborated in Scenario 2). According to an analysis conducted by HDR for the Draft EIS (see table 12.7) the level of service for intersections in the downtown area seems to be at an acceptable level under this scenario.

3rd and 6th Avenues) may experience an increase in congestion due to the opening of the bridge. will nearly double the amount of traffic in the downtown area along the A and C area attempt to connect to the freeway system in order to travel to other parts of estimated 46,000 trips per day using the A/C Viaduct under this scenario which area between the A/C corridor and the Highway-to-Highway corridor (formerly Scenario 2 explores the impact on the Anchorage roadway network of the Knik Street corridor between 3rd and 6th Avenues. More traffic from the bridge will Anchorage. According to Figure 12-7, the eastern part of downtown (between also pass through downtown streets via the A/C Street corridor to destinations in the midtown area. Higher traffic volumes will also occur in the downtown Ingra-Gambell corridor) as Mat-Su Valley travelers from the Port McKenzie Arm Bridge without the Ingra-Gambell connection over Ship Creek. In this scenario, the only route connecting the Knik Arm Bridge to the Anchorage Bowl is the existing A/C Viaduct. Figure 12-6 shows that there will be an

ပ 8 ω ω 0 œ **~** Table 12-7. 2030 Peak Hour Level of Service ω 8 8 ω 0 O 2 Φ άů 00 8 8 ω Φ ω 00 4 œ œ ø Gambell <u>ද</u>ි දු CS 8 S S ASt Ø Ocean Pock Ave A Ave. Ave. Ave. **E**0 5

connection over Ship Creek or the Highway-to-Highway connection. The intent of this scenario was to examine the interdependencies Ingra - Gambell connection or the Highway to Highway improvements, the A/C corridor will be among the highest volume arterials in the city, carrying over 55,000 vehicles per day between 3rd Avenue (downtown) and Northern Lights Blvd. (midtown). A/C will increase in congestion along this corridor, especially during the peak periods. Parts of eastern downtown will also carry significant Scenario 3 explores the impact of the Knik Arm Bridge on the Anchorage transportation network without either the Ingra-Gambell between the Knik Arm Bridge and the Highway-to-Highway connection. Figure 12-8 shows that without the Knik Arm Bridge's carry about the same number of vehicles as the Ingra-Gambell corridor carries today. Figure 12-9 reveals that there will be an raffic volumes but less than would be projected under Scenario 2.

Conclusion

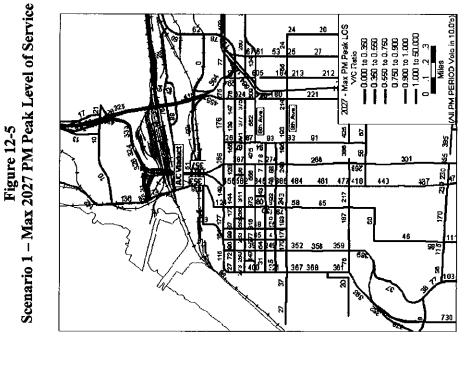
Anchorage Bowl of any project contained in the Long-Range Transportation Plan. Without it, large areas of northeastern and central scattered throughout the Anchorage Bowl. A direct connection from the Knik Arm Bridge to the freeway system via a new Ingraproject. Although many trips crossing the Knik Arm Bridge will be destined to downtown, most will be traveling to destinations Anchorage will experience unacceptable level of congestion. It also has a very strong linkage to the proposed Knik Arm Bridge The Highway-to-Highway project will have, by far, the most significant impact on the reduction of traffic congestion in the Gambell connection over Ship Creek will be needed for these bridge-related trips.

traversing downtown along the A/C corridor will double. Furthermore, HDR estimates that 12% of total trips will be truck trips which Without a Knik Arm Ingra Gambell connection and the Glenn Highway-to-Seward Highway improvements, the traffic volumes would further impact downtown.

46,000 per day which will create a congestion problem in downtown Anchorage. The construction of the Ingra-Gambell connection is expected to substantially relieve this congestion. However, the Ingra-Gambell connection will only manage to shift the congestion to The total 2027 traffic using the A/C couplet under Scenarios 2 and 3 (without the Ingra-Gambell connection) is projected to be over the Ingra Gambell corridor without the construction of the Highway-to-Highway connection.

analysis needs to be completed to determine more precisely when the streets in the downtown area will reach an unacceptable level of The question remains, when should the Ingra-Gambell connection be built? In order to answer this question, an intermediate year service

Figure 12-4 Scenario 1 – 2027 AADT



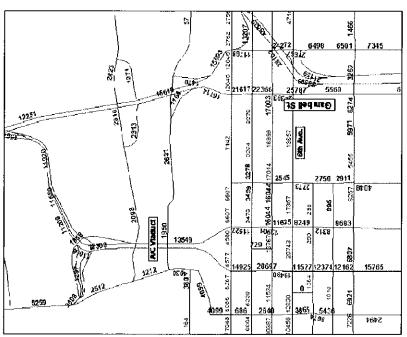


Figure 12-6 Scenario 2 – 2027 AADT

Figure 12-7 Scenario 2 – Max 2027 PM Peak Level of Service

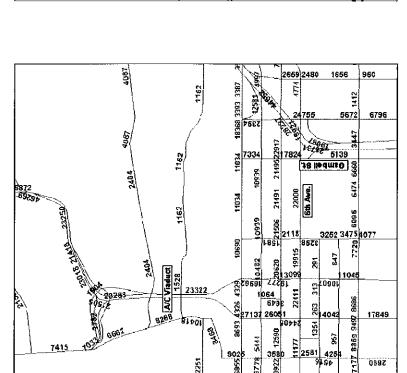
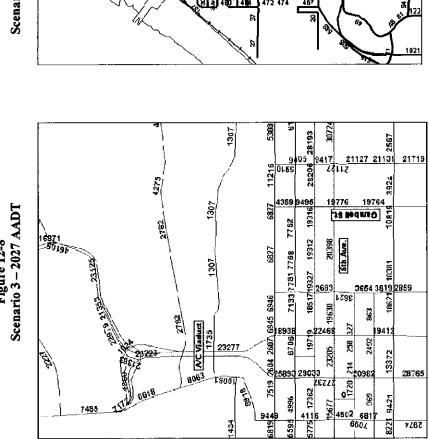


Figure 12-8 Scenario 3 – 2027 AADT



\$3

4502 681 6607

782

Figure 12-9 Scenario 3 – Max 2027 PM Peak Level of Service 2027 - Max Prin Peak LOS
VC Ratio
—0.0000 to 0.350
—0.350 to 0.750
0.750 to 0.750
0.050 to 0.000
—0.300 to 1.000 (All PM PERIOD Vols in 10.0's) 3

LRTP Errata Sheets

Dago 52 Table 6

Page 52 Table 6-1

Add the following footnote to the table:

"* Changes in growth distribution caused by the Knik Arm Crossing project are found in Chapter 12."

Page 57 inset box

Considering the Knik Arm Crossing

"The projections shown in Table 6-1 and discussed in this chapter do not take into account the potential effects of a Knik Arm bridge on regional population and employment distribution. During preparation of the most recent ISER population and employment projections, a preliminary analysis was conducted to test the sensitivity of regional population and employment distribution to the opening of a Knik Arm crossing in the year 2009.

Results indicate that a bridge would reduce the growth of the Anchorage population by about 16,000, or 4 percent, by 2030. This shift would start slowly and increase in the later years of the planning period, closer to 2027. Opening a Knik Arm bridge likely would have less effect on employment growth in Anchorage, with about 6,000 jobs expected to go elsewhere in the region.

It should be noted that the change in growth rates is very sensitive to the year that the bridge is opened. The anticipated date is 2010 but is subject to many variables. Population and employment changes that could result from the Knik Arm bridge have been analyzed as part of the Environmental Impact Statement for the project. Based on those findings, the Knik Arm crossing project has been amended to be included in the LRTP. Details on the project can be found in Chapter 12."

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subsequent

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Page 57 Table 6-2

Add the following footnote to the table:

"* Changes in growth distribution caused by the Knik Arm Crossing project are found in Chapter 12."

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Ì

Page 99 Second Paragraph The community is considering [two] other regional connection concepts: including commuter rail service. Page 99 Delete the following.

Page 113 Figure 8-1

pressure on the Glenn Highway,"

Update figure to show project 810 "Knik Arm Crossing" or put an asterisk at the bottom of the figure indicating the following:

"Clearly, major issues are related to regional connection facilities. The rapid growth in the Mat-Su Borough and Chugiak-Eagle River will put significant strain on the Glenn

Highway in the absence of other actions. A Knik Arm crossing would relieve some traffic

"Project 810, the Knik Arm Crossing, which runs from the AMATS boundary north of the Port of Anchorage tying into the tying into Anchorage roadway network at Loop Road and Gambell and Ingra Streets was added by amendment. Details of the project are found in Chapter 12."

Page 113 Inset Box "Northwest Anchorage"

Add the following bullet:

"Knik Arm Crossing project, a National Highway System route connection north to the Mat-Su Borough to improve regional transportation infrastructure and connectivity for the movement of people, freight, and goods to, from, and between

Deleted: Knik Arm Crossing Studies¶

and implications

Only two roadways currently link
Anchorage to elsewhere, but planning
studies are in process for a bridge across
the Knik Arm to the Mat-Su Borough.
Currently the Knik Arm crossing project
is in an environmental analysis phase;
information about its alignment,
configuration, components, costs, and
other features are not yet known.

Critical questions and policy decisions will be addressed after more information has been gathered. How would a Knik Arm crossing affect the land use and growth patterns envisioned by Anchorage 2020? How would it affect the Anchorage housing market? Will broader urban sprawl be encouraged and enabled by transportation access to a large expanse of undeveloped land?

The magnitude of traffic or impacts of Knik crossing traffic on the LRTP program cannot be identified at this time. The potential cost burden and community impacts of supplemental projects needed to tie the crossing project into the Anchorage road network also cannot be anticipated at this time.

All of these topics need to be covered and documented in the federally mandated environmental analysis under way. The LRTP endorses completion of environmental and engineering studies and documentation for the Knik Arm crossing concept. Information about the alignment, configuration, components, costs, funding, and other features of the project can then be used by the MOA and AMATS to support future decisions.

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Knik Arm crossing proposal

Formatted: Centered, Border: Top: (Single solid line, Auto, 0.5 pt Line width) Anchorage, the Mat-Su, and Interior Alaska and between regional airports, ports, hospitals, and fire, police supporting emergency response and evacuation."

Page 126

Knik Arm Crossing

-"The LRTP adopted in December 2005 endorsed completion of ongoing environmental and engineering studies for the Knik Arm crossing concept. These studies produced information about the alignment, configuration, components, costs, and other features to support inclusion of the project into the LRTP. Based on completion of the environmental documents, the crossing has been included in the LRTP by amendment. Details of the project can be found in Chapter 12 and the published environmental documents,"

Deleted: s Deleted: will

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Page 135 Table 8-1

Add a row to the table for short term (2006-2015) as project 810 including the Knik Arm Crossing as follows:

Project Number	Facility Name	From	То	Project Purpose and Description
	Knik Arm Crossing	AMATS boundary mid-channel Knik Arm	3rd Avenue at Gambell and Ingra Streets	Add new facility from mid-channel Knik Arm Gambell/Ingra Streets/Viaducts (as noted in phases below). Purpose: Access, circulation, and freight; Facility Class: National Highway System route - Freeway/Major Arterial; Phase I Length of Project—from midchannel of Knik Arm to East Loop Road just north of the A/C Viaduct (Southern Phase I limit) 4.7 miles Ultimate Build out Length—from midchannel of Knik Arm to Ingra-Gambell Street/Viaducts at 3rd Avenue (Phase II)*. 5.1 miles Length of new Sidewalk: 4.7 miles**: Estimated cost: \$316. Phase I, \$284. Phase II*** Anchorage-side Funding Source: National Highway System, State, Toll Backed Bonds; Public Private Partnership, TIFIA, Tolls; Linked Project(s): 502 * Phase II is the construction of the Ingra-Gambell Streets/Viaducts to 3rd Avenue from Government Hill
				Sidewalks are most likely to be completed in Phase II. *Estimated costs are for the Anchorage-side only

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Page 141 and 142, Table 9-1 through 9-4; Page 145 Table 9-6; Page 147 Table 9-7.		
Add a table note to each of the tables:		
"Earmark funding for the Knik Arm Crossing project has been accounted for separately and does not affect the anticipated funding plan described here. Knik Arm Crossing funding details can be found in Chapter 12."		
Page 144		
Delete the following:		
l •	{	Deleted: Work on the environmental documentation for the Knik Arm crossing project is being carried out with earmarked monies.
Page 149		
Modify the following:	{	Deleted: Delete
"• Monitor affects from the Knik Arm crossing project to the scheduling of Anchorage	(Deleted: findings
2020 implementation and future transportation projects"	<u>`</u> ``-{	Deleted: and its impacts
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Anchorage Metropolitan Area Transportation Solutions

MEMORANDUM

MUNICIPALITY OF ANCHORAGE Traffic Department Transportation Planning Division 4700 Bragaw Street, 2nd Floor Anchorage, AK 99507 Phone: 907-343-7994 Fax: 907-343-7998

Email: springir@muni.org

Date: February 5, 2007

To: Planning & Zoning Commission

From: AMATS Staff

Re: Comment/Issue Response Summary - Knik Arm Crossing Amendment

to the Anchorage Bowl Long-Range Transportation Plan

Staff presents this response to comments made by the Planning and Zoning Commission at the public hearing for the Knik Arm Crossing Amendment to the Anchorage Bowl Long-Range Transportation Plan held on January 29, 2007.

1) Issue: Is it necessary to amend the Long-Range Transportation Plan in order to transfer money from one project to another? If so, does this requirement provide adequate firewall protection against the transfer of public money from other projects to the Knik Arm Bridge?

Response: It is not necessary to amend the Long-Range Transportation Plan to transfer money, unless a provision or policy is included in the plan to do so. The current LRTP has no such requirement. One of the findings that must be made in order to approve a Long-Range Transportation Plan is to show that there is enough money available in future revenues to pay for the projects listed in the Plan. It is the recommendation of staff that such a provision be included in the LRTP as part of this amendment specifically for the Knik Arm Crossing project. Towards that end staff has included the following wording in the amended version of the LRTP under Chapter 12 - The Knik Arm Crossing: "In order to make a finding of financial constraint for the Knik Arm Crossing, it is necessary to impose the following condition that no additional state or federal money will be used to finance the project (including both Phase I and II) beyond that which is currently authorized." (This is interpreted to mean that the financial constraint finding for the amendment would no longer be valid if additional state or federal transportation money is spent on the KAC project. This does not include loans such as the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) federal loan program that do not have to be paid back with the federal SAFTETY-LU funding allocation to the State of Alaska.) As a result, an amendment would be required in order to reassess the financial constraint. A decision would then have to be made as to how to achieve financial constraint.

2) Issue: If there is no financial firewall to protect the current funding, which of the existing LRTP projects outrank the Knik Arm Crossing in terms of benefits to Anchorage and which projects are necessary to integrate it and make it work.

Response: For purpose of the LRTP, projects are ranked in terms of short term (2006-2015) and long term (2016-2023). For purposes of selecting projects for implementation, AMATS utilizes a set of scoring criteria to rank projects (that are in the LRTP) for purposes of funding them in the Transportation Improvement Program (TIP). The TIP is a 3 year program the funds transportation projects with federal funds. In order to answer this question about ranking, the Knik Arm Bridge project would have to be scored separately. There are a number of criteria that are used in the scoring process, including: (1) reduces congestion, (2) improves

safety, (3) preserves existing facility, (4) economic benefits, (5) population served, (6) improves quality of life, (7) support of project, (8) consistency with Adopted Plan, (9) improves roadway connectivity, (10) intermodal/multimodal characteristics, (11) functional class, (12) funding efficiency, (13) cost/benefit value, and (14) neighborhood integrity. (For a more complete description of the criteria used to score TIP projects go to the Municipality of Anchorage website http://www.muni.org/transplan/TIP.cfm and click on the roadway ranking criteria.

The Knik Arm Crossing would probably score high on some of the criteria and low on others. With respect to congestion reduction, the KAC would probably score low since it does not appear to have a significant impact on congestion within the Municipality of Anchorage. On the other hand, it may score fairly high with respect to the criteria involving improvements to roadway connectivity since it provides a second link to the Mat-Su Valley from Anchorage.

In order to fully answer the question, a committee would have to be convened to score the project.

3) Issue: Is the Highway-to-Highway project and Ingra/Gambell connector necessary to make the Knik Arm Crossing work?

Response: The Knik Arm Crossing project works best with the Highway-to-Highway project and Ingra-Gambell connector. Although many trips crossing the Knik Arm Bridge will be destined to downtown, most will be traveling to destinations scattered throughout the Anchorage Bowl. A direct connection from the Knik Arm Bridge to the freeway system via a new Ingra-Gambell connection over Ship Creek will be needed to efficiently handle these bridge-related trips. (For more information on the issue see the section on Future Transportation Impacts of the Knik Arm Bridge on the Anchorage Transportation System in Chapter 12 of the LRTP amendment.) As a result, AMATS staff recommends that the Highway-to-Highway project and Ingra-Gambell project be accelerated as fast as possible.

The current status of these two projects is as follows:

- The Highway-to-Highway project has received \$8 million from the Alaska legislature to initiate a reconnaissance study which is expected to begin in the first half of 2007.
- The Ingra-Gambell connector project will receive its environmental approval as a part of the Knik Arm Crossing project. As a result, it will be eligible to begin design work as soon as funding is available.

4) Issue: Is it appropriate to obtain an independent assessment of the toll revenue model?

Response: The toll revenue projection developed by Wilbur Smith for the Knik Arm Crossing project was conducted without involvement from AMATS or the Municipality of Anchorage staff. The financial model that they use is considered to be proprietary. As a result, it is not possible for staff to independently assess or evaluate the methodology or results. Nevertheless, it should be noted that Wilber Smith Associates is a nationally recognized firm with extensive experience in the area of toll revenue modeling. Ultimately, the decision as to whether or not to fund the Knik Arm Crossing will rest with private investors. These investors will have to decide for themselves whether or not the toll revenue model results are valid enough to risk their money on it.

5) Issue: The fact that the mitigation cost of the Knik Arm Crossing are not yet known may put in jeopardy other LRTP projects if money has to be diverted to pay for them.

Response: The current \$536 million cost estimate for the Knik Arm Bridge is based on the preferred alternative which assumes construction of an 8,200 foot, pier supported bridge with causeway approaches that extend 2,000 feet from the western shore and 3,300 feet from the eastern shore. It is possible that additional mitigation measures may be required to reduce

sedimentation due to the presence of the causeways. Regardless of the mitigation measures that are ultimately imposed, it is the intent of AMATS to establish a firewall between the Knik Arm Crossing and other LRTP projects in order to prevent this type of diversion of funds.

According to KABATA, a separate line item in the amount of \$10 million, is included in the project cost estimate to cover environmental mitigation. This is over and above the amount needed to construct the cut and cover tunnel under Government Hill, which is the primary mitigation measure proposed to reduce impacts on the Government Hill neighborhood.

6) Issue: What if the 14,000 foot bridge span is required to be built? Would other alternatives such as the Boniface route through the military base or Hiland Road be reconsidered?

Response: If the alignment was significantly changed, then a completely new amendment to the LRTP would have to be initiated. However, given the statements regarding the financial feasibility of the 14,000 foot bridge span, it does not appear likely that KABATA would proceed with the project if the cost were significantly increased due to the imposition of additional mitigation measures.

7) Issues: Is it possible to include the Ingra/Gambell connection across Ship Creek as well as other mitigation measures to reduce traffic in downtown in Phase 1 of the Knik Arm Crossing project? Are any of the following ideas possible, i.e., limiting truck traffic, designing traffic calming along the A/C couplet, pedestrian crossing improvements along A/C streets in the downtown (specifically for access to the Museum), and construction of a parking structure to interception of bridge related traffic as it enters downtown.

Response: There does not appear to be sufficient toll revenues from the Knik Arm Bridge to pay for construction of the Ingra/Gambell connector as a part of Phase I. However, the Knik Arm Bridge and Toll Authority has committed \$2 million to fund a reconnaissance study to start the Ingra-Gambell connector project as soon as construction starts on the bridge.

Staff agrees that other mitigation measures should be considered to calm or reduce downtown traffic. Improved pedestrian crossings along the entire A/C corridor downtown could help to mitigate some of the effects of increased traffic on the pedestrian environment. The Municipality of Anchorage is already planning pedestrian improvements as a part of the museum expansion project. Planned improvements include: a new traffic signal for 7th Ave. and C Street, a sidewalk expansion on the east side of C Street adjacent to the museum site, and bulb extensions at the 7th Ave. and C Street intersections to reduce the pedestrian crossing time. Similar improvements could be made in the rest of the corridor (within the downtown area). Without the construction of the Ingra-Gambell connector, it would be difficult to divert truck traffic from the A/C corridor and away from the downtown core. Truck traffic through downtown from the Port of Anchorage is currently a problem due to the lack of alternative access. Additional work would have to be done to determine if a parking structure near the A/C viaduct would be feasible and whether or not it would have the desired effect of intercepting traffic as it enters downtown. At best, it would only capture that portion of the traffic that is destined to locations near the parking structure. Unfortunately, the number of destinations near such a parking structure are few due to the relatively low density of the land uses in the area near 3rd Ave. and A Street.

8) Issues: A pedestrian pathway either on the span or on some of the connector components, such as the Government Hill to A/C couplet should be considered for Phase1.

Response: Staff recommends keeping the pedestrian and bicycle improvements in Phase II. Given the distances (14,000 feet) involved, a pedestrian pathway on the Knik Arm Bridge would probably only be used by recreational users. Moreover, access to the bridge by pedestrians from the Anchorage side would be difficult. Due to security concerns, no access to

the corridor linking the bridge to Government Hill will be allowed. As a result, a pedestrian wanting to use the bridge would have to walk over 3 miles just to get to it.

Consideration should be given to ensuring that appropriate pedestrian connections are made from Government Hill and downtown Anchorage. The existing Anchorage Trails Plan calls for a trail connection between the planned Ship Creek Trail and Government Hill along the existing Loop Road. This could be required to be constructed as part of the mitigation measures for the bridge project.

9) Issues: Light rail should be included as a part of the Knik Arm Crossing project.

Response: The proposed project does have the capability to add a light rail track in the future as stated by KABATA. The ability to connect a potential light rail track from the bridge to the Anchorage transportation system should also be considered as par of the future designs of landside connections.

Staff recognizes that commuter rail is not currently part of the LRTP as an alternative mode of transportation due to our existing and planning land-use patters for the next 20-years. Urban densities have a large effect on transit usage. In general, a housing density of between 9-12 dwelling units per acre is considered to be the minimum desirable density for higher frequency bus service. A housing density of 12-15 dwelling units per acre is the minimum density needed to consider a light-rail system. It is highly unlikely that the development pattern on the north side of the Knik Arm Crossing in the Mat-Su Valley will achieve these density levels within the timeframe of this Plan. Even in the distant future, substantial pro-active planning would have to take place in order to make this occur. Moreover, a minimum number of riders are needed to justify the cost of a light-rail facility, especially if federal funding is to be used. AMATS would be highly challenged to acquire this funding given that the total number of travelers using this corridor (by 2027) is expected to be less than 35,000 per day. If a light rail system were able to capture 10% of the total market, there would still only be 3,500 transit riders per day over quite a lengthy route. This would not compete with many other light-rail proposals that can demonstrate ridership of 10,000 to 20,000 or more riders per day.

10) Issues: Mitigation measures are needed for neighborhoods that are affected by the Knik Arm Crossing or connectors, including Government Hill. Mitigation measures that protect residents from noise and air pollution, private property takes, reduced property values, reduction of open space, and creation of barriers to neighborhood connectivity should be considered.

Response: Agreed. Staff has recommended the following wording be included in Chapter 12 of the LRTP pertaining to mitigation of the impact of the Knik Arm Bridge:

"Draft text to be included in the LRTP to guide how the KAC project will address mitigation as it passes through Government Hill.

The Government Hill neighborhood will be affected by the proposed Knik Arm Crossing project given the current alignment alternatives. The project is currently in the environmental phase of development, which will be required to address neighborhood impacts and mitigation measures. For purpose of the LRTP it is appropriate to provide guidance as to the charter and expectations of how the project will be integrated into the Government Hill neighborhood, similar to that adopted for cut-cover segments of the Highway to Highway connection.

The connection of the Knik Arm Bridge to the A/C couplet and ultimately the Ingra / Gambell extension will in concept include the use of existing topography to trench and cover an expressway type roadway on an alignment designed to serve through trips and reduce traffic on neighborhood streets. This will be accomplished while incorporating improved parks and pedestrian connections to benefit the Government Hill neighborhood. Unique and innovative community and streetscape enhancements will be required as part of this project as it travels

through Government Hill would span the depressed expressway re-establishing neighborhood connectivity, and minimize noise and air quality impacts. The project will provide Government Hill with a balance of local road and pedestrian facilities and discourage the use of local roads for through traffic. There is community expectation that through the mitigation efforts, adequate funding will be applied to facilitate the efficient, safe and neighborhood—appropriate incorporation of bridge traffic through Downtown.

The result of this project will not be a traditional freeway through a neighborhood that creates a barrier and separation of a neighborhood. The goal is for Government Hill and project sponsors to take the opportunity to work in close cooperation to enhance and revitalize the Government Hill community with a design that fits within the character of this unique and historic neighborhood".

11) Issue: Additional public comment is needed on the effects of the Knik Arm Bridge on property values, municipal revenues, and diversion of jobs and housing.

Response: The three issues identified by the Planning and Zoning Commission are technical in nature. Reopening the public comment period in the hope of obtaining additional comment on these subjects may not be the best means of answering these questions. Staff believes that the analysis of the effect of the bridge on jobs and housing has been adequately analyzed as presented in the report titled "Memorandum on the Economic and Demographic Impacts of a Knik Arm Bridge" published by ISER at UAA in Sept 2005. ISER is a highly respected institution with a great deal of experience in this area. The ISER report concludes that the primary effect of the bridge would be a redistribution of population and jobs out of Anchorage and into the Mat-Su. Anchorage population and job growth will be lower with the bridge than it would have been without the bride. According to this report, by the year 2015, the bridge would cause Anchorage population to be 1% lower than it would have been without the bridge. By the year 2020, Anchorage population and jobs would be 2% lower than it would have been without the bridge. By 2025, Anchorage population and jobs would be 3% lower than it would have been without the bridge (page 18, Tables 9 and 10) (http://www.iser.uaa.alaska.edu/Publications/Knik Report Sept05.pdf).

With respect to the impact of the Knik Arm Bridge on Municipal property values, the only currently available information is found in the Draft EIS for the Knik Arm Bridge prepared by KABATA. Section 4.1.1.2.4 Indirect Impacts under Build alternatives, addresses property values. This section essentially states that with the bridge there would be a lower demand for housing in Anchorage resulting in slower appreciation in housing values that would otherwise occur with the population and economic growth that is predicted regardless of whether the bridge is built or not. This effect would be expected to be greater in the Chugiak-Eagle River area than in the Anchorage Bowl. In Section 4.9.3 Reasonably Foreseeable Future Actions Affecting the Environment, Table 4.5 lists 45 different events that could happen within the next 20 years that could increase the demand for housing, such as the Natural Gas Pipeline or new Airborne Brigade with 2,600 new soldiers to the area. These events, among others, would also affect housing demand and property values. Project economists estimate the shifted population and employment from the MOA would be replaced in 3 or 4 years at current growth rates, and thus affects would not be that substantial.

The DEIS also discusses the impact of the Knik Arm Bridge on Municipal tax revenues and budget needs. Section 4.2.3 Impacts on Community Facilities, Public Services, and Fiscal Conditions addresses tax revenues. Specifically page 4-64 of the DEIS states:

"By 2010, Anchorage population would have grown to 297,300, with 111,300 households and 103 schools. Compared with the No-Action Alternative, Anchorage population would be larger by about 2,200 people and 800 households. An additional 500 school children would require about one more school.

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Anchorage Metropolitan Area Transportation Solutions

MEMORANDUM

MUNICIPALITY OF ANCHORAGE

Traffic Department
Transportation Planning Division
4700 Bragaw Street, 2nd Floor
Anchorage, AK 99507

Phone: 907-343-7994 Fax: 907-343-7998

Email: springjr@muni.org

Date: February 6, 2007

To: Planning & Zoning Commission

From: AMATS Staff

Re: Comment/Issue Response Summary - Knik Arm Crossing Amendment

to the Anchorage Bowl Long-Range Transportation Plan

Staff presents this response to comments made by the Planning and Zoning Commission at the public hearing for the Knik Arm Crossing Amendment to the Anchorage Bowl Long-Range Transportation Plan held on January 29, 2007.

1) Issue: Is it necessary to amend the Long-Range Transportation Plan in order to transfer money from one project to another? If so, does this requirement provide adequate firewall protection against the transfer of public money from other projects to the Knik Arm Bridge?

Response: It is not necessary to amend the Long-Range Transportation Plan to transfer money, unless a provision or policy is included in the plan to do so. The current LRTP has no such requirement. One of the findings that must be made in order to approve a Long-Range Transportation Plan is to show that there is enough money available in future revenues to pay for the projects listed in the Plan. It is the recommendation of staff that such a provision be included in the LRTP as part of this amendment specifically for the Knik Arm Crossing project. Towards that end staff has included the following wording in the amended version of the LRTP under Chapter 12 - The Knik Arm Crossing: "In order to make a finding of financial constraint for the Knik Arm Crossing, it is necessary to impose the following condition that no additional state funds and no additional federal transportation funds beyond which is currently authorized will be used to finance the project (including both Phase I and II." (This is interpreted to mean that the financial constraint finding for the amendment would no longer be valid if additional state or federal transportation money is spent on the KAC project that reduces formula funds or other flexible funds able to be used on other transportation projects in Anchorage.) As a result, an amendment would be required in order to reassess the financial constraint. A decision would then have to be made as to how to achieve financial constraint.

2) Issue: If there is no financial firewall to protect the current funding, which of the existing LRTP projects outrank the Knik Arm Crossing in terms of benefits to Anchorage and which projects are necessary to integrate it and make it work.

Response: For purpose of the LRTP, projects are ranked in terms of short term (2006-2015) and long term (2016-2023). For purposes of selecting projects for implementation, AMATS utilizes a set of scoring criteria to rank projects (that are in the LRTP) for purposes of funding them in the Transportation Improvement Program (TIP). The TIP is a 3 year program the funds transportation projects with federal funds. In order to answer this question about ranking, the Knik Arm Bridge project would have to be scored separately. There are a number of criteria that are used in the scoring process, including: (1) reduces congestion, (2) improves safety, (3) preserves existing facility, (4) economic benefits, (5) population served, (6) improves

quality of life, (7) support of project, (8) consistency with Adopted Plan, (9) improves roadway connectivity, (10) intermodal/multimodal characteristics, (11) functional class, (12) funding efficiency, (13) cost/benefit value, and (14) neighborhood integrity. (For a more complete description of the criteria used to score TIP projects go to the Municipality of Anchorage website http://www.muni.org/transplan/TIP.cfm and click on the roadway ranking criteria.

The Knik Arm Crossing would probably score high on some of the criteria and low on others. With respect to congestion reduction, the KAC would probably score low since it does not appear to have a significant impact on congestion within the Municipality of Anchorage. On the other hand, it may score fairly high with respect to the criteria involving improvements to roadway connectivity since it provides a second link to the Mat-Su Valley from Anchorage.

In order to fully answer the question, a committee would have to be convened to score the project.

3) Issue: Is the Highway-to-Highway project and Ingra/Gambell connector necessary to make the Knik Arm Crossing work?

Response: The Knik Arm Crossing project works best with the Highway-to-Highway project and Ingra-Gambell connector. Although many trips crossing the Knik Arm Bridge will be destined to downtown, most will be traveling to destinations scattered throughout the Anchorage Bowl. A direct connection from the Knik Arm Bridge to the freeway system via a new Ingra-Gambell connection over Ship Creek will be needed to efficiently handle these bridge-related trips. (For more information on the issue see the section on Future Transportation Impacts of the Knik Arm Bridge on the Anchorage Transportation System in Chapter 12 of the LRTP amendment.) As a result, AMATS staff recommends that the Highway-to-Highway project and Ingra-Gambell project be accelerated as fast as possible.

The current status of these two projects is as follows:

- The Highway-to-Highway project has received \$8 million from the Alaska legislature to initiate a reconnaissance study which is expected to begin in the first half of 2007. Some right-of-way acquisition along the proposed corridor has already occurred.
- The Ingra-Gambell connector project will receive its environmental approval as a part of the Knik Arm Crossing project. As a result, it will be eligible to begin design work as soon as funding is available.

4) Issue: Is it appropriate to obtain an independent assessment of the toll revenue model?

Response: While AMATS staff participated in helping to set the assumptions for ISER's economic model which establishes the foundation of the modeling, the toll revenue projection developed by Wilbur Smith for the Knik Arm Crossing project was conducted without involvement from AMATS or the Municipality of Anchorage staff. The financial model that they use is considered to be proprietary. As a result, it is not possible for staff to independently assess or evaluate the methodology or results. Nevertheless, it should be noted that Wilber Smith Associates is a nationally recognized firm with extensive experience in the area of toll revenue modeling. Ultimately, the decision as to whether or not to fund the Knik Arm Crossing will rest with private investors. These investors will have to decide for themselves whether or not the toll revenue model results are valid enough to risk their money on it.

5) Issue: The fact that the mitigation cost of the Knik Arm Crossing are not yet known may put in jeopardy other LRTP projects if money has to be diverted to pay for them.

Response: The current \$536 million cost estimate for the Knik Arm Bridge (which includes an additional \$80 million contingency factor) is based on the preferred alternative which assumes construction of an 8,200 foot, pier supported bridge with causeway approaches that extend 2,000 feet from the western shore and 3,300 feet from the eastern shore. It is

possible that additional mitigation measures may be required to reduce sedimentation due to the presence of the causeways. Regardless of the mitigation measures that are ultimately imposed, it is the intent of AMATS to establish a firewall between the Knik Arm Crossing and other LRTP projects in order to prevent this type of diversion of funds.

According to KABATA, a separate line item in the amount of \$10 million is included in the project cost estimate to cover environmental mitigation. This is over and above the amount needed to construct the cut and cover tunnel under Government Hill, which is the primary mitigation measure proposed to reduce impacts on the Government Hill neighborhood.

6) Issue: What if the 14,000 foot bridge span is required to be built? Would other alternatives such as the Boniface route through the military base or Hiland Road be reconsidered?

Response: If the alignment was significantly changed, then a completely new amendment to the LRTP would have to be initiated. However, if a 14,000 foot bridge span is required, it does not appear likely that KABATA would proceed. The Draft EIS states: "The 14,000-foot bridge length was found to not be financially feasible and did not meet Purpose and Need criteria, however, this alternative was carried forward solely for comparative evaluation based on requests from environment resource and permitting agencies".

7) Issues: Is it possible to include the Ingra/Gambell connection across Ship Creek as well as other mitigation measures to reduce traffic in downtown in Phase 1 of the Knik Arm Crossing project? Are any of the following ideas possible, i.e., limiting truck traffic, designing traffic calming along the A/C couplet, pedestrian crossing improvements along A/C streets in the downtown (specifically for access to the Museum), and construction of a parking structure to interception of bridge related traffic as it enters downtown.

Response: There does not appear to be sufficient toll revenues from the Knik Arm Bridge to pay for construction of the Ingra/Gambell connector as a part of Phase I. However, the Knik Arm Bridge and Toll Authority has committed \$2 million [from an appropriation in SAFETEA-LU to "study, design, and engineering of Knik crossing approach routes to minimize traffic congestion] to fund a reconnaissance study to start the Ingra-Gambell connector project as soon as construction starts on the bridge.

Staff agrees that other mitigation measures should be considered to calm or reduce downtown traffic. Improved pedestrian crossings along the entire A/C corridor downtown could help to mitigate some of the effects of increased traffic on the pedestrian environment. The Municipality of Anchorage is already planning pedestrian improvements as a part of the museum expansion project. Planned improvements include: a new traffic signal for 7th Ave. and C Street, a sidewalk expansion on the east side of C Street adjacent to the museum site, and bulb extensions at the 7th Ave. and C Street intersections to reduce the pedestrian crossing time. Similar improvements could be made in the rest of the corridor (within the downtown area). Without the construction of the Ingra-Gambell connector, it would be difficult to divert truck traffic from the A/C corridor and away from the downtown core. Truck traffic through downtown from the Port of Anchorage is currently a problem due to the lack of alternative access. Additional work would have to be done to determine if a parking structure near the A/C viaduct would be feasible and whether or not it would have the desired effect of intercepting traffic as it enters downtown. At best, it would only capture that portion of the traffic that is destined to locations near the parking structure. Unfortunately, the number of destinations near such a parking structure is few due to the relatively low density of the land uses in the area near 3rd Ave. and A Street.

8) Issues: A pedestrian pathway either on the span or on some of the connector components, such as the Government Hill to A/C couplet should be considered for Phase1.

Response: Staff recommends keeping the pedestrian and bicycle improvements in Phase II. Given the distances (14,000 feet) involved, a pedestrian pathway on the Knik Arm Bridge would probably only be used by recreational users.

Consideration should be given to ensuring that appropriate pedestrian connections are made from Government Hill and downtown Anchorage. The existing Anchorage Trails Plan calls for a trail connection between the planned Ship Creek Trail and Government Hill along the existing Loop Road. This could be required to be constructed as part of the mitigation measures for the bridge project.

9) Issues: Light rail should be included as a part of the Knik Arm Crossing project.

Response: The proposed project does have the capability to add a light rail track in the future as stated by KABATA. The ability to connect a potential light rail track from the bridge to the Anchorage transportation system should also be considered as par of the future designs of landside connections.

Staff recognizes that commuter rail is not currently part of the LRTP as an alternative mode of transportation due to our existing and planning land-use patters for the next 20-years. Urban densities have a large effect on transit usage. In general, a housing density of between 9-12 dwelling units per acre is considered to be the minimum desirable density for higher frequency bus service. A housing density of 12-15 dwelling units per acre is the minimum density needed to consider a light-rail system. It is highly unlikely that the development pattern on the north side of the Knik Arm Crossing in the Mat-Su Valley will achieve these density levels within the timeframe of this Plan. Even in the distant future, substantial pro-active planning would have to take place in order to make this occur. Moreover, a minimum number of riders are needed to justify the cost of a light-rail facility, especially if federal funding is to be used. AMATS would be highly challenged to acquire this funding given that the total number of travelers using this corridor (by 2027) is expected to be less than 35,000 per day. If a light rail system were able to capture 10% of the total market, there would still only be 3,500 transit riders per day over quite a lengthy route. This would not compete with many other light-rail proposals that can demonstrate ridership of 10,000 to 20,000 or more riders per day.

10) Issues: Mitigation measures are needed for neighborhoods that are affected by the Knik Arm Crossing or connectors, including Government Hill. Mitigation measures that protect residents from noise and air pollution, private property takes, reduced property values, reduction of open space, and creation of barriers to neighborhood connectivity should be considered.

Response: Agreed. Staff has recommended the following wording be included in Chapter 12 of the LRTP pertaining to mitigation of the impact of the Knik Arm Bridge:

"Draft text to be included in the LRTP to guide how the KAC project will address mitigation as it passes through Government Hill.

The Government Hill neighborhood will be affected by the proposed Knik Arm Crossing project given the current alignment alternatives. The project is currently in the environmental phase of development, which will be required to address neighborhood impacts and mitigation measures. For purpose of the LRTP it is appropriate to provide guidance as to the charter and expectations of how the project will be integrated into the Government Hill neighborhood, similar to that adopted for cut-cover segments of the Highway to Highway connection.

The connection of the Knik Arm Bridge to the A/C couplet and ultimately the Ingra / Gambell extension will in concept include the use of existing topography to trench and cover an expressway type roadway on an alignment designed to serve through trips and reduce traffic on neighborhood streets. This will be accomplished while incorporating improved parks and pedestrian connections to benefit the Government Hill neighborhood. Unique and innovative community and streetscape enhancements will be required as part of this project as it travels

through Government Hill would span the depressed expressway re-establishing neighborhood connectivity, and minimize noise and air quality impacts. The project will provide Government Hill with a balance of local road and pedestrian facilities and discourage the use of local roads for through traffic. There is community expectation that through the mitigation efforts, adequate funding will be applied to facilitate the efficient, safe and neighborhood—appropriate incorporation of bridge traffic through Downtown.

The result of this project will not be a traditional freeway through a neighborhood that creates a barrier and separation of a neighborhood. The goal is for Government Hill and project sponsors to take the opportunity to work in close cooperation to enhance and revitalize the Government Hill community with a design that fits within the character of this unique and historic neighborhood".

11) Issue: Additional public comment is needed on the effects of the Knik Arm Bridge on property values, municipal revenues, and diversion of jobs and housing.

Response: The three issues identified by the Planning and Zoning Commission are technical in nature. Reopening the public comment period in the hope of obtaining additional comment on these subjects may not be the best means of answering these questions. Staff believes that the analysis of the effect of the bridge on jobs and housing has been adequately analyzed as presented in the report titled "Memorandum on the Economic and Demographic Impacts of a Knik Arm Bridge" published by ISER at UAA in Sept 2005. ISER is a highly respected institution with a great deal of experience in this area. The ISER report concludes that the primary effect of the bridge would be a redistribution of population and jobs out of Anchorage and into the Mat-Su. Anchorage population and job growth will be lower with the bridge than it would have been without the bridge. According to this report, by the year 2015, the bridge would cause Anchorage population to be 1% lower than it would have been without the bridge. By the year 2020, Anchorage population and jobs would be 2% lower than it would have been without the bridge. By 2025, Anchorage population and jobs would be 3% lower than it would have been without the bridge (page 18, Tables 9 and 10) (http://www.iser.uaa.alaska.edu/Publications/Knik Report Sept05.pdf).

With respect to the impact of the Knik Arm Bridge on Municipal property values, the only currently available information is found in the Draft EIS for the Knik Arm Bridge prepared by KABATA. Section 4.1.1.2.4 Indirect Impacts under Build alternatives, addresses property values. This section essentially states that with the bridge there would be a lower demand for housing in Anchorage resulting in slower appreciation in housing values that would otherwise occur with the population and economic growth that is predicted regardless of whether the bridge is built or not. This effect would be expected to be greater in the Chugiak-Eagle River area than in the Anchorage Bowl. In Section 4.9.3 Reasonably Foreseeable Future Actions Affecting the Environment, Table 4.5 lists 45 different events that could happen within the next 20 years that could increase the demand for housing, such as the Natural Gas Pipeline or new Airborne Brigade with 2,600 new soldiers to the area. These events, among others, would also affect housing demand and property values. Project economists estimate the shifted population

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thus affects would not be that substantial.

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Nevertheless, depending on where they live, some existing commuters, who primarily live in the areas of the Mat-Su Valley south and west of Wasilla, will see a reduction in their commute time to Anchorage. HDR,, the consultant to KABATA, estimates that about 27% of existing Mat-Su Valley households could see a reduction in their commuting time with the construction of the Knik Arm Crossing.

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ontent Information

Content ID: 004808

Type: AR_AllOther - All Other Resolutions Title: Knik Arm Crossing, LRTP Amendment

Author: maglaquijp

Initiating Dept: Traffic

AN RESOLUTION OF THE ANCHORAGE ASSEMBLY

Description: RECOMMENDING APPROVAL OF AN AMENDMENT TO THE ANCHORAGE BOWL 2025 LONG-RANGE TRANSPORTATION

PLAN TO INCLUDE THE KNIK ARM CROSSING.

Keywords: Knik Arm Crossing, LRTP Amendment

Date Prepared: 2/8/07 3:32 PM Director Name: Lance Wilber

Assembly

Meeting Date 2/13/07

MM/DD/YY:

Public Hearing 2/27/07 Date MM/DD/YY:

Workflow History

	TTUI	VIIOM UI2	LUIY		
Workflow Name	Action Date	Action	User	Security Group	Content ID
AllOtherARWorkflow	2/8/07 3:34 PM	Checkin	klundertg	Public	004808
Traffic_SubWorkflow	2/8/07 3:37 PM	Approve	wilberlr	Public	004808
MuniManager_SubWorkflow	2/9/07 9:12 AM	Approve	leblancdc	Public	004808
MuniMgrCoord_SubWorkflow	2/9/07 9:44 AM	Checkin	maglaquijp	Public	004808
MuniMgrCoord_SubWorkflow	2/9/07 9:45 AM	Approve	abbottmk	Public	004808