

Submitted by: Chair of the Assembly
at Request of the Mayor
Prepared by: Department of Traffic
For reading: March 13, 2007

CLERK'S OFFICE
AMENDED AND APPROVED
Date: 3-13-07
IMMEDIATE RECONSIDERATION-----
FAILED 3-13-07

Anchorage, Alaska
AR 2007-46(S)

A RESOLUTION OF THE ANCHORAGE ASSEMBLY RECOMMENDING APPROVAL OF AN AMENDMENT TO THE ANCHORAGE BOWL 2025 LONG-RANGE TRANSPORTATION PLAN TO THE ANCHORAGE METROPOLITAN AREA TRANSPORTATION SOLUTIONS (AMATS) POLICY COMMITTEE.

THE ANCHORAGE ASSEMBLY RESOLVES:

Section 1: 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.

Section 2: That a new Chapter 12 is being recommended to be added which illustrates the project background, description, funding, effects on population & employment at a planning level, attached hereto as **Attachment A**.

Section 3: That the existing Anchorage Bowl 2025 LRTP text and table 8 will require changes to reflect consistency with the new Chapter 12. These changes are illustrated in the Errata Sheet, attached hereto as **Attachment B**.

Section 4: That the Assembly has reviewed the proposed amendment to add the Knik Arm Crossing 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 with the following conditions:

- A. ~~The AMATS Policy Committee should not give final approval of the Knik Arm Crossing until the following actions have occurred:~~ (1) the required air quality conformity analysis is completed, (2) the financial details of the bridge are solidified, and (3) the final EIS is released and the comments from the Municipality of Anchorage, Mat-Su Borough, the Alaska Railroad Corporation and the public have been addressed.
- B. No funding currently planned for implementation of the existing Long-Range-Transportation Plan shall be used to support construction or maintenance of any element of the Knik Arm Crossing, beyond that which is currently authorized. In addition, no local funds will be used for construction or maintenance of any element of this project.
- C. Adoption of a mitigation program which protects, to the extent possible, the integrity of the Government Hill and other affected neighborhoods. Such mitigation measures will be developed in close cooperation with the affected neighborhoods (using the best Context Sensitive Design practices) with the objective of enhancing and revitalizing these unique and historic neighborhoods.
- D. No construction work will begin on the Anchorage landside bridge approaches until the complete funding package is secured for the bridge and the Anchorage access connections and the project design has been submitted for review ~~and approval~~ through the established municipal design review process.

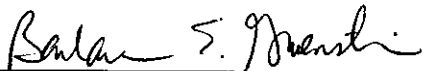
- 1
2
3 E. Recognition that the highway-to-highway project and the Ingra-Gambell connection across Ship Creek
4 are critical complementary projects linked to the Knik Arm Crossing. As part of this effort, it is
5 understood that KABATA will fund the design and construction of the Ingra-Gambell connection in
6 such a manner as to open ~~it within two years of the completion of the Knik Arm Crossing~~ by 2017.
7 **This process would require the reconnaissance/environmental phase of Ingra-Gambell**
8 **connection to start in 2008.**
9

10 **Section 5:** This resolution shall become effective immediately upon passage and approval by the
11 Anchorage Assembly.

12
13 PASSED AND APPROVED by the Anchorage Assembly this 13th day of
14 March, 2007.

15 
Chair

ATTEST:



Municipal Clerk

[Attachments]

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

Attachment B- LRTP Errata Sheet (4 pages)

Chapter 12. The Knik Arm Crossing Project

Introduction

This LRTP is amended to include an additional chapter on the Knik Arm Crossing project. As noted in the previous chapters, the LRTP endorsed the completion of the Knik Arm Crossing project's environmental and 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 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 shortly thereafter. This amendment includes the following actions:

- 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

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 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).

Chapter Overview

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Project Description

The Knik Arm Crossing project is a roadway and bridge crossing of Knik Arm connecting the Municipality of Anchorage (MOA) and the Mat-Su Borough (Mat-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 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. 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 12-1 The Knik Arm Crossing Project

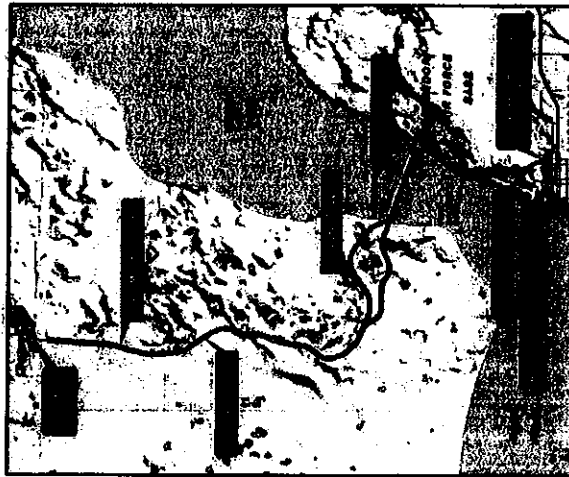


Figure 12-2. Key features of the Degan Alternative
Phase 1 include a four-lane roadway (two-lanes in each direction), a cut-and-cover tunnel under Degan Street, and a connection to the A/C Couplet. Phase 2, which is basically the same for both alternatives includes on-and-off ramps and an additional connection to the Ingraham/Cambell Couplet via a new viaduct over the Ship Creek area

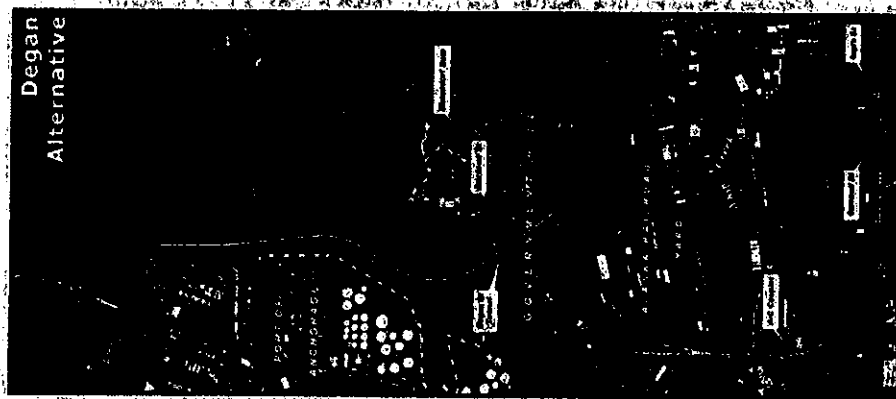
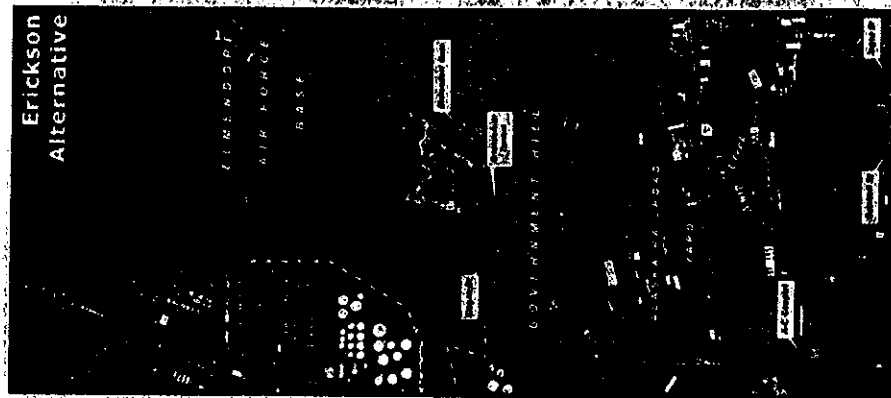


Figure 12-3. Key features of the Erickson Alternative
Phase 1 include a four-lane roadway (two-lanes in each direction), on and off ramps north of Government Hill, a tunnel under Erickson Street, and a connection to the A/C Couplet



Legend

- ==== Degan Street Alternative
- ==== Erickson Street Alternative
- Future Expansion
- Cut-and-Cover Tunnel

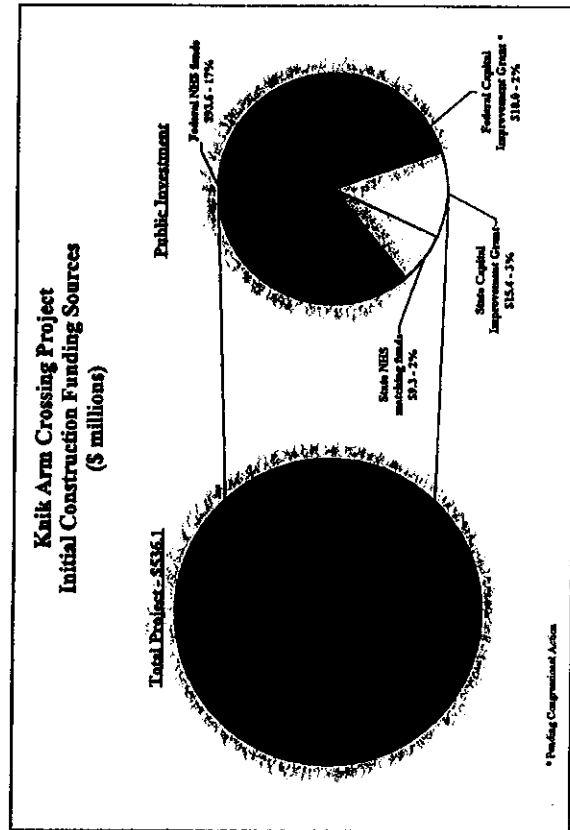
Funding

According to KABATA's conceptual financial plan, the Knik Arm Crossing project would have no effect on the ability to finance or implement the other L RTP projects discussed in the body of the L RTP. In other words, the project would not require any future federal or state funding for construction, operations and maintenance, or future capacity requirements, beyond what the Alaska Legislature has already appropriated. The Alaska Legislature appropriated \$93.6 million of the \$232 million of federal-aid highway funds originally earmarked by Alaska's Congressional delegation for the Knik Arm Crossing in the SAFETEA-LU transportation bill. The Alaska Legislature also authorized state matching funds of \$9.3 million when it provided spending authority for the federal funds.

KABATA was established by the Alaska Legislature as a toll authority, and the toll revenue generated by users is expected to pay for most of the cost of construction and all of the operation and maintenance expense. Tolls provide ongoing revenue, and the potential for tolls means that KABATA can borrow funds for construction. Money from toll collection 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. Remaining net toll revenue would then be used to pay principal and interest on loans, provide returns to investors, and fund investment in future expansion. After initial construction, traffic levels are projected to provide adequate toll revenue to support the project based on work performed by Wilber-Smith Associates, KABATA's traffic and revenue consultant.

Federal planning requirements for metropolitan areas

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



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 \$408 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 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	\$ -	\$ 30.0	\$ 30.0
Toll plaza and lanes	8.5	8.5	17.0
Toll bridge and abutments	181.7	181.6	363.3
Cairn Point/below the bluff road	62.5	-	62.5
Government Hill cut-and-cover tunnel	63.3	-	63.3
Total Initial Construction Costs	\$ 316.0	\$ 220.1	\$ 536.1

Table 12-2

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	\$ 316.0	\$ 220.1	\$ 536.1

Cost Estimates for Future Expansion

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

Table 12-3

Mat-Su road upgrades	\$	-	\$ 43.2	\$ 43.2
Bridge deck lane addition		64.8	64.8	129.5
Ingra/Gambell connector		219.2	-	219.2
Total Future Expansion Costs	\$	284.0	\$ 108.0	\$ 391.9

Proposed Funding Package for Future Expansion

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

Table 12-4

AMATS LRTP (pre-existing)	\$	26.0	\$	-	\$ 26.0
Toll revenue backed funding sources		257.9		108.0	365.9
Total Future Expansion Funding	\$	283.9	\$	108.0	\$ 391.9

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

Project Operations and Maintenance

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 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 owned by KABATA including the bridge, the approaches, and the toll facilities. KABATA has also entered into a Memorandum of Understanding 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 under the National Highway System (NHS). Given the regional significance of the project, it is recommended that the landside connections linking 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

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 or federal money will be used to finance the project (including both Phase I and II) beyond that which is currently authorized. Second, the 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 into an agreement to take on the responsibility to maintain the landside connections required to link the bridge to the existing Anchorage roadway system.

Population and Employment Growth

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 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 on the relative share of population, households, and jobs growth between the Municipality of Anchorage and the Mat-Su Borough. The impact of 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).

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

Total Anchorage area	527,800	134,400	174,000	338,100	129,300	178,200
Total Mat-Su area	174,600	62,500	45,000	185,500	67,800	50,200
Total Region	523,500	196,900	221,000	524,600	197,100	228,400

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 otherwise 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.
- Most Anchorage workers in jobs with a wage high enough to consider commuting will continue to choose not to commute. The largest 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.
- 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.

Future Transportation Impacts of the Knik Arm Bridge on the Anchorage Transportation System

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 network. As a result, it is important to analyze the effect of this traffic on the existing and planned Anchorage transportation network 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 traffic on the Glenn Highway coming into Anchorage which is about the same with or without the bridge. Since the primary impact of 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 1

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.

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 traffic coming over Ship Creek into Anchorage, 44% is expected to travel over the A/C Viaduct and 56% over the new Ingra-Gambell 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 the A/C couplet is destined to downtown. The Ingra-Gambell connection to the highway-to-highway project makes that routing more efficient for travelers coming from Port McKenzie with destinations to other parts of the Anchorage Bowl outside of downtown. It thus appears that the Ingra-Gambell connection is an essential improvement needed to relieve the traffic congestion in the core 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.

Scenario 2

Scenario 2 explores the impact on the Anchorage roadway network of the Knik 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 estimated 46,000 trips per day using the A/C Viaduct under this scenario which will nearly double the amount of traffic in the downtown area along the A and C Street corridor between 3rd and 6th Avenues. More traffic from the bridge will 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 area between the A/C corridor and the Highway-to-Highway corridor (formerly Ingra-Gambell corridor) as Mat-Su Valley travelers from the Port McKenzie area attempt to connect to the freeway system in order to travel to other parts of Anchorage. According to Figure 12-7, the eastern part of downtown (between 3rd and 6th Avenues) may experience an increase in congestion due to the opening of the bridge.

Scenario 3

Scenario 3 explores the impact of the Knik Arm Bridge on the Anchorage transportation network without either the Ingra-Gambell connection over Ship Creek or the Highway-to-Highway connection. The intent of this scenario was to examine the interdependencies between the Knik Arm Bridge and the Highway-to-Highway connection. Figure 12-8 shows that without the Knik Arm Bridge's 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 carry about the same number of vehicles as the Ingra-Gambell corridor carries today. Figure 12-9 reveals that there will be an increase in congestion along this corridor, especially during the peak periods. Parts of eastern downtown will also carry significant traffic volumes but less than would be projected under Scenario 2.

Table 12-7. 2030 Peak Hour Level of Service

3 rd Ave	C St	B	B	B	B
3 rd Ave	A St	B	B	B	B
Ocean Dock	Loop Rd.	B	B	B	B
5 th Ave.	C St	B	B	B	B
6 th Ave.	A St	B	B	B	B
5 th Ave.	Gambell St	B	B	B	B
6 th Ave.	Ingra St	B	B	C	C

Conclusion

The Highway-to-Highway project will have, by far, the most significant impact on the reduction of traffic congestion in the Anchorage Bowl of any project contained in the Long-Range Transportation Plan. Without it, large areas of northeastern and central Anchorage will experience unacceptable level of congestion. It also has a very strong linkage to the proposed Knik Arm Bridge project. 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 for these bridge-related trips.

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

The total 2027 traffic using the A/C couplet under Scenarios 2 and 3 (without the Ingra-Gambell connection) is projected to be over 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 Ingra Gambell corridor without the construction of the Highway-to-Highway connection.

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

Figure 12-4
Scenario 1 – 2027 AADT

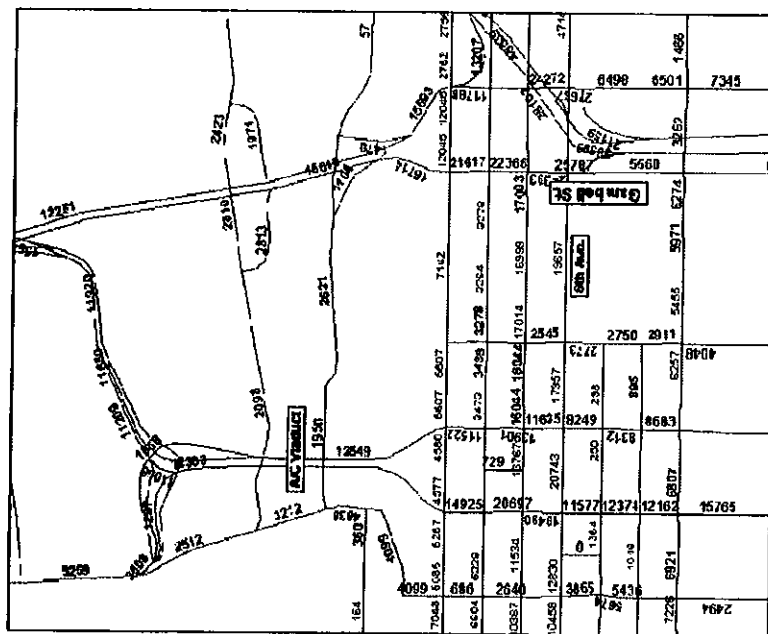


Figure 12-5
Scenario 1 – Max 2027 PM Peak Level of Service

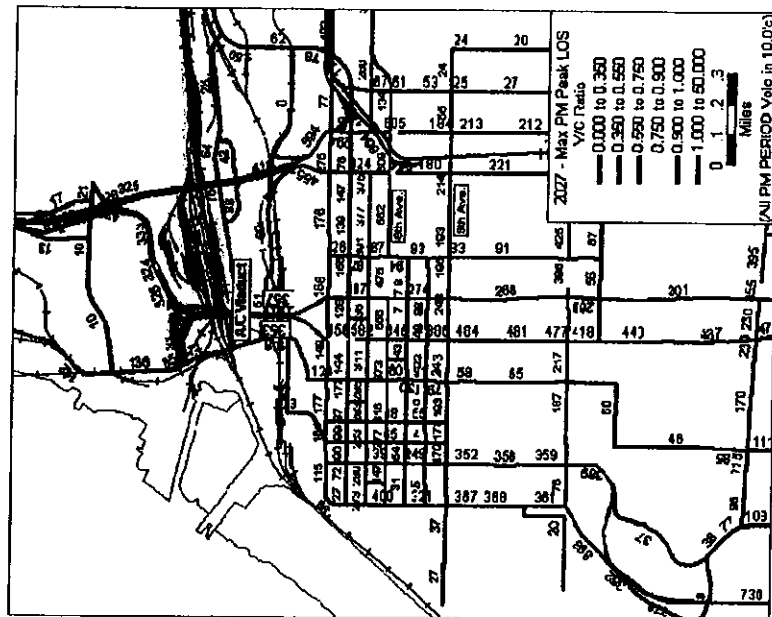


Figure 12-6
Scenario 2 - 2027 AADT

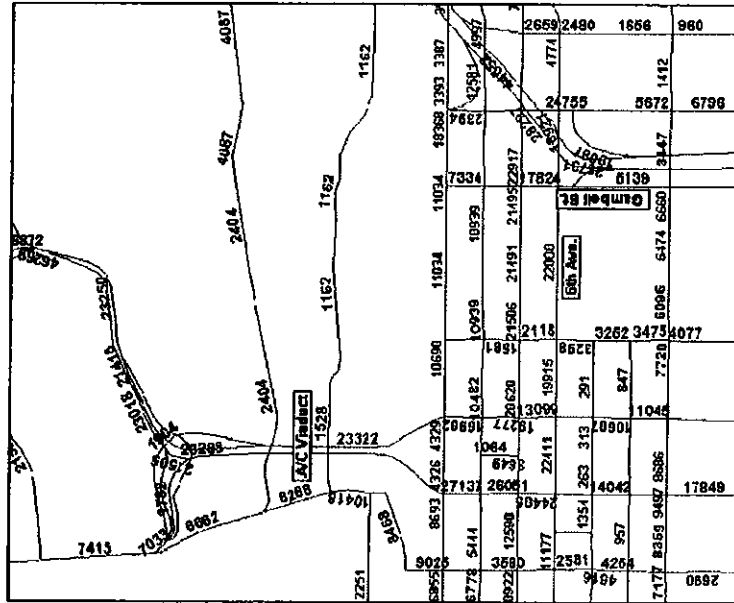


Figure 12-7
Scenario 2 - Max 2027 PM Peak Level of Service

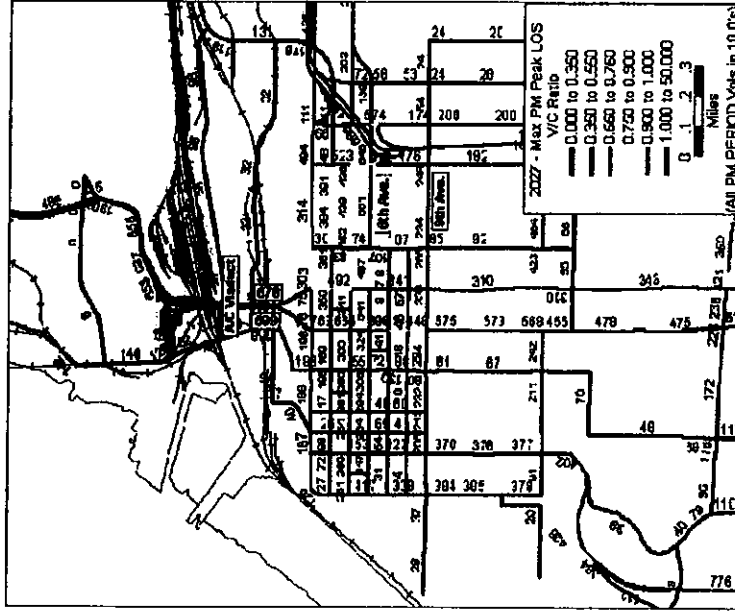
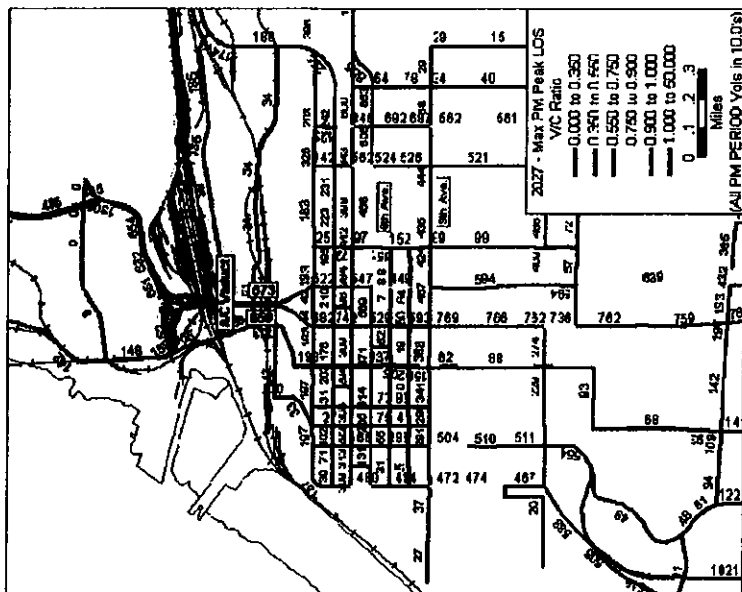
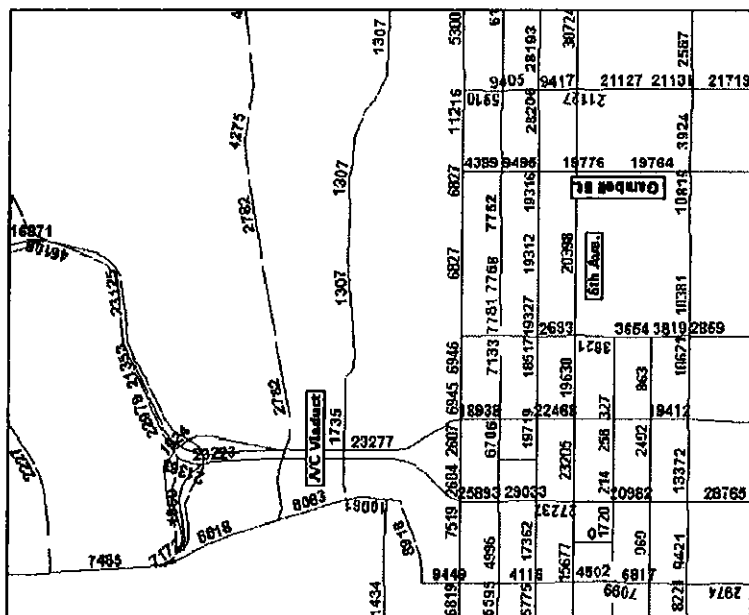


Figure 12-9
Scenario 3 – Max 2027 PM Peak Level of Service



L RTP Errata Sheets

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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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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Page 99 Second Paragraph

The community is considering [two] other regional connection concepts: including commuter rail service.

Page 99

Delete the following.

“”
v.v

Page 100

“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 pressure on the Glenn Highway.”

Page 113 Figure 8-1

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

“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

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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.”

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Deleted: This step involves thorough public review and comments on all aspects of the potential project.

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	To	Project Purpose and Description
	Knik Arm Crossing	AMATS boundary mid-channel Knik Arm	3 rd 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 mid-channel 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 mid-channel 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:

----- 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

----- Deleted: findings
Deleted: and its impacts
Deleted: goals
Deleted: needs
Deleted: ¶

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<u>Line#</u>	<u>LRPT Chapter/Pg#</u>	Suggested Change	Technical Advisory Committee Concurrency
<u>1</u>	Ch 12, page 4	Revise third sentence in second paragraph as follows: Money from toll collection 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.	
<u>2</u>	Ch 12, page 4	Revise fourth sentence, second paragraph as follows: [Remaining net] Toll revenue would then <u>also</u> be used to pay principal and interest on loans, provide returns to investors, and fund investment in future expansion.	
<u>3</u>	Ch 12, page 4	Delete last sentence on page: [For more information see the "Knik Arm Crossing Project Conceptual Plan Overview" (March 2006)]	
<u>4</u>	Ch 12, page 5	Revise Table 12-2 (see attachment)	
<u>5</u>	Ch 12, page 5	Add following sentence to the end of the first paragraph: (Note: Cost estimates for Mat-Su Borough road work are for illustrative purposes only and are not included as part of the Anchorage LRTP roadway project list.)	
<u>6</u>	Ch 12, page 6	Revise the sentence in the last paragraph as follows: Delete the following sentence: Table 12-4 shows jurisdictional allocation of anticipated funding sources between Anchorage and the Mat-Su in [present value] 2005 dollars for all of the anticipated future expansion requirements, including the Mat-Su road upgrades which are included for <u>illustrative purposes only</u> [expected to be beyond the LRTP planning horizon].	
<u>7</u>	Ch 12, page 6	Delete last sentence on page: [For more information see the "Knik Arm Crossing Project Conceptual Plan Overview" (March 2006)]	

<u>8</u>	Ch 12 , page 7	Replace the last sentence with the following: 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 in Tables 12-2 and 12-4 will be used to finance the project including both initial construction and future expansion costs as identified in Tables 12.1 and 12.2. This is interpreted to mean that the financial constraint funding for the amendment would no longer be valid if additional state or federal transportation money is needed on the KAC project that reduces the SAFETEA-LU formula funds or other flexible funds that has already been assumed and is needed by the other projects within the LRTP for financial constraint. Federal loan programs, grants, tolls, concessions, etc., which are outside of the funding plan assumed for existing LRTP projects would not require an amendment to the Plan, but would be processed through the STIP/TIP appropriations process. If state or federal funds are proposed to be added to the KAC project which are also needed to show financial constraint for other LRTP projects, an amendment would be required to reassess and demonstrate financial constraint for all projects in the LRTP. Add new section paragraph on regional environmental impacts and change title of section to Transportation Impacts of the Knik Arm Bridge on the <u>Regional</u> and Local Transportation System (see attached).	
<u>9</u>	Ch 12, pg 10		
<u>10</u>	Ch 12, pg 12	Replace final paragraph with the following: The question remains, when should the Ingra-Gambell connection be built? In order to answer this question, KABATA has committed funding to begin the reconnaissance effort to analyze this issue once funding for the bridge and Anchorage landside connection is imminent.	
<u>11</u>	Ch 12, pg 12	Add new section at the end of the text entitled Conditions (see attached)	
<u>12</u>	Ch 12 pg 12	Add new section describing regional transportation impacts (see attached)	
<u>13</u>	Ch12 pg 5	Modify Table 12-2 to show sub-total of currently authorized federal and state funding. (see attached)	

(See Revision #11 in Revision Table, here is text)

CONDITIONS

The Knik Arm Crossing is added to the Anchorage Bowl LRTP with the following conditions:

1. **Funding Firewall:** 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 in Tables 12-2 and 12-4 will be used to finance the project including both initial construction and future expansion costs as identified in Tables 12.1 and 12.2. This is interpreted to mean that the financial constraint funding for the amendment would no longer be valid if additional state or federal transportation money is needed on the KAC project that reduces the SAFETEA-LU formula funds or other flexible funds that has already been assumed and is needed by the other projects within the LRTP for financial constraint. Federal loan programs, grants, Tolls, concessions, etc., which are outside of the funding plan assumed for existing LRTP projects would not require an amendment to the Plan, but would be processed through the STIP/TIP appropriations process. If state or federal funds are proposed to be added to the KAC project which are also needed to show financial constraint for other LRTP projects, an amendment would be required to reassess and demonstrate financial constraint for all projects in the LRTP.
2. **Highway-to-Highway Connection:** The Highway-to-Highway connection is a critical complementary project linked to the Knik Arm Crossing project. All available means should be used to ensure that the Highway-to-Highway project is accelerated in order to be completed as soon as possible after construction of the Knik Arm Crossing and prior to the need for the Ingra-Gambell connection.
3. **Future Connection to Ingra-Gambell:** As bridge traffic grows, it is important that a connection from the Knik Arm Crossing to Ingra-Gambell be provided to alleviate congestion along the A/C Couplet in downtown. KABATA will fund the reconnaissance phase to begin this effort once funding for the bridge and Anchorage landside connections is imminent.
4. **Improvements to Government Hill and Affected Communities:** The Government Hill Community Council as well as other neighborhoods such as Downtown, South Addition, and Fairview Community Councils will be directly affected by the proposed Knik Arm Crossing project given the current alignment alternatives. The project currently is in the environmental phase of development. For purposes of the LRTP it is appropriate to provide guidance as to the character and expectations of how the project will be integrated into its neighborhoods, an example of which appears in the language adopted for cut-cover segments of the Seward-Glenn Highway connection.

Due to the potentially adverse affects of Phase 1 traffic from the Knik Arm Crossing on the revitalization of affected neighborhoods, the design for the Anchorage side of the bridge must include adequate mitigation to facilitate the efficient, safe and neighborhood-appropriate incorporation of bridge traffic through downtown and on to roads that can handle the anticipated increase in traffic. This would include measures to reduce the impact of the Knik Arm Crossing traffic on downtown streets, and provide improved pedestrian crossings along the A/C corridor downtown.

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, including trail connections between downtown, Ship Creek and Government Hill. Unique and innovative community and streetscape enhancements will be required as part of this project as it travels through Government Hill that would span the depressed expressway re-establishing neighborhood connectivity, and minimizing noise and air quality impacts to the neighborhood. The project will provide Government Hill with a balance of local road, trail and pedestrian facilities, and discourage the use of local roads by through traffic that might cut through the neighborhood.

The result of this project will not be a traditional freeway through a neighborhood that creates a barrier and separation of the neighborhood. The goal is for Government Hill and the project sponsors to take the opportunity for well designed mitigation projects. Such mitigation projects will be developed in close cooperation with the neighborhood and will utilized a best practices context sensitive design approach to enhance and revitalize the Government Hill community with a design that fits within the character of this unique and historic neighborhood.

Additionally, no work will begin on the Anchorage landside bridge approaches until the complete funding package is secured for both the bridge and the Anchorage access connections and the design has been reviewed and approved through the Municipality of Anchorage design review process.

(See Revision #12 in Revision Table, here is text)

Transportation Impacts of the Knik Arm Bridge on the Regional and Local Transportation System

The Knik Arm Bridge will have a relatively modest impact on regional travel patterns and behavior. According to the information prepared by KABATA for this project, total Vehicle Miles Traveled (VMT) and Vehicle Hours Traveled (VHT) would increase with implementation of this project because of more travel occurring in the Mat-Su, reflecting longer trips necessitated by the more dispersed, rural development patterns. By the year 2030, the total VMT would increase by 480,810 vehicle miles or 4.8% due to construction of the bridge. There would be a similar effect with respect to the amount of time spent in cars from 250,000 vehicle hours without the bridge to 260,000 hours with the bridge or 4%. The effect of the bridge on the promotion of other transportation options is probably negative overall. If one assumes the development pattern on the other side of the bridge in the Mat-Su Borough will be low density (this seems to be the assumption of the DEIS), then it is unlikely a viable bus system could be established.

Table 12-6. Projected 2030 Regional Travel Impacts

No action alternative	9,987,629	250,000	514,826
Knik Arm Bridge Erikson Alternative	10,468,142	260,000	539,595

Fuel consumption estimates were based on 19.4 miles per gallon USEPA fleet average for 2005..

The effect on carpooling and vanpooling rates is less clear-cut. These depend in part on the length of the trip and the ease of finding a sufficient number of persons who share the general origin and destination. Low-density development patterns may occur in the newly opened areas of the Mat-Su Borough would tend to discourage carpooling. On the other hand, the cost of bridge tolls would tend to encourage ridesharing.

With respect to the Anchorage transportation system the impact of the bridge is more focused on particular areas.

(See Revision #13 in Revision Table, here is revised table

Table 12-2

Initial Construction Funding (\$millions):			
	Anchorage	Mat-Su	Total
Federal NHS allocation	\$ 56.1	\$ 37.5	\$ 93.6
State NHS Match	5.6	3.7	9.3
State Capital Improvement Grant	-	15.4	15.4
<u>Federal Capital Improvement Grant*</u>	<u>10.0</u>		<u>10.0</u>
Public Funding Subtotal	71.7	56.6	\$128.3
Toll Revenue Backed Funding Sources	\$ 244.3	\$ 163.5	\$ 407.8
Total Initial Construction Funding	\$ 316.0	\$ 220.10	\$ 536.1

* Federal Capital Improvement Grant is pending. Assumes that the grant will be authorized.