

KNIK ARM CROSSING

Independent Review of the Multimodal Transportation Package Alternative

Prepared for:



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Independent Review of the Multimodal Transportation Package Alternative

EXECUTIVE SUMMARY

This document provides an independent review of whether the Multimodal Transportation Package Alternative meets the Purpose and Need for the Knik Arm Crossing project. The Purpose and Need provides the foundation for developing and evaluating alternatives within a Draft Environmental Impact Statement (DEIS). The DEIS for this project was made available for public review in September, 2006. The DEIS analyzed the Multimodal Transportation Package and dismissed it from full analysis within the document.

The Multimodal Transportation Package Alternative was proposed by a group of local stakeholders. As proposed it consists of a combination of bus, ferry, commuter rail, streetcar and Transportation Demand Management (TDM) strategies (such as carpooling, ridesharing, and flex-time).

This independent review responds to five questions based on the project's Purpose and Need. The review found that the alternative is financially feasible; however, it does not provide for alternative routing and access. The alternative also does not provide connectivity (for the movement of people and freight) between Anchorage and the Mat-Su Borough. Finally, the alternative is not sustainable or efficient in the terms posed by the project purpose and need.

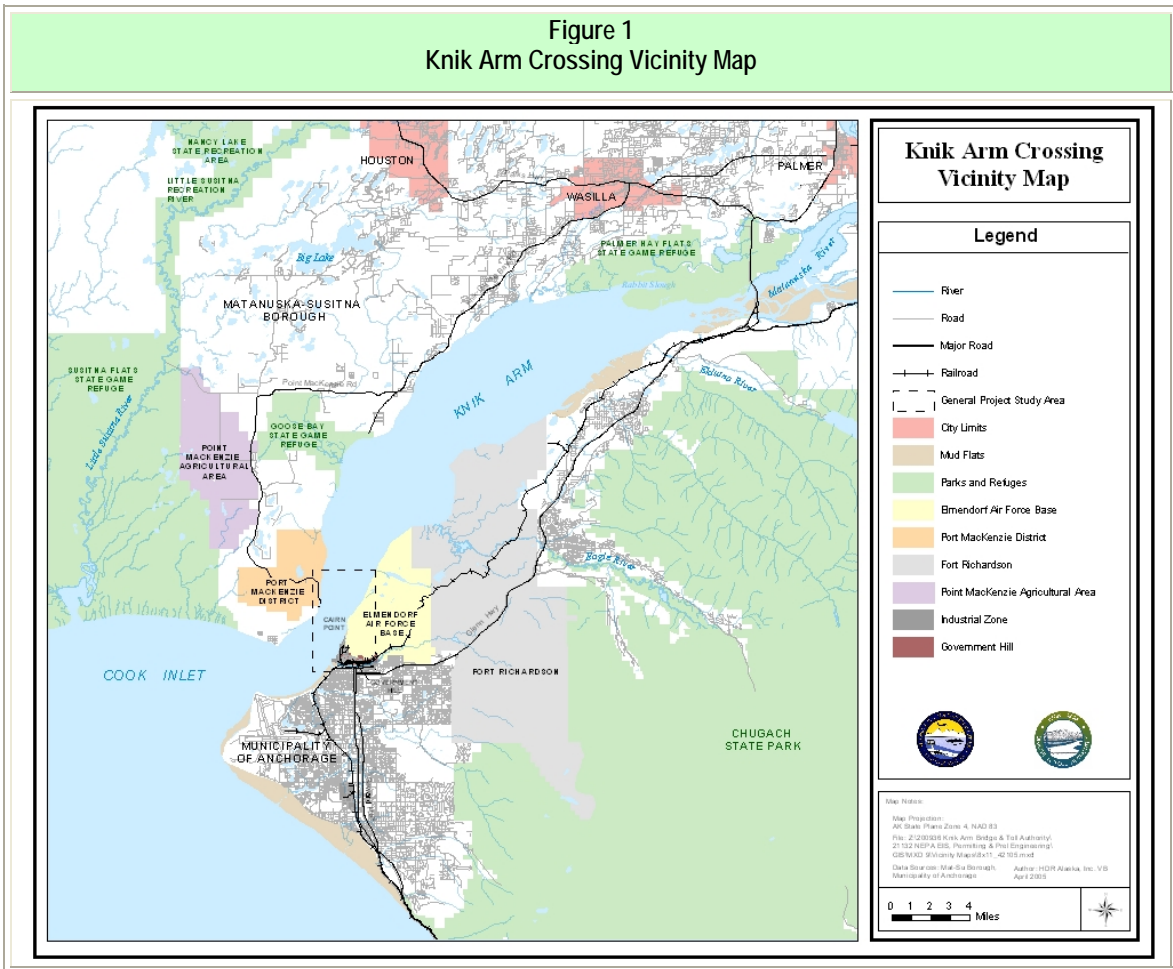
Therefore the conclusion of this independent review is that the Multimodal Transportation Package does not meet the Knik Arm Crossing project purpose and need. In an effort to reduce dependency on single-occupant travel and to provide mobility options for residents and visitors, the modal elements of the Multimodal Transportation Package Alternative should continue to be considered as transportation improvement programs are developed and implemented in the area.

Independent Review of the Multimodal Transportation Package Alternative

1.0: INTRODUCTION

The Knik Arm Bridge and Toll Authority (KABATA) is proposing to construct a bridge crossing of the Knik Arm of the Cook Inlet between the Matanuska-Susitna (Mat-Su) Borough and the Anchorage Bowl in the area between Port MacKenzie and downtown Anchorage (see **Figure 1**). The Draft Environmental Impact Statement (DEIS) for this project is complete and available for public review. Alternative solutions analyzed in the DEIS include various bridge designs and alignment options.

**Figure 1
Knik Arm Crossing Vicinity Map**



Independent Review of the Multimodal Transportation Package Alternative

As part of the EIS scoping process¹, a group of local stakeholders proposed a “multimodal transportation package” alternative to a bridge consisting of ferry, rail, bus and carpool components. The multimodal transportation package was considered and analyzed but eventually dismissed from further review because the EIS project team determined it did not meet the project’s purpose and need. This Independent Review reevaluates that initial decision.

1.1 What is a Purpose and Need statement?

The purpose and need statement is a required section of an EIS. The “Purpose” defines the transportation problem to be solved and outlines goals and objectives that should be included as part of a successful solution to the problem. The “Need” provides data to support the problem statement (Purpose).

The Purpose and Need Statement is intended to clarify the expected outcome of public expenditure and to justify that expenditure. As such, it guides the development of a reasonable range of alternatives to be studied. If an alternative does not fulfill the purpose and need, the alternative is not further analyzed in the environmental document as a viable alternative to the proposed action.

1.2 What is the purpose of this independent review?

At the request of local stakeholders, KABATA staff asked Carter & Burgess, Inc. to provide an Independent Review of the Multimodal Transportation Package Alternative and offer a judgment on whether it meets the purpose and need of the project.

¹ An EIS scoping process allows the general public and affected agencies to have early input into the development of project alternatives, as well as how the alternatives will be evaluated.

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2.0: PURPOSE AND NEED

As part of the Knik Arm Crossing project, the KABATA team held public meetings in the spring and summer of 2005. After obtaining input from the public, a Purpose and Need Statement was prepared. The Scoping Summary Report (November 2005) presents the project's Purpose and Need Statement.

2.1 What is the Purpose and Need for this project?

The purpose of the Knik Arm Crossing project is to further the development of transportation systems in the Upper Cook Inlet region by providing improved vehicular access and surface transportation connectivity between Anchorage and the Mat-Su Borough, at the Port MacKenzie District, with a financially feasible² and efficient³ crossing to meet the needs for:

- ▶ Improved regional transportation infrastructure to meet existing and projected population growth and locally adopted economic development, land use, and transportation plans, and as directed by the Alaska State Legislature in AS 19.75.
- ▶ Regional transportation connectivity for the movement of people and the movement and distribution of freight and goods to, from, and between Anchorage, the Mat-Su Borough, and Interior Alaska.
- ▶ Safety and transportation system redundancy for alternative travel routing and access between regional airports, ports, hospitals, and fire, police, and disaster relief services for emergency response and evacuation.

Evaluated against this purpose and need statement, the EIS project team dismissed the Multimodal Transportation Package from further consideration in the DEIS.

² The Purpose and Need Statement defines *financial feasibility* as the ability to finance a total estimated project cost not-to-exceed \$600 million, unless other yet-to-be identified funding sources become available.

³ The Purpose and Need Statement defines *efficient* as a measure of traffic operating conditions that occurs when such factors as travel demand, effects on connecting transportation networks, facility length, travel time, and operating speed are collectively considered.

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2.2 How will the Multimodal Transportation Package be re-evaluated?

From the above purpose and need statement, five questions were developed to conduct the analysis in this Independent Review. These questions are:

- ▶ Is the Multimodal Transportation Package financially feasible?
- ▶ Is the Multimodal Transportation Package financially sustainable?
- ▶ Is the Multimodal Transportation Package efficient from a travel perspective?
- ▶ Does the Multimodal Transportation Package provide transportation system redundancy for alternative routing and access?
- ▶ Does the Multimodal Transportation Package provide vehicular access and surface transportation connectivity between Anchorage and the Mat-Su Borough for the movement of people and freight?

These questions are discussed in more detail in Section 5, including definitions and information on how each was addressed.

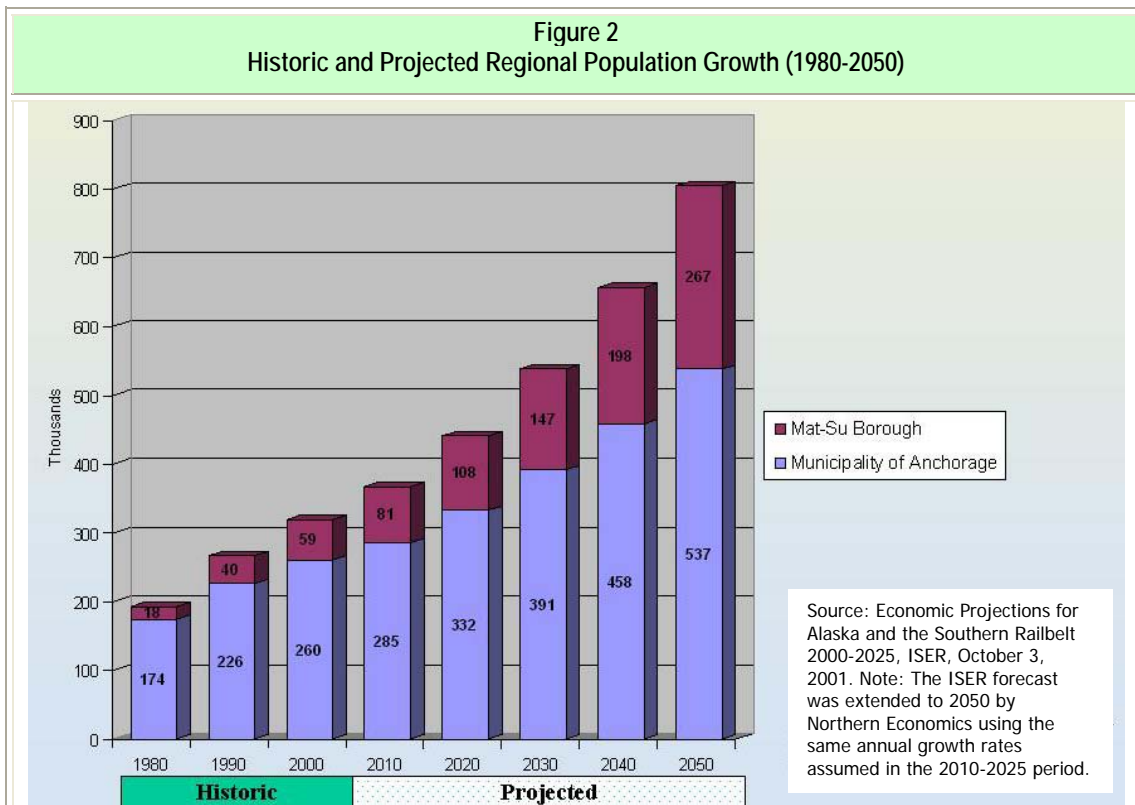
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3.0: PLANNING CONTEXT

The purpose and need statement was developed based on current and projected population in the region and the project area. Based on this growth, coupled with projected traffic volume growth, a need for the project was identified. Local and regional transportation plans also provided the foundation for identifying needed infrastructure improvements.

3.1 How is the population expected to change?

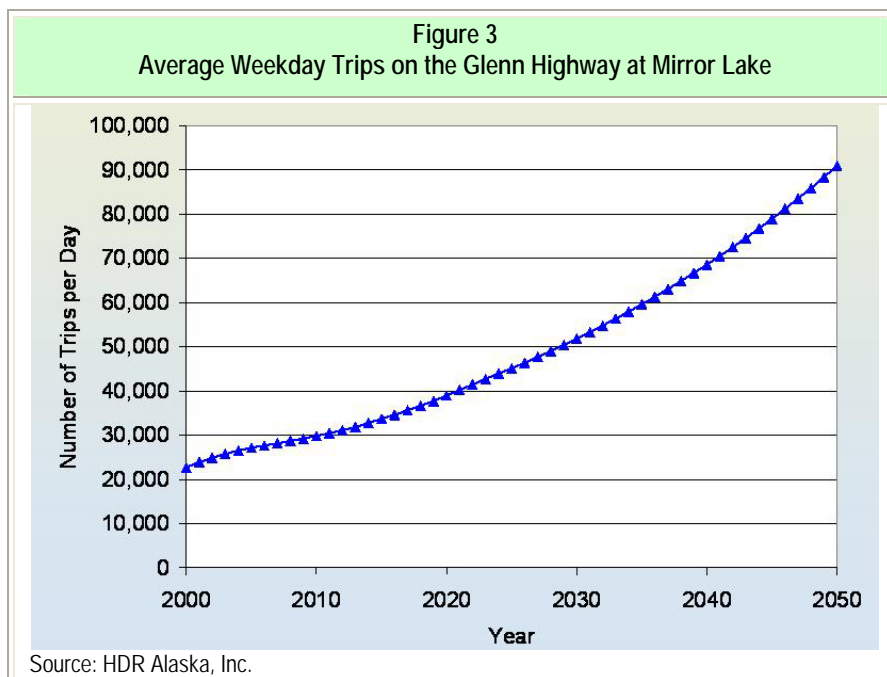
Population growth is expected to continue. **Figure 2** presents population projections within the region regardless of the proposed bridge.



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3.2 Will population growth affect traffic?

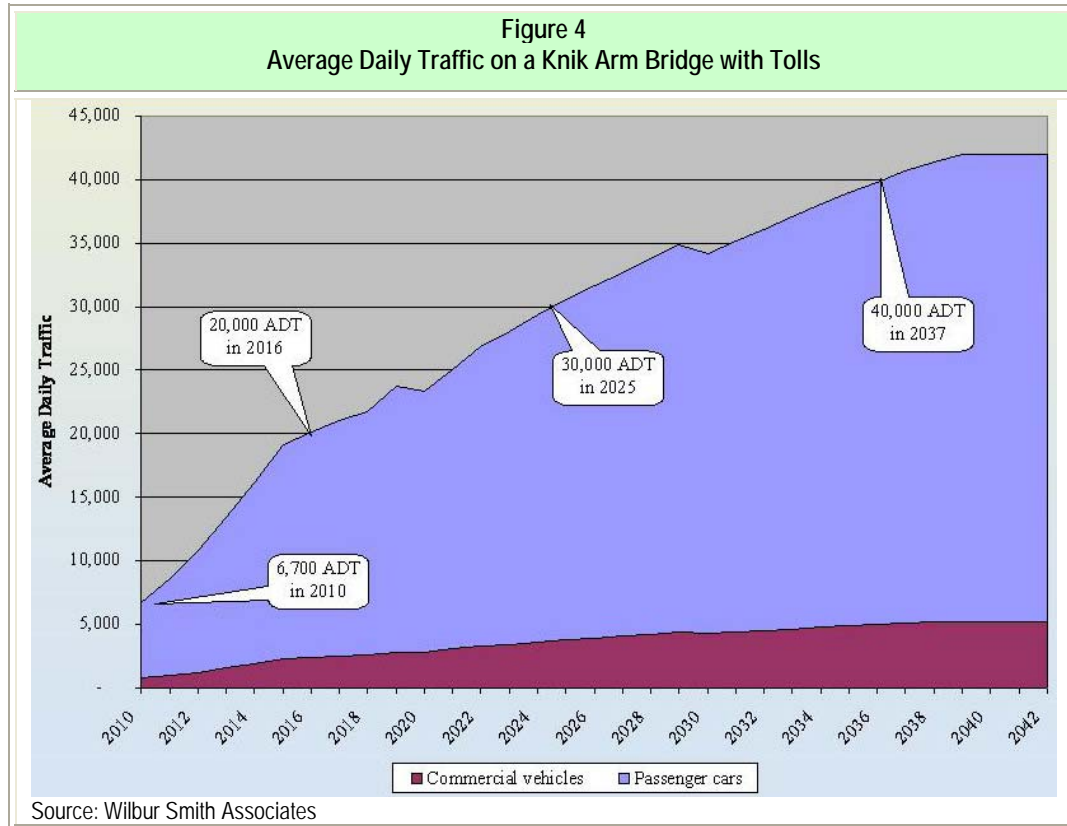
Various technical work efforts over the last few years have developed traffic projections for the Mat-Su Borough and the Anchorage area. These projections help government agencies understand the demand for travel as new transportation facilities are being considered and improvements to existing facilities are being evaluated. **Figure 3** illustrates historical and projected travel on the Glenn Highway near Mirror Lake. The traffic projections on this figure assume that a Knik Arm Bridge has not been constructed. The Glenn Highway currently carries over 25,000 vehicles per weekday (combined northbound and southbound travel). Traffic volume on this roadway is projected to increase by 100 percent in 2030.



Related to the Knik Arm Crossing project, specific traffic projections were developed for a new bridge with tolls. The traffic projection process for a toll road requires overall demand for travel be combined with the impact of a user fee. In theory, if the Knik Arm Bridge charges a toll, then some travelers may not use the facility, even though it would reduce their travel time and distance between Anchorage and the Mat-Su Borough near Port MacKenzie. **Figure 4** presents traffic projections for a Knik Arm Bridge with tolls. Average daily

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traffic in 2010 is projected to be 6,700 vehicles (combined eastbound and westbound). This volume is anticipated to increase to 30,000 daily vehicles in 2025.



3.3 What other transportation plans are in place to address regional needs?

A number of transportation plans have been developed for the Knik Arm region. These plans include the Long Range Transportation Plan (LRTP) for the Anchorage area and the Statewide Transportation Improvement Program (STIP). The following discussion summarizes these documents.

- ▶ *Anchorage Long Range Transportation Plan (LRTP)*, 2005, published by Anchorage Metropolitan Area Transportation Solutions (AMATS) and the Municipality of Anchorage metropolitan planning organization (MPO). Both

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- technically and legally, the plan serves as the baseline for future population growth in the Anchorage Bowl neighborhoods and service areas; however, the Mat-Su Borough is not included in the AMATS planning region. At the time this memorandum was developed, the Mat-Su Borough had not completed its own long range transportation plan.
- ▶ South Central Rail Network Commuter Study and Operations Plan, 2002, prepared by Wilbur Smith Associates for the Alaska Railroad Corporation. This study identified the feasibility of implementing a commuter rail service between Anchorage and the Mat-Su Borough along Glenn Highway to Wasilla. Costs and ridership were estimated.
 - ▶ Cook Inlet Ferry Demand Analysis, 2005, prepared by HDR Alaska, Inc. for the Mat-Su Borough and Tryck Nyman Hayes, Inc. This study identified the feasibility of implementing a ferry service across the Knik Arm of the Cook Inlet between downtown Anchorage and Mat-Su Borough at Port MacKenzie.
 - ▶ Knik Arm Crossing Draft Alternatives Development and Corridor Technical Report, 2005, prepared by HDR Alaska, Inc. for KABATA. This report identifies bridge and transit alternatives for crossing the Knik Arm of the Cook Inlet.
 - ▶ Easing the Glenn Highway Commute, 2005, published by CH2MHill for AMATS. This report identifies demand for bus rapid transit in the Glenn Highway corridor and provides the ridership and cost background for bus rapid transit, as adopted in the LRTP.
 - ▶ 2006-2008 Statewide Transportation Improvement Program (STIP), 2006, published by the Alaska Department of Transportation & Public Facilities. The purpose of the STIP is to inform the public of decisions made regarding the 2006-2008 surface transportation program in Alaska, including details related to programmed projects.
 - ▶ Other data sources include:
 - National Transit Database: Transit operating and financial statistics, both national averages and local PeopleMover costs and performance.
 - Travel Demand Model Output, 2005, developed by HDR Alaska, Inc. under contract to KABATA.

4.0: DESCRIPTION OF THE MULTIMODAL TRANSPORTATION PACKAGE ALTERNATIVE

The Multimodal Transportation Package Alternative was developed based on public outreach and input from key stakeholders. This alternative consists of five transportation modes that together form a “multimodal package.” Each mode is described separately below; however, it is important to understand that the five are meant to operate together concurrently. It was this alternative that was eliminated in the Draft Environmental Impact Statement because it did not serve the purpose and need for this project.

The five transportation modes include: ferry service, bus service, streetcar, commuter rail, and Transportation Demand Management (TDM). The following presents a summary of each of the transportation modes.

4.1 Ferry Service

Ferry service is currently planned and funded for the Knik Arm and is variously referred to as the Knik Arm Ferry and the Cook Inlet Ferry. Service is scheduled to begin in 2008 with one vessel providing hourly service. Long range plans call for increased frequency of service. According to the Mat-Su Borough’s Office of Public Affairs, one vessel will be able to carry about 20 standard-size vehicles. The vessel is a variable draft ferry, which means the ferry can raise and lower its deck, as well as break ice during sailings. Service will operate between Port MacKenzie and Anchorage. It is assumed that Matanuska-Susitna Community Transit (MASCOT) bus service will provide connecting service to the Port MacKenzie ferry terminal.

For the Multimodal Transportation Package Alternative, Ferry Service is defined as 30-minute service between Anchorage and Port MacKenzie. This service level represents a doubling of the operation described above. One new vessel will be acquired. Terminal expansion improvements will also be made on both sides of the Knik Arm.

4.2 Bus Service

People Mover currently provides transit service for Anchorage residents and visitors. In 2005 average weekday ridership was approximately 13,500 (system wide). The organization maintains a fleet of 55 buses and para-transit vehicles. People Mover provides fixed route and on-demand transportation services.

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The bus service element of the Multimodal Transportation Package Alternative assumes the following:

- ▶ Continuation of current service levels.
- ▶ Implementation of the planned transit improvements in the LRTP.
- ▶ Implementation of high-frequency Bus Rapid Transit (BRT) service along the Glenn Highway and Parks Highway.
- ▶ Improved bus transit connections between Port MacKenzie and the Parks Highway.

4.3 Streetcar

As part of the Multimodal Transportation Package Alternative, a streetcar loop would be developed in Anchorage to replace the existing Ship Creek Shuttle service. The total route would be approximately three miles in length. Service would be provided between the ferry terminal, Alaska Railroad Terminal, the downtown transit center, and various downtown destinations. For purposes of this analysis, the existing Ship Creek Shuttle is expected to evolve from a high-frequency bus service into a rail streetcar service.

Assumed operation levels include 16 hours per day with 10-minute service frequencies during the four-month summer season and 10 hours per day and 20-minute service frequencies during the off-peak season. One-way service is assumed in both cases.

4.4 Commuter Rail Service

Commuter rail service does not currently exist between Anchorage and the Wasilla and Palmer areas of the Mat-Su Borough. Several studies have been conducted recently that addressed the potential for implementing commuter rail service between these locations. However, to date funding has not been programmed for this type of project.

The commuter rail element of the Multimodal Transportation Package Alternative calls for service between Anchorage and Wasilla at a 30-minute



service frequency level. It is assumed that the operation would utilize existing Alaska Railroad tracks in this area.

4.5 Transportation Demand Management

Transportation demand management (TDM) refers to a variety of measures that reduce travel demand in a corridor or region. Encouraging employers to adopt alternative work schedules is a common TDM measure, as are ridesharing, carpooling and vanpooling. A key component of TDM is effective marketing and communication of transit and ridesharing programs to potential users.

For the Multimodal Transportation Package Alternative, the TDM element assumes a continuation of the various measures and programs being employed in the Anchorage area to reduce dependency on single-occupant vehicle travel. This element of the alternative does not assume expansion of the local vanpool fleet.

5.0: EVALUATION OF THE MULTIMODAL TRANSPORTATION PACKAGE ALTERNATIVE

The Purpose and Need statement for the Knik Arm Crossing project was presented in Chapter 2 of this document. Based on the content of that statement, a series of questions was developed to provide a framework for this independent review. Questions were developed based on the major areas of interest presented in the Purpose and Need statement. These major areas of interest are listed in **Table 1**. The intent of answering these questions was to determine if the Multimodal Transportation Package Alternative “met” the Purpose and Need for the Knik Arm Crossing project. The following section presents each question and response.

Table 1
Areas of Interest from Which
Questions were Developed

Area of Interest
Finance
Traffic
Safety
Transportation Network

5.1 Is the alternative financially feasible?

Based upon our review, the answer is YES.

According to the Purpose and Need statement for the Knik Arm Crossing project, financially feasible is defined as delivering a project for an amount not to exceed \$600 million. This definition does not address costs associated with operations and maintenance.

A conceptual-level analysis was conducted to develop a capital cost estimate for the Multimodal Transportation Package Alternative. **Table 2** presents the capital cost associated with each element of the alternative.

As shown in **Table 2**, the total capital cost of the Multimodal Transportation Package Alternative is \$73 million in 2005 dollars. At this time the specific delivery schedules of the capital projects associated with the various elements are unknown. Assuming these projects would be delivered within the next five to ten years, it is reasonable to conclude that the \$73 million capital cost would escalate to an amount well below \$600 million.

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Table 2
Capital Cost Associated with Each Element of the Alternative

Element	Capital Cost (2005 Dollars)	Source	Notes
Expanded Ferry	\$25M	Knik Arm Ferry project	Adds one ferry to the programmed fleet (\$20M). Includes expansion work at both ferry terminals (\$2.5M per).
Expanded Bus	\$0	NA	Capital costs are already programmed—no incremental cost required.
Streetcar	\$15M	Comparable project in Orlando, Florida	Assumes \$4M per mile to build the facility. Includes 5 vehicles at \$600,000 each.
Commuter Rail	\$33M	Wilbur Smith Associates	Escalated costs (3 percent per year) from the South Central Rail Network Commuter Study & Operation Plan—2002.
Transportation Demand Management	\$0	NA	No incremental cost required.
TOTAL	\$73M		

5.2 Is the alternative financially sustainable?

Based upon our review, the answer is NO.

Determining financial sustainability for the Multimodal Transportation Package Alternative requires an assessment of future revenue (ridership) and cost (operations and maintenance). Specifically, once the project is constructed and service begins, will ridership provide enough revenue to cover the cost of operating and maintaining the various transit systems?

A planning-level financial analysis was conducted for each element of the Multimodal Transportation Package Alternative to determine financial sustainability during operations. Most of this planning-level assessment focused on the experiences of other transportation providers in Alaska and the rest of the United States. The following discussion presents a summary for each transportation mode.

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- ▶ Expanded Ferry: According to the findings from the *Cook Inlet Ferry Demand Analysis (2005)*, it is unlikely that ferry revenues will cover costs for the start-up operation. Washington State Ferries (WSF) has a fare recovery ratio of 79 percent. Which means the WSF recovers 79 percent of the cost to operate the system through the farebox. The remaining 21 percent of the cost to operate is subsidized. The WSF system is well developed and has strong utilization. It is unlikely that an expanded Knik Arm ferry system would have a larger fare recovery ratio than the WSF.
- ▶ Expanded Bus: In 2002 the Anchorage fixed route bus system had a fare recovery ratio of 17 percent, which means that 83 percent of the operations and maintenance costs had to be subsidized.⁴ It is reasonable to assume that the expanded bus operations associated with this alternative would have comparable fare recovery characteristics.
- ▶ Streetcar: This assessment did not develop detailed estimates of ridership and operations and maintenance costs for a new streetcar system in Anchorage. In lieu of this type of information, it is reasonable to assume that the fare recovery characteristics of this service would be similar to the data described above for expanded bus service. As such, a streetcar operation would more than likely require a significant subsidy.
- ▶ Commuter Rail: Sound Transit provides commuter rail service along a 75-mile system in western Washington. During the 1st Quarter of 2006 Sound Transit's commuter rail service generated \$1.25 million in operating revenues and incurred \$5.1 million in operating expense. The result was a commuter rail system with a 25 percent fare recovery ratio, which required a 75 percent subsidy for operations and maintenance cost. Given the large population that exists in the Puget Sound Region, it's reasonable to assume that the fare recovery ratio for a commuter rail service in the Mat-Su Borough would be no greater than Sound Transit's experience.

⁴ National Transit Database

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- ▶ Transportation Demand Management: Fare recovery ratios for carpool and vanpool programs often reach 100 percent of operating and maintenance costs. Only administration and marketing costs are typically funded through general revenues.

5.3 Is the alternative efficient from a travel perspective?

Based upon our review, the answer is NO.

For the purposes of this evaluation, travel efficiency relates to trip length and travel time. Greater trip length and longer travel time are considered to be less efficient. Answering this question for the Multimodal Transportation Package Alternative requires a dual comparison.

- ▶ The first comparison addresses a trip around the Knik Arm using existing routes versus a trip across the Knik Arm using a future facility. This information is intended to illustrate how the transit elements (bus and rail) of the Alternative compare with a crossing of the Knik Arm.
- ▶ The second comparison looks at two different vehicular trips between central Anchorage and the Lower Mat-Su Borough; one via ferry and one via a new bridge. The results indicate how well ferry service performs relative to a crossing alternative.

Figure 5 presents travel time and travel distance data for trips between the Lower Mat-Su Borough and central Anchorage. As shown on this graphic, a trip made on existing transportation facilities around the Knik Arm is approximately 80 miles in length and takes approximately 95 minutes. A trip using a Knik Arm Crossing would be over 10 miles in length and take approximately 14 minutes. The trip around the Knik Arm on existing facilities is approximately 69 miles longer and would require an additional 81 minutes to complete.⁵

⁵ Knik Arm Bridge and Toll Authority, Project Overview Presentation, July 18, 2006

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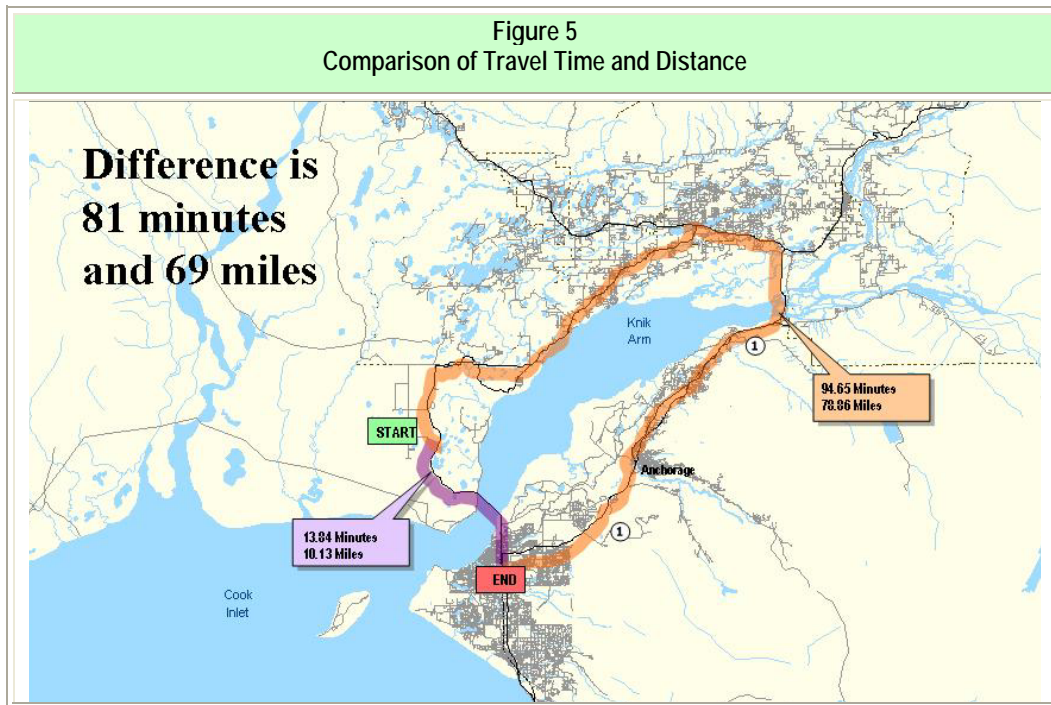


Table 3 compares vehicle trips between central Anchorage (intersection of 36th Avenue and the New Seward Highway) and the Lower Mat-Su Borough. One of the trips utilizes the expanded ferry service, while the other trip uses a new bridge.

This evaluation assumed that ferry service is provided every 30 minutes (16 hours a day). The travel time listed for the ferry service is a minimum travel time. The calculation assumed a ferry was available immediately to cross the Knik Arm. Waiting for the next available ferry could add up to 30 minutes for the trip (58 minutes + 30 minutes = 88 minutes). As such, a vehicular trip using the bridge would be 29 to 59 minutes faster than the trip that uses the expanded ferry service.⁶

Table 3
Travel Comparison (Knik Arm Crossing)

	Distance	Time
Ferry	22 Miles	58 Minutes
Bridge	22 Miles	29 Minutes

⁶ Knik Arm Crossing, Alternatives Development and Corridor Technical Report, September 2005



Based on the information described above, it's reasonable to conclude that the transit elements and the ferry service element of the Multimodal Transportation Package Alternative are not efficient from a travel perspective.

5.4 Does the alternative provide transportation system redundancy for alternative routing and access?

Based upon our review, the answer is NO.

In transportation planning, if two or more transportation systems serve the same area and can be used interchangeably, it is considered to be a redundant transportation system. By having a redundant transportation system, users have a choice when traveling and also have another travel route during an emergency or natural catastrophe.

The streetcar element of the Multimodal Transportation Package Alternative would only provide mobility options for travelers in the Ship Creek area of Anchorage. As such, this element of the alternative would not provide transportation system redundancy.

The commuter rail and bus elements of the Multimodal Transportation Package Alternative would expand operations along the existing transportation corridors near the Knik Arm, including the Glenn Highway, Parks Highway and other roadways in the Mat-Su Borough. Enhanced transit services along these corridors would not provide transportation system redundancy.

The ferry element of the Multimodal Transportation Package Alternative would provide service along a new alignment that is independent from existing travel corridors. However, the expanded ferry service element would provide limited operations (16 hours per day, 30-minute service frequency) for evacuation associated with a catastrophic event. With two ferries in operation, the expanded service would be able to move approximately 40 standard-size vehicles per hour, per direction. In comparison, a four-lane bridge could accommodate 8,000 vehicles per hour if all lanes operated in a single direction.⁷

⁷ Knik Arm Crossing Scoping Summary Report, November, 2005

5.5 Does the alternative provide vehicular access and surface transportation connectivity between Anchorage and the Mat-Su Borough for the movement of people and freight?

Based upon our review, the answer is NO.

As described in the response to the previous question, the streetcar, commuter rail and expanded bus elements of the Multimodal Transportation Package Alternative would not change the fundamental access and connectivity characteristics between Anchorage and the Mat-Su Borough, in particular the lower portions of the Mat-Su Borough. Travel patterns and conditions in this area would generally remain the same. In addition, transit systems typically do not accommodate freight distribution.

Expanded ferry service would improve vehicular access and connectivity between Anchorage and the Mat-Su Borough. This expanded service would provide a direct transportation connection between the Anchorage area and Port MacKenzie. However, ferry operations provide reduced capacity compared to a bridge alternative.

As stated above, ferry service every 30-minutes could accommodate 40 standard-size vehicles per hour, per direction. Based on 16 hours of operation per day, total capacity of the ferry service would be 640 standard-size vehicles per day, per direction (1,280 total). As shown previously in Figure 4, utilization of a Knik Arm Bridge with tolls is projected to be 6,700 vehicles per day in 2010 (combined eastbound and westbound travel) and 30,000 vehicles per day in 2025. A comparison of these statistics indicates that daily capacity of the ferry service (1,280 vehicles) is less than 20 percent of the projected travel demand in 2010 and less than five percent in 2025.

According to the Cook Inlet Ferry Project Team, the ferry vessels will be able to accommodate two heavy trucks per trip. Adding heavy trucks to the vehicles on-board will reduce the previously stated capacity of 20 standard-size vehicles per trip (assumed conversion is one heavy truck equals three standard-size vehicles). Two heavy trucks per trip equates to four per hour, per direction and 64 per direction/per day (128 total). Based on the projected traffic volumes described above and the overall growth plans for Port MacKenzie, the freight capacity of the ferry service appears to be well below future demand.

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6.0: CONCLUSION

The results of this Independent Review of the Multimodal Transportation Package Alternative indicate that this alternative does not meet the Purpose and Need for the Knik Arm Crossing project. As documented in Section 5, the primary reasons for reaching this conclusion are:

- ▶ The Alternative is not financially sustainable. Future revenues are not anticipated to cover the cost of operations.
- ▶ The Alternative is not efficient from a travel perspective. A trip across the Knik Arm is much shorter and requires significantly less time than a trip on existing roadways between Anchorage and the Mat-Su Borough. From a travel time perspective, a vehicular trip across the Knik Arm using a ferry is not competitive with the same trip using a bridge.
- ▶ The Alternative does not provide sufficient transportation system redundancy for alternative routing and access during a catastrophic event. Although ferry service would provide a transportation connection along a new alignment, the system is limited from a capacity and hours of operation perspective.
- ▶ The Alternative does not provide strong vehicular access and connectivity between Anchorage and the Mat-Su Borough for the movement of people and freight.

Section 3 of this document provided a range of data that illustrates the growth that is occurring in the Anchorage and Mat-Su Borough areas. This growth will result in increased travel between Anchorage and the upper portions of the Mat-Su Borough near Wasilla and Palmer. Transportation facilities and services will need to be provided to meet this increasing demand.