INTERIM 2035 METROPOLITAN TRANSPORTATION PLAN

ANCHORAGE BOWL • CHUGIAK-EAGLE RIVER

A M A T S

Anchorage Metropolitan Area Transportation Solutions

NOVEMBER 2015

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INTERIM
2035
Metropolitan Transportation Plan
The Anchorage Bowl and Chugiak-Eagle River

Prepared for:
Municipality of Anchorage,
Anchorage Metropolitan Area Transportation Solutions

Prepared by:
PDC Inc. Engineers

November 2015

The Interim 2035 Metropolitan Transportation Plan (MTP) was approved by the Anchorage Metropolitan Area Transportation Solutions (AMATS) Policy Committee on August 27, 2015. The Federal Highway Administration and Federal Transit Administration approved the MTP Air Quality Conformity Determination on November 19, 2015, the effective date of the Interim 2035 MTP. This publication was released by AMATS, the Municipality of Anchorage, and the Alaska Department of Transportation & Public Facilities for the purpose of public information. This report was funded in part through grants from the U.S. Department of Transportation, Federal Highway Administration, and Federal Transit Administration. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

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INTERIM
2035
Metropolitan Transportation Plan
The Anchorage Bowl and Chugiak-Eagle River

ANCHORAGE METROPOLITAN AREA TRANSPORTATION SOLUTIONS

Approved by the AMATS Policy Committee
Date: August 27, 2015

Robert Campbell, Regional Director (Chair)
Alaska Department of Transportation and Public Facilities

Patrick Flynn
Anchorage Municipal Assembly

Ethan Berkowitz, Mayor
Municipality of Anchorage

Tim Steele
Anchorage Municipal Assembly

Denise Koch, Director of Air Quality
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Federal Highway Administration and Federal Transit Administration Air Quality Conformity Determination Approval

U.S. DEPARTMENT OF TRANSPORTATION

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ALASKA DIVISION
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November 19, 2015

Mr. Robert A. Campbell, P.E.
Central Region Director
Department of Transportation and Public Facilities
P.O. Box 196900
4111 Aviation Avenue
Anchorage, AK 99519

In Reply Refer To:
TRAP 19-1

Dear Mr. Campbell:

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have received the AMATS Air Quality Conformity Analysis and Technical Appendix for the AMATS 2035 Interim Metropolitan Transportation Plan (MTP).

Anchorage is a CO maintenance area with an approved Limited Maintenance Plan (LMP). Anchorage has not had a violation of the CO national ambient air quality standards (NAAQS) since 1996. Under the limited maintenance plan, there is no emissions budget. In order to qualify for the LMP, the Anchorage CO design value must be less than 85% of the NAAQS exceedance level. Analysis of the Anchorage CO data demonstrates that Anchorage is in compliance with the eligibility criteria for its CO limited maintenance plan. Other requirements for the CO maintenance area are also met.

A portion of Eagle River is a PM-10 maintenance area with a Limited Maintenance Plan. The last violation of the PM-10 NAAQS occurred in 1987. The 5-year average Design Value concentration is required to be below 98 ug/m^3. The 5-year average DV in Eagle River has consistently met this requirement.

The transportation conformity rule in section 93.105 requires consultation among air and transportation agencies at the local, state, and federal levels. AMATS, state and local air quality officials, and representatives from Alaska DOT&PF, FHWA, and US EPA took part in the consultation process for this current conformity determination.

Based on our review, the FHWA and FTA approve the conformity determination for the AMATS Interim 2035 Metropolitan Transportation Plan. This MTP conformity determination also extends to the AMATS 2015-2018 TIP that is included by reference in the 2016-2019 Alaska State Transportation Improvement Program (STIP). Since all non-exempt projects are consistent with those in the 2035 MTP, 40 CFR 93.122(g)(l) permits reliance on the regional emissions analysis from the MTP.

If you have any questions, please contact Mr. John Lohrey, FHWA Statewide Programs Team Leader at (907) 586-7428, or Mr. Ned Conroy, FTA Community Planner at (206) 220-4318.

Sincerely,

Sandra A. Garcia-Aline
Division Administrator
Federal Highway Administration

for R.F. Krochalis
Regional Administrator
Federal Transit Administration

Electronically cc:
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Acknowledgements

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INTRODUCTION

Every four years, AMATS (Anchorage Metropolitan Area Transportation Solutions) is responsible for reviewing and updating the Metropolitan Transportation Plan (MTP) to confirm the plan's validity and consistency with current and forecast transportation and land use conditions and trends.

This Interim 2035 MTP update confirms the 2035 MTP as still valid, and maintains a twenty-year planning horizon to recommend improvements in the transportation system from today to 2035, as work progresses on the next major update, the 2040 MTP.

The 2035 MTP (Kittelson and Associates, Inc., 2012) was approved by the AMATS Policy Committee in May 2012, and its companion Air Quality Conformity Determination was approved by the Federal Highway Administration (FHWA) on May 25, 2012, the effective date of the 2035 MTP. The 2035 MTP expires four years from that date on May 25, 2016. The next major update, 2040 MTP, will build upon work that is not expected to be complete in time to meet the May 2016 deadline. To avoid the 2035 MTP lapsing into nonconformity for air quality, the AMATS Policy Committee approved a measure to develop an Interim 2035 MTP, with FHWA and Federal Transit Administration (FTA) concurrence. This will effectively extend the life of the current 2035 MTP to allow time for completion, documentation, and approval of critical tasks needed for development of the 2040 MTP.

AMATS POLICY COMMITTEE GUIDANCE FOR INTERIM MTP DEVELOPMENT

A team consisting of transportation planning consultants, AMATS staff, and representatives of the Municipality of Anchorage (MOA) and the State of Alaska Department of Transportation & Public Facilities (DOT&PF) worked together to prepare this Interim 2035 MTP. The AMATS Policy Committee provided the MTP team with the following key planning assumptions and parameters to guide the development of the Interim 2035 MTP:

- **MTP Update Requirements:** AMATS must review and update the MTP at least every four years in air quality maintenance areas. An update of the air quality conformity analysis for the next MTP update is required by May 25, 2016.
- **Current Work Efforts:** The next major update to the MTP, 2040 MTP, will build upon current work efforts that are not expected to be completed for use in the MTP update in time to meet the May 25, 2016, deadline.
- **Precedent for the Interim MTP:** An Interim 2035 MTP will be developed for the Anchorage Bowl and Chugiak-Eagle River to confirm the validity of the 2035 MTP while work progresses on the 2040 MTP, effectively extending the life of the current MTP and resulting in a new due date for the 2040 MTP.
  - The Interim 2035 MTP will follow Federal Highway Administration (FHWA) planning regulations, 23 CFR 450.322, regarding the development and content of the MTP, and shall draw principally from content provided in the 2035 MTP.
  - An MTP must have a horizon year of at least twenty years from the date of FHWA approval of the related Air Quality Conformity Determination. As supporting data and projections for the current adopted 2035 MTP extend to year 2035, the Interim 2035 MTP Air Quality Conformity Determination should be approved by December 31, 2015.
  - Development of the Interim 2035 MTP will follow Environmental Protection Agency (EPA) regulations in 40 CFR 93, Subpart A, for Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects, particularly with respect to air quality and transportation modeling, cost estimates, and fiscal constraints.
- **Horizon Year:** The horizon year for the Interim 2035 MTP is assumed to be 2035.
- **Air Quality Modeling Analysis:** Since approval of the 2035 MTP in 2012, the EPA has designated the Anchorage Bowl as a limited maintenance area for carbon monoxide (CO) and Eagle River as a limited maintenance area for particulate matter less than 10 microns in diameter (PM-10). As a consequence, the requirement to meet an emission budget for CO and PM-10 has been eliminated and transportation/air quality modeling is no longer required to estimate emissions. Thus, there is no requirement for air quality modeling analysis in the AMATS MTP or TIP (Transportation Improvement Programs).
- **Fiscal Constraints:** Conformity regulations still require a re-examination of project costs to determine whether the Interim 2035 MTP is fiscally constrained. Economic changes in the past year could potentially affect assumptions about the amount of federal, state, and local revenue available for the implementation of the transportation network envisioned in the 2035 MTP. This may necessitate changes to the projects that can be included in the MTP. Staff will work closely with DOT&PF Central Region in using the financial tool developed for the 2035 MTP to demonstrate fiscal constraint and will review project cost and operations and maintenance (O&M)

estimates with DOT&PF Central Region and update as appropriate.

- **Transportation Modeling:** If the fiscal constraint analysis necessitates significant changes to the projects in the MTP, AMATS will have to decide whether transportation modeling is necessary to inform any decisions about the removal (or addition) of projects in the MTP.
  - **Modeling Assumptions:** If transportation modeling is needed in order to revise the projects included in the Interim 2035 MTP, staff will use the same modeling assumptions utilized in the 2035 MTP, based upon the December 2009 report titled "Economic and Demographic Projections for Alaska and Greater Anchorage 2010-2035," developed by the Institute for Social and Economic Research (ISER) at the University of Alaska Anchorage (UAA), as the team develop the Interim MTP.
- **Knik Arm Crossing:** The Knik Arm Crossing (KAC) project will remain in the Interim 2035 MTP as a short-term project, as financial arrangements for the KAC are not yet finalized and no immediate change is anticipated for the need to remove projects to meet fiscal constraints in relation to the project. Staff will include latest available project information, including plan of finance, for the Knik Arm Crossing project.
- **Goals and Objectives:** The Goals and Objectives in the adopted 2035 MTP for the Anchorage Bowl and Chugiak-Eagle River will be reviewed and confirmed as still relevant and consistent with existing land use plans.
- **Completed Projects:** The Interim 2035 MTP will recognize the completion of projects, strategies, and planning efforts identified in the 2035 MTP.
- **Public Participation:** The Interim 2035 MTP public participation activities will focus on AMATS public meetings, a 30-day public review with Planning and Zoning Commission work session and public hearing and Municipal Assembly work session and public hearing. *[**NOTE**: Since this guidance was written, the Community Planning and Development Director and Current Planning Manager determined that Planning and Zoning Commission review was not necessary for this Interim 2035 update, and Assembly Members of the AMATS Policy Committee requested only an informational update instead of a public hearing.]*
- **FHWA Certification Review:** All relevant recommendations and corrective actions from the 2010 AMATS Certification Review by FHWA will be addressed and incorporated into the Interim 2035 MTP as applicable.
- **Air Quality Conformity:** An Air Quality Conformity Determination for the Interim 2035 MTP will be prepared and adopted as part of the Interim 2035 MTP, and shall draw principally from the Air Quality Conformity Determination developed for the current adopted TIP.
- **2040 MTP:** Adoption of the 2040 MTP, the next major plan development with full TransCAD model update, will occur as expeditiously, but also as thoroughly, as possible prior to the expiration of the Interim 2035 MTP, as other related work efforts are completed, documented, and approved, avoiding a conformity lapse.

HIGHLIGHTS OF THE INTERIM 2035 MTP

- The goal of the MTP is to match the provision of transportation facilities and services to the needs of the Anchorage Bowl and Chugiak-Eagle River through 2035, subject to anticipated available funding resources. Development of the Interim 2035 MTP followed the Policy Committee guidance, above.
- The goals and objectives (Chapter 3), description of the existing transportation system (Chapter 4), future 2035 needs analysis (Chapter 5), and recommendations for capital projects and strategies to meet those needs identified in the 2035 MTP (Chapter 7) are carried forward in the Interim 2035 MTP, with an updated look at projected costs and revenues.
- All of the projects recommended for the short- term (2011-2023) and long-term (2024-2035) remain in the fiscally constrained portion of the Interim 2035 MTP financial plan (Chapter 6); therefore, no additional modeling efforts were required.
- This interim MTP provides a review of accomplishments in implementing the 2035 MTP since it was approved in 2012 (Chapter 8), and confirms that the Interim 2035 MTP is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for CO and PM-10, and that the recommendations in the Interim 2035 MTP will not undermine the ability for Anchorage and Chugiak-Eagle River to maintain compliance with the respective National Ambient Air Quality Standards (NAAQS) for CO and PM-10 (Chapter 9).

This interim MTP provides a review of accomplishments in implementing the 2035 MTP since it was approved in 2012.

Chapter 2

PUBLIC INVOLVEMENT

The Interim MTP was developed within the context of an ongoing, continuous public involvement process in the AMATS region. The public involvement process carried out in the development of the 2035 MTP remains a cornerstone for the Interim 2035 MTP.

The following sections outline the extensive public involvement activities carried out in the development of the 2035 MTP, the issues identified during those public involvement activities, and the Interim 2035 MTP public involvement activities.

2035 MTP PUBLIC INVOLVEMENT

The 2035 MTP's public involvement activities were built upon rigorous public outreach efforts of the previous Anchorage Bowl and the Chugiak-Eagle River Long-Range Transportation Plans (LRTPs).

Public involvement for the 2035 MTP consisted of three phases:

- Building plan awareness
- Plan development
- Plan review and approval

Building Plan Awareness

Throughout the development of the 2035 MTP, team members connected with established MOA boards and commissions and other community groups in order to share and get feedback on the scope, content, and schedule of the MTP. These connections provided valuable input on travel preferences and the transportation needs of the communities they served.

Plan Development

The 2035 MTP was developed using multiple public outreach activities, including:

- An expanded Technical Advisory Committee (Technical Advisory Committee Plus, or TAC+) was formed with the following objectives:
  - Provide a broad representation of stakeholder groups
  - Contribute to a regional viewpoint
  - Represent a wider range of perspectives
- Information was posted to the AMATS website.
- An e-mail alert system for participation activities was established.
- An electronic survey was announced and remained open throughout the planning period.

Plan Review and Approval

During development of the MTP, two drafts were produced for review and approval:

- Public Review Draft Plan
- Public Hearing Draft Plan

The Public Review Draft Plan

This draft was developed to instigate an intensive public comment period, including a widespread media campaign to publicize opportunities for the public to participate in the plan, three open houses set up to collect feedback on the plan, and a number of public forums to discuss the plan's recommendations.

The Public Hearing Draft Plan

This draft was developed for review and adoption by the AMATS Policy Committee, the MOA Planning and Zoning Commission (PZC), and the Municipal Assembly. The public was invited to participate at meetings of the AMATS Technical and Policy Committees when approval of the Public Hearing Draft was considered.

Outreach to Specific Groups

Throughout the planning period, the 2035 MTP project team took special measures to ensure inclusion of policymakers, regulatory and resource agencies, and the traditionally underserved.

Outreach for Inclusion of the Underserved

Outreach to transportation disadvantaged populations was accomplished in multiple ways, including:

- **Direct contact** with MOA boards and commissions and non-governmental organizations that provide a voice and services for underserved groups
- **Translation** of newspaper inserts and distribution to specific community groups
- **Advertising** information on People Mover buses

Policymaker Participation

2035 MTP updates and work sessions involved a number of local, state, and federal policy officials, including:

- Mayor Dan Sullivan
- The AMATS Policy Committee
- The Anchorage Assembly
- The MOA Planning and Zoning Commission
- Alaska state legislators
- The House Transportation Committee, Transportation Infrastructure Fund Subcommittee
- A number of local, state, and federal transportation officials

Regulatory and Resource Agency Participation

State and local agencies, responsible for land use management, natural resources, environmental protection, conservation, and historic preservation, were consulted for policy-level input on potential environmental mitigation measures and strategies to be considered in conjunction with implementation of the transportation projects listed in the 2035 MTP.

Issues Identified During 2035 MTP Public Involvement

Key issues identified during the 2035 MTP public involvement activities include:

- Access to alternative modes
- Accessibility
- Congestion
- Coordination
- Economic and community development
- Education
- Healthy community
- Maintenance
- Network development
- Public outreach for MTP development
- Public transportation
- Regional transportation
- Safety and security
- Technology

INTERIM 2035 MTP PUBLIC INVOLVEMENT

The Interim 2035 MTP does not change the recommendations of the 2035 MTP; it merely extends the life of the 2035 MTP as work progresses on the 2040 MTP. Therefore, public involvement for the Interim 2035 MTP focuses primarily on AMATS public meetings, with a 30-day period for public review and comment.

Figure 2-1: Anchorage Transportation Fair, February 2015

Source: DOT&PF

As directed by the MOA Community Development Department Director and current Planning Manager, this Interim MTP does not need to be brought before the Planning and Zoning Commission (PZC) as an informational item, or for public hearing.

The MOA Assembly has asked for the Interim MTP to be presented to them as an informational item, although no public hearing or work session will be required.

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Chapter 3

PLAN GOALS AND OBJECTIVES

The Interim 2035 MTP maintains a set of goals and objectives that are founded on citizen involvement, designed to meet all transportation regulations, and provide a means for measuring the plan's success as it is implemented.

The following sections outline the Interim 2035 MTP goals and objectives and review current transportation regulations to confirm that all goals and objectives for the Interim 2035 MTP remain in line with those regulations.

DEVELOPING GOALS AND OBJECTIVES

The basis for the Interim 2035 MTP goals and objectives are those developed for plans prior to the 2035 MTP for the Anchorage Bowl and Chugiak-Eagle River, and that were included in the 2035 MTP goals and objectives.

The Interim 2035 MTP's goals and objectives remain consistent and relevant to the goals and objectives in the Anchorage 2020 Comprehensive Plan and the Chugiak-Eagle River Comprehensive Plan Update, the latest comprehensive plans adopted by the MOA.

INTERIM 2035 MTP GOALS AND OBJECTIVES

Goal 1

Ensure development of a balanced transportation network for people, goods, and services that provides an acceptable level of service, maximizes safety, minimizes environmental impacts, provides a variety of transportation choices, and supports planned land use patterns.

Goal 1 Objectives

- Decrease travel time through an increase in transportation efficiency during peak-hour periods.
- Minimize cut-through traffic in residential neighborhoods.
- Strike a balance between safety and economical design with all transportation projects.
- Improve, as necessary, expressway, arterial, and collector roads to safely and efficiently handle projected traffic.

Goal 2

Provide a transportation system that moves people and goods safely and securely throughout the community.

Goal 2 Objectives

- Reduce vehicle, pedestrian, and bicyclist crashes.
- Decrease emergency response time and reduce risk to the community from natural hazards and disasters.
- Promote a walkable community with safe winter walking conditions.
- Minimize conflicts between freight and passenger vehicles and non-motorized travelers.

Goal 3

Develop an attractive and efficient transportation network that considers the cost of building, operating, and maintaining the system; the equity of all users; public health impacts; community values; and social justice.

Goal 3 Objectives

- Prioritize the projects within the MTP to optimize the benefit-cost ratio.
- Consider the life-cycle costs of projects when evaluating and selecting them within the MTP.
- Optimize the travel choices within the transportation system to maximize the associated benefits for all users while minimizing the costs to taxpayers.
- Balance the purpose of each project with aesthetic considerations.
- Match street and highway design to the use and character of the community/neighborhood, recognizing that character may vary from primarily commercial to primarily residential and from primarily urban to primarily rural.
- Maintain and rehabilitate the existing transportation system to minimize deterioration and the need for major reconstruction projects.
- Improve opportunities for active transportation (non-motorized) as part of daily system use.
- Balance the benefit of improvements against the impacts to neighborhoods with populations traditionally underserved by transportation.
- Preserve and improve air quality to maintain the health and welfare of citizens.

Goal 4

Develop a transportation system that supports a thriving, sustainable, broad-based economy by locating and using transportation infrastructure and facilities to enhance community development.

Goal 4 Objectives

- Optimize the transportation system to meet the needs of the Port of Anchorage, Ted Stevens Anchorage International Airport, the Alaska Railroad, the military bases, employment centers, and industrial and commercial areas.

Goal 5

Establish community connectivity with safe, convenient, year-round automobile and non-automobile travel routes within and between neighborhoods, commercial centers, and public facilities.

Goal 5 Objectives

- Ensure an adequate system of arterial and collector roads is identified.
- Promote the even distribution of traffic loads between streets by enhancing the existing grid pattern of streets.
- Establish an adequate number of access points from subdivisions to adjacent higher-order streets.
- Enhance the physical connectivity between neighborhoods by increasing the number of roadway, pedestrian, bicycle, and transit connections.
- Improve safe and convenient connectivity from schools to neighborhoods, parks, and other recreational and commercial areas by use of multi-use trails, bicycle lanes, sidewalks, and transit.

Goal 6

Improve access to goods, jobs, services, housing, and other destinations while providing mobility for people and goods in a safe, affordable, efficient, and convenient manner.

Goal 6 Objectives

- Develop mechanisms for improving regional cooperation and planning to address important transportation issues.
- Reduce the passenger vehicle miles traveled (VMT) and passenger vehicle hours traveled (VHT) per capita.
- Increase opportunities for multipurpose trips in planned mixed-use centers.
- Promote the development of an effective roadway network through improvements in intersection and efficient roadway capacity.
- Improve the existing transportation system efficiency through the implementation of effective and innovative transportation system management (TSM), transportation demand management (TDM), and Intelligent Transportation System (ITS) strategies.
- Coordinate planning efforts across disciplines (such as transportation, land use, economic development, emergency management, public health, and the military) and geographic areas.

Goal 7

Provide a transportation system that provides viable transportation choices among various modes.

Goal 7 Objectives

- Promote the development of a safe network of trails and sidewalks that provide reasonable access to work, schools, parks, services, shopping, and the natural environment, with priority given to trail and sidewalk projects expected to have the highest use.
- Optimize the year-round accessibility and convenience of travel choices and, in particular, improve the year-round reliability and travel time of transit through the implementation of programs such as transit signal priority.

Goal 8

Design and maintain a transportation system that respects the integrity of the community's natural and built environment and protects scenic vistas.

Goal 8 Objectives

- Minimize adverse impacts on the community, such as neighborhood through-traffic movements.
- Minimize noise and light pollution impacts, to the extent practical.
- Balance the benefit of improvements against the impacts on the natural environment, such as water resources, fish habitat, watersheds and wetlands, and parklands.
- Design and landscape roads to maintain and enhance the attractiveness of neighborhoods, open space, and commercial corridors and centers.
- Use context-sensitive design strategies especially to support the development of mixed-use centers (such as town centers, employment centers, and redevelopment areas) and transit-supportive corridors with more pedestrian-, bicycle-, and transit-oriented street environments while recognizing the need to move freight into and throughout the community.
- Reinforce the link between transit and land use by establishing as a priority the building of transit-friendly residential and commercial development in downtown Anchorage and downtown Eagle River.

REGULATORY REQUIREMENTS

The MTP is required to meet federal transportation planning requirements in effect at the time the plan is written and approved. Development of the 2035 MTP was guided by regulations implementing the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was signed into law in August 2005. *Table 3-1* from the 2035 MTP, shown below, demonstrated how the 2035 MTP Goals addressed the eight planning factors of SAFETEA-LU required to be addressed in the MTP process. The 2035 MTP also discussed other federal transportation planning requirements for conformity with air quality regulations and the high and adverse public health and environmental effects of transportation policies, programs, and activities on minority and low-income populations. How these issues were addressed by the 2035 MTP are discussed in Appendix B of the 2035 MTP document, and are incorporated here by reference. A new Air Quality Conformity Determination Report was prepared for the Interim 2035 MTP; it is discussed in Chapter 9 of this MTP.

Table 3-1: Comparison of SAFETEA-LU with 2035 MTP Goals

SAFETEA-LU PLANNING FACTOR	THEMES	MTP GOALS
Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency	Economic vitality	2, 4, 6
Increase the safety of the transportation system for motorized and non-motorized users	Safety	1, 2, 5
Increase the security of the transportation system for motorized and non-motorized users	Security	2
Increase the accessibility and mobility of people and for freight	Accessibility, mobility	1, 3, 5, 6, 7
Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns	Environmental sensitivity, energy efficiency, quality of life, land use/transportation integration, coordinated planning	1, 3, 4, 5, 6, 8
Enhance the integration and connectivity of the transportation system, across and between modes (throughout the state), for people and freight	Intermodal connectivity	4, 6
Promote efficient system management and operation	Efficiency	3, 6
Emphasize the preservation of the existing transportation system	Preservation	3

MAP-21

After the MTP was adopted in 2012, Congress passed the Moving Ahead for Progress in the 21st Century Act (PL 112-141, "MAP 21").

The passage of MAP-21 in 2012 marked some significant changes for transportation and land use planning at the metropolitan level. Following SAFETEA-LU, MAP-21 maintained similar funding levels for surface transportation planning and development at the state and local levels. Major changes in MAP-21 regulations include a new focus on performance-based planning, requiring targets and measures for the success of various outcomes, the elimination of discretionary programs, and the addition of reducing project delivery delays.

Federal planning regulations implementing MAP-21 have not yet been approved, and are anticipated for use during development of the 2040 MTP.

Table 3-2 lists the national goals of MAP-21 and the corresponding goals carried forward for the Interim 2035 MTP. As demonstrated by Table 3-2, the Interim 2035 MTP addresses all of the national goals of MAP-21.

Table 3-2: Comparison of MAP-21 with Interim 2035 MTP Goals

MAP-21 NATIONAL GOALS	INTERIM 2035 MTP THEMES	MTP GOALS
Safety	Safety and security	1, 2, 5
Infrastructure condition	Preservation	3
Congestion reduction	Efficiency	3, 6
System reliability	Efficiency and mobility	3, 6
Freight movement and economic vitality	Freight movement and economic vitality	2, 4, 6
Environmental sustainability	Environmental sensitivity, energy efficiency, quality of life, land use/transportation integration, coordinated planning	1, 3, 4, 5, 6, 8
Reduced project delivery delays	Regional cooperation and planning, coordinated planning	6

Chapter 4

AMATS TRANSPORTATION SYSTEM TODAY

The 2035 MTP describes the performance of the transportation system, based on the AMATS 2010 *Status of the System Report.* That report is currently in the process of being updated and is not available for this Interim 2035 MTP. This chapter, therefore, serves as a progress report for transportation system enhancements since 2012.

The 2040 MTP will provide an in-depth discussion of transportation system performance based on the upcoming *Status of the System Report*, anticipated by the end of 2015.

Transportation is shaped by infrastructure, available travel options, and system management. This chapter reviews enhancements to the AMATS transportation system for the following essential elements since 2012:

- Roads
- Public transportation
- Non-motorized transportation
- Freight distribution and regional connections

Specific infrastructure and service enhancements implemented since 2012 are described below.

ROADS

Implementation of road projects recommended in the 2035 MTP has been steady. The specific projects completed since 2012 are listed in *Table 4-1*, with the locations shown on *Figure 4-1*, (Anchorage Bowl projects) and *Figure 4-2* (Chugiak-Eagle River projects).

Under MAP-21, the NHS is enhanced or expanded and now includes all roads that were functionally classified as principal arterials as of October 1, 2012, but not yet designated as part of the NHS. The new MAP-21 National Highway Performance Program (NHPP) provides funding support for the condition and performance of the NHS, and to ensure that investments of federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets to be established in a state's asset management plan for the NHS. The enhanced NHS is being coordinated by the State of Alaska DOT&PF.

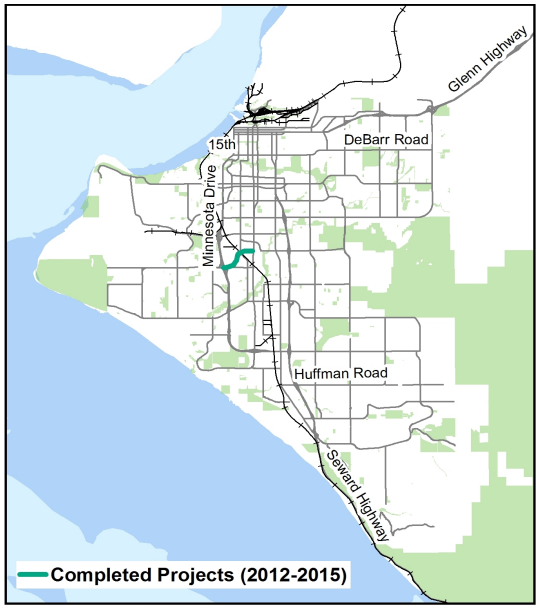
In addition to these road projects, a number of O&M and Highway Safety Improvements Program (HSIP) projects have been completed within the AMATS boundary as part of the MTP.

Table 4-1: Road Projects Completed Since 2012 - Anchorage Bowl and Chugiak-Eagle River

Proj. #	Project Name	Project Location	Project Description
102*	Dowling Rd Extension - Phase II	C St to Minnesota Dr	Add new facility
123*	Eklutna River Bridge Rehabilitation/Replacement (Eagle River)	Old Glenn Highway	Rehabilitation
122	Eagle River Rd Rehabilitation – MP 5.3 to MP 12.6 (Eagle River)	MP 5.3 to MP 12.6	Rehabilitation
135	Regional Travel Survey	Southcentral Region	Survey
135*	Travel Options Report Recommendations	Southcentral Region	Report
135	South Anchorage and Hillside Intersection Study	Nine intersections in South Anchorage and Hillside communities	Study

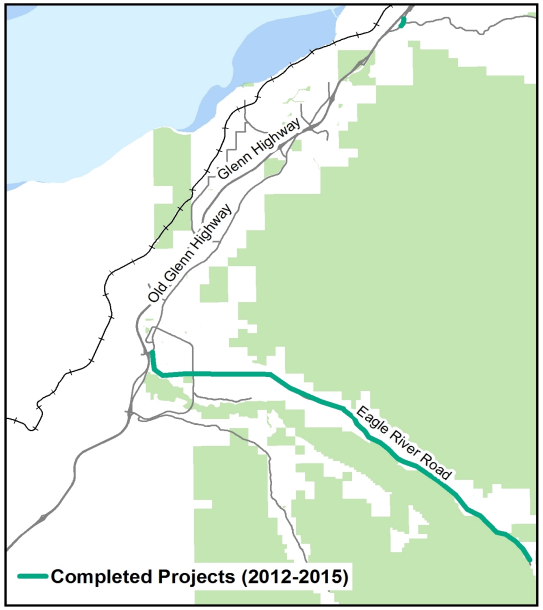
*Project is anticipated to be completed in 2015.

Figure 4-1: Road Projects Completed Since 2012 - Anchorage Bowl (Map)



Source: MOA

Figure 4-2: Road Projects Completed Since 2012 - Chugiak-Eagle River (Map)



Source: MOA

PUBLIC TRANSPORTATION

Between 2011 and 2014, People Mover has implemented several key changes that have affected People Mover service and ridership. In 2012, new "smart" fare boxes were implemented that had some effect on ridership and financial tracking. The new fare boxes eliminated the ability of passengers to ride without proper fare media, currency, or valid bus passes, which resulted in a decline in ridership. In 2014, a new fare structure was implemented with increased fares that also likely had some effect on ridership, as is expected (see *Figure 4-3* and *Figure 4-4*). As the new fare boxes and fare increase are more accepted, ridership based on those changes will rebound.

Table 4-2 tracks Ride Share statistics from 2011 to 2014. The number of active carpools was not reported in 2014 because the Public Transportation Department (PTD) switched from using RidePro software for ride matching to the vRide software, which does not track carpools. With the introduction of a new planned rideshare app for mobile devices, PTD hopes to begin to track carpools again.

Table 4-3, on the following page, indicates the status of several public transportation projects that were included in the 2035 MTP recommendations.

Figure 4-3: Average Daily Riders

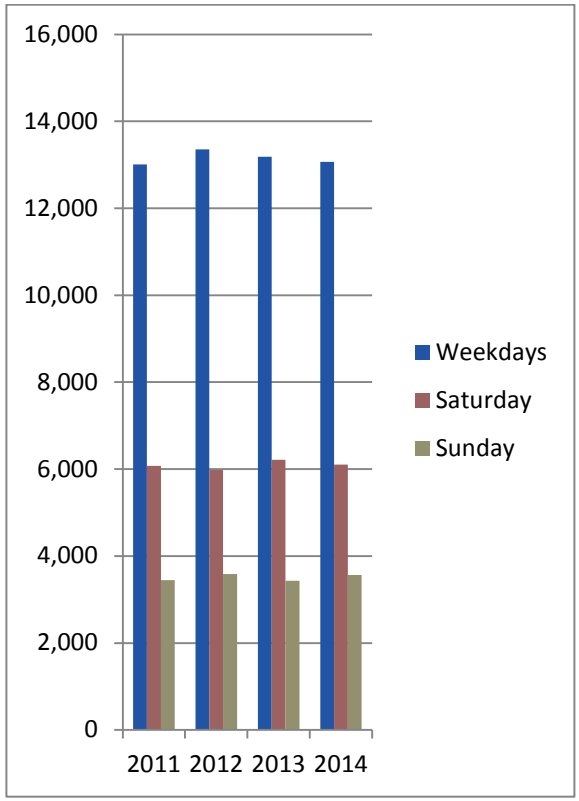


Figure 4-4: Productivity

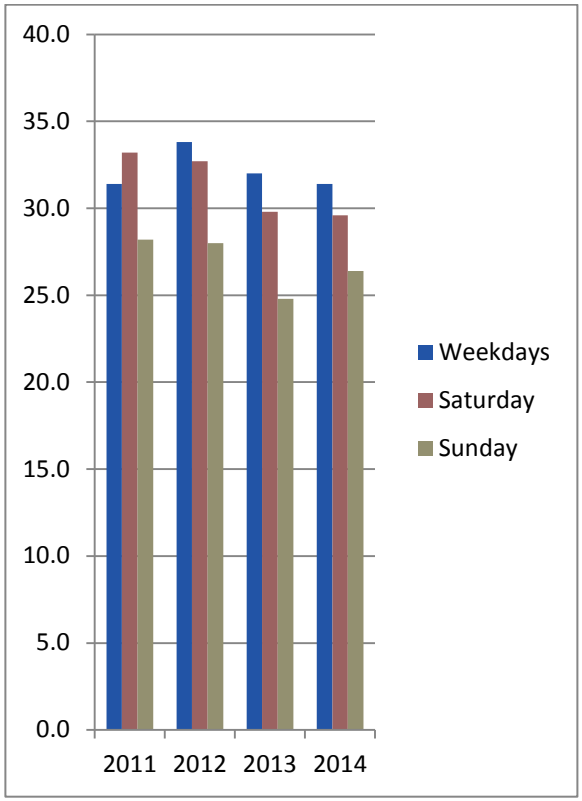


Table 4-2: Ride-Sharing Statistics

	2011	2012	2013	2014
Registered Applicants	5,151	5,291	2,249	1,507
Active Carpools	137	135	124	—*
Active Carpoolers	276	272	250	—*
Active Vanpools	66	65	65	65
Active Vanpoolers	1,152	992	972	840

*Not reported in 2014

Table 4-3: Public Transportation Projects Status

Proj#	Project Name	Project Description	Status
805	New Service - South Anchorage- Hillside	Adds two buses to provide a frequency of service of 30 minutes on this new route. No replacement buses will be needed. Possible park and ride to be developed in the Hillside area to supplement this service.	Applied for CMAQ funds in 2014 for new south anchorage-hillside service. The project was not selected for funding.
806-S	AnchorRIDES Fleet Replacement	Funds the replacement of the AnchorRIDES fleet with a replacement cycle of 5 years. An additional 50 vehicles will be needed to replace the existing fleet.	Replaced 10 vehicles in 2011 and 2012, 0 vehicles in 2013, and 10 vehicles in 2014, maintaining a total fleet of approximately 50 vehicles at all times.
808-S	Share-A-Ride (Vanpool) Fleet Replacement	Funds the replacement of the vanpool vehicle fleet with a replacement life cycle of 5 years. It is assumed that the vanpool program doubles by 2031.	Replaced 12 vehicles in 2011 and 2012, 15 vehicles in 2013, and 14 vehicles in 2014, maintaining a total fleet of approximately 75 to 80 vehicles at all times, with approximately 65 active vehicles.
810-S	Bus Stop Improvements	Funds the upgrade of bus stop sites to meet requirements of the Americans with Disabilities Act (ADA) and operational needs. Typical improvements include bus shelters, benches, trash receptacles, landscaping, grading, paving, utility relocations, lighting, pathways, and turnouts.	Continue to upgrade bus stops to meet ADA requirements. At the end of 2014, 74% of the 1,078 active bus stops met ADA standards.
811	Transit Centers and Facilities	Supports an ongoing effort to provide major public transportation facilities at town centers and major destinations.	In 2015 began alternatives analysis for Muldoon Transfer Center relocation and/or improvements. Will begin site selection study for a Midtown Transit Center in 2015.
812-S	ITS/Automated Operating Systems	Staff and capital resources provide project oversight and capital for ITS for all modes of public transportation services.	Provides day to day operational support for all ITS projects. Training for scheduling activities. Use of Smart Fare boxes, Bus Tracker, and Trip Planner.
813-S	Fleet Improvements/ Support Equipment	Typical projects include ticket reader and issue attachment; security systems; transit/signal improvements for headway enhancements; mechanical and other improvements for facilities; mobile display terminals; and vehicle communications and location systems.	Upgraded radios on all 52 buses. Bus Lift installation, Opticom bus emitters, Assetworks maintenance software, Transit Center CCTs.
815-S	Support Vehicles	Typical purchases include pickup trucks, maintenance trucks with special equipment, supervisor vehicles, shift change vehicles, forklifts, sweepers, and snow removal equipment for bus access.	Replaced 4 support vehicles for operations staff and 3 support vehicles in 2015 for maintenance staff.
816	Dimond Center Intermodal Facility	Design and construction provide revisions to the existing Dimond Transit Center with improved pedestrian connections.	Design initiated in 2015, Construction in 2016.
818-S	Anchorage Ride-Sharing/ Transit Marketing	Funds the operation of the MOA Share-a-Ride program.	Ongoing contract with vRide.

NON-MOTORIZED TRANSPORTATION

There has been steady progress on the implementation of projects recommended in the 2035 MTP. Two such efforts are the Bicycle and Pedestrian Plan Implementation Projects that are now gearing up. For more information on these projects, please see Chapter 8, Implementation.

Table 4-4 lists the non-motorized projects that have been completed since 2012.

Table 4-4: Non-Motorized Transportation Projects Completed Since 2012 - Anchorage Bowl and Chugiak-Eagle River

Proj. #	Project Name	Project Location	Project Description
503	Northern Lights Blvd	LaHonda Dr to Lois Dr	New sidewalk
504*	Checkmate Dr	Tudor Rd to Emmanuel Ave	New sidewalk
513*	10th Ave	P St to Medfra St	Bicycle boulevard
524*	Arctic Blvd Bicycle Lanes	Fireweed Ln to 10th Ave	Bicycle lane striping and signage
544*	Wisconsin St	Spenard Rd to Northern Lights Blvd	Bicycle lanes
620	4th Ave	Bunnell St to Boniface Blvd	New Sidewalk

*Projects are anticipated to be completed in 2015.

FREIGHT DISTRIBUTION AND REGIONAL CONNECTIONS

The AMATS Freight Mobility Study, currently underway, will present a multi-modal and comprehensive examination of freight mobility throughout the AMATS area and the region. The study will document freight movements, identify industry trends, illustrate key deficiencies, outline opportunities and emerging issues, conduct stakeholder outreach, develop actions and policies, and provide immediate, mid-term, and long-term recommendations.

The study will include the following tasks:

- Document current freight movements to better understand the local and regional transportation system.
- Document current freight movements related to freight movement and "last mile" access and intermodal connectors.
- Analyze current freight flows and identify trends to anticipate future freight movement needs.
- Examine land use and freight infra-structure integration—evaluate land uses and municipal code to help plan appropriate freight distribution centers and develop suitable freight access.
- Identify conflicting state and municipal regulations (e.g., truck dimensions) and present recommendations to remedy these differences.
- Assess freight related programs and data gathering tools to explore improved efficiencies, and future opportunities.
- Evaluate feasibility of Electronic Data Interchange/Information Technology to provide and gather local and regional intermodal transportation data (this could be similar to USDOT's Intermodal Transportation Database (ITDB).

Additional information about the status of the metropolitan area transportation system is provided in the report *Status of the System, 2010* (AMATS, 2011), available on the AMATS Web site under "Documents" at the following Web link: www.muni.org/transplan.

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Chapter 5

METROPOLITAN AREA TRANSPORTATION IN 2035

The 2035 MTP developed a series of land-use and travel demand forecasts for the metropolitan region through 2035.

This chapter will summarize those land-use and travel demand forecasts.

In early 2015, the AMATS Policy Committee adopted a series of key parameters to guide the development of the Interim 2035 MTP (see Chapter 1 for full summary). The Committee acknowledged that a full update of the travel demand model, the Congestion Mitigation and Air Quality improvements (CMAQ) plan, and an Intelligent Transportation Systems (ITS) plan are currently being carried out, and will be utilized as part of the upcoming 2040 MTP update.

Because these updates are still in progress, the Policy Committee confirmed that the 2035 MTP's travel demand modeling provides the most up to date information, and is sufficient for planning at this time. Therefore, no additional forecasting is required for the development of this Interim MTP.

The 2035 MTP assessed a number of factors impacting the region and developed a series of forecasts for the growth and use of the transportation system in 2035. The discussion of these transportation forecasts was framed around two elements:

- Demographic and *land-use forecasts* for the region through 2035
- Impacts of land-use on the *transportation system* in 2035

The AMATS travel demand model is a regional model encompassing the Municipality of Anchorage and the Mat-Su Borough.

A regional model allows for a better representation of regional trip distribution and modal choice than would a model focusing only on the Anchorage metropolitan area.

The 2035 MTP then analyzed the needs identified by the forecasts to produce a set of planned projects and programs for short-range and long-range implementation.

In the following sections, the land-use forecasts and the transportation system forecasts conducted by the 2035 MTP will be summarized.

LAND-USE FORECASTS

Land uses have a pivotal impact on the use of the current transportation system and future travel demand. Current development patterns, the existing network of transportation facilities, and the choices of where and how future growth will occur all have an impact on the length and frequency of trips in the region.

Demographics

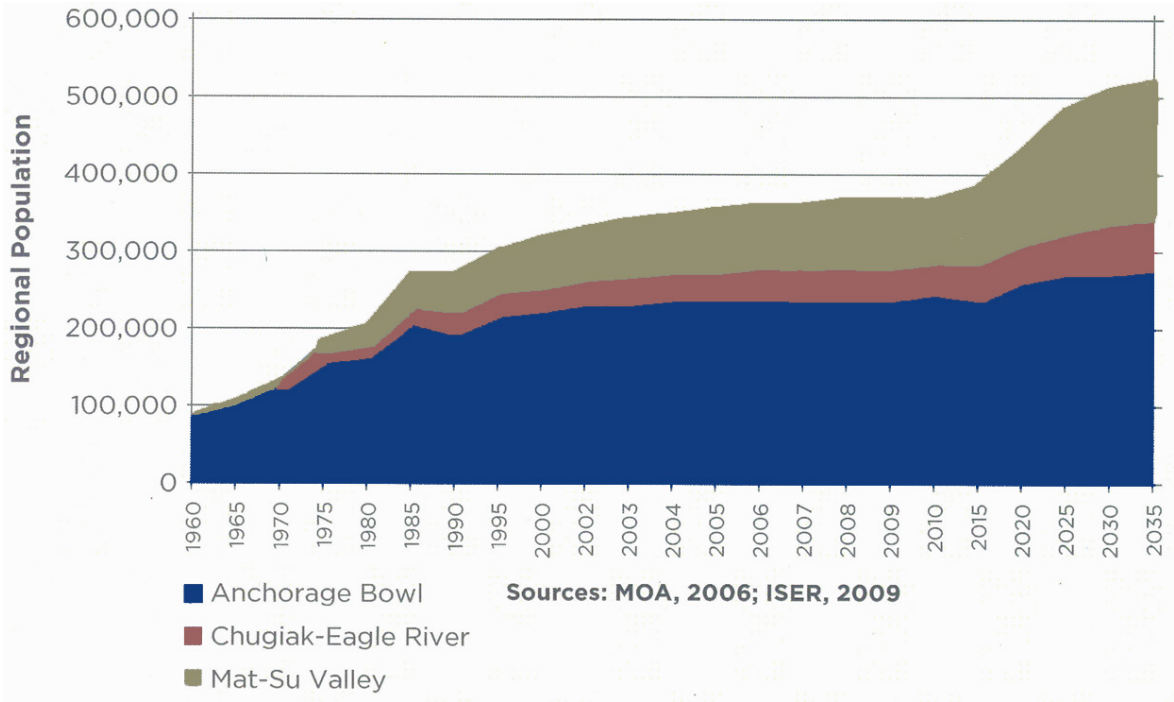
The primary drivers of transportation demand and regional travel patterns are the scale and geographic distribution of population, households, and employment.

People use some form of transportation whenever they travel between land uses—where they live, work, shop, conduct business, and recreate. Land uses that are far apart have a different impact on the transportation network than those that are located close together.

In agreement with the adopted comprehensive plans, citizens continue to express their desire to grow in ways that expand economic opportunities, and protect the natural, historical, and built amenities of the region.

With a population projected to exceed 500,000 by 2035 (***Figure 5-1)***, the Southcentral Alaska region (consisting of the MOA and the Mat-Su Borough) is expected to remain the primary urbanized region in Alaska.

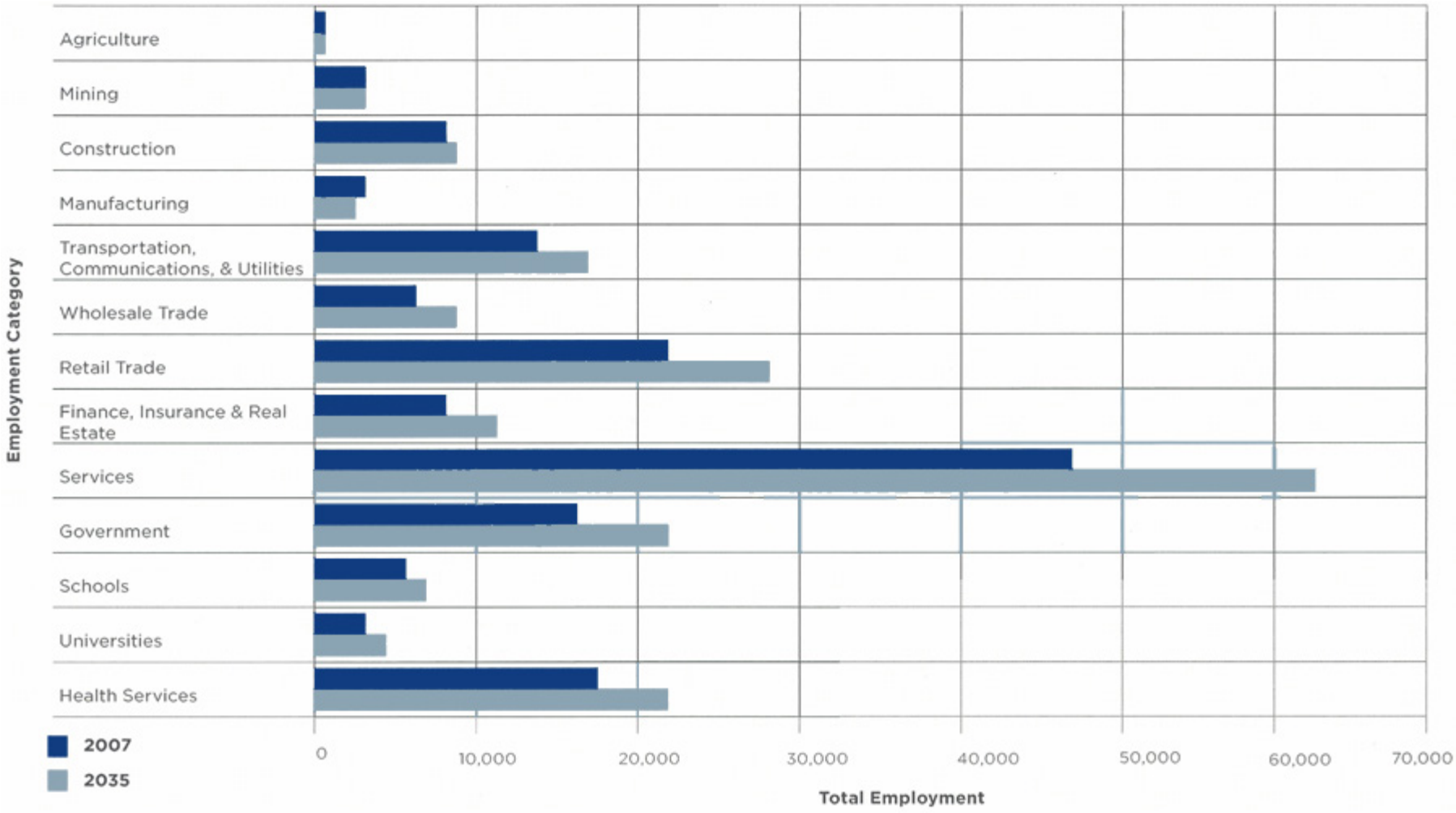
Figure 5-1: Regional Population Growth



An increasing share of the population and household growth is expected to occur in the Mat-Su Borough and the Chugiak-Eagle River area. Employment growth will continue to be located predominantly in the Anchorage Bowl, where over 70 percent of regional employment is expected to occur (*Figure 5-2*). The largest amount of employment growth is expected to occur in Midtown, Downtown, and the U-Med district, areas identified in the Anchorage Bowl Comprehensive plan.

Although the availability of vacant land will continue to encourage higher growth rates in the Mat-Su Borough and Chugiak-Eagle River, a significant amount of growth is expected to occur in and around town centers, transit-supportive development

Figure 5-2: Regional Employment Growth



corridors, and redevelopment areas identified in the Anchorage Bowl and Chugiak Eagle River Comprehensive Plans. These more densely populated areas will provide opportunities to support mixed-use development and promote public and non-motorized transportation modes.

Comprehensive Plan Guidance

The locations of future household and employment growth in the region are based on the Anchorage 2020: Anchorage Bowl Comprehensive Plan (adopted February 2001), and the Chugiak-Eagle River Comprehensive Plan Update (2006). These comprehensive plans provide a vision and long-term goals for the development of the region's communities. Elements such as the density of future development and the location of employment centers and mixed use areas are described in these plans.

Future household growth by planning area in the Anchorage Bowl and Chugiak-Eagle River is shown in *Table 5-1*, and employment growth by planning area is presented in *Table 5-2*.

Table 5-1: Projected Household Growth by Planning Area, 2007 – 2035

PLANNING AREA	HOUSEHOLD GROWTH	PERCENTAGE OF TOTAL GROWTH
Central Anchorage Bowl	3,700	12%
Northeast Anchorage Bowl	4,480	14%
Northwest Anchorage Bowl	6,680	20%
Southeast Anchorage Bowl	3,200	10%
Southwest Anchorage Bowl	3,030	10%
South Fork Eagle River	1,600	5%
Eagle River	770	2%
Eagle River Valley	2,410	8%
Chugiak	1,810	6%
Birchwood	2,460	8%
Peters Creek	890	3%
Eklutna	690	2%
Total	**31,720**	**100%**

Table 5-2: Projected Employment Growth by Planning Area, 2007 – 2035

PLANNING AREA	EMPLOYMENT GROWTH	PERCENTAGE OF TOTAL GROWTH
Military	4,740	11%
Central Anchorage Bowl	6,190	14%
Northeast Anchorage Bowl	9,160	20%
Northwest Anchorage Bowl	14,310	32%
Southeast Anchorage Bowl	600	1%
Southwest Anchorage Bowl	4,030	9%
South Fork Eagle River	130	<1%
Eagle River	2,080	5%
Eagle River Valley	250	<1%
Chugiak	1,130	3%
Birchwood	1,010	2%
Peters Creek	550	1%
Eklutna	320	<1%
Total	**44,500**	**100%**

TRANSPORTATION SYSTEM

Future Transportation Trends

The 2035 MTP forecast that 560,000 more daily trips will vie for space in the region's transportation system than did in 2007. Traffic was forecast to increase substantially on all the existing highways, arterials, and collector streets throughout the metropolitan area.

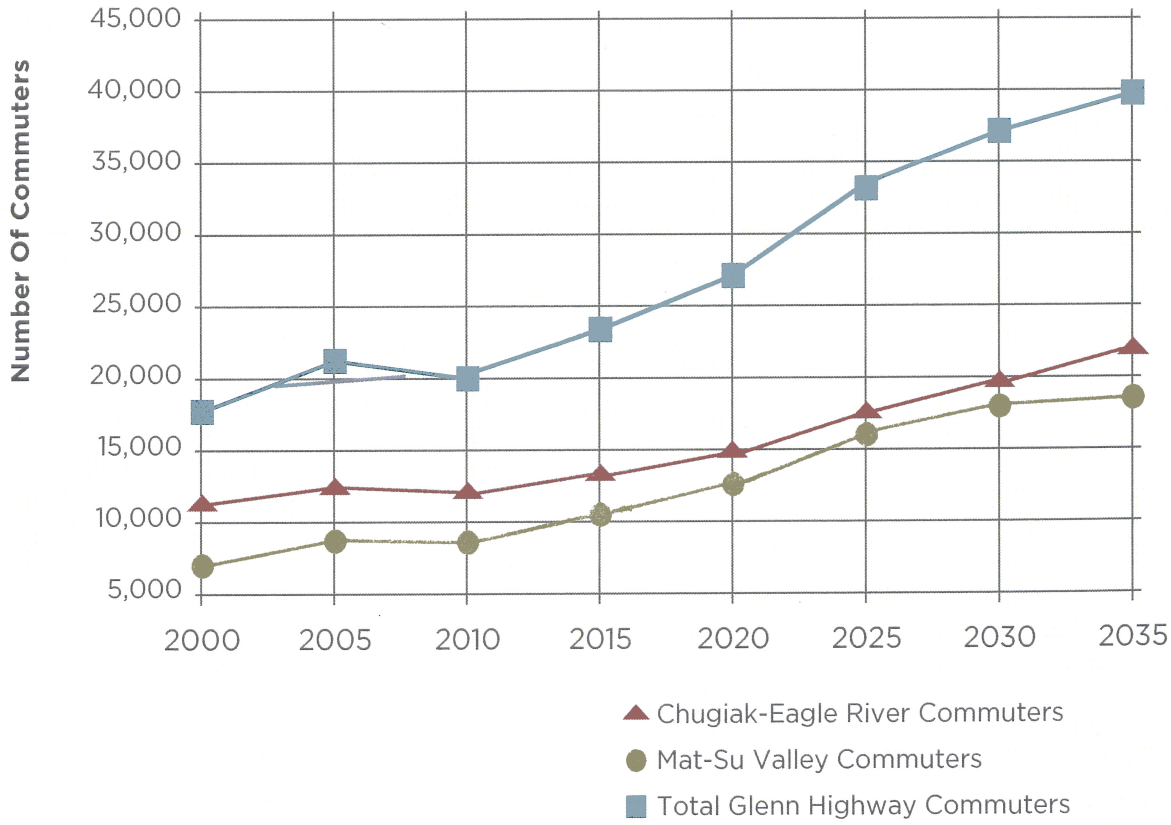
Anchorage is expected to continue as the dominant hub and transfer location for freight traveling through Alaska.

Daily vehicle miles traveled are expected to increase, not only because more trips will be made every day, but because a larger share of trips is forecast to travel a longer distance from suburban locations to places of employment. The projected growth in commuters from Chugiak-Eagle River and the Mat-Su Valley to the Anchorage Bowl is shown in *Figure 5-3*.

Characteristics of the transportation system forecasts in the 2035 MTP include deficiencies in the public transportation services, and continued gaps in the bicycle, pedestrian, and trail systems that connect all areas of the region.

Increased daily vehicle miles traveled, coupled with higher energy costs for transportation will result in the need for more efficient personal vehicles, greater dependence on public transportation, and changes in personal travel behaviors.

Figure 5-3: Projected Commuters from Chugiak-Eagle River and the Mat-Su Valley to Anchorage Bowl Employment



Meeting Future Transportation Needs

Many strategies can be used to meet future transportation demand. This MTP identifies a balanced, multi-disciplined approach, recognizing that no one solution is adequate to meet the increasing demands placed on the transportation system. Concerted efforts continue to be made toward improving the safety of the transportation system; however, additional investments are needed to make further progress. The transportation strategies employed in this MTP are consistent with AMATS policies and address six main transportation elements:

- ***Roads:*** Overall capacity and safety improvements, major commuter corridors, and grid network connections
- ***Public Transportation:*** Fixed route bus service, carpool/vanpool, and para-transit service
- ***Non-Motorized Transportation (Pedestrian, Bicycle, and Trails System):*** New facilities, solutions to fill system gaps, and facility design improvements.
- ***Congestion Management:***
  - ***Transportation Demand Management (TDM):*** Vanpools, Guaranteed Ride Home Program, employer participation, tele-commuting, ride-share programs, tax benefits, cash incentives, parking management, school access, and safety
  - ***Traffic System Management (TSM):*** Intersection improvements, access control management, traffic signal timing, signal system upgrade and central traffic management, and traffic calming
  - ***Intelligent Transportation System (ITS) Management:*** High-priority public transportation corridor prototype (may include transit signal priority), integrated geographic information system (GIS), 511 traveler information system, traffic signal system upgrade, and asset management system
- ***Freight Distribution:*** Port of Anchorage, Ted Stevens Anchorage International Airport (TSAIA), Alaska Railroad, and truck/freight distribution
- ***Regional Connections:*** Knik Arm Crossing, regional public transportation services, and possibly commuter rail

To meet the 2035 travel demands of the region, the 2035 MTP identified a total of 227 capital projects. The sum of the capital costs for these improvements exceeds $4 billion (in 2010 dollars).

SUMMARY

Based on the forecasts in the 2035 MTP, carried forward by the Interim MTP, we expect to see increases in total vehicle miles traveled throughout the region, as greater shares of the population move to more suburban locations and employment continues to grow predominantly in the Anchorage Bowl. At the same time, increased population densities in Downtown, Midtown, and the U-Med District will provide demand and opportunities for increased access by public transportation and non-motorized transportation. Addressing these competing needs will require a balanced, multi-disciplined approach.

Addressing the needs of suburban population growth, predominantly urban job growth, and greater densities around Downtown, Midtown, and the U-Med District will require a balanced, multi-disciplined approach.

As demonstrated in Chapter 6, Financial Plan, revenues are expected to be sufficient to cover all projects, maintenance, and operating costs through the planning period.

Specific recommendations and implementation actions will be further reviewed in Chapters 7 and 8.

Chapter 6

FINANCIAL PLAN

This chapter discusses the update to the 2035 MTP financial plan for the Interim 2035 MTP. Federal legislation requires that the MTP be "financially constrained." In other words, the cost of implementing and maintaining transportation improvements should be within a funding amount that can reasonably expected to be available during the life of the plan.

Federal regulations establish the requirements for the financial plan in Title 23, Section 450.322(f)(10), of the Code of Federal Regulations (CFR). To summarize, the regulations (effective December 2007) state that the financial plan should include the following:

- Estimates of costs and revenue sources reasonably expected to be available to adequately operate and maintain federal-aid highways and public transportation
- Estimates of funds that will be available to support the MTP implementation and that are agreed upon by the MPO, public transportation operator(s), and the state
- Recommendations on any additional financing strategies to fund projects and program included in the MTP
- Revenue and cost estimates that use an inflation rate to reflect “year of expenditure dollars” and that have been developed cooperatively by the MPO, state, and public transportation operator

FINANCIAL CONSTRAINT ANALYSIS SUMMARY

Financial planning for the 20-year time horizon of a Metropolitan Transportation Plan presents challenges requiring rigorous data collection, financial analysis, and forecasting. Financial plans need to demonstrate that the cost of projects in the short-term and long-term planning periods will be met by existing and future resources.

The 2035 MTP provided a detailed financial analysis, demonstrating that the projects and programs planned through the 2035 were financially constrained.

Table 6-1: Financial Constraint Analysis ($ in Millions)

2011-2035 ALL Projects	Short-Term (2011-2023)		Long-Term (2024-2035)
Road, Bike/Ped/Trail, Railroad			
Project Costs	1,254.2		1,518.2
Inflation Amount on Project Costs	213.8		306.2
Total Project Costs	1,468.0		1,824.4
Revenue	1,322.8		1,879.5
Project Costs Carryover	145.2		(55.1)
Transit			
Project Costs	100.0		132.0
Inflation Amount on Project Costs	4.4		9.8
Total Project Costs	104.4		141.8
Revenue	145.8		159.8
Project Costs Carryover	(41.4)		(18.0)
Total			
Project Costs	1,354.2		1,650.2
Inflation Amount on Project Costs	218.2		316.0
Total Project Costs	1,572.4		1,966.2
Revenue	1,468.6		2,039.3
Project Costs Carryover	103.8		**(73.1)***

*The analysis performed indicates an estimated surplus of $73.1 million by the end of the long-term planning period, in year 2035.

Short Term (2011-2023)

The total short-term project costs are calculated by adding the short-term projects costs to the total inflation on project costs over the short-term period. Short-term revenue is then subtracted from these totals, and any amount left over is carried over to the long term.

Long Term (2024-2035)

The total long-term project costs are calculated by adding the long-term project costs to the total inflation on projects costs over the long-term period, plus any carryover from the short-term. Long-term revenue is then subtracted from these total costs. At the end of the long term, the Interim MTP is required to be fiscally constrained.

The Interim 2035 MTP carries forward the financial analysis from the 2035 MTP and confirms that all planned projects and programs continue to be financially constrained. *Table 6-1* provides a condensed summary of the financial constraint analysis performed by the 2035 MTP and carried forward by the Interim 2035 MTP.

Funding to implement the MTP recommendations comes from federal, state, and local sources. This financial element of the MTP includes updated estimates of costs that would be required to implement the MTP as well as updated estimates of existing and contemplated sources of funds available to pay for these improvements.

Different sets of revenue assumptions apply for capital, O&M, and for each non-motorized mode (pedestrian, bicycle, and trail facilities); public transportation; and roads. An additional set of revenue assumptions was prepared for the Knik Arm Crossing, which is discussed in Chapter 7A.

The costs to design, construct, operate, and maintain all elements of the recommended Interim MTP through 2035 are more than $4 billion. As indicated in *Table 6-1*, AMATS estimates there will be sufficient revenues to cover project implementation costs to year 2035.

Table 6-2: Recommended Projects by Timeframe

TRANSPORTATION MODE	SHORT-TERM (2011-2023)	LONG TERM (2024-2035)	ILLUSTRATIVE (BEYOND 2035)
Roadway	42 Projects ($1,227.5M)	18 Projects ($920.4M	22 Projects ($764.4M)
Public Transportation	25 Projects ($98.5M)	7 Projects ($140.8M)	1 Project ($22.0 M)
Non-Motorized	76 Projects ($67.6M)	34 Projects ($41.9M)	8 Projects ($85.1M)

Note: Project costs are shown in 2014 dollars and have not been inflated.

IDENTIFYING MTP TIMEFRAMES

The improvements in the MTP are broken into short- and long-term ranges. Short-term improvements are those anticipated to be fully funded and in place by 2023. Long-term projects are those anticipated to be fully funded and in place by 2035.

Projects that are not expected to be funded by 2035, because of fiscal constraint are listed as illustrative, meaning that they could be included in the adopted transportation plan if additional resources beyond those identified in the financial plan become available.

Table 6-2 summarizes the short-term, long-term and illustrative projects for the planning period.

The 2035 MTP used screening criteria to identify projects that should be included in the short- and long-term lists and projects that should be identified as illustrative. These projects are listed in Chapter 7.

BALANCING COSTS AND REVENUES

Cost Assumptions

The impacts of inflation in determining anticipated revenue and costs were considered in updating the 2035 MTP financial plan. Adopted cost estimates for the roads and pedestrian, bicycle, and trail capital projects were updated to 2014 estimate amounts provided by the DOT&PF or MOA. Projects included in adopted plans that contained cost estimates were inflated to the base year. A “year of expenditure” inflator of 2.5 percent was applied to the base year through 2023. The 2.5 percent inflator is based on general guidance from the FHWA. For the remainder of the plan (2024-2035), an inflator of 3.5 percent was applied. This factor is consistent with the 2035 MTP. The cost estimates for the public transportation capital projects were taken from the 2035 MTP with an inflator of 1.5 percent. This inflator is consistent with the MOA Public Transportation Department.

All tables in this chapter reflect planning level cost estimates for use in demonstrating funding constraints, according to FHWA guidance. All funding is subject to federal, state, and local appropriation.

The financial plan does not establish the specific year in which each project will be constructed. Rather, it tallies the total capital costs for all projects in 2014 dollars, and then applies the inflation rate to identify the project costs in current year dollars. The total capital cost is then reduced from that year's projected revenue, and the balance is then increased by the inflator and carried over to the next year.

This methodology was applied to each mode in the financial analysis (see *Table 6-1*). By the year 2035, the cost of the recommended improvements must balance with projected revenues to meet the federal requirements for a fiscally constrained MTP.

Revenue Assumptions

Based on economic uncertainties, AMATS used a conservative approach to develop updated revenue estimates that can reasonably be expected to be available for transportation from federal, state, and local funds. All revenue assumptions and projections were derived through a collaboration with and consent of state, public transportation, local, and federal partners. The AMATS Technical Advisory Committee and Policy Committee approved a revenue growth scenario for each identified funding source.

To determine the inflator for the revenue projections, the yearly average of the Anchorage Consumer Price Index (CPI) was determined. Between 2004 and 2014, the average annual change in the Anchorage area CPI was 2.6 percent. All revenues for capital projects and O&M were inflated 2.6 percent annually. It is important to note that depending on the revenue source the inflator was applied at different years.

Projected revenue from identifiable sources for all capital projects add up to a total of $3.5 billion in 2035. See *Table 6-3* for the short-term and long-term revenue sources.

Updates to the financial assumptions indicated no shortfall to occur by 2035 for projects.

PROJECT COSTS

Roads – Capital Costs and Estimated Revenues

Road capital projects are divided into two categories: NHS and non-NHS projects. The purpose of the NHS is to provide an interconnected system of principal arterial routes to serve major population centers, international border crossings, ports, airport, public transportation facilities, and other major travel destinations meet nation defense requirements; and serve interstate and interregional travel. Some federal funds are specifically designated only for use on the NHS. The priorities for those funds are determined statewide, by the DOT&PF. However, funds other than NHS funds can also be spent on NHS Facilities.

The cost of implementing NHS road improvement recommendations in this Interim 2035 MTP is approximately $2.25 billion in 2035 dollars. Other NHS-related expenditures for pavement rehabilitation, rut repair, and preservation are included with the O&M costs. Federal revenues designated for the NHS, and state funding and capital program sources projected to be available to pay for NHS improvements total approximately $1.4 billion in 2035 dollars. The remaining balance of $850 million can be covered by a portion of available non-NHS revenue.

Non-NHS revenue sources can be used more flexibly than NHS funding. The estimated expenditures for the non-NHS road portion of the MTP total is $719 million in 2035 dollars. The remaining revenue from all sources (federal, state, and local) available to fund these needs is approximately $1.6 billion. A portion of the non-NHS revenue, $881 million in 2035 dollars, is applied toward funding the NHS program described above.

Individual road project costs are found in Chapter 7, Table 7-1. The short-term and long-term total funding amounts and the use of the revenue for the road projects are shown in *Table 6-1*.

Public Transportation – Capital Costs and Estimated Revenues

Public transportation capital costs, projected to be $243 million, consist of replacement and expansion for People Mover, Anchor-RIDES, and Share-a-Ride vehicles; bus stop improvements; public transportation centers and facilities; Intelligent Transportation Systems (ITS) projects; fleet improvements and support equipment and vehicles; Bus Rapid Transit (BRT) implementation; and ride sharing and associated marketing.

Available capital funding from federal and municipal sources is sufficient to cover the estimated capital expenses. The capital program funding will be from:

- FTA sources (Section 5307, 5309, 5310, 5316, 5317, 5339, and 5340 and the Very Small Starts program)
- The FHWA Congestion Mitigation and Air Quality Improvement (CMAQ) Program, as well as state and local matching funds
- The Alaska Mental Health Trust (AMHT) Authority
- State Legislative grants and a State Transit Match Assistance program

Sections 5316 and 5317 were combined to create Section 5339 with the MAP-21 authorization in 2013.

Individual public transportation project costs are found in Chapter 7. The short-term and long-term total funding amounts and the use of the revenue for public transportation projects are shown in *Table 6-1*.

Non-Motorized Transportation – Capital Costs and Estimated Revenues

Non-motorized transportation cost estimates were inflated at 2.5 percent, in the short-term, or 3.5 percent, in the long-term per year, from the plan in which they were identified to better reflect the complete project cost in 2014 dollars.

Funding for the non-motorized projects was based on historical revenue trends, including federal, state, and local sources. Federal funding for non-motorized transportation projects is based on 10 percent of non-NHS funding which is established is the AMATS established policy. Sidewalk, bicycle, and trail improvements included as part of a roadway project are in addition to the non-motorized projects shown in *Table 6-1*.

Individual non-motorized transportation project costs are found in Chapter 7, Table 7-3. The short-term and long-term total funding amounts and the use of the revenue for non-motorized transportation projects are shown in *Table 6-1*.

Alaska Railroad – Estimated Revenues

Capital funding for selected Alaska Railroad Corporation (ARRC) improvements is estimated to originate from the FTA and Federal Rail Administration (FRA).

REVENUE AND FUNDING SOURCES FOR MTP PROJECTS (ALL MODES)

Three main funding sources have been identified to implement the MTP recommendations. The sources and assumptions are described below.

Municipal Funds

For the MTP financial plan, it is assumed that the MOA will continue to issue voter approved bonds within Anchorage Roads and Drainage Service Area (ARDSA) in support of transportation improvements and to provide matching funds to federally funded projects. Forecast funding levels are

based on the amount of bond funding that has historically gone to MTP projects from 2011 to 2014, coupled with those funds included in the 2015-2020 Capital Improvement Program (CIP). The 2011-2020 amounts were averaged and increased by the Anchorage CPI at 2.6 percent per year, beginning in 2021.

State Funds

For the Interim 2035 MTP financial plan, it is assumed the State of Alaska will continue to fund Anchorage area transportation improvements as appropriated by the Alaska Legislature. The amount of state general funds appropriated by the Legislature for the MTP projects in 2005-2015 was averaged and increased by the CPI starting in 2016. However, forecast funding levels are not applied to the MTP until 2019 to reflect the anticipated reduction in state funds.

Alaska's state funding has historically been based on revenue from oil tax, with higher cost of oil allowing more spending on MTP projects. In fall of 2014 crude oil prices plummeted from over $100 a barrel in August of 2014 to under $50 per barrel in January of 2015. This has a significant impact on the ability of the state to spend money on the transportation projects listed in Chapter 7 of this document. To reflect this reduction in oil prices, the Interim MTP zeroed out the majority of state spending on MTP projects for 2016 through 2018. While crude oil prices are currently still below the historically high amounts, state spending on MTP projects is expected to return in 2019.

Statewide general obligation (GO) bonds are assumed to continue in the future, approximately every 6 years. Anchorage received $37.5 million in 2002, $36.1 million in 2008, and $91.0 million in 2013. These amounts were averaged in 2014 and then increased by the CPI in 2015. The forecast amount was not applied to the MTP until 2025 to reflect the anticipated reduction in state funds.

The 2035 MTP assumed that the only new source of State of Alaska transportation funding assumed to be available for use in the implementation of the MTP during the 2035 planning horizon was the proposed Alaska Transportation Infrastructure Fund (ATF). Two bills were introduced during the 2010-2011 legislative session. One asked voters to amend the Alaska State Constitution and establish the Alaska Transportation Infrastructure Fund. Another proposed to designate the fund to generate from an endowment, and receive revenue from the fuel tax and vehicle registrations. Similar bills were introduced during the 2011-2012 legislative session – House Bill 30 (HB 30) and Senate Bill 77 (SB 77) respectively.

Even though the ATF failed to receive approval through the legislature, for the purposed of the Interim 2035 MTP, similar parameters outlined in the 2035 MTP will be applied to this plan. The ATF is still assumed to be a reasonable expected source of revenue in the long-term years of the Interim MTP. An estimated $400 million within the AMATS boundary receiving 28 percent of the 5 percent estimated annual interest earned on the fund. This amount is not anticipated to start a return on investment until 2026.

The AMHT funds are expected to continue to support MTP related projects for non-profit and governmental organizations with a competitive process. In addition, state transit-match assistant which provides a percentage of match funds to public transit and human service transit projects funded by the FTA and the AMHT and is assumed to continue.

Federal Funds

For the Interim 2035 financial plan, it is assumed that both the FHWA and FTA will continue to provide funds. Federal funds for the NHS, which are based on historical average and coordinated with the DOT&PF, are estimated at $25 million per year beginning in 2015, with CPI applied beginning in 2020. The 2035 MTP used guidance from DOT&PF in which the non-NHS funds allocated to AMATS was expected to decrease by approximately 30 percent beginning in 2013. Review of non-NHS allocation amounts for 2011-2014 showed a reduction in federal funds that did not occur as anticipated. Therefore, the forecast amounts for the

non-NHS allocation are based on the AMATS allocation in the Statewide Transportation Improvement Program (STIP) of $23.7 million per year, with CPI applied in 2020.

The non-NHS funds allocated to AMATS are programmed into four categories by percentage, as identified in No. 3 of the AMATS policies and procedures:

- Non-Motorized: 10-15 percent
- Congestion Mitigation Air Quality (CMAQ): 10 percent
- Pavement Replacement: 15-20 percent (included in the O&M analysis)
- Roadway Improvements: 55-65 percent

Total Funding

The total expected amounts of federal, state, and local funds for the Interim MTP are presented by category in *Figure 6-1*. *Figure 6-2* shows the annual levels of federal, state, and local funds expected through the year 2035. The assumptions described above differ from those used in the 2035 MTP. The comparison of the difference in the federal, state, and local funding assumptions between the 2035 and Interim MTP is shown in *Figure 6-3*.

Figure 6-1: Total Federal, State, and Local Revenues by Category through 2035

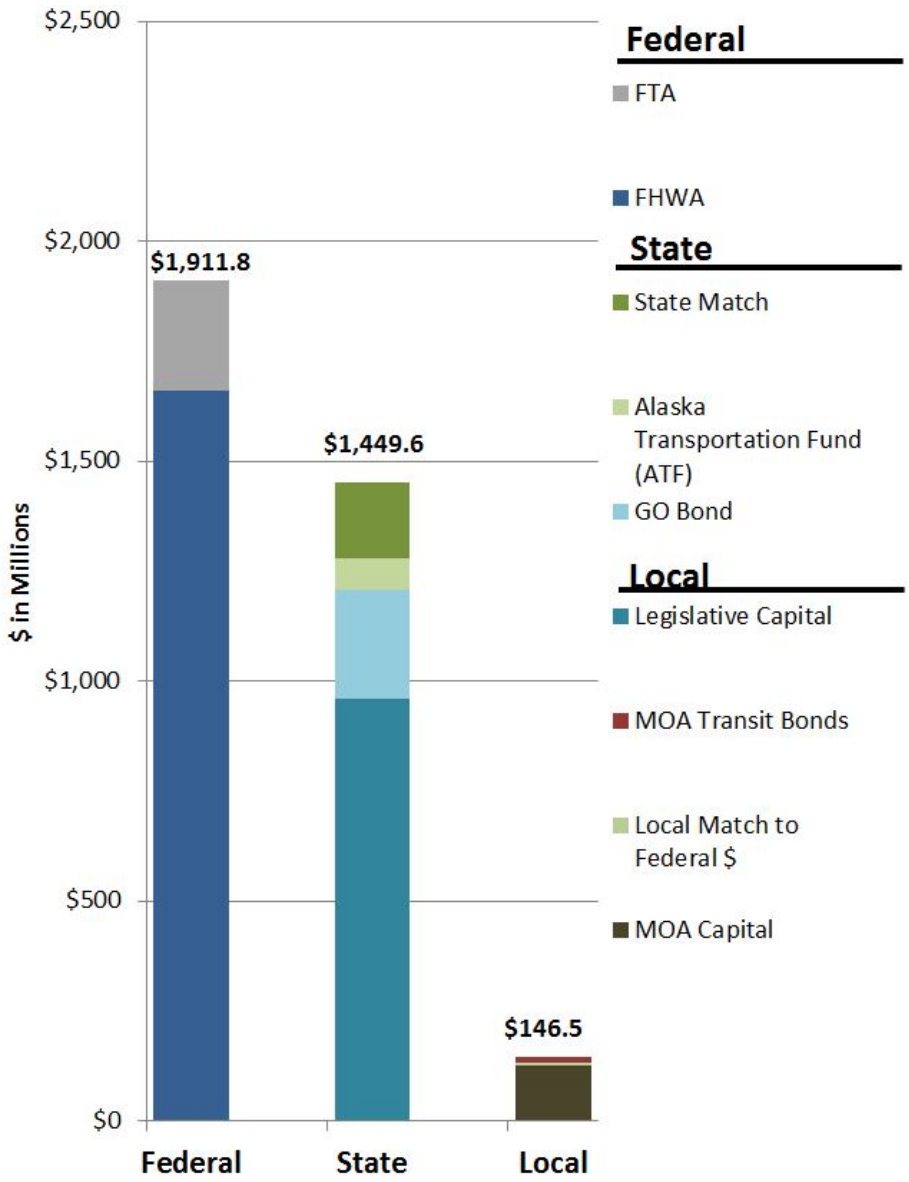


Table 6-3: Revenue Sources (in 2014 $)

REVENUE SOURCES	REVENUE IN $ MILLIONS			
	Notes*	Short-Term (2011-2023) Total	Long-Term (2024-2035) Total	Total
MOA Road Capital (Road Bonds to LRTP Projects)	Note 1	35.5	43.7	79.2
State Legislative Grants (Not Including State Bonds) - NHS	Note 2	93.5	211.3	304.8
State Legislative Grants (Not Including State Bonds) -Non-NHS	Note 2	199.3	375.6	574.9
FHWA NHS (Anchorage & Chugiak/Eagle River)	Note 3	346.7	388.0	734.7
FHWA Non-NHS (Anchorage & Chugiak/Eagle River)	Note 4	224.6	242.7	467.3
HSIP	Note 5	138.3	164.3	302.6
State Match to FHWA NHS & Non-NHS Total	Note 6	70.5	78.9	149.4
Alaska Transportation Fund (ATF)	Note 7	0.0	70.5	70.5
GO Bond	Note 8	91.0	157.7	248.7
ARRC Match to Federal Funds	Note 9	3.6	4.2	7.8
Railroad Track, Facilities, and Infrastructure	Note 10	36.1	42.9	79.0
Road Revenue Source Total		**1239.0**	**1779.8**	**3018.8**
TA Funds (10% of AMATS Allocation)	Note 11	34.8	37.4	72.2
State Match to Federal Funds (TE)	Note 12	1.5	1.9	3.4
Local Match to Federal Funds (TE)	Note 13	1.5	1.9	3.4
MOA Capital (Bonds to Bike/Ped MTP Projects)	Note 14	22.1	25.4	47.5
State Legislative Grants - Non-Motorized	Note 15	23.9	33.1	57.0
Bike/Ped/Trails Revenue Source Total		**83.8**	**99.7**	**183.5**
Federal Transit Administration Capital Funding	Note 16	76.5	85.2	161.7
FTA Very Small Starts Program for BRT		0.0	11.1	11.1
MOA Transit Capital	Note 17	7.0	6.0	13.0
CMAQ (10% of AMATS Allocation)	Note 18	34.8	37.4	72.2
FHWA CMAQ Allocation from DOT&PF STIP	Note 19	11.0	0.0	11.0
State Match to Federal Funds (CMAQ)	Note 20	1.5	1.9	3.4
Local Match to Federal Funds (CMAQ)	Note 21	1.5	1.9	3.4
State Transit Match Assistance SB77	Note 22	0.4	0.0	0.4
State Transit Match Assistance AMC	Note 23	3.5	3.6	7.1
State Legislative Grants - Transit	Note 24	7.0	9.5	16.5
Alaska Mental Health Trust	Note 25	2.6	3.2	5.8
Transit Revenue Source Total		**145.8**	**159.8**	**305.6**
Estimated Total Sources of Funding		1468.6	2039.3	3507.9

*Notes 1 through 25 are provided in Appendix E.

Figure 6-2: Federal, State, and Local Revenues by Year through 2035 (from 2035 MTP [top] and Interim 2035 MTP [bottom])

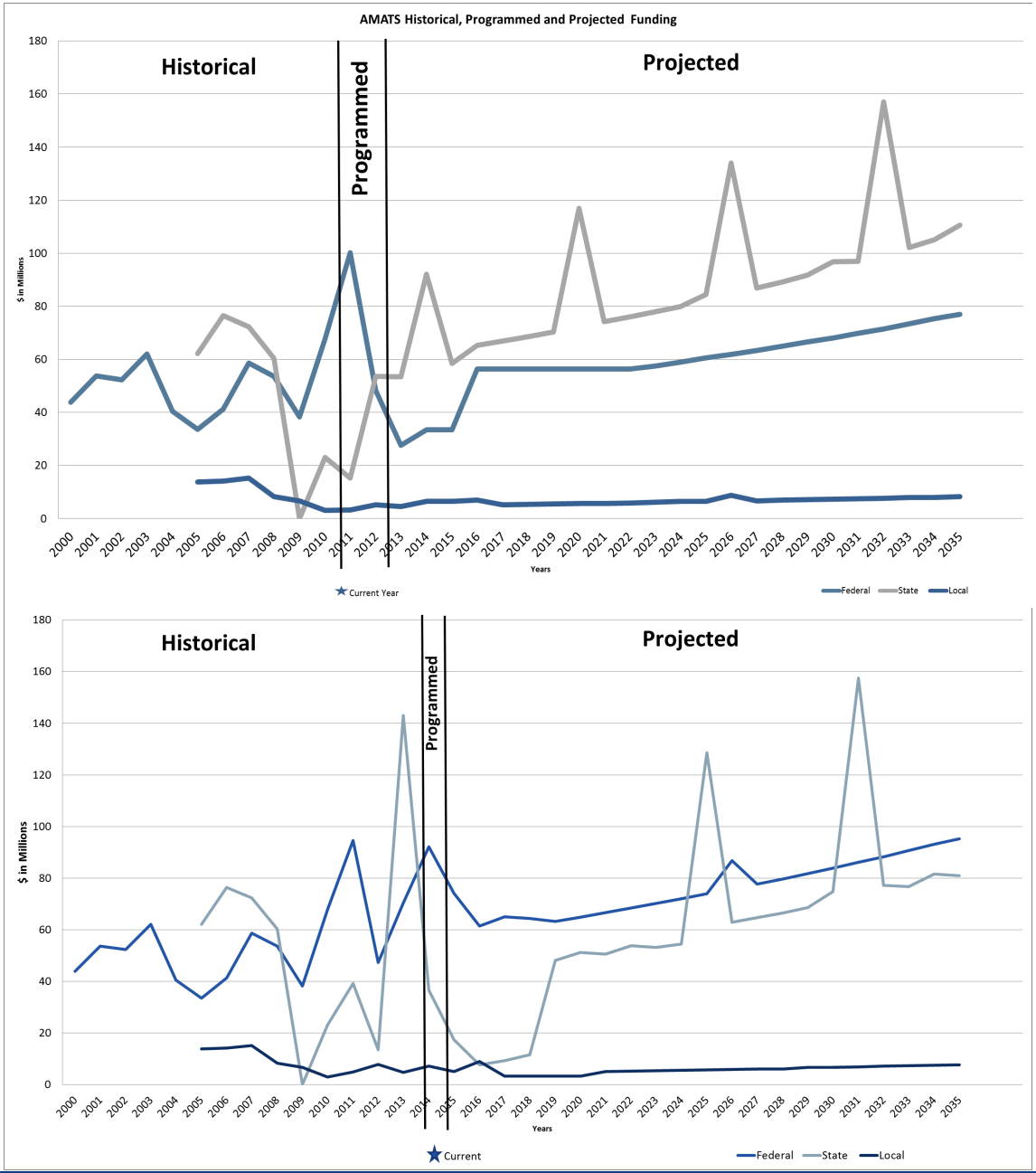
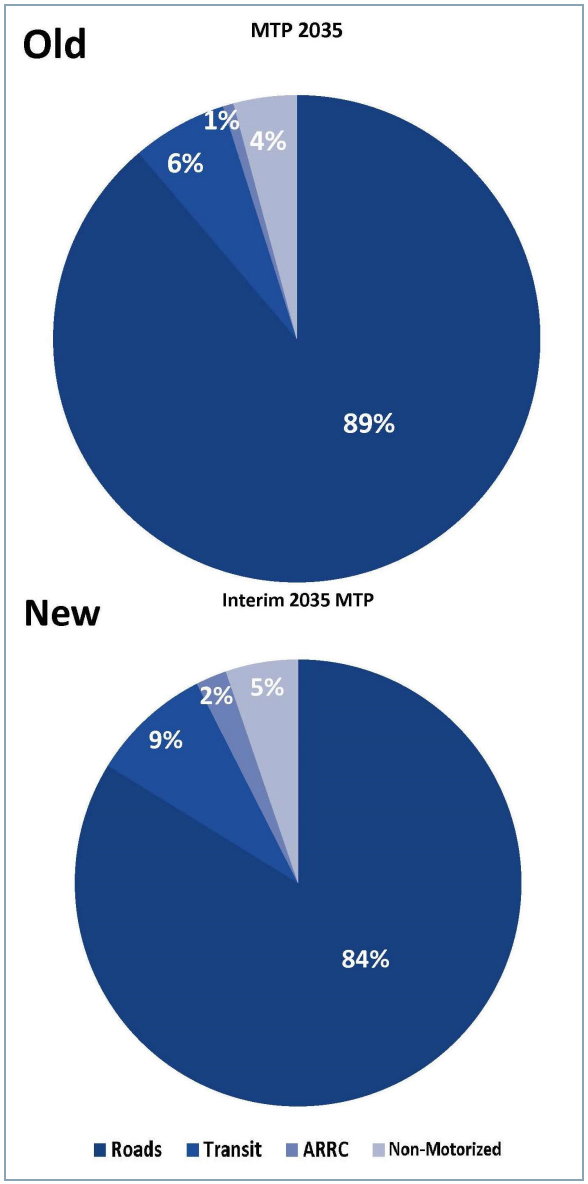


Figure 6-3: Comparison of Federal, State, and Local Revenue Percentages for the 2035 MTP and Interim 2035 MTP



OPERATIONS AND MAINTENANCE

Roads & Non-Motorized

Adequate funding of roadway O&M functions is important to ensure that the road system continues to function well. The O&M functions include activities such as signing, marking, lighting, street sweeping, traffic signal system operation, snow clearing, sanding, pothole repair, landscaping, and sidewalk maintenance.

Estimated maintenance costs for sidewalks, bicycle paths, and trails adjacent to roadways are incorporated into the roadway O&M. The MOA Parks and Recreation Department estimated cost to maintain a trail that is not adjacent to a roadway at $2,600 per mile. As part of this MTP, 3.41 additional miles of trails, not adjacent to roadways are anticipated to be built at an additional cost of about $8,900 per year. This additional cost is expected to be absorbed as part of the annual budget for the MOA parks and Recreation Department over time.

The O&M costs for new roadway projects recommended in this Interim MTP is based on the current cost per lane mile times the new road lane miles added to the system as a result of implementation of the roadway projects. The 2035 MTP shows the lane mile increases broken down by agency maintenance responsibility, as the Interim MTP is not adding or removing projects this total has not changed.

DOT&PF and MOA jointly share the responsibility for maintaining roadways in the Anchorage Bowl. For the most part, the MOA maintains municipality-owned roads and the DOT&PF maintains state-owned roads. However, in cases where efficiencies can be achieved, the maintenance responsibilities have been shifted through formal maintenance agreements. The ability and willingness to pay the additional cost of maintaining an expanded system should be resolved before a commitment to build more infrastructures is made. The DOT&PF contracts with the MOA for certain O&M functions. Three roadways recommended for widening (Northern Lights Boulevard, Fireweed Lane, and the proposed northern access road to the U-Med area) currently have split maintenance responsibilities. As a result, the additional lane miles are further split between summer and winter maintenance responsibilities.

Assumptions for the O&M costs include the following:

- Conversions of four-lane roads to three-lane roads decrease the maintenance cost by one lane.
- The restriping of the A/C couplet will not increase the maintenance cost of these facilities because the pavement area will remain the same.
- There is no difference between the maintenance costs based on roadway classification. In other words, lane mile costs for freeways are the same as those for arterials.

The DOT&PF and MOA spent almost $55 million in 2014 for O&M of the public road system in the AMATS planning area. See *Table 6-4* for the short and long-term periods. Based on the current O&M budgets, the average cost per lane mile are $9,000 on DOT&PF facilities, $16,000 within ARDSA, and $8,000 within Chugiak Birchwood Eagle River Rural Road Service Areas (CBERRRSA). The cost to maintain a separated path of walks adjacent to the roadway is included in the amounts. Although these amounts differ by responsible organization, it is important to note that the services provided also differ. For example, ARDSA includes the expensive costs of increased time spent by crews clearing and hauling snow in residential streets than the time spent clearing snow on the high-speed facilities maintained by DOT&PF.

Table 6-4: O&M Road Costs (Revenue and Expenses $ in Millions)

O&M EXPENSES	SHORT TERM (2011-2023) TOTAL	LONG TERM (2024-2035) TOTAL	TOTAL
DOT&PF	247.8	309.9	557.6
Pavement Replacement Projects DOT&PF	98.5	110.8	209.3
MOA ARDSA	276.0	339.4	615.4
MOA CBERRRSA	43.3	53.7	97.0
Pavement Replacement Projects MOA	59.4	50.8	110.2
Estimated Total Expenses	**725.0**	**864.5**	**1,589.5**
REVENUE ESTIMATES			
AMATS Pavement Replacement	52.0	56.1	108.1
MOA Road Capital (Road Bonds to MTP Surface Rehabilitation Projects)	59.4	50.8	110.2
Alaska Legislative Capital Program (Not Including State Bonds) – Non-NHS Pavement Rehabilitation	46.5	54.7	101.2
DOT&PF O&M Budget	119.1	149.6	268.7
Traffic Signal Management	24.1	29.6	53.7
MS4 Permit Compliance	36.9	46.1	83.1
Defferred Maintenance	67.6	84.5	152.1
Total DOT&PF O&M	247.8	309.9	557.6
MOA ARDSA O&M Budget	276.0	339.4	615.4
MOA CBERRRSA O&M Budget	43.3	53.7	97.0
Estimated Total Sources of Funding	**725.0**	**864.5**	**1,589.5**

Assumptions: DOT&PF and MOA will continue to maintain the existing system and additional land miles added as part of the MTP to the current level of service. The system will be maintained at the level of funding available. 2.6% growth in both revenue and expenses for the O&M budgets.

New roads and lanes to be built as a part of the MTP implementation will add maintenance cost of about $1 million per year by 2035. During the 2011-2035 MTP planning period, O&M costs for the road system are project to be $1.6 billion.

In some cases, the recommended MTP projects may result in a net cost savings for maintenance, especially where improvements to the existing substandard roadbed and drainage reduce the need to repair the roadway surface.

It is assumed that DOT&PF and MOA will continue the current level of service for maintaining the existing system and additional lane miles added as a part of the MTP projects.

Public Transportation

This Interim 2035 MTP maintains the 2035 MTP expanded public transportation services for: People Mover, AnchorRIDES, and Share-a-Ride. It is consistent with the Anchorage Bowl Comprehensive Plan, the Chugiak-Eagle River Comprehensive Plan, the People Mover Blueprint, Anchorage Downtown Comprehensive Plan, the Human Services Coordination Transportation Plan, Public Transit Advisory Board recommendations, and public requests for service.

Within the Interim MTP planning horizon, People Mover expansion includes implementing half-hour headways until 6:00 p.m. on all local routes within the Anchorage Bowl, and 15–minutes peak period headways on six routes. Local service in Eagle River is reinstated and additional service is provided on the Glenn Highway. A new BRT (Bus Rapid Transit) route is initiated between Downtown, Midtown, and the U-Med district; a new South Anchorage express route is added; new coverage in Klatt Road/Southport area, along Abbott Road/Elmore Road, and along International Airport Road is identified; and a new South Anchorage-Hillside express route is provided in the MTP.

The required peak-period fleet will be approximately 92 People Mover buses—slightly more than double the fleet in 2011. The annual O&M costs are estimated to increase from $26.3 million in 2011 to $47.5 million in 2035. Table 6-14 shows the annual funding and expenditures for the O&M of the public transportation system in short- and long-term periods.

Expansion of the AnchorRIDES system will increase the fleet from 46 vehicles in 2011 to 61 vehicles in 2035. With increased emphasis on coordinated human services transportation from federal and state funding sources, most of the increase in O&M costs will be provided through other sources, similar to the current Medicaid funding for many AnchorRIDES trips.

The Share-a-Ride carpool fleet is estimated to increase from 76 vehicles in 2011 to 151 vehicles in 2035. The majority of the O&M costs for the program are from rider fees; however, FHWA CMAQ funds will be used to provide funding for project overhead and approximately $40,000 annually in FTA Section 5307 funding is provided for capital and major maintenance expenses of the carpool fleet. Vehicles acquisition funded through a capital program of FHWA CMAQ and FTA Section 5307 and 5311 funds, as well and matching funds from the MOA.

The operating budget for the public transportation system is funded by multiple sources; local property tax dollars; passenger fares; grants from the FTA, FHWA, and Department of Health and Human Services (DHHS), Older Americans Act; advertising revenues; and miscellaneous revenues.

The State of Alaska, which occasionally provides funding for small capital projects, had not provided operating funding for public transportation until the 2011 legislative session, when $1.0 million statewide was approved for a 50/50 matching to cover capital and operations costs. For the Interim MTP, it is assumed that a similar level of state support for public transportation will continue in the future.

Funding for the expanded operations of the public transportation system will require increased MOA general fund allocations or new sources. Funding from property taxes depends on the willingness of the Municipal Assembly and the MOA Administration to allocate money for this purpose and on support of the general public. Many other public transportation systems receive allocations from additional funding sources, such as a percentage of sales tax, gasoline tax, or vehicle registration tax.

See *Table 6-5* for the short and long-term periods.

Table 6-5: O&M Public Transportation Costs (Revenue and Expenses $ in Millions)

M&O EXPENSES	SHORT TERM (2011-2023) TOTAL	LONG TERM (2024-2035) TOTAL	TOTAL
2011 Operating Expenses	397.7	499.6	897.3
Service Expansion – Increase Span of Service Mon-Fri, Sun; Miscellaneous Service Improvements	0.5	0.0	0.5
Service Expansion – 30 Minute Headways on All Routes	4.0	0.0	4.0
Service Expansion – 15 Minute Headways Peak Service on 3, 36, 45	1.2	0.0	1.2
Service Expansion – 15 Minute Headways Peak Service on 7, 9, 15	0.0	1.0	1.0
Service Expansion – Glenn Highway Commute, Eagle River Local Service	0.0	3.0	3.0
Bus Rapid Transit Downtown, Midtown, and U-Med District Core Service	0.0	3.1	3.1
New Service – South Anchorage-Hillside	1.1	0.0	1.1
New Service – Klatt/Southport, Abbott/Elmore, International Airport Road	0.0	0.0	0.0
Estimated Total Expenses	**404.5**	**506.7**	**911.2**
REVENUE ESTIMATES			
2011 Operating Budget, As Amended in AM 153-2011 (A)	397.7	499.6	897.3
Legislative Capital Funding	6.8	7.1	13.9
Estimated Total Sources of Funding	**404.5**	**506.7**	**911.2**

Assumptions: Legislative capital funding may be used for operating expenses.

Knik Arm Crossing

The Interim 2035 MTP carries forward from the 2035 MTP the assumption that no funding currently planned for AMATS project implementation of the existing MTP shall be used to support construction of any element of the Knik Arm Crossing.

CONCLUSION

Ongoing costs to operate and maintain the transportation system are borne by the MOA and the State of Alaska from annual operating budgets. Transportation system infrastructure development improvements, rehabilitation, and preservation are costly endeavors. The recommended transportation plan outlined in Chapter 6 will cost approximately $3.5 billion for capital items and $1.6 billion for O&M items.

As indicated by the financial constraint analysis, AMATS estimates there will be sufficient revenues to cover project implementation and maintenance costs to the year 2035.

Chapter 7

RECOMMENDATIONS

The Interim 2035 MTP carries forward all recommendations established by the 2035 MTP. The plan's recommendations provide a framework for the development, operations, and maintenance of a multimodal transportation system that meets the travel needs of the metropolitan region through 2035.

The 2035 MTP recommendations identified needed planning projects and actions, which it presented by focus area in Chapter 8, Implementation.

The recommendation focus areas presented in the 2035 MTP included:

- Roads
- Public transportation
- Congestion management
- Non-motorized transportation (pedestrian, bicycle, and trail facilities)
- Freight distribution
- Regional connections
- Integration with other transportation and land use plans
- MTP system performance

A full progress report on implementation actions taken since the adoption of the 2035 MTP is presented in Chapter 8 of this Interim MTP.

CAPITAL IMPROVEMENT PROJECTS

The tables and narratives below present the recommended Capital Improvement Plan (CIP) projects in the following focus areas:

- Roads
- Public transportation
- Non-motorized transportation

Implementation of all other projects and plans will be presented in Chapter 8, 2035 MTP Implementation Progress Report.

Roads

The 2035 MTP recommended road improvements included forty-two short-term projects and eighteen long-term projects, with the following priorities:

- Improve connections throughout the region
- Improve interchanges, particularly along the Glenn and Seward Highways
- Improve safety
- Calm traffic and improve opportunities for modes other than the automobile
- Expand access to the ports
- Improve circulation and accessibility in the Eagle River Central Business District

Table 7-1 lists the recommended road projects presented in the 2035 MTP and carried forward by the Interim 2035 MTP. The recommendations are divided into short-term and long-term projects. *Figure 7-1* and *Figure 7-2* show the locations of the recommended projects on maps of the Anchorage Bowl and Chugiak-Eagle River areas.

Total cost estimates, funding identified outside the 2035 MTP, and the remaining cost in 2014 dollars is included for each of the road projects.

Figure 7-1: Recommended Road Projects – Anchorage Bowl

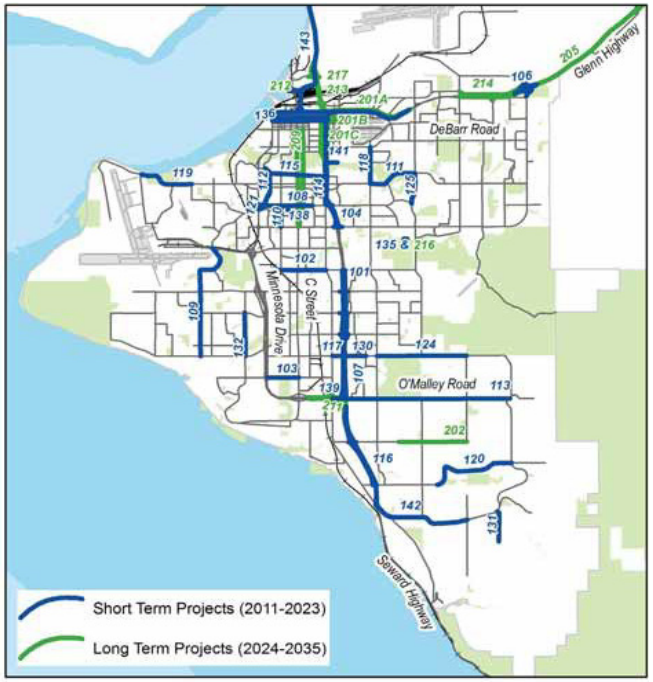


Figure 7-2: Recommended Road Projects – Chugiak-Eagle River

Project listing and numbers in *Table 7-1*, *Table 7-2*, and *Table 7-3* do not indicate any priority order within the short- and long-term periods. Project priority will be determined through the AMATS TIP process.

The following acronyms are used within the tables:

ADA = Americans with Disabilities Act
CBD = Central Business District
HOV = high-occupancy vehicle
M = million
MP = Milepost
N/A = not applicable
SOV = single-occupancy vehicle
TIP = Transportation Improvement Program

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011–2023)

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
101	Seward Hwy - Dimond Blvd to Dowling Rd	Dimond Blvd to Dowling Rd	$88,800,000	$4,000,000	$84,800,000		Reconstruct and widen from 4 to 6 lanes from Dimond to Dowling Rd with frontage road improvements, landscaping, and possible noise walls. Includes 68th and 76th grade separation, reconstruction of Dowling interchange and roundabouts. Does not include reconstruction of Dimond interchange. Recommend separated pathways on frontage roads. Purpose: Capacity and freight. Facility Class: Freeway. Length of Project: 2 miles. Linked project(s): None.
102	Dowling Rd Extension - Phase II	C St to Minnesota Dr	$63,400,000	$39,300,000	$24,100,000	✓ A	Add new facility—extend Dowling Rd from C St to Minnesota Dr. Recommend bicycle lanes and separated pathway. Wetland impacts anticipated. Purpose: Capacity, freight, circulation. Facility class: Major arterial. Length of project: 1.14 miles. Length of new sidewalk: 1.14 miles. Length of new pathway: 1.14 miles. Linked project(s): None.
103	100th Ave Extension – Minnesota Dr to C St	Minnesota Dr to C St	$26,825,500		$26,825,500		Add new facility—extend 100th Ave between Minnesota Dr. and C St. Recommend separated pathway. Wetland impacts anticipated. Purpose: Circulation, access, and freight. Facility class: Collector. Length of project: 0.7 mile. Length of new sidewalk: 0.7 mile. Length of new pathway: 0.7 mile. Linked project(s): None.

* "Funding Identified outside MTP" refers to funding that was secured before the 2012 adoption of the 2035 MTP.
** "2014 Remaining Cost" equals the 2014 Cost Estimate minus the Funding Identified outside MTP.
A Anticipated to be complete in 2015

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011-2023) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
104	36th Ave/ Seward Hwy Interchange	Tudor Rd to 33rd Ave	$70,000,000		$70,000,000		Add new facility – interchange at 36th Ave and Seward Hwy, including braided ramps connecting to the Tudor Rd interchange. Phase I of Seward Hwy/Glenn Hwy Connection. Recommend separated pathway. Purpose: Capacity, freight, and circulation. Facility class: Freeway. Length of project: 1 mile. Length of new sidewalk: Replace existing on 36th Ave. Length of new pathway: 1 mile. Linked project(s): 114, 201.
105	Glenn Hwy - Hiland Rd to Old Glenn Hwy (Artillery Rd-Eagle River)	Hiland Rd to Old Glenn Hwy (Artillery Rd)	$62,800,000		$62,800,000		Make necessary improvements at Hiland Rd and Old Glenn Hwy (Artillery Rd) interchanges and add a 3rd lane northbound and southbound between Hiland Rd and Old Glenn Hwy (Artillery Rd); bridge improvements at Eagle River interchange, Hiland Rd interchange, and 2 Eagle River bridges. Purpose: Capacity, circulation, access, and freight. Facility class: Freeway. Length of project: 2 miles. Length of new sidewalk: N/A. Length of new pathway: 4 miles. Linked project(s): 204, 205.
106	Muldoon Rd Interchange	Glenn Hwy at Muldoon Rd	$50,000,000		$50,000,000		Reconstruct interchange to include ramps and Muldoon Rd bridge. Purpose: Circulation, access, and freight. Facility class: Major arterial. Length of project: 1 mile. Length of new sidewalk: 1 mile. Length of new pathway: N/A. Linked project(s): None.
107	Seward Hwy - O'Malley Rd to Dimond Blvd	O'Malley Rd to Dimond Blvd	$100,000,000		$100,000,000		Reconstruct and widen from 4 to 6 lanes. Landscaping and possible noise walls. Includes reconstruction of Dimond Blvd interchange. Recommend separated pathways on all frontage road improvements. Purpose: Capacity, circulation, and freight. Facility class: Freeway. Length of project: 1.03 miles. Length of new sidewalk: N/A. Length of new pathway: 1.03 miles. Linked project(s): None.
108	36th Ave Access Management - Spenard Rd to Denali St	Spenard Rd to Denali St	$1,500,000		$1,500,000		Access management treatments. Purpose: Circulation and access. Facility class: Minor arterial. Length of project: 1.06 miles. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): None.

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011-2023) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
109	Jewel Lake Rd - Dimond Blvd to International Airport Rd	Dimond Blvd to International Airport Rd	$13,000,000		$13,000,000		Reconstruct Jewel Lake to operate as a 2-lane with center turn lane. Recommend bicycle lanes and pedestrian facilities on the other side. Wetland impacts anticipated. Purpose: Maintenance and safety. Facility class: Major arterial. Length of project: 2.9 miles. Length of new sidewalk: 2.9 miles. Length of new pathway: 2.9 miles. Linked project(s): 304
110	Arctic Blvd Rehabilitation - 36th Ave to Tudor Rd	36th Ave to Tudor Rd	$8,000,000		$8,000,000		Rehabilitate Arctic Blvd from 4 to 3 lanes between 36th Ave and Tudor Rd. Recommend bicycle lanes and pedestrian facilities. Purpose: Circulation and access. Facility class: Minor arterial. Length of project: 0.5 mile. Length of new sidewalk: 0.5 mile. Length of new pathway: None. Linked project(s): None.
111	Northern Lights Blvd - Lake Otis Pkwy to Bragaw	Lake Otis Pkwy to Bragaw	$8,000,000		$8,000,000		Extend third eastbound lane from Lake Otis Pkwy to Bragaw St. May include intersection improvements at both Lake Otis Pkwy and UAA Dr. Purpose: Capacity. Facility class: Major arterial. Length of project: 1.1 miles. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 125.
112	Spenard Rd Rehabilitation - Hillcrest Dr to Benson Blvd	Hillcrest Dr to Benson Blvd	$18,600,000		$18,600,000		Rehabilitate to improve traffic flow. Recommend pedestrian facilities. Purpose: Circulation and access. Facility class: Minor arterial. Length of project: 0.51 mile. Length of new sidewalk: 0.51 mile. Length of new pathway: N/A. Linked project(s): None.
113	O'Malley Rd - Seward Hwy to Hillside Dr	Seward Hwy to Hillside Dr	$50,000,000		$50,000,000		Rehabilitate to improve safety and capacity. 3-lane section east of Lake Otis Pkwy and 5-lane section between Seward Hwy and Lake Otis Pkwy. Recommend separated pathway and pedestrian facilities. Wetland impacts anticipated. Purpose: Capacity and access. Facility class: Major/minor arterial. Length of project: 3.65 miles. Length of new sidewalk: 3.65 miles. Length of new pathway: 3.65 miles. Linked project(s): None.

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011-2023) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
114	Seward Hwy Improvements (Midtown Congestion Relief: Seward Hwy/ Glenn Hwy Connection Ph II)	33rd Ave to Chester Creek	$178,000,000		$178,000,000		Reconstruct the Seward Hwy as a depressed freeway, includes interchanges at Northern Lights Blvd, and Benson Blvd and the reconstruction of Old Seward Hwy from 33rd Ave to 20th Ave, Phase II of Seward Hwy/Glenn Hwy Connection. Purpose: Capacity, freight, and circulation. Facility class: Freeway. Length of project: 0.69 mile. Length of new sidewalk: N/A. Length of new pathway: 0.69 mile. Linked project(s): 105, 201.
115	Fireweed Ln Rehabilitation - Spenard Rd to Seward Hwy	Spenard Rd to Seward Hwy	$10,400,000		$10,400,000		Rehabilitate roadway to improve surface and safety for cars. Recommend bicycle lanes and pedestrian facilities. Purpose: Circulation and access. Facility class: Minor arterial. Length of project: 1.25 miles. Length of new sidewalk: 1.25 miles. Length of new pathway: 1.25 miles. Linked project(s): 112, 209.
116	Seward Hwy - O'Malley Rd to Rabbit Creek Rd	O'Malley Rd to Rabbit Creek Rd	$7,100,000		$7,100,000		Construct ADA ramps for existing pedestrian overcrossing and extend pedestrian facilities from Rabbit Creek Rd to O'Malley Rd. Purpose: Capacity and freight. Facility class: Freeway. Length of project: 3 miles. Length of new sidewalk: N/A. Length of new pathway: 3 miles. Linked project(s): 107.
117	Seward Hwy/ 92nd Ave Grade Separation	Homer Dr to Brayton Dr	$60,400,000	$20,200,000	$40,200,000		Add new facility - grade separation and extension of 92nd Ave from Homer Dr to Brayton Dr. Current project includes west side on- and off-ramps from Seward Hwy at 92nd Ave connecting via a newly constructed 92nd Ave to the Old Seward Hwy. New traffic signal at 92nd Ave and Old Seward Hwy. Pedestrian, storm drain, and lighting improvements. Recommend bicycle lanes. Purpose: Capacity, circulation, and freight. Facility class: Freeway. Length of project: 0.21 mile. Length of new sidewalk: 0.21 mile. Length of new pathway: 0.21 mile. Linked project(s): 116.
118	Lake Otis Pkwy - Northern Lights Blvd to DeBarr Rd	Northern Lights Blvd to DeBarr Rd	$38,000,000		$38,000,000		Reconstruct and increase capacity, bridge over Chester Creek, Lake Otis Pkwy/Northern Lights Blvd intersection. Recommend pedestrian facilities and bicycle lanes. Purpose: Safety and capacity. Facility class: Major arterial. Length of project: 0.85 mile. Length of new sidewalk: 0.85 mile. Length of new pathway: 0.85 mile. Linked project(s): 105, 114, 201.

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011-2023) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
119	Northern Lights Blvd – Postmark Dr to Nathaniel Ct	Postmark Dr to Nathaniel Ct	$19,400,000		$19,400,000		Rehabilitate pavement and add shoulders where needed. Wetland impacts anticipated. Purpose: Circulation, access, and safety. Facility class: Minor arterial. Length of project: 1.2 miles. Length of new sidewalk: None. Length of new pathway: None. Linked project(s): None.
120	DeArmoun Rd Reconstruction - Phase II	140th Ave to Hillside Dr	$15,000,000		$15,000,000		Reconstruct and add pedestrian facilities; minimize impact on private property. Purpose: Safety and capacity. Facility class: Collector. Length of project: 2.4 miles. Length of new sidewalk: 2.4 miles. Length of new pathway: 2.4 miles. Linked project(s): None.
121	Spenard Rd Rehabilitation - Benson Blvd to Minnesota Dr	Benson Blvd to Minnesota Dr	$50,200,000		$50,200,000		Rehabilitate to improve traffic flow from Benson Blvd to Minnesota Dr, including feasibility and impact analysis on local properties of the proposed Spenard Rd/36th Ave couplet. Recommend pedestrian and bicycle facilities. Purpose: Capacity and safety. Facility class: Minor arterial. Length of project: 0.63 mile. Length of new sidewalk: 0.63 mile. Length of new pathway: 0.63 mile. Linked project(s): 112.
122	Eagle River Rd Rehabilitation - MP 5.3-MP 12.6 (Eagle River)	MP 5.3-MP 12.6	$28,400,000		$28,400,000	✓	Upgrade the road with widened shoulders, improved visibility, and repavement. Wetland impacts anticipated. Purpose: Capacity and safety. Facility class: Major arterial. Length of project: 7.3 miles. Length of new sidewalk: None. Length of new pathway: None. Linked project(s): None.
123	Eklutna River Bridge Rehabilitation/ Replacement (Eagle River)	Old Glenn Hwy	$13,300,000		$13,300,000	✓A	Rehabilitate or replace the existing bridge. A new structure would have a design life of 50+ years and would include two travel lanes, shoulders, one pathway, and railing. . Purpose: Maintenance, safety, and freight. Facility class: Major arterial. Length of project: 0.88 mile. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): None.
124	Abbott Rd – Lake Otis Pkwy to Birch Rd	Lake Otis Pkwy to Birch Rd	$19,000,000		$19,000,000		5 lanes Lake Otis Pkwy to Elmore Rd, 3 lanes Elmore Rd to Birch Rd with intersection improvements. Recommend paved shoulder bikeway and pedestrian facilities. Purpose: Safety and capacity. Facility class: Minor arterial. Length of project: 2 miles. Length of new sidewalk: 2 miles. Length of new pathway: 2 miles. Linked project(s): None.

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011-2023) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
125	North Access to University-Medical District	Providence Dr to Northern Lights Blvd	$18,800,000		$18,800,000		Construct north access to University-Medical District, a 0.5-mile 2-lane facility with non-motorized facilities. Purpose: Circulation, capacity, and safety. Facility class: Major/Minor arterial. Length of project: 0.5 mile. Length of new sidewalk: 0.5 mile. Length of new pathway: 0.5 mile. Linked project(s): None.
126	Glenn Hwy/ Farm Ave Slip Ramp (Eagle River)	Glenn Hwy at Farm Ave	$50,000,000		$50,000,000		Partial interchange to Farm Ave off the Glenn Hwy (could include an overcrossing to a north-south collector on the west side of the Glenn Hwy). Includes improvements to Farm Ave between Glenn Hwy and Business Blvd. Recommend pedestrian facilities. Purpose: Circulation, access, and freight. Facility class: Freeway. Length of project: 0.2 mile. Length of new sidewalk: 0.2 mile. Length of new pathway: 0.2 mile. Linked project(s): 105, 127, 133, 204, 217.
127	Old Glenn Hwy (Artillery Rd) Northbound Off-Ramp to Eagle River Rd (Eagle River)	Glenn Hwy to Eagle River Rd	$13,500,000		$13,500,000		Eliminates existing weaving section between the existing Old Glenn Hwy (Artillery Rd) interchange northbound ramp terminal and the Eagle River Rd intersection on Old Glenn Hwy. Provides additional capacity to a heavy demand movement. Recommend separated pathway. Purpose: Capacity, safety, and freight. Facility class: Freeway. Length of project: 0.15 mile. Length of new sidewalk: 0.15 mile. Length of new pathway: 0.15 mile. Linked project(s): 126, 127, 133 204, 217.
128	Farm Ave Realignment at Old Glenn Hwy (Eagle River)	Winter Park Pl to Old Glenn Hwy	$6,500,000		$6,500,000		Realignment of Farm Ave to provide direct connection to Eagle River Loop Rd at Old Glenn Hwy. Improves safety and provides direct connection for new interchange for downtown area. Purpose: Capacity, circulation, and access. Facility class: Major arterial. Length of project: 0.35 mile. Length of new sidewalk: 0.35 mile. Length of new pathway: 0.35 mile. Linked project(s): 126, 127.

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011-2023) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
129	Eagle River Rd Rehabilitation - MP 0.0-MP 5.3 (Eagle River)	MP 0 to Upper Terrace (MP 5.3)	$29,000,000		$29,000,000		Rehabilitate approximately 6 miles. Improvements may include turn lanes. Recommend paved shoulder bikeway. Purpose: Capacity and circulation. Facility class: Major arterial. Length of project: 6 miles. Length of new sidewalk: 6 miles. Length of new pathway: 6 miles. Linked project(s): 127.
130	92nd Ave/ Academy Dr Extension – Brayton Dr to Abbott Rd	Brayton Dr to Abbott Rd	$16,100,000		$16,100,000		Add new facility—extend 92nd Ave from Brayton Dr to Abbott Rd. Recommend bicycle lanes and separated pathway. Purpose: Capacity and circulation. Facility class: Minor arterial. Length of project: 0.45 mile. Length of new sidewalk: 0.45 mile. Length of new pathway: 0.45 mile. Linked project(s): 117.
131	Mountain Air Dr - Rabbit Creek Rd. to E 164th Ave	Rabbit Creek Rd to E 164th Ave	$11,000,000	$5,200,000	$5,800,000		Add new facility—extend Mountain Air Dr from Rabbit Creek Rd to E 164th Ave. Recommend separated pathway. Purpose: Circulation, access, and safety. Facility class: Collector. Length of project: 1 mile. Length of new sidewalk: None. Length of new pathway: 1 mile. Linked project(s): None.
132	Northwood Dr Extension - Strawberry Rd to Dimond Blvd	Strawberry Rd to Dimond Blvd	$27,000,000		$27,000,000		Add calming measures from 88th Ave to Strawberry Rd. Add new facility - extend Northwood Dr from Strawberry Rd to Dimond Blvd. Recommend bicycle lanes and pedestrian facilities. Purpose: Circulation, capacity, and access. Facility class: Minor arterial. Length of project: 1 mile. Length of new sidewalk: 1 mile. Length of new pathway: 1 mile. Linked project(s): None.
133	Business Blvd Extension (Eagle River)	Business Blvd to Eagle River Rd at Artillery Rd	$10,000,000	$2,500,000	$7,500,000		Extension of Business Blvd south to Eagle River Rd to provide better circulation and connection to downtown Eagle River. Recommend pedestrian facilities. Purpose: Circulation, access, and safety. Facility class: Collector. Length of project: 0.3 mile. Length of new sidewalk: 0.3 mile. Length of new pathway: 0.3 mile. Linked project(s): 126, 127, 128.
134	Homestead Rd Improvements (Eagle River)	Oberg Rd to Voyles Blvd	$3,500,000		$3,500,000		Construct new collector roadway. Purpose: Circulation and safety. Facility class: Collector. Length of project: 0.66 mile. Length of new sidewalk: 0.66 mile. Length of new pathway: 0.66 mile. Linked project(s): None.

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011-2023) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
135	Short Term MTP Element Implementation Projects	AMATS Area	$6,000,000		$6,000,000		Could include the following projects: Regional Travel Survey, Complete Sts Plan, Freeway Incident Management Plan, Traffic Signal Operations Plan, Intersection Operations and Safety Improvements Program, Travel Options Report Recommendations, South Anchorage Intersection Study, MTP Update, Subarea Circulation-Collector St Studies, etc. Purpose: MTP Implementation. Facility class: N/A. Length of project: N/A. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): None.
136	3rd/6th Ave Couplet/E St Conversion Recon Study	L St to Ingra-Gambell/ 3rd to 4th Ave	$500,000		$500,000		Evaluate converting the 5th/6th couplet to a 3rd/6th couplet. 3rd Ave to become one-way westbound traffic. 5th Ave to become two-way traffic contingent on the 3rd Ave conversion. Purpose: Circulation, access, and freight. Facility class: N/A. Length of project: N/A. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): None.
137	Glenn Hwy Operations Analysis - Muldoon Rd to Eklutna	Muldoon Rd to Eklutna	$5,600,000		$5,600,000		Include future interchanges. Old Glenn Hwy, Eklutna Village Rd, Thunderbird Falls, Mirror Lake, North Peters Creek/Settlers Dr, South Peters Creek/Ski Rd, Birchwood Loop Rd North, Birchwood Loop Rd South. Purpose: Capacity, freight, and safety. Facility class: Freeway. Length of project: N/A. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 105, 106, 126, 127, 128.
138	Midtown Subarea Transportation Plan	Midtown Area	$800,000		$800,000		Finish the study by identifying needs and multimodal/land use solutions. Purpose: Circulation, access, and safety. Facility class: N/A. Length of project: N/A. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 104, 108, 110, 112, 114, 115, 121.
139	Seward Hwy/ O'Malley Rd Interchanges Study	Old Seward Hwy to Seward Hwy	$500,000		$500,000		Reconnaissance study to identify operations, functional design, and phasing of the freeway-to-freeway interchange at Seward Hwy and O'Malley Rd/Minnesota Dr and an interchange at Old Seward Rd and O'Malley Rd. Purpose: Capacity, circulation, and freight. Facility class: N/A. Length of project: N/A. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 107, 113, 116.

Table 7-1: Recommended 2035 MTP Road Projects – Short-Term (2011-2023) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011–2023)							
140	Hiland Rd Improvements Phase I - MP 2.2 to MP 3.4 (Eagle River)	MP 2.2 to MP 3.4	$6,800,000		$6,800,000		Rehabilitate 1.2 miles of the existing two-lane Hiland Rd to current standards. Improvements may include widening roadway, adding shoulders, improving visibility, reducing grades, and possibly trails, where practical and feasible. Recommend paved shoulder bikeway. Purpose: Safety. Facility class: Collector. Length of project: 1.2 miles. Length of new sidewalk: None. Length of new pathway: None. Linked project(s): None.
141	Seward Hwy/ Glenn Hwy Connection - Phase III	Phase III Environmental Document	$10,000,000		$10,000,000		Develop an environmental impact statement for Phase III of the Seward Hwy/Glenn Hwy connection from Chester Creek to Airport Heights Dr. Alternatives will be evaluated and preferred alignment will be chosen recognizing that the following three segments (201A, 201B, and 201C) of this project may change.
142	Rabbit Creek Rd - Seward Hwy to Golden View Dr	Seward Hwy to Golden View Dr	$11,700,000		$11,700,000		Construct center turn lane, sidewalk, and pathway on Rabbit Creek Rd from Seward Hwy to Golden View Dr. Recommend bicycle lanes and separated pathway. Purpose: Capacity. Facility class: Minor arterial. Length of project: 1 mile. Length of new sidewalk: None. Length of new pathway: 1 mile. Linked project(s): 319.
Short Term Projects (2011-2023) Subtotal			**$1,227,425,500**	**$71,200,000**	**$1,156,225,500**		

Table 7-2: Recommended 2035 MTP Road Projects – Long-Term (2024–2035)

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
LONG TERM (2024–2035)							
201 A	Seward Hwy/ Glenn Hwy Connection - Phase III	Airport Heights Dr and Glenn Hwy Interchange	$70,000,000		$70,000,000		Add new interchange at Airport Heights Dr and Glenn Hwy.
201 B	Seward Hwy/ Glenn Hwy Connection - Phase III	Airport Heights Dr to Ingra/ Gambell	$200,000,000		$200,000,000		Improvements to increase capacity and provide limited access corridor from Airport Heights Dr to Ingra/Gambell.
201 C	Seward Hwy/ Glenn Hwy Connection - Phase III	Chester Creek to 5th/6th Ave	$325,000,000		$325,000,000		Construct a depressed freeway between Chester Creek and 5th/6th Avenues. Reconstruct Ingra and Gambell Streets, crossings over the depressed freeway, and cut-and-cover lids.
202	Huffman Rd Rehabilitation - Pintail St to Birch Rd	Pintail St to Birch Rd	$12,000,000		$12,000,000		Rehabilitate road. May include widening roadway, adding shoulders, improving visibility, reducing grades, and possibly trails, where practical and feasible. Recommend bicycle lanes and separated pathway. Purpose: Capacity, circulation, and access. Facility class: Collector. Length of project: 2.63 miles. Length of new sidewalk: 2.63 miles. Length of new pathway: 2.63 miles. Linked project(s): 307, 314.
203	North Eagle River Interchange Capacity Modifications Study (Eagle River)	Glenn Hwy at North Eagle River Access Rd	$500,000		$500,000		Study the need for improvements at ramp terminals. Purpose: Capacity, safety, and freight. Facility class: N/A. Length of project: N/A. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 204, 205.

* "Funding Identified outside MTP" refers to funding that was secured before the 2012 adoption of the 2035 MTP.
** "2014 Remaining Cost" equals the 2014 Cost Estimate minus the Funding Identified outside MTP.

Table 7-2: Recommended 2035 MTP Road Projects – Long-Term (2024–2035) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
LONG TERM (2024–2035)							
204	Glenn Hwy HOV Lane - Old Glenn Hwy (Artillery Rd) Interchange to Peters Creek Interchange (Voyles Rd) (Eagle River)	Old Glenn Hwy (Artillery Rd) interchange to Peters Creek interchange (Voyles Rd)	$55,000,000		$55,000,000		Widen Glenn Hwy to add an additional non-SOV lane in each direction, including interchange upgrades at Peters Creek bridge. Purpose: Capacity and freight. Facility class: Freeway. Length of project: 8.1 miles. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 205.
205	Glenn Hwy HOV Lane - Boniface Pkwy to Old Glenn Hwy (Artillery Rd) Interchange	Boniface Pkwy to Old Glenn Hwy (Artillery Rd) Interchange	$71,700,000		$71,700,000		Widen with lanes to the outside with 1 lane each direction designated non-SOV, includes Ship Creek bridge improvements. Purpose: Capacity and freight. Facility class: Freeway. Length of project: 11.3 miles. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 105, 204.
206	Davis St and Santa Maria Dr Realignment at Old Glenn Hwy (Eagle River)	Old Glenn Hwy – Davis St/ Santa Maria Dr intersection	$5,500,000		$5,500,000		Extend Davis St east to Schroeder Dr and align with Santa Maria Dr as a 4-leg intersection on Old Glenn Hwy. Reduces number of offset intersections on Old Glenn Hwy and improves safety for pedestrian, bicycle, and vehicle crossings and emergency-response accessibility. Purpose: Circulation and safety. Facility class: Major arterial. Length of project: 0.35 mile. Length of new sidewalk: None. Length of new pathway: N/A. Linked project(s): 207.
207	Eleonora St and S Juanita Loop Realignment at Old Glenn Hwy (Eagle River)	Old Glenn Hwy - Eleonora St/ S Juanita Loop intersection	$2,000,000		$2,000,000		Align Eleonora St and S Juanita Loop as a 4-leg intersection on Old Glenn Hwy. Reduces number of offset intersections on Old Glenn Hwy and improves safety for pedestrian, bicycle, and vehicle crossings and emergency-response accessibility. Purpose: Circulation and safety. Facility class: Major arterial. Length of project: 0.35 mile. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 206.

Table 7-2: Recommended 2035 MTP Road Projects – Long-Term (2024–2035) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
LONG TERM (2024–2035)							
208	Hiland Rd Improvements - MP 1.0-MP 2.2 and MP 3.4-MP 8.3 (Eagle River)	MP 1.0-MP 2.2 and MP 3.4-MP 8.3	$24,900,000		$24,900,000		Rehabilitate 6.1 miles of the existing two-lane Hiland Rd to current standards. May include widening roadway, adding shoulders, improving visibility, reducing grades, and possibly trails, where practical and feasible. Recommend paved shoulder bikeway. Purpose: Safety. Facility class: Collector. Length of project: 6.1 mile. Length of new sidewalk: None. Length of new pathway: None. Linked project(s): None.
209	A/C St Couplet Restripe – Tudor Rd to 9th Ave	Tudor Rd to 9th Ave	$500,000		$500,000		Restripe to provide 4 lanes in each direction. Purpose: Capacity. Facility class: Major arterial. Length of project: 4.5 miles. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): None.
210	Birchwood Loop and Birchwood Spur Rd Improvements (Eagle River)	Old Glenn Hwy to Birchwood Airport	$16,600,000		$16,600,000		Reconstruct 2.98 miles of roadway to current standards. May include widening roadway and adding shoulders. Purpose: Capacity and safety. Facility class: Major arterial. Length of project: 2.98 miles. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): None.
211	Seward Hwy/ O'Malley Rd Interchange	Old Seward Hwy to Seward Hwy	$75,000,000		$75,000,000		Add a freeway style interchange at Seward Hwy and O'Malley Rd/Minnesota Dr that provides unimpeded traffic flow between Seward Hwy and Minnesota Dr. Purpose: Capacity, safety, and freight. Facility class: Freeway. Length of project: N/A miles. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 116, 139.
212	C St/Ocean Dock Rd Access Ramp	C St Viaduct to Ocean Dock Rd	$11,200,000		$11,200,000		Reconstruct the ramp at Ship Creek. Purpose: Maintenance, safety, and freight. Facility class: Collector. Length of project: 0.05 mile. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): None.
213	Ingra-Gambell Extension – 3rd Ave to Whitney Rd	3rd Ave to Whitney Rd	$26,000,000		$26,000,000		Add new facility—extend Ingra St/Gambell St to Ship Creek Ave and Whitney Rd. Purpose: Access, circulation, and freight. Facility class: Major arterial. Length of project: 0.6 mile. Length of new sidewalk: 0.6 mile. Length of new pathway: 0.6 mile. Linked project(s):201, 315.

Table 7-2: Recommended 2035 MTP Road Projects – Long-Term (2024–2035) *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
LONG TERM (2024–2035)							
214	Glenn Hwy Frontage Rd	Boniface Pkwy to Muldoon Rd	$18,000,000		$18,000,000		Construct a frontage road between Boniface Pkwy and Muldoon Rd on the north side of the Glenn Hwy and a possible flyover to connect with Turpin St. Purpose: Circulation and Capacity. Facility class: Frontage. Length of project: 1.8 miles. Length of new sidewalk: 1.8 miles. Length of new pathway: 1.8 miles. Linked project(s): 106, 137, 205.
215	Eagle River CBD - Phase II, Study (Eagle River)	Downtown Eagle River & Residential Core	$500,000		$500,000		Study to identify the recommended long-term solution for the CBD transportation system. Purpose: Circulation, capacity, and safety. Facility class: N/A. Length of project: 1.8 miles. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): 105, 126, 127, 128.
216	Long-Term MTP Element Implementation Projects	AMATS Area	$6,000,000		$6,000,000		Could include: Regional Travel Survey, Complete Streets Plan, Freeway Incident Management Plan, Traffic Signal Operations Plan, Intersection Operations and Safety Improvements Program, Travel Options Report Recommendations, South Anchorage Intersection Study, MTP Update, Subarea Circulation-Collector Street Studies, etc. Purpose: MTP Implementation. Facility class: N/A. Length of project: N/A. Length of new sidewalk: N/A. Length of new pathway: N/A. Linked project(s): None.
Long Term Projects (2024-2035) Subtotal			**$920,400,000**	**—**	**$920,400,000**		
2035 MTP Road Projects (Short- and Long-Term) TOTAL			**$1,228,345,900**	**$71,200,000**	**$2,076,625,500**		

Table 7-3: Illustrative Roadway Projects (Not Funded in MTP – after 2035)

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST
301	Tudor Rd Access Management - Seward Hwy to Arctic Blvd	Seward Highway to Arctic Boulevard	$14,000,000		$14,000,000
302	Tudor Rd Access Management - Seward Hwy to Patterson St	Seward Highway to Patterson Street	$41,600,000		$41,600,000
303	Boniface Pkwy Access Management - Tudor Rd to Glenn Hwy	Tudor Rd to Glenn Highway	$22,500,000		$22,500,000
304	Jewel Lake Rd/International Airport Rd Grade Separation	Jewel Lake Rd to Northwood St	$50,600,000		$50,600,000
305	Postmark Dr/International Airport Rd Grade Separation	Postmark Drive to International Airport Rd	$23,600,000		$23,600,000
306	Lake Otis Pkwy Extension - DeBarr Rd to Glenn Hwy	DeBarr Rd to Glenn Highway	$36,000,000		$36,000,000
307	Elmore Rd Extension - O'Malley Rd to Abbott Rd	O'Malley Rd to Abbott Rd	$37,000,000		$37,000,000
308	South Birchwood Loop Rd Improvements (Eagle River)	Old Glenn Hwy to Birchwood Loop Rd	$38,000,000		$38,000,000
309	Minnesota Dr Corridor/Tudor Rd Interchange	International Airport Rd to Northern Lights Boulevard/Minnesota Drive at Tudor Rd	$112,700,000		$112,700,000
310	84th Ave - Hartzell Rd to Lake Otis Pkwy	Hartzell Rd to Lake Otis Pkwy	$10,000,000		$10,000,000
311	Seward Hwy - Potter Weigh Station to Rabbit Creek Rd	Potter Weigh Station to Rabbit Creek Rd	$47,000,000		$47,000,000
312	92nd Ave Extension - King St to Old Seward Hwy	King Street to Old Seward Highway	$18,000,000		$18,000,000
313	92nd Ave Extension- Minnesota to King St	Minnesota to King Street	$12,600,000		$12,600,000
314	Birch Rd - Huffman Rd to O'Malley Rd	Huffman Rd to O'Malley Rd	$30,000,000		$30,000,000
315	Whitney Rd - North C St to Post Rd	North C Street to Post Rd	$15,000,000		$15,000,000
316	Minnesota Dr (Northbound) - 26th Ave to 15th Ave	26th Avenue to 15th Avenue	$29,300,000		$29,300,000
317	Minnesota Dr Frontage Rd	Dimond Boulevard to Raspberry Rd	$9,000,000		$9,000,000
318	Huffman Rd Extension - Birch Rd to Hillside Dr	Birch Rd to Hillside Drive	$14,000,000		$14,000,000
319	Railroad Grade Separation C St	C Street	$91,500,000	$2,000,000	$89,500,000
320	Eklutna Lake Rd Rehabilitation (Eagle River)	Old Glenn Highway to Eklutna Lake	$39,000,000		$39,000,000
321	Knik Arm Ferry Service - Anchorage Terminal	Ship Creek Area			—
322	Seward Hwy/O'Malley Rd Interchanges	Old Seward Highway to Seward Highway	$75,000,000		$75,000,000
Illustrative Road Projects Total			**$766,400,000**	**$2,000,000**	**$764,400,000**

* "Funding Identified outside MTP" refers to funding that was secured before the 2012 adoption of the 2035 MTP.
** "2014 Remaining Cost" equals the 2014 Cost Estimate minus the Funding Identified outside MTP.

Knik Arm Crossing

Table 7-4 lists the recommended Knik Arm Crossing projects provided in the 2035 MTP and carried forward by the Interim 2035 MTP.

Table 7-4: Knik Arm Crossing Project (KAC)

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
143	Knik Arm Crossing - Phase I	A-C Couplet to Point MacKenzie-Burma Road Intersection	$894,400,000		Add new bridge facility access across Knik Arm with associated roads connecting to the Anchorage roadway network. Wetland impacts anticipated. Purpose: Access, circulation, and freight. Facility class: National Highway System route—freeway/major arterial. Length of project: Phase I, 6.1 miles; Length of new sidewalk: N/A Length of new pathway: N/A. Linked project(s): 213.
217	Knik Arm Crossing - Phase II	Ingra-Gambell Couplet Connection	$344,400,000		Add new connection from Government Hill tunnel to Ingra-Gambell couplet over Ship Creek. Purpose: Access, circulation, and freight. Facility class: National Highway System route-freeway/major arterial. Length of project: Phase II: 0.7 mile. Length of new sidewalk: N/A Length of new pathway: N/A. Linked project(s): 213.
Knik Arm Crossing Project Total			$1,238,800,000		

Source: ADOT&PF (2015) Project costs include designing and constructing the facility.

PUBLIC TRANSPORTATION

The 2035 MTP recommended a series of public transportation improvements that are carried forward by the Interim 2035 MTP. These recommendations include the following short-term and long-term priorities.

Short-Term (2011-2023)

- Replace the People Mover bus fleet
- Expand AnchorRIDES and Share-a-Ride (vanpool) fleets
- Expand service to increased span of weekday hours, Sundays, and holidays
- Expand service to provide minimum 30-minute frequency on all routes
- Expand service to provide 15-minute frequency on Routes 3, 36, and 45
- Add new service routes for South Anchorage-Hillside

Long-Term (2024-2035)

- Expand service to provide 15-minute frequency on Routes 7, 9, and 15
- Expand service to Klatt-Southport Circulator
- Expand service to Abbott Road-Elmore Road Circulator
- Expand service to International Airport-UAA Circulator
- Expand service for the Mat-Su and Anchorage Express Bus to provide 30-minute frequency during morning and afternoon peak periods
- Restore Chugiak-Eagle River local service
- Implement initial phase of Bus Rapid Transit (BRT) to connect Downtown, Midtown, and U-Med District
- Add new service for South Anchorage to Downtown Express Route

NON-MOTORIZED TRANSPORTATION

The 2035 MTP recommended a series of non-motorized transportation improvements that are carried forward by the Interim 2035 MTP. These recommendations include the following short-term and long-term priorities.

Short-Term (2011–2023)

- Campbell Trail undercrossing at Lake Otis Parkway
- Sidewalk construction on Northern Lights Boulevard, south side between Captain Cook Estates Drive and Lois Drive
- Bicycle boulevard on 27th Avenue between Blueberry Road and Minnesota Drive
- Separated pathway along north side of Debarr Road between Boniface Parkway and Muldoon Road
- Bicycle lanes on Arctic Boulevard between Benson Boulevard and 10th Avenue
- Bicycle lanes on C Street between O'Malley Road and 10th Avenue
- Campbell Trail lighting between Victor Road and Seward Highway
- Coastal Trail connection to the Ship Creek Trail
- Bicycle lanes on Elmore Road between 48th Avenue and Tudor Road
- Separate pathway on Old Seward Highway between DeArmoun Road and Seward Highway
- Sidewalk separation and upgrade on Northern Lights Boulevard between Seward Highway and Minnesota Drive
- Sidewalk and lighting on Coronado Road
- Chester Creek Trail expansion from Goose Lake to Westchester Lagoon
- Coastal Trail widening from Westchester Lagoon to Earthquake Park
- Bicycle lanes on Raspberry Road between Kincaid Park entrance and Minnesota Drive

Long-Term (2024–2035)

- Tudor Road separated pathway upgrade between Elmore Road and Minnesota Drive
- Bicycle Lanes on Dimond Boulevard between Sand Lake Road and Jewel Lake Road
- Construction of missing sidewalks in neighborhood east of Arctic Boulevard and 32nd Avenue
- Completion of missing sidewalk link along Potter Drive between Arctic Boulevard and Dowling Road
- Bicycle lanes on North Eagle River Access Road between Old Glenn Highway and Powder Ridge Drive

Table 7-3 lists the recommended road projects presented in the 2035 MTP and carried forward by the Interim 2035 MTP. The recommendations are divided into short-term and long-term projects.

Table 7-5: Recommended 2035 MTP Non-Motorized Transportation Projects

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011 – 2023)							
501	Campbell Trail	Lake Otis Pkwy undercrossing	$17,219,481		$17,219,481		Separated Campbell Creek Trail connection across Lake Otis Pkwy
502	Coastal Trail @ Fish Creek Improvements	Fish Creek Estuary Improvements	$110,381	$100,000	$10,381		Project will do paving improvements and relocate a fence which is a safety issue since it creates a blind corner where there have been reported bike/ped crashes (there is no ROW acquisition involved).
503	Northern Lights Blvd	Path on south side, LaHonda Dr to Lois Dr	$1,103,813		$1,103,813	✓	Missing sidewalk
504	Checkmate Dr	Tudor to Emmanuel	$883,050		$883,050	✓[A]	Missing sidewalk
505	Patterson St	Debarr Rd to Chester Creek	$673,326		$673,326		Missing sidewalk
506	27th Ave	Blueberry Rd to Minnesota Dr	$55,191		$55,191		Bicycle boulevard
507	Debarr Rd	Orca Blvd. to Turpin St	$3,620,506		$3,620,506		Separated pathway on north side of street
508	Lake Otis Pkwy	Huffman to Chester Creek	$110,381		$110,381		Study (Area B) – investigate the feasibility of constructing improved bicycle facility
509	Lake Otis Pkwy	DeArmoun Rd to Debarr Rd	$—		$—		Bicycle lane (pending results of the Lake Otis corridor study Project 508)
510	Midtown east-west routes (reconnaissance study)	Midtown	$110,381		$110,381		Study (Area C) – investigate feasibility of constructing bicycle facility through Midtown
511	Muldoon Rd (reconnaissance study)	Northern Lights Blvd to Glenn Hwy	$55,191		$55,191		Study (Area D) – investigate feasibility of constructing bicycle facility along Muldoon Rd
512	Debarr Rd	Boniface Pkwy to Muldoon Rd	$1,887,520		$1,887,520		Upgrade existing sidewalk on south side of street

* "Funding Identified outside MTP" refers to funding that was secured before the 2012 adoption of the 2035 MTP.
** "2014 Remaining Cost" equals the 2014 Cost Estimate minus the Funding Identified outside MTP.
Note: Areas (A, B, C…) refer to areas identified by the 2010 Anchorage Bike Plan
[A] Anticipated to be complete in 2015

Table 7-5: Recommended 2035 MTP Non-Motorized Transportation Projects *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011 – 2023)							
513	10th Ave	P St to Medfra St	$66,229		$66,229	✓ A	Bicycle boulevard
514	Arctic Blvd	Benson Blvd. to Fireweed Blvd.	$11,038		$11,038		Bicycle lanes
515	C St	O'Malley to 10th Ave	$441,525		$441,525		Bicycle lanes
516	Campbell Trail Lighting	Victor to Seward Hwy	$2,869,914		$2,869,914		Install lighting along Campbell Creek Trail
517	Coastal Trail	Connection to Ship Creek Trail	$1,953,749		$1,953,749		Separated pathway linking Coastal Trail with Ship Creek Trail
518	Dimond Blvd. at Victor Rd	Reconnaissance study	$55,191		$55,191		Study (Area G) - investigate feasibility of improving pedestrian crossing
519	Elmore Rd	48th Ave to Tudor Rd	$22,076		$22,076		Bicycle lanes
520	Lake Otis Pkwy	Abbott Rd to DeArmoun Rd	$573,983		$573,983		Upgrade sweeps at intersection of separated pathway and intersections
521	Mountain View Dr	Pine St to Lane St	$165,572		$165,572		Upgrade existing separated trail
522	Old Seward Hwy	DeArmoun Rd to Seward Hwy	$1,324,575		$1,324,575		Separated Pathway
523	Glenn Hwy Trail	S. Artillery Rd to Brooks Rd	$883,050		$883,050		Construct missing link in Glenn Hwy separated pathway
524	Arctic Blvd Bike Lanes	Fireweed Lane to 10th Ave	$110,381	$100,000	$10,381	✓	Project consists of bike lane striping and signage.
525	Duben St, #14 Crash Location	to Muldoon Elementary School	$993,432		$993,432		Missing sidewalk, crossing
526	Northern Lights Blvd	Seward Hwy to Minnesota Dr	$1,368,728		$1,368,728		Sidewalk separation, upgrade
527	32nd Ave	Lois Dr to Minnesota Dr	$187,648		$187,648		Missing sidewalk
528	Coronado St	Old Glenn to Echo St to North Eagle River Loop Rd	$1,103,813		$1,103,813		Sidewalk, lighting
529	Muldoon Rd	Boundary Ave to Bartlett High School, Oilwell Rd	$717,478		$717,478		Missing sidewalk
530	East High School	Northeast entry, 20th Ave & Bragaw Rd	$22,076		$22,076		Walkway or stairway needed to link Bragaw St with school entrance

Table 7-5: Recommended 2035 MTP Non-Motorized Transportation Projects *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011 – 2023)							
531	A St	Fireweed Lane north to 13th Ave	$165,572		$165,572		Missing sidewalk
532	Business Blvd at Carrs to Regency Dr		$331,144		$331,144		Missing link walkway behind Carrs store
533	Huffman Town Center walkways	Daryl, Old Seward, from Post Office, Klatt	$331,144		$331,144		Missing sidewalk
534	Industry Way	Entire Length	$717,478		$717,478		Missing sidewalk
535	Huffman Park Dr	Entire Length	$408,411		$408,411		Missing sidewalk
536	88th Ave	Jewel Lake Rd to Northwood St	$110,381		$110,381		Bicycle lanes
537	Benson/Northern Lights Blvd	Arlington Dr to LaTouche St	$-		$-		Bicycle lane (pending results of the Midtown east-west route study Project 510)
538	Chester Creek Trail	Goose Lake to Westchester Lagoon widening	$4,591,862		$4,591,862		Expand existing separate greenbelt trail (12 feet wide)
539	G St	3rd Ave to 10th St	$22,076		$22,076		Shared road bicycle facility
540	Maplewood Dr Trail Connection	Sitka Park to Maplewood Dr	$883,050		$883,050		Separated pathway
541	Ingra/Gambell	Reconnaissance Study	$55,191		$55,191		Study (Area F) – pedestrian safety study
542	Old Seward Hwy	Rabbit Creek Rd to Potter Creek Rd	$99,343		$99,343		Paved shoulder bikeway
543	O'Malley Rd	Old Seward Hwy to C St	$993,432		$993,432		Separated pathway (under ARRC)
544	Wisconsin St	Spenard Rd to Northern Lights Blvd.	$88,305		$88,305	✓A	Bicycle lanes
545	27th Ave	Seward Hwy to Minnesota Dr	$629,173		$629,173		Crossing, sidewalk upgrade
546	20th Ave	Bragaw St to Tikishla Park	$662,288		$662,288		Missing sidewalk
547	McCarrey	west side Chena north to bus stop	$55,191		$55,191		Missing sidewalk
548	Town Center Walkways	Old Glenn and Business Blvd connections	$375,296		$375,296		Missing link walkway

Table 7-5: Recommended 2035 MTP Non-Motorized Transportation Projects *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011 – 2023)							
549	Abbott Rd	Academy Rd to Lake Otis Pkwy	$33,114		$33,114		Bicycle lanes
550	Baxter Rd	Tudor Rd to 21st Ave at Cheney Lake	$110,381		$110,381		Bicycle lanes
551	Baxter Rd/Beaver Place	Cheney Lake to Debarr Rd	$11,038		$11,038		Shared road bicycle facility
552	Coastal Trail	Westchester Lagoon to Earthquake Park widening	$2,869,914		$2,869,914		Separated pathway
553	Elmore Rd	101st Ave to Lilleston Rd	$1,037,584		$1,037,584		Separated pathway
554	Elmore Rd	DeArmoun Rd to O'Malley Rd	$165,572		$165,572		Bicycle lanes
555	Hillside Dr	Clark's Rd to Abbott Rd	$275,953		$275,953		Paved shoulder bikeway
556	Huffman Rd	Pintail to Elmore Rd	$110,381		$110,381		Bicycle lanes
557	Lore Rd	Lake Otis Pkwy to Elmore Rd	$165,572		$165,572		Shared road bicycle facility and separated pathway to Elmore
558	Lore Rd	Seward Hwy to Lake Otis Pkwy	$33,114		$33,114		Bicycle lanes
559	McCarrey St	Klondike St to Mountain View Dr	$11,038		$11,038		Shared road bicycle facility
560	Northern Lights Blvd	Maplewood to Lake Otis Pkwy	$220,763		$220,763		Upgrade separated pathway on south side of the street
561	Peterkin St	Bunn St to McPhee St	$55,191		$55,191		Bicycle boulevard
562	Pine St	Debarr Rd to Klondike St	$22,076		$22,076		Bicycle lanes
563	Rabbit Creek Rd	Evergreen Dr to Clark's Rd	$88,305		$88,305		Paved shoulder bikeway
564	Raspberry Rd	Kincaid Park entry to Minnesota Dr	$275,953		$275,953		Bicycle lanes
565	Seward Hwy	Tudor Rd to 36th Ave	$883,050		$883,050		Separated pathway
566	Tudor Rd	Campbell Airstrip Rd to Pioneer Dr	$1,821,291		$1,821,291		Separated pathway

Table 7-5: Recommended 2035 MTP Non-Motorized Transportation Projects *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
SHORT TERM (2011 – 2023)							
567	Lake Hill Dr	Old Glenn Hwy to Mirror Lake Middle School	$22,076		$22,076		Paved shoulder bikeway
568	Reka Dr	Bragaw St to Pine St	$938,241		$938,241		Missing Sidewalk
569	Old Glenn Hwy, Monte Rd, Brooks Rd		$662,288		$662,288		Sidewalk, crossing
570	Duben St	Muldoon Rd to Oklahoma St	$618,135		$618,135		Missing sidewalk
571	Molanary Dr	86th Ave to 88th Ave	$220,763		$220,763		Missing sidewalk
572	Valley St	Muldoon Rd to 10th Ave	$662,288		$662,288		Missing link walkway
573	Boniface Pkwy	Glenn Hwy south to Northern Lights Blvd (west side)	$3,477,011		$3,477,011		Missing sidewalk
574	Northern Lights Blvd	Wesleyan Blvd. to Muldoon Rd upgrades	$3,311,439		$3,311,439		Separated pathway
575	Northwood Dr	88th Ave to Raspberry Rd	$88,305		$88,305		Bicycle lanes
576	Fairview Pedestrian Safety Study	Fairview Community Council Boundary	$220,763		$220,763		Investigate pedestrian safety improvement needs within the Ingra-Gambell couplet corridor
Non-Motorized Short Term Projects (2011-2023) Subtotal			**$67,630,616**	**$200,000**	**$67,430,616**		

Table 7-5: Recommended 2035 MTP Non-Motorized Transportation Projects *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
LONG TERM (2024 – 2035)							
601	32nd Ave Extension	Northstar to Arctic Blvd	$220,763		$220,763		Missing pathway
602	Tudor Rd	Elmore Rd to Minnesota Dr	$6,070,971		$6,070,971		Upgrade separated pathway
603	76th Ave	Alaska Railroad to Seward Hwy	$22,076		$22,076		Bicycle lanes
604	76th Ave	Alaska Railroad to Taku Lake Park	$11,038		$11,038		Shared road bicycle facility
605	Abbott Rd	Birch Rd to Hillside Dr	$33,114		$33,114		Paved shoulder bikeway
606	DeArmoun Rd	Seward Hwy to 140th Ave	$176,610		$176,610		Bicycle lanes
607	Dimond Blvd	Sand Lake Rd to Jewel Lake Rd	$88,305		$88,305		Bicycle lanes
608	Elmore Rd	101st Ave to Lilleston	$993,432		$993,432		Bicycle lanes
609	Old Seward Hwy	Rabbit Creek Rd to Huffman Rd	$22,076		$22,076		Paved shoulder bikeway
610	Turnagain Pkwy	Northern Lights Blvd. to Iliamna St	$11,038		$11,038		Shared road bicycle facility
611	Farm Ave	Old Glenn Hwy to Breckenridge Dr	$22,076		$22,076		Shared road bicycle facility
612	Neighborhood northeast of Arctic Blvd & 32nd Ave		$2,649,151		$2,649,151		Missing sidewalks
613	West 36th Ave.	Minnesota Dr to Fish Creek	$662,288		$662,288		Missing sidewalks
614	Crescent St at E. 37th Ave		$33,114		$33,114		Missing link walkway
615	A St	West side, Fireweed Ln to Benson Blvd	$441,525		$441,525		Missing sidewalk
616	A St	West side, Benson Blvd – 36th Ave	$772,669		$772,669		Missing sidewalk

* "Funding Identified outside MTP" refers to funding that was secured before the 2012 adoption of the 2035 MTP.
** "2014 Remaining Cost" equals the 2014 Cost Estimate minus the Funding Identified outside MTP.

Table 7-5: Recommended 2035 MTP Non-Motorized Transportation Projects *(continued)*

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST	COMPLETE	PROJECT PURPOSE AND DESCRIPTION
LONG TERM (2024 – 2035)							
617	Lois Dr	Northern Lights Blvd & 36th Ave	$772,669		$772,669		Missing sidewalk
618	Spirit Way	Piper St to Providence Dr	$220,763		$220,763		Missing sidewalk
619	Johns Rd	High View Dr to Klatt Rd	$662,288		$662,288		Missing sidewalk
620	4th Ave	Bunnell St to Boniface Blvd	$607,097		$607,097	✓	Missing sidewalk
621	Potter Dr	Arctic Blvd to Dowling Rd	$2,097,244		$2,097,244		Missing link walkway
622	Klatt Rd	West of Puma St	$11,038		$11,038		Shared road bicycle facility
623	Tudor Rd	Minnesota Dr to Old Seward Hwy	$55,191		$55,191		Paved shoulder bikeway
624	Mirror Lake to Old Glenn Hwy		$551,906		$551,906		Separated pathway
625	North Eagle River Access Rd	Old Glenn Hwy to Powder Ridge Dr	$66,229		$66,229		Bicycle lanes
626	Old Glenn Hwy	Voyles Rd to end	$88,305		$88,305		Paved shoulder bikeway
627	West Parkview Terrace		$55,191		$55,191		Shared road bicycle facility
628	Wilson St	40th Ave to Tudor Rd	$419,449		$419,449		Missing sidewalk
629	Petersburg St	56th Ave to 57th Ave	$66,229		$66,229		Missing link walkway, lighting
630	Ship Creek Trail	Glenn Hwy to Tyson School	$4,702,243		$4,702,243		Separated pathway
631	Glenn Hwy Trail	Birchwood Loop to Eklutna	$17,219,481		$17,219,481		Separated pathway
632	Elmore Path Extension	Rabbit Creek Rd to DeArmoun Rd	$1,655,719		$1,655,719		Separated pathway
633	6th Ave & 7th Ave at A St	To Museum	$110,381		$110,381		Crossing improvements
Non-Motorized Long Term Projects (2011-2023) Subtotal			**$41,867,622**		**$41,867,622**		
2035 MTP Non-Motorized Projects Total			**$109,298,239**	**$200,000**	**$109,298,239**		

Table 7-6: Illustrative Non-Motorized Projects (Not Funded in MTP – after 2035)

PROJ #	PROJECT NAME	PROJECT LOCATION	2014 COST ESTIMATE	*FUNDING IDENTIFIED OUTSIDE MTP	**2014 REMAINING COST
701	Eagle River Greenbelt Trail	Glenn Highway to Eagle River Nature Center	$22,219,753		$22,219,753
702	Fire Creek	Glenn Hwy through Tract A Powder Reserve	$6,987,136		$6,987,136
703	Lake Otis Blvd	68th Ave to Abbott Rd	$1,942,711		$1,942,711
704	3rd Avenue	Post Road to E Street	$688,779		$688,779
705	3rd Avenue	A Street to Hyder Street	$827,860		$827,860
706	Glenn Hwy Trail	Eklutna to Mat-Su Borough	$13,808,699		$13,808,699
707	South Extension of Coastal Trail	Kincaid Park to Jodhpur St	$3,090,676		$3,090,676
708	South Extension of Coastal Trail	Jodhpur St to Potter Marsh	$35,542,775		$35,542,775
Illustrative Non-Motorized Projects Total			**$85,108,389**		**$85,108,389**

RECOMMENDATIONS SUMMARY AND ENVIRONMENTAL JUSTICE

The tables and narratives provided in this chapter and the implementation progress report provided in Chapter 8 demonstrate the continued validity and impact of the recommendations provided in the 2035 MTP.

The capital improvement projects recommended by the 2035 MTP and described in this chapter continue to take into account the vision and goals of the Anchorage Bowl and Chugiak-Eagle River comprehensive plans, the subarea and community plans and studies, and the open planning design process for projects.

The U.S. Department of Transportation has issued a final order on environmental justice. This final order requires that MPOs, like AMATS, identify and address disproportionately high and adverse public health and environmental effects of transportation policies, programs, and activities on minority and low-income populations. How this plan addresses these issues is discussed in Appendix B.

* "Funding Identified outside MTP" refers to funding that was secured before the 2012 adoption of the 2035 MTP.
** "2014 Remaining Cost" equals the 2014 Cost Estimate minus the Funding Identified outside MTP.

Chapter 7A

KNIK ARM CROSSING

The Knik Arm Crossing project (KAC) has experienced some changes and matured significantly since the approval of the 2035 MTP. Changes include adoption of a public finance plan over the previously considered public-private partnership, traffic and revenue updates, cost estimate updates, minor scope changes, an updated schedule, and completion of some mitigation projects.

FINANCING PLAN

The most significant change resulted from the passage of legislation during the 2014 legislative session. New law supports a three-pronged public financing plan comprised of (1) a Transportation Finance and Innovation Act (TIFIA) loan from USDOT, (2) up to $300 million of state revenue bonds, and (3) $300 million of Title 23 federal aid highway funds, of which $100 million is currently appropriated. The new law had the following effects on the KAC project:

- Moved the design and construction responsibility for the KAC from the Knik Arm Bridge and Toll Authority (KABATA) to the Alaska Department of Transportation & Public Facilities (DOT&PF)
- Provided DOT&PF the ability to borrow from the TIFIA loan program for funding the KAC
- Authorized the state bond committee to issue up to $300 million in revenue bonds to fund the KAC subject to successfully securing the TIFIA loan
- Retained KABATA to operate the constructed facility and collect tolls

As a result, in June 2014 KABATA canceled the public-private partnership (P3) procurement considered in the previous MTP and the KAC project was transferred to DOT&PF effective July 1, 2014.

TRAFFIC AND REVENUE UPDATES

Investment grade traffic and toll revenue study and an updated socio-economic analysis and forecasts were completed in December 2014 to support the public finance plan. These studies are available on the KAC project Web page at www.knikarmbridge.com. The following table shows the sources and uses of funding for the public finance plan.

Table 7A-1: Sources and Uses of KAC Funding ($ in Millions)

SOURCES OF FUNDING	TOTAL
TIFIA Loan	361.2
Interest Accreted on TIFIA Loan During Construction	16.7
State Appropriation Bonds	260.5
Interest Paid on Appropriation Bonds During Construction	30.2
Title 23 Federal Aid	293.4
State Matching Funds	6.6
Total Sources of Funding	**968.6**
USES OF FUNDING	
Construction Cost[1]	894.4
Debt Issue and Other Transaction-Related Costs	8.5
Debt Service Reserve Fund	20.3
Capitalized Interest[2]	46.9
Less: Interest Earned on Debt Service Reserve and Construction Funds[3]	(1.5)
Total Uses of Funding	**968.6**

Notes to Table 7A-1:

1) Represents 70th percentile risk-adjusted cost estimate from FHWA Major Projects cost estimate review conducted in June 2014 (in year-of-expenditure dollars).
2) Includes projected accreted interest during construction on the TIFIA loan and interest paid by the State of Alaska during construction on the state appropriation bonds. Under GASB 62, interest during construction is capitalized, whether paid or accreted.
3) Interest earned during construction on deposited funds is netted against capitalized interest under GASB 62.

COST ESTIMATE SCHEDULE REFINEMENTS

In October 2013, KABATA and DOT&PF conducted a cost-risk workshop to estimate and update the KAC project's risk adjusted capital and operating costs. Project scope changes were reflected in the workshop, such as lengthening the bridge from 8,200 feet to 9,200 feet in response to conservation recommendations from resource agencies and other anticipated costs of environmental mitigation. The risk adjusted construction cost estimate for Phase I was found to be $894 million at the 70th percentile probability in year of expenditure dollars. Subsequently, in June 2014, FHWA conducted a Major Projects Cost Estimate Review which validated the results of the October 2013 workshop. Toll revenue is forecast to be sufficient to cover operations and maintenance of the facility in addition to repaying project financing over time. Under the public finance plan, Phase I is no longer dependent on revenue from Phase II. Phase I could be ready for operation by 2020.

In June 2014, FHWA made a determination of operational independence and non-concurrent construction (OINCC) for the KAC project, deeming Phases I and II to be independent for the purposes of applying major project requirements. Phases I and II individually meet the stated purpose and need of the project, and the time period between anticipated phased construction exceeds 5 years. As such, Phases I and II are financially independent for the purposes of the MTP. In the previous MTP, KAC Phase I, a short-term project, included the contractually required expansion from two lanes to four lanes between the Mat-Su and Government Hill in Anchorage at a future date to be determined by traffic volumes on the facility. KAC Phase II, a long-term project, consisted of the Ship Creek viaduct connection between Government Hill and the Ingra-Gambell Couplet. With the OINCC determination, the four-lane expansion is now considered part of Phase II. Phase II is not anticipated to be necessary until traffic volumes warrant an expansion.

MITIGATION

Section 106 mitigation projects for Phase I impacts to historic resources in the Municipality of Anchorage have been completed. These include the following:

- Government Hill Neighborhood Plan
- Historic Preservation Plan for Anchorage's Four Original Neighborhoods, Downtown, South Addition, Government Hill, and Fairview
- South Addition Historic Property Inventory
- Government Hill Oral Histories

This mitigation was funded by the FHWA with KAC funds and completed in 2012/2013 under a Memorandum of Understanding with the Municipality of Anchorage. In addition, architectural and photographic documentation of three historic properties that will be impacted during Phase II of the KAC has been conducted in accordance with the Secretary of the Interior's Standards for Architectural and Engineering Documentation. These properties will be evaluated for relocation prior to commencing Phase II construction. Additional mitigation to be completed during project construction is further defined in the Record of Decision (ROD).

In conclusion, no funding currently planned for AMATS project implementation of the existing MTP shall be used to support construction of any element of the Knik Arm Crossing.

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Chapter 8

2035 MTP IMPLEMENTATION PROGRESS REPORT

The 2035 MTP, Chapter 8, Implementation, identifies policy guidance and specific action items, organized by focus area, that are needed to implement the 2035 MTP. Each action item includes a description of the action item, the responsible entity, suggested timeframe, partnership connections, and applicable MTP goals from Chapter 3. Presented here are highlights of progress made with implementation of the 2035 MTP since the plan was adopted in 2012.

Chapter 8 of the Interim 2035 MTP provides an opportunity for assessment of progress made toward implementation of the 2035 MTP since its approval by the AMATS Policy Committee on May 25, 2012. Many implementation tasks are described as "ongoing" and do not have a specific timeframe; for those tasks, progress is on a continual basis.

The Implementation Plan identifies forty discrete action items for the 0- to 5-year timeframe. Of these, thirty-seven have either been completed or are in progress, many of which are highlighted in this section. Some remaining tasks identified for the near term will be included in the AMATS Unified Planning Work Program (UPWP) for 2016-17, currently under development.

COMPREHENSIVE PLANS

Comprehensive Plan (Title 21) Updates

Goals Addressed: 6
Timeframe: April 2012 and June 2014
Responsible Entity: MOA Community Development
Partners: AMATS, DOT&PF, public transportation providers

The MOA Comprehensive Plan under Title 21, Land Use Planning, has been updated to reflect the 2035 MTP, adopted by the MOA Assembly in April 2012, and the MOA Official Streets and Highways Plan, adopted in June 2014.

Subarea Plans

Spenard Road Corridor Strategic Plan

Goals Addressed: 1, 2, 3, 4, 5, 6, 7, 8
Timeframe: 2015
Responsible Entity: MOA Community Development
Partners: AMATS, DOT&PF

A new AMATS Transportation Improvement Program (TIP) was developed for 2015-18 that added funding for the Spenard Road Corridor Strategic Plan. This project will present transportation and land use policies and design solutions that accommodate existing and future traffic volumes, enhance vehicle access, promote pedestrian connectivity and safety, present parking solutions, and integrate land use with transportation options. The plan will direct implementation actions that focus on capital improvements throughout the corridor. The consultant selection process is now in progress, and staff anticipates hiring a consultant during the second quarter of 2015. This project is being led by MOA Long-Range Planning, with significant participation by Transportation Planning staff.

AMATS Travel Demand Model – Latest Planning Assumptions

Goals Addressed: 1, 2, 6
Timeframe: 2015
Responsible Entity: AMATS
Partners: DOT&PF, KABATA, Mat-Su Borough, JBER, MOA Community Development

In order to develop a robust travel demand model, regional and subarea socio-economic (SE) projections of employment, population, households and other elements are required. These large-scale planning assumptions are later allocated to traffic analysis zones (TAZs) to serve as key inputs to the AMATS Travel Demand Model. In March 2015, AMATS adopted updated planning assumptions and socio-economic forecasts as part of the Travel Demand Model Update. In accordance with federal requirements, AMATS and the updated travel Demand Model uses the latest and best planning assumptions available. The Travel Demand Model is undergoing structural changes, database enhancements, and maintenance improvements. As a result, new data will be included and additional outputs generated.

FINANCIAL ISSUES

Staffing Levels and Resources

Goals Addressed: 3, 6
Timeframe: Ongoing
Responsible Entity: MOA, DOT&PF

MOA Transportation Planning, which serves as staff to AMATS, now has four full-time transportation planners (two senior planners and two associate planners) and a coordinator/supervisor, for an overall increase of one full-time position. Fully staffed, this group is now able to address more tasks to implement the MTP.

Regional Transit Authority

Goals Addressed: 6
Timeframe: Ongoing
Responsible Entity: MOA Public Transportation and Mat-Su Borough
Partners: AMATS, DOT&PF, Alaska Mobility Coalition, public transportation providers

The first phase of a project to explore the viability and interest of a Regional Transit Authority (RTA) was completed. Further phases await the identification of funding to continue those efforts.

Regional Collaboration

Goals Addressed: 3, 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: DOT&PF, Mat-Su Borough, MOA

Since the fourth quarter of 2013, AMATS staff has hosted quarterly meetings with staff from the Mat-Su Borough to discuss projects, priorities, resources, and strategies of mutual interest. These meetings have been well received and foster opportunities for future collaborative planning efforts.

Alternative Funding Sources

Public Transportation Discretionary (Competitive) Grants

Goals Addressed: 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: DOT&PF, elected officials

Staff secured $4,104,000 in discretionary funding from FTA and FHWA for the following projects:

- People Mover Maintenance Facility Roof Replacement
  - FTA 5309 funds: $2,400,000
  - Status: Completed
  - Purpose: Replaced the aging, leaking, poorly insulated roof of the People Mover maintenance facility.
- Veterans Transportation Community Living Initiative Grant: Citywide Mobile App
  - FTA 5309 funds: $120,000
  - Status: In progress
  - Purpose: Develop a travel options application for mobile devices.
- People Mover State of Good Repair Vehicle Replacement
  - FTA 5309 funds: $1,304,000
  - Status: Completed
  - Purpose: Replaced 3 buses and 10 paratransit vehicles.
- Winter City Pedestrian Safety & Bus Stop Improvements
  - FHWA TCSP funds: $280,000
  - Status: In progress
  - Purpose: Improve safety, accessibility, and maintenance of existing pedestrian facilities and bus stops in winter.

Non-Motorized Competitive Grant - Safe Routes to School

Goals Addressed: 3, 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: DOT&PF, MOA Community Development

Staff secured $70,000 in state funds to develop a Safe Routes to School Plan for Anchorage. The Safe Routes to School Program examines the "five E's" (Evaluation, Engineering, Education, Encouragement, and Enforcement) to improve opportunities for children in grades K-6 to walk or bike to school. This plan is being prepared in cooperation with the Anchorage School District. The project team initiated surveys at five schools and is in the process of conducting morning and afternoon site visits to observe walking patterns and identify issues that may be remedied at those schools. The team will provide an overview presentation of Safe Routes to Schools training to parents, interested teachers, school officials, and the Anchorage Police Department (APD). The team will also develop plans for each school that identify strategies for implementation, such as the Walking School Bus. Future funding and partners will need to be identified to implement plan recommendations. AMATS anticipates being able to support this project, as well as future projects, with the travel options mobile app currently in procurement. The app would enable parents to connect with other parents to arrange for safe walking groups for their children to and from school.

AMATS Freight Mobility Study - Crowdsourcing for Local Match

Goals Addressed: 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: DOT&PF, elected officials

AMATS staff partnered with local freight industry leaders to develop a crowd-funding mechanism to meet the federal

requirement for a local match for the AMATS Freight Mobility Study. Through this innovative crowdsourcing campaign, a local match of about $ 11K was realized. The Alaska Trucking Association, Weaver Brothers Trucking, the Alaska Railroad, individual lessees at the Port of Anchorage, among others provided the needed match to move forward with this $250K Freight Mobility Study. Future transportation projects, such as active transportation (bicycle, pedestrian, non-motorized) may also benefit from the development of similar crowdfunding resources.

Meetings with Anchorage Legislators

Goals Addressed: 3, 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: DOT&PF, elected officials

The AMATS Coordinator has met with individual legislators and communicates often with legislative offices on a regular basis to assist them with capital requests.

Alaska Transportation Fund Development

Goals Addressed: 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: Elected officials

AMATS continues to support this idea and is waiting on a new legislative sponsor.

Increased Funding for Maintenance, Infrastructure, Preservation, and Snow Clearing for Roads and Paths for Pedestrians and Bicyclists

Goals Addressed: 3, 5
Timeframe: Ongoing
Responsible Entity: MOA, DOT&PF
Partners: DOT&PF, elected officials

AMATS continues to support this through the work of the AMATS Bicycle and Pedestrian Advisory Committee and through commenting on road and trail projects by the MOA Non-Motorized Coordinator, who is partially funded by AMATS.

PUBLIC INVOLVEMENT

AMATS Public Participation Plan

Goals Addressed: 6
Timeframe: 2015
Responsible Entity: AMATS
Partners: DOT&PF, MOA, public transportation providers, identified stakeholders

AMATS developed an update to its Public Participation Plan (PPP) during 2014. This plan will go out for public review and adoption in 2015. The plan includes many updates to make the document more user-friendly and accessible by the public, who may or may not know anything about AMATS or transportation planning. The PPP utilizes new methods of public engagement using social media and tools such as online open houses. This document will also help AMATS do a better job of reaching Anchorage's low income and minority populations.

AMATS Title VI Non-Discrimination Implementation Plan

Goals Addressed: 1, 6, 7, 8
Timeframe: 2012
Responsible Entity: AMATS
Partners: DOT&PF, MOA

AMATS adopted a Title VI Non-Discrimination Implementation Plan in 2012. This plan documents the AMATS Title VI Non-Discrimination Policy Statement, that no person shall, solely on the grounds of race, color, national origin, or sex (gender), be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any transportation planning program or activity regardless of whether AMATS receives federal assistance from the U.S. Department of Transportation, including the FHWA and the FTA. The Title VI Plan identifies mitigation measures to improve outreach, and includes a Limited English Proficiency (LEP) Plan that documents the commitment by AMATS to providing interpretation and translation services upon request, and for translation of essential elements of key documents into top three languages spoken other than English: Spanish, Tagalog, and Korean, and for posting of these documents to the Web site.

TRANSPORTATION SYSTEM

Transportation System Performance Measures

Goals Addressed: 1, 2, 6
Timeframe: Third quarter of 2015
Responsible Entity: AMATS
Partners: MOA Traffic, MOA PME, MOA Public Transportation, DOT&PF

A current project to update the MOA Congestion Management Process (CMP) includes a task to re-evaluate the existing set of transportation system performance measures and the need for additional data-collection efforts. Performance measures were originally approved in 1994 with the Congestion Management Program document and have been used in developing the Status of the System Report in preparation for development of each subsequent MTP. The performance measures have been modified over time, and the current project seeks to update and document a new performance-based, objectives-driven CMP that reflects MAP-21 National Goals. New, multi-modal performance measures are being developed. This project is anticipated to be completed during third quarter 2015.

ROADS

Title 21 and Street Connectivity

Goals Addressed: 5
Timeframe: Ongoing (Title 21 adopted: 12/3/2013)
Responsible Entity: MOA Community Development
Partners: MOA Traffic

While the connectivity index was deleted out of the new Title 21 at the last minute, the code did retain a block length limitation, and requirements to connect streets to abutting vacant land (with exceptions). Title 21, under Subdivision Standards for Street Alignment, still requires arterial and collector streets to be aligned to continue those streets from adjoining areas into the proposed subdivision. While local streets should be aligned to discourage cut-through traffic, this provision is not intended to encourage cul-de-sacs or dead-end streets. Stub streets with temporary turnaround areas are required to be extended to the boundaries of the proposed subdivision, where appropriate, to provide future street connections to adjacent un-subdivided areas.

OS&HP Update

Goals Addressed: 3
Timeframe: June, 2014
Responsible Entity: AMATS
Partners: MOA Community Development, MOA PME

The MOA Official Streets and Highways Plan (OS&HP) was updated and adopted by the Municipal Assembly in June, 2014. Staff has also begun working on a process to implement the Street Typology section of the OS&HP for the Anchorage Bowl. The Street Typology is a supplement to the traditional functional classification system to induce a more balanced street function that emphasizes adjacent land uses and accommodates all users—pedestrians, bicyclists, transit users, and motorists. Where sufficient public right-of-way exists, all design elements may be accommodated. Within constrained public right-of-way, however, trade-offs between priority design elements are required to balance the needs of various travel modes. The specific design elements for a street will be chosen through the context-sensitive design process. Streets in the Chugiak-Eagle River area may also be given street typology designations later, based on the Chugiak-Eagle River Comprehensive Plan and Title 21 Chapter 10 Chugiak-Eagle River, and with community involvement.

Ongoing Activities

Goals Addressed: 6
Timeframe: Ongoing
Responsible Entity: MOA Traffic
Partners: DOT&PF

The MOA Traffic Section continues to implement the signal timing update currently in progress and corridor signal coordination.

PUBLIC TRANSPORTATION

MOA/Mat-Su Borough Coordination

Goals Addressed: 6
Timeframe: Ongoing
Responsible Entity: MOA Public Transit Advisory Board, Mat-Su Transportation Advisory Board
Partners: AMATS, DOT&PF

PTD has held joint meetings of the MOA Public Transit Advisory Board and Mat-Su Transportation Advisory Board since 2012.

Partnerships with Schools

Goals Addressed: 6, 7
Timeframe:
Responsible Entity: MOA Public Transportation
Partners: AMATS

PTD has implemented a successful pilot U-Pass program with Anchorage School District for East High School. There are plans to extend the program.

Ongoing Activities

Goals Addressed: 6, 7
Timeframe: 2014
Responsible Entity: MOA Public Transportation
Partners: AMATS

PTD has been active in all ongoing policies referenced in the 2035 MTP, and in 2014 PTD implemented an annual system performance review report. The report reviews system level performance and route level performance compared to key metrics, and helps guide service decision-making. Previously the PTD conducted the same analysis but kept it internal. This report is now posted on the department's website.

NON-MOTORIZED SYSTEM (PEDESTRIAN AND BICYCLE FACILITIES AND TRAILS)

AMATS Bicycle and Pedestrian Advisory Committee

Goals Addressed: 3, 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: DOT&PF, MOA Parks & Recreation

Since the adoption of the 2035 MTP in 2012, AMATS created a Bicycle and Pedestrian Advisory Committee (BPAC) consisting of members that represent the following organizations: bike advocacy, public health, disability services, social services, Anchorage School District, community of environmental organizations, business organization, and the public. The BPAC has been very active in AMATS activities since its inception in 2013. This committee has performed the following tasks: review and comment on 2015-18 TIP nomination criteria and project selection, review and comment on multiple AMATS road projects, prioritization of both Anchorage Bike Plan projects and Anchorage Pedestrian Plan projects for final consideration by project implementation design consultants, and making recommendations to the AMATS Technical Advisory Committee and AMATS Policy Committee regarding funding for bicycle/pedestrian projects as well as recommending use of the NACTO Urban Bikeway Design Guide in AMATS projects.

Non-Motorized Transportation Plan - Areawide Trails Plan Update

Goals Addressed: 5, 7
Timeframe: 2010-2016
Responsible Entity: MOA Non-Motorized Transportation Coordinator
Partners: DOT&PF, MOA Parks & Recreation

The MOA Non-Motorized Transportation Coordinator, in partnership with the MOA Parks Department, MOA Planning Department, and State of Alaska Department of Natural Resources, began an update to the Anchorage Trails Plan in 2010. The work began with public outreach and has continued into development of a Draft Anchorage Trails Plan (an update to the Areawide Trails Plan). Completion of the Trails Plan is anticipated in 2016.

Title 21 and Sidewalks

Goals Addressed: 2, 5
Timeframe: Ongoing
Responsible Entity: MOA Community Development
Partners: MOA Traffic, DOT&PF

The new Title 21 requires sidewalks on both sides of all streets in urban areas, with the exception of industrial zoning districts and cul-de-sacs (where sidewalks depend on the number of average daily trips). In rural areas, sidewalks must be provided in accordance with the comprehensive plan, but at least on one side of all collectors and arterials. Title 21 does not address ADA requirements for sidewalks, but it does say that they must be designed to be in compliance with the MOA Design Criteria Manual, which says, “The location of pedestrian crossings at intersections is dictated by the presence of pathways or sidewalks and by the federal requirements under the Americans with Disabilities Act.” On-site pedestrian walkway requirements are in the new code, requiring pedestrian walkways from the primary entrance(s) to the abutting primary street frontage and to transit stops.

AMATS Bicycle and Pedestrian Safety Awareness Campaign

Goals Addressed: 6
Timeframe: 2015
Responsible Entity: MOA Non-Motorized Transportation Coordinator
Partners: MOA Traffic, AMATS

AMATS is partnering with local municipal and state agencies to develop the Bicycle and Pedestrian Safety Awareness Campaign. Partners for this campaign include local bike advocacy groups, Bike Anchorage, Women Bike Anchorage, MOA agencies (Project Management and Engineering, Health and Human Services, Parks and Recreation, and Anchorage Police Department), DOT&PF, Alaska Trails, Anchorage Parks Foundation, and the State of Alaska Department of Health and Human Services (DHHS). The campaign will advocate for bike safety and awareness, and help form a network of businesses and agencies that support bike safety. The campaign will include all of the following activities:

- Posters and educational materials
- Social media
- Public Service announcements
- Showcase of local Anchorage residents who use non-motorized transportation
- Opportunities to learn about bicycle and pedestrian best-practices and infrastructure design
- AMATS bikeway design workshop in June 2015
- Alta Planning presentation on bicycle boulevards
- 2015 publication of BikeLife Anchorage in June 2015
- Other educational public events

Bicycle and Pedestrian Plan Implementation

Goals Addressed: 1, 5, 7
Timeframe: Ongoing
Responsible Entity: MOA Non-Motorized Transportation Coordinator
Partners: AMATS, DOT&PF, MOA Parks & Recreation

The 2010 Anchorage Bicycle and the 2007 Pedestrian Plan are integral parts of the 2035 Metropolitan Transportation Plan, Anchorage's chief transportation planning document. The purpose of the Anchorage Bike Plan is to expand the bicycle infrastructure and the use of bicycles for transportation. The purpose of the Pedestrian Plan is to create improvements that will enhance the pedestrian environment and increase opportunities to choose walking as a mode of transportation.

AMATS, in coordination with the MOA and the State of Alaska Department of Transportation and Public Facilities (DOT&PF), is planning to design and construct recommended projects from the 2010 Anchorage Bicycle Plan and the 2007 Pedestrian Plan.

Projects are selected from the bicycle plan for design and construction based on the following criteria:

- Must be identified within the Anchorage Bicycle Plan
- Can be designed with a streamlined environmental process
- Fits within the programmed budget for bicycle infrastructure (AMATS TIP)
- Must meet local, state, and federal design criteria

Projects from the Pedestrian Plan are selected for design and construction from the priority projects table provided in Appendix A1 of the Pedestrian Plan.

Funding for AMATS Bike Plan implementation comes from FHWA sources designated for non-motorized transportation projects. The total funding appropriated through 2014 for implementation of the AMATS Bicycle Plan and Pedestrian Plan is $1 million for design throughout the AMATS area.

The project implementation team has begun evaluating the feasibility of top priority projects and routes in the greater Anchorage area. To learn more, please visit the project Web site, with interactive map of projects, at http://www.anchoragebikeplan.com, and http://www.muni.org/Departments/OCPD/Planning/AMATS/Documents/PedestrianPlan_Web.pdf.

FREIGHT

AMATS Freight Mobility Study

Goals Addressed: 4, 6
Timeframe: 2015
Responsible Entity: AMATS Freight Advisory Committee
Partners: MOA, DOT&PF

The MOA Community Development Department, Transportation Planning Section, on behalf of AMATS, is in the process of selecting a contractor for the preparation of the AMATS Freight Mobility Study (FMS).

In accordance with federal mandate, the FMS will address all of the following eight planning factors:

- Economic vitality
- Safety
- Security
- Accessibility and mobility
- Environment, energy, and quality of life
- Integration and connectivity
- Efficient system management
- System preservation

The project will develop a plan that will guide the orderly growth, improvement and funding future development of safe freight corridors, routes, access, and intermodal/distribution facilities.

The plan's recommendations will promote consistency between freight transportation investments, MOA Traffic Code (Title 9) and land use planning and development policies (MOA Title 21).

Road User Education about Commercial Vehicle Requirements

Goals Addressed: 6
Timeframe: Spring, 2014
Responsible Entity: AMATS
Partners: AMATS Freight Advisory Committee, MOA, DOT&PF

In partnership with our local freight firms and the AMATS Freight Advisory Committee, AMATS produced a public service message to capture the public's attention while driving safely near commercial vehicles. To further support public involvement and education efforts, AMATS, in coordination with Mirror Studios, aired the public service announcements (PSAs) on local radio stations during the spring of 2014.

Because the PSA is dateless, it is easy to reuse; AMATS plans to air the PSA again. As the new construction season begins and freight traffic increases, this lighthearted yet straightforward announcement will continue to help educate the driving public about the specialized skills needed to operate commercial vehicles.

REGIONAL CONNECTIONS

Regional Household Survey

Goals Addressed: 6
Timeframe: Fall 2014 – Spring 2015
Responsible Entity: AMATS
Partners: DOT&PF

AMATS, in coordination with consultant RSG, Inc., prepared and conducted a regional household travel survey and related transit on-board surveys to obtain detailed and reliable information on the travel behavior and socioeconomic characteristics of persons living in the AMATS region. The study area included a portion of the Mat-Su Borough and other fast growing areas within the Anchorage Bowl. The information collected in the surveys is being incorporated into the update of the AMATS travel demand forecasting model, to support advanced model development and provide an assessment of current travel behavior. Travel surveys were collected in Fall 2014 and the study completed in Spring 2015.

Regional Travel Demand Model Update

Goals Addressed: 6
Timeframe: 2014 – 2015
Responsible Entity: AMATS
Partners: DOT&PF

The AMATS Travel Demand Model is being updated by RSG, Inc., to reflect new socio-economic and census data, the latest planning assumptions, recent land use changes, and to create a more robust model that is sensitive to active transportation, freight, and environmental justice populations. As a part of this effort, the updated travel demand model will include a portion of the faster growing areas within the Mat-Su Borough. In addition, initial outreach to coordinate with the Mat-Su Borough on the future development of a regional model is being undertaken. Refinements to the Transportation Analysis Zones, land use allocation model, active transportation model, freight model, and an analysis of fiscal constraints along the network are underway.

Regional Connections from the AMATS Freight Mobility Study

Goals Addressed: 4, 6
Timeframe: 2015
Responsible Entity: AMATS
Partners: DOT&PF

The FMS will present a multimodal and comprehensive examination of freight mobility throughout the AMATS region. Key issues to be addressed include:

- **Regional Freight Assessment:** Relevant commodity flow, shipment value/tonnage, and truck count data for the region will be obtained and used to prepare a modal freight profile.
- **Land Use:** A summary of land use issues will be prepared, using relevant land use data and information on industrial and commercial centers in the region.
- **Routes:** Recommendations and an outline of federal, state, and local procedures for designating freight routes and corridors will be provided.
- **Performance Measures:** Best practices for developing freight performance measures will be provided. These may include travel time, hours of delay, cost of delay, or other "dashboard" indicators.
- **"Last Mile" Intermodal Connectors:** Best practices for "last mile" access and intermodal connectors will be reviewed and analyzed. A Modal Freight Profile will be developed.

The study will identify local, regional, and industry-specific issues and trends, and how each impacts freight mobility. The issues and trends will include the following:

- Key industries
- Major freight logistics patterns
- Current freight flows and volumes
- Fuel prices
- Modal trends; communication and transportation management strategies
- Security/safety issues
- Freight system level of service and capacity analysis
- Information technology
- Environmental and energy innovations
- Impact of the freight system on the local and regional economy and marketplace

CONGESTION MANAGEMENT

Congestion Management Process Update

Goals Addressed: 1, 6, 7
Timeframe: Ongoing
Responsible Entity: AMATS, MOA Community Development
Partners: MOA Traffic

Most of the recommendations in this section are addressed in the current update to the Anchorage Congestion Management Process (CMP). The project creates congestion management objectives, updates the CMP performance measures and strategies, and will develop the next four-year Status of the System Report in preparation for the 2040 MTP.

ITS Architecture Update

Goals Addressed: 1, 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: MOA Traffic, DOT&PF

Several congestion management recommendations relate to the Anchorage Regional Intelligent Transportation System (ITS) update currently in progress. A few recommendations pertain to a potential Traffic Operations Center (TOC), and enhancing the Alaska 511 Traveler Information program to expedite emergency response and dissemination of traveler information advisories. As part of the ITS Architecture update, a TOC Concept of Operations Workshop was led by the project consultant for key operations agency stakeholders to determine the need for a TOC, or TOC type functions. One outcome of the workshop was that participants agreed that an enhanced 511 system was desirable, and agreed to work together toward that goal.

COORDINATION OF LOCAL PLANS

Ongoing Activities

Goals Addressed: 6
Timeframe: Ongoing
Responsible Entity: AMATS
Partners: MOA Community Development

AMATS and MOA Community Development staff continue to review roadway reconstruction projects, and platting and re-zoning actions, to ensure consistency with adopted plans and policies, including MOA land-use codes (Title 21), comprehensive plans, pedestrian plans, bicycle plans, public transportation plans, freight mobility, and design standards.

AMATS Unified Planning Work Program (UPWP) - Update for MTP Recommendations

Goals Addressed: 6
Timeframe: 2014 – 2017
Responsible Entity: AMATS
Partners: DOT&PF

The current 2014-15 UPWP addresses nearly all of the implementation action items from the 2035 MTP. Any remaining action items will be considered for inclusion in the 2016-17 UPWP.

MAINTENANCE AND OPERATIONS

Ongoing Activities

Goals Addressed: 2, 3, 6, 7
Timeframe: Ongoing
Responsible Entity: MOA Street Maintenance, DOT&PF
Partners: ASD, AMATS

Considerably more attention and resources are now dedicated to clearing sidewalks, trails, bus stops, etc., than previously. The MOA and DOT&PF continue to coordinate State of Alaska, local road service area, and MOA street maintenance responsibilities, including street and sidewalk snow clearing. MOA Street Maintenance and DOT&PF enjoy a good relationship, which facilitates coordination for maintenance and assisting each other. Inter-agency plan review and design standard policies have increased since the Public Works merger to improve functionality and maintenance costs.

The pavement management system is an ongoing project and is improving slowly, due to limited availability of MOA staff resources, resulting in the pavement management system being delayed. Pavement condition surveys are being done every three years to help prioritize roads needing attention.

Envista, a new GIS-mapping based program implemented by MOA, helps identify and coordinate projects, events, closures, etc., between various agencies to eliminate conflicts between the groups and improve scheduling to minimize impacts to the public.

Figure 8-1: Participants in Anchorage Bike to Work Day, 2014

ENVIRONMENTAL CONCERNS AND PUBLIC HEALTH

Ongoing Activities

Goals Addressed: 8
Timeframe: Ongoing
Responsible Entity: DHHS, AMATS Air Quality Advisory Committee
Partners: MOA Health Department, Local health care providers, DOT&PF

EPA has strengthened standards for some transportation-related pollutants, and is proposing to strengthen others. DHHS determined that Anchorage is well below the standards, so no changes in the current transportation planning processes are warranted. DHHS and AMATS continue to support the implementation of roadway PM-10 controls to maintain compliance with the national ambient air quality standard.

The Bike to Work Campaign, part of the Air Quality Awareness project, has partnered with obesity prevention and bicycle safety partners to emphasize the health benefits of utility travel by means other than driving alone. The campaign provides bicycle safety information and instruction for adults and children.

Chapter 9

AIR QUALITY AND THE METROPOLITAN TRANSPORTATION PLAN

Carbon monoxide and PM-10 concentrations are currently well under EPA standards. Anchorage is expected to meet the air quality standards through 2035 even with projected growth in travel on the transportation system.

Air quality in Anchorage is subject to national ambient air quality standards (NAAQS) established by the U.S. Environmental Protection Agency (EPA). The EPA has established standards for ground level ozone, sulfur oxides, nitrogen dioxide, airborne lead, and carbon monoxide (CO), as well as for particulate matter less than 2.5 microns in diameter (PM-2.5) and less than 10 microns in diameter (PM-10). These standards for criteria pollutants were established to protect the most sensitive of the human population, including those with existing respiratory or other chronic health conditions, children, and the elderly. To ensure compliance with these standards, Anchorage maintains a network of air quality monitoring sites.

BACKGROUND

Anchorage enjoys low levels of most types of air pollution. Although almost half of the United States population lives in areas that do not meet national air quality standards, in 2014 the American Lung Association ranked Anchorage as one of the three cleanest cities in the United States with respect to annual average PM-2.5 and ozone pollution. Sulfur oxides and nitrogen dioxide also are not a significant concern.

Air pollutants of concern include PM-10, CO, and air toxics. Although Anchorage now meets air quality standards for all criteria pollutants, it does experience elevated levels of PM-10. Local studies suggest that doctor visits for asthma and other respiratory illnesses increase when PM-10 levels in Anchorage are high.

Figure 9-1: Use of Non-Motorized and Public Transportation Helps Decrease Emissions

TYPES OF AIR POLLUTANTS

Anchorage monitors the following categories of air pollutants:

- PM-10 Particulate
- Carbon Monoxide
- Lead
- PM-2.5 Particulate
- Benzene and Other Toxic Air Pollutants

PM-10 Particulate Matter

The federal air quality standard for PM-10 is set at 150 micrograms per cubic meter ($\mu g/m^3$) averaged over a 24-hour period, not to be exceeded more than three times in any three-year period. Although PM-10 levels in the Anchorage and Eagle River area sometimes exceed 150 micrograms per cubic meter, no more than three exceedances have occurred in a three year period and Anchorage is considered in compliance with the standard.

High PM-10 concentrations can occur in the late fall when there is a lack of snow cover and temperatures drop below freezing. Under these conditions, a freeze-dry effect can develop, increasing PM-10 emissions from paved roads. During spring break-up, melting snow and ice reveal a winter's worth of accumulated sand, grit, and dirt on roadways. This material is stirred up by traffic, especially on high-speed, high-volume streets. When air quality starts to deteriorate due to roadway dust, the Municipality of Anchorage (MOA) applies magnesium chloride brine to stabilize this material on roads in Anchorage and Eagle River. The Anchorage Department of Health and Human Services is working with municipal and state street maintenance crews to improve this dust control program.

Figure 9-2: Dust Suppressant Applied to Gutter and Driving Lane of Tudor Road, March 2015

In the late 1980s, dust from unpaved roads in the Eagle River area led to frequent violations of the standard. By 1991, most of these roads had been paved or surfaced with recycled asphalt and violations ceased. In March 2013, Eagle River's Limited Maintenance Plan (LMP) for PM-10 was officially approved by the EPA and Eagle River is considered an attainment area for PM-10.

Volcanic ash and wind-blown glacial dust from the Mat-Su Valley can periodically impact Anchorage PM-10 levels. Natural events like volcanic eruptions and wind storms can have a significant impact on PM-10 concentrations. Anchorage is surrounded by volcanoes to the south and west. The eruptions of Mt. Redoubt in 1990 and Mt. Spurr in 1992 were responsible for numerous exceedances of the PM-10 standard both during the initial ash fall and in the months following when lingering ash was stirred up by wind or traffic.

Figure 9-3: Glacial Dust Being Carried Down to Anchorage by High Winds, September 24, 2010

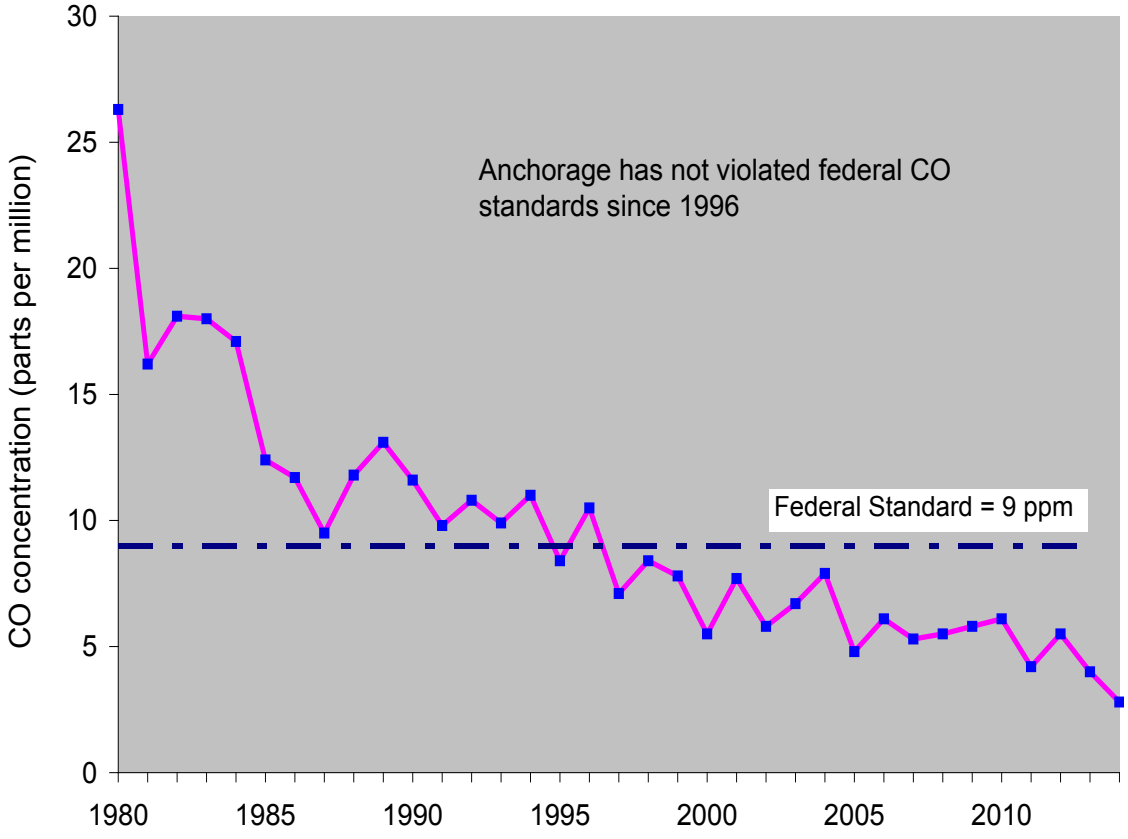
Under specific meteorological conditions, large amounts of dust from the Matanuska, Knik, and Susitna River valleys north of the MOA can be transported to Anchorage and Eagle River by wind. This phenomenon has been responsible for many of the PM-10 exceedances that have occurred in Anchorage over the years. The EPA excludes violations resulting from volcanic eruptions or transport of glacial river dust if the exceedances can be classified as an exceptional event, not caused by human actions.

The Air Quality Conformity Determination analysis performed for this interim 2035 MTP is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for PM-10. It concludes that the MTP will not undermine the ability of the Municipality of Anchorage to maintain compliance with the NAAQS for PM-10.

Carbon Monoxide

During the past two decades, Anchorage has experienced a dramatic improvement in CO air quality (*Figure 9-4*). In the early 1980s, Anchorage violated the standard as many as 50 times per year. Since then, concentrations have dropped more than 70 percent. In addition, no violations of the federal standard, which is set at 9 parts per million (ppm) for an 8-hour average, have

Figure 9-4: Trend in 2nd Maximum 8-Hour CO Concentration at Anchorage Monitoring Stations (1980-2014)



been measured since 1996. Continual advancements in technology to control air pollution on newer vehicles are largely responsible for this improvement. In January 2012, the EPA approved a revised CO control plan for Anchorage that showed the vehicle inspection and maintenance program was no longer necessary to meet the federal CO standard. Effective May 2, 2014, Anchorage was reclassified as a Limited Maintenance area for CO. Anchorage continues to implement CO reduction measures such as the Share-A-Ride and vanpool programs to maintain compliance with the CO standard. *Figure 9-4* illustrates the trend in CO concentrations.

The highest CO concentrations in Anchorage occur in mid-winter. When temperatures are cold and daylight hours are short, strong temperature inversions develop. These inversions trap vehicle emissions of CO and other pollutants close to the ground. CO emissions also increase during vehicle start-ups when engines are cold. Some of the highest CO concentrations in Anchorage are found in residential areas where vehicles parked outside are warmed-up before the morning commute. The MOA promotes the use of engine block heaters when temperatures fall below 20°F to reduce cold start emissions (*Figure 9-5*).

Figure 9-5: The Plug@20 Advertising Campaign Encourages Drivers to Purchase Engine Block Heaters as Original Equipment on Vehicles

The Air Quality Conformity Determination analysis performed for this interim 2035 MTP is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for CO. It concludes that the MTP will not undermine the ability of the Municipality of Anchorage to maintain compliance with the NAAQS for CO.

Lead

In 2008, The EPA established a more stringent air quality standard for airborne lead based on current scientific evidence of health impacts. The new standard is about one-tenth its former level. Merrill Field was selected by EPA as one of 15 airports nationwide for inclusion in a one year study to determine whether airports serving large numbers of piston aircraft are in compliance with the NAAQS for lead. Sampling completed by the Anchorage Department of Health and Human Services in October 2012 showed levels were less than half the new federal standard.

PM-2.5 Particulate Matter

PM-2.5, also called fine particle pollution, has become a more prominent air quality issue for Alaska. Wood smoke from fireplaces and wood stoves can impact air quality both inside and outside homes. Fine particle pollution has significant health ramifications, harming lungs, blood vessels and the heart. In 2013, the EPA instituted a new PM-2.5 standard reducing the average 24-hour level from 15.0 to 12.0 micrograms per cubic meter. The State and Municipality are considering new regulations to limit wood smoke emissions and help maintain compliance with the PM-2.5 standard.

Benzene and Other Toxic Air Pollutants

Motor vehicle emissions are the major source of benzene and other toxic air pollutants. Although EPA has not established an ambient air quality standard for pollutants like benzene, they are associated with increased cancer and other health risks. A 2008-09 municipal study indicated that ambient benzene concentrations in Anchorage were among the highest in the United States. The benzene content of Anchorage gasoline, nearly 4 percent by volume at that time, was 3 to 10 times higher than most U.S. cities. EPA has since promulgated rules limiting refineries to maximum average benzene content and establishing cold temperature motor vehicle emissions standards for new vehicles. The MOA conducted a follow-up study in 2013 to determine how much ambient benzene levels have dropped as a consequence of the lower benzene content in gasoline. Preliminary results indicate that gasoline sold locally is meeting the reduced benzene standard and ambient benzene levels have declined substantially. Final study results should be available in late 2015.

IMPACT OF THE MTP ON AIR POLLUTANT EMISSIONS

Air quality impacts of growth in travel and transportation improvements are considered through a process known as conformity. All transportation plans and programs, including this Interim MTP, must satisfy air quality conformity requirements outlined in federal regulation. Local, state and federal agencies responsible for transportation and air pollution control must consult to ensure that transportation plans and programs do not undermine the continued maintenance of air quality standards. Transportation control measures identified and committed to in the applicable implementation plans, such as ridesharing, vanpooling and transit marketing in the Alaska SIP, must continue to be implemented. The AMATS Policy Committee must affirm that these plans and programs meet air quality conformity requirements before they are adopted.

CONCLUSION REGARDING ANCHORAGE CO AND EAGLE RIVER PM10 CONFORMITY

The air quality analysis performed by MOA for this Interim 2035 MTP demonstrates that the Interim 2035 Anchorage Metropolitan Transportation Plan is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for CO. Furthermore, it has been determined that the MTP will not undermine the ability of the Municipality of Anchorage to maintain compliance with the NAAQS for CO or PM10.

Appendix

ABBREVIATIONS AND GLOSSARY

ABBREVIATIONS

ADA	Americans with Disabilities Act
AMATS	Anchorage Metropolitan Area Transportation Solutions
APD	Anchorage Police Department
ARDSA	Anchorage Roads and Drainage Service Area
ARRC	Alaska Railroad Corporation
ASD	Anchorage School District
BRT	bus rapid transit
CBD	Central Business District
CBERRRSA	Chugiak/Birchwood/Eagle River Rural Roads Service Area
CIP	Capital Improvement Program
CMAQ	congestion mitigation and air quality
CO	carbon monoxide
CPI	consumer price index
CSS	context-sensitive solution
CVISN	Commercial Vehicle Intelligent System Network
DHHS	Department of Health and Human Services
DOLWD	Alaska Department of Labor and Workforce Development
DOT&PF	Alaska Department of Transportation and Public Facilities
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GIS	geographic information system
GO	general obligation
HB	House Bill

HOV	high-occupancy vehicle
HSIP	Highway Safety Improvement Program
ISER	Institute of Social and Economic Research
ITS	Intelligent Transportation System
JBER	Joint Base Elmendorf-Richardson
KABATA	Knik Arm Bridge and Toll Authority
LOS	level of service
LRSA	limited road service area
LRTP	long-range transportation plan
MAP-21	Moving Ahead for Progress in the 21st Century Act
Mat-Su	Matanuska-Susitna
MOA	Municipality of Anchorage
mph	miles per hour
MPO	Metropolitan Planning Organization
MTP	metropolitan transportation plan
NEPA	National Environmental Policy Act
NGO	non-governmental organization
NHS	National Highway System
NMFS	National Marine Fisheries Service
O&M	operations and maintenance
OS&HP	Official Streets and Highways Plan
PC	Policy Committee
PM-2.5	particulate matter less than 2.5 microns in diameter
PM-10	particulate matter less than 10 microns in diameter
PME	Project Management and Engineering
PPP	AMATS Public Participation Plan
P3	public-private partnership
PTD	Public Transportation Department
ROD	Record of Decision
SAFETEA-LU	Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users
SB	Senate Bill
SHPO	State Historic Preservation Office
SOV	single-occupancy vehicle
STIP	Statewide Transportation Improvement Program
TAC	Technical Advisory Committee
TAZ	traffic analysis zone
TE	transportation enhancement
TEA-21	Transportation Equity Act for the 21st Century
TDM	transportation demand management
TIP	Transportation Improvement Program
TRAAK	Trails and Recreation Access for Alaska
TSAIA	Ted Stevens Anchorage International Airport
TSM	transportation system management
UAA	University of Alaska Anchorage
U-Med	University-Medical
UPWP	Uniform Planning Work Program
USACE	U.S. Army Corps of Engineers
VHT	vehicle hours traveled
VMT	vehicle miles traveled

GLOSSARY

Americans with Disabilities Act (ADA): Federal civil rights legislation for disabled persons passed in 1990; calls on public transit systems to make their services more fully accessible, as well as to underwrite a parallel network of paratransit service.

Anchorage Metropolitan Area Transportation Solutions (AMATS): A federally mandated, multi-agency team that works together to plan and fund the transportation system in the Anchorage and Chugiak-Eagle River areas when federal funds are being used. AMATS (formerly known as the Anchorage Metropolitan Area Transportation Study) comprises representatives from a variety of organizations.

Anchorage Municipal Code (AMC): The legislative tool to enforce municipal policies. It is divided into 24 chapters, generally referred to as "Titles." The key transportation-related titles are:

- AMC Title 9, "Traffic Code," covers what is considered the "traffic" aspects of transportation. It addresses items such as traffic signs and markings, general driving regulations, and parking regulations.
- AMC Title 21, "Land Use Regulation," contains transportation requirements pertaining to various land use development issues. It covers requirements and standards for subdivision streets, zoning classifications, and changes.
- AMC Title 24, "Streets and Rights-of-Way," addresses issues such as construction, snow removal, and landscaping.

Anchorage Non-motorized Transportation Plan: A collection of plans prepared by the Municipality of Anchorage addressing planning issues for non-motorized transportation: Areawide Trails Plan, 1997; Anchorage Pedestrian Plan, 2007; and Anchorage Bicycle Plan, 2010.

Anchorage Roads and Drainage Service Area (ARDSA): The largest Road Service Area in Anchorage. ARDSA has full maintenance and construction authority for drainage and road facilities in a geographic area that covers the Anchorage Bowl.

Arterial: A functional classification of a type of roadway that provides for trips of medium to moderately long length. Intersections are at-grade, and access from adjacent lots is partially controlled. Some access to adjacent major land uses may be permitted. Arterials may be divided two-directional facilities, couplets of undivided one-way roadways or, in some situations, undivided two-way roads. These facilities are often subclassified as "major arterial" and "minor arterial". (See Major Arterial, Minor Arterial, and Official Streets and Highways Plan.)

Bus rapid transit: Bus service that operates vehicles with traffic signal preemption transmitters, electronic fare collection, low floors for quick passenger entry and exit, and other amenities.

Bypass: A road designed to go around existing development. It could be classified as a freeway or expressway.

Capital Improvement Program (CIP): A municipal document that addresses funding for transportation and public facilities in the Municipality of Anchorage. Most projects funded in the CIP come from local taxes.

Categorical Exclusion: A category of actions that do not individually or cumulatively have a significant effect on the human environment. When ability to demonstrate this status is documented, a project requires neither an Environmental Assessment nor an Environmental Impact Statement.

Clean Air Act (CAA): Federal legislation that requires each state with areas that have not met federal air quality standards to prepare a State Implementation Plan (SIP). The sweeping 1990 amendments to the CAA established new air quality requirements for the development of metropolitan transportation plans and programs.

Collector: A functional classification of a type of roadway that offers a balanced service for both moving traffic and providing access Relatively low-speed, short trips are accommodated. A collector collects traffic for local streets and larger properties (and in limited situations, single lots), and channels it to the arterial system. These facilities are further subclassified as "Residential," "Industrial/ Commercial," and "Neighborhood."

Commute: A repetitive home-to-work or work-to-home trip.

Commute alternative: Includes carpooling, vanpooling, transit, bicycling, walking, and telecommuting, as well as any alternative work-hours program.

Comprehensive Plan: A document that serves as a guideline for community development. It is a policy document that integrates social, economic, and cultural; land use, environmental, transportation, and energy concerns. The comprehensive plan identifies the issues, goals, and objectives that provide a framework for community decision-making.

Congestion Management Program: A set of potential actions that, if taken, would reduce congestion levels on the overall transportation network within the Municipality of Anchorage. The results of the recommended actions would have the effect of improving traffic circulation, reducing the number and cost of physical improvements to the roadway, and improving air quality.

Congestion Mitigation and Air Quality (CMAQ): A program that emphasizes the importance of the link between transportation and air quality. To that end, CMAQ program funding is applied to transportation projects that reduce vehicle emissions and help improve air quality. Transit and traffic flow improvement projects are included, as are projects such as ride sharing, vehicle emissions inspection and maintenance programs, bicycle and pedestrian improvements, and alternative fuels.

Design Criteria Manual (DCM): A municipal document that provides the engineering parameters for drainage, illumination, slope, grade, elevation, and so forth for all municipal and private development projects. A companion document is the Project Management Manual (PMM). The DCM/PMM is the Municipality of Anchorage's equivalent to the State of Alaska's Highway Preconstruction Manual.

Dwelling unit: A building or portion of a building that contains separate living facilities.

Environmental Assessment (EA): An environmental impact document prepared in compliance with to the National Environmental Policy Act. When the significance of impacts of a transportation project proposal is uncertain, an EA is prepared to assist in making this determination. If it is found that significant impacts will result, the preparation of an Environmental Impact Statement is required.

Environmental Impact Statement (EIS): An environmental impact document prepared in compliance with to the National Environmental Policy Act. An EIS must be prepared if it is determined that a federally sponsored project with federal involvement may have a significant impact.

Express Bus: Bus transit service with a limited number of stops, either from a collector area directly to a specific destination or in a particular corridor with stops en route to major transfer points or activity centers.

Expressway: The functional classification of a divided highway that is designed primarily for through traffic, with full or partial control of access. Intersections are either at-grade or grade-separated. Expressways move traffic efficiently, but less quickly than freeways, because of at-grade intersections. Expressways do not provide access to adjacent land uses. Expressways are commonly owned and maintained by the State of Alaska, and their construction funded with federal assistance. The Highway Preconstruction Manual of the Alaska Department of Transportation and Public Facilities sets specific guidelines for acceptable design and construction of expressway facilities. International Airport Road, between the international airport and Minnesota Drive is designated as a Class IV Expressway on the Official Streets and Highways Plan.

Federal Highway Administration (FHWA): An agency of the U.S. Department of Transportation responsible for funding highways, trails, and ferries. FHWA authorizes expenditures from the Highway Trust Fund and sets deadlines for planning documents that AMATS is responsible for meeting.

Federal Transit Administration (FTA): An agency of the U.S. Department of Transportation that develops federal policy on public transit issues and allocates capital and operating funds for public transit projects (formerly the Urban Mass Transit Administration).

Feeder bus: Local bus transit service that provides passengers with connections to mainline arterial service, an express bus service station, or an express bus stop or terminal.

Finding of No Significant Impact (FONSI): The decision document for an Environmental Assessment. A FONSI is prepared to conclude the process and document the decision when environmental analysis and interagency review during the Environmental Assessment process finds a project to have no significant impacts on the quality of the environment.

Freeway: The functional classification of a limited access type of roadway that is intended to provide safe and efficient movement of substantial volumes of traffic at high speeds. Access is rigidly controlled and restricted to grade-separated intersections (interchanges). Freeways in the Municipality of Anchorage are traditionally owned and maintained by the State of Alaska, and their construction funded with federal assistance. The Highway Preconstruction Manual of the Alaska Department of Transportation and Public Facilities sets specific guidelines for acceptable design and construction of expressway facilities. Seward Highway (Chester Creek to Rabbit Creek Road), Glenn Highway (Bragaw Street to the Mat-Sub-boundary), and Minnesota Drive (International Airport Road to Seward are designated as Class V Freeways on the Official Streets and Highways Plan.

Geographic information system (GIS): GIS is an information system that is designed to work with data referenced by spatial or geographic coordinates. It may be considered a "tool" for analysis and decision making. It may be composed of maps, databases and point information.

High-occupancy vehicle (HOV) lane: The technical term for a carpool or commuter lane.

Household: All the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters.

Highway Preconstruction Manual (HPM): The state manual for design guidance. Highway projects that use federal funding assistance are subject to the development process and design standards contained in the latest version of the DOT&PF Highway Preconstruction Manual. The HPM is the state's equivalent to the municipal Design Criteria Manual. It affects all roadways under DOT&PF's jurisdiction.

Inspection and Maintenance Program (I/M Program): An element of Anchorage's Air Quality Plan.

Intelligent Transportation System (ITS): A system that uses modern electronic communication and control technologies to provide travelers with better information on traffic condition, provide vehicles with safety equipment, and improve the transportation infrastructure.

Intermodal: Between or including more than one means, or mode, of transportation, such as automobile, transit, ship, bicycle, and walking.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA): Landmark federal legislation (pronounced "ice tea") signed into law in 1991 and that made broad changes in the way transportation decisions are made. It provided funding authorizations for highways, safety, and mass transportation from the Highway Trust Fund. ISTEA emphasized diversity and balance of modes, as well

as the preservation of existing systems before construction of new facilities. ISTEA expired in 1997, but much of its program structure is carried forward in new federal legislation.

Land Use Regulation: AMC Title 21. (See Anchorage Municipal Code.)

Level of service (LOS): A standard means of measuring traffic congestion by evaluating the capacity of a road with respect to the number of vehicles using the road in a given time frame. LOS is categorized into six levels, A through F, with LOS A representing the best possible condition and LOS F representing the worst.

Local road: A functional classification of a type of roadway that provides access to individual homes and other land uses and is discussed in Chapter 1 of the Design Criteria Manual. The required improvements to local roads are established in AMC Title 21. Improvements to local roads constructed under Road Improvement Districts (RIDs) will also follow requirements as described in AMC Title 21. The Municipal Assembly is responsible for approving RIDs and granting any waivers to the standards.

Major arterial: A functional subclassification of a type of roadway that provides for moderately long (inter-area), through trips between regionally significant traffic generators. Its primary function is traffic movement. A major arterial offers direct access to other arterials and collectors and limited access to adjacent land uses, particularly major traffic generators. A major arterial may be divided or undivided, two-directional facilities, or a one-way couplet. Major arterials are designated in the Official Streets and Highways Plan (OS&HP). In the Municipality of Anchorage, these facilities are most often owned and maintained by DOT&PF, with construction funded by the FHWA. (See Arterial and Official Streets and Highways Plan.)

MAP-21: After the MTP was adopted in 2012, Congress passed the Moving Ahead for Progress in the 21st Century Act (PL 112-141, "MAP 21"). The passage of MAP-21 in 2012 marked some significant changes for transportation and land use planning at the metropolitan level. Following SAFETEA-LU, MAP-21 maintained similar funding levels for surface transportation planning and development at the state and local levels. Major changes in MAP-21 regulations include a new focus on performance-based planning, requiring targets and measures for the success of various outcomes, the elimination of discretionary programs, and the addition of reducing project delivery delays. Federal planning regulations implementing MAP-21 have not yet been approved, and are anticipated for use during development of the 2040 MTP.

Metropolitan Planning Organization (MPO): The organizational entity designated by law (23 U.S. Code 134 and Section 8 of the Federal Transit Act) with lead responsibility for developing transportation plans and programs for urbanized areas of 50,000 or more in population. An MPO is established by agreement of the Governor and the units of general-purpose local government that together represents 75 percent of the affected population of an urbanized area. AMATS is the MPO for Anchorage.

Metropolitan Transportation Plan (MTP): A plan that covers various modes of surface transportation such as automobile and transit. The currently adopted plan identifies the long-range planning goals and addresses the general transportation needs of the community for a 20-year forecast period, through the year 2035.

Conformity to national ambient air quality standards is evaluated. This document also identifies corridor and subarea studies that provide a closer look at specific areas and identify the needs and relationship of that area to the overall transportation network. The MTP is produced by the Anchorage Metropolitan Area Transportation Solutions (AMATS) to fulfill the federal requirements. Recommendations of the MTP and ensuing studies are then used to develop the local Needs List and, subsequently, the AMATS Transportation Improvement Program (TIP).

Minor arterial: A functional subclassification of a type of roadway that provides for medium-length (intra-area), urban trips and serves high-intensity commercial and

residential generators. Its primary function is traffic movement. A minor arterial also offers direct access to adjacent land uses, other arterials, collectors, and major residential streets. A minor arterial is generally an undivided, two-directional facility. Minor Arterials are designated in the Official Streets and Highways Plan. (See Arterial and Official Streets and Highways Plan.).

Model: A computerized set of equations used to forecast traffic volumes and public transit ridership in a future year.

Multimodal: Representing more than one mode of transportation, especially within a system or corridor.

Multimodal transportation planning: Efforts to plan transportation improvements that consider more than one mode of travel; for example, driving, ridesharing, use of public transit, bicycling, walking, and other modes. A multimodal approach to transportation planning focuses on the most efficient way of getting people or goods from place to place, be it by truck, train, bicycle, automobile, airplane, bus, foot, or even a computer modem.

National Ambient Air Quality Standards (NAAQS): National standards for the quality of air. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

National Environmental Policy Act of 1969 (NEPA): Legislation that established a supplemental mandate for federal agencies to consider the potential environmental consequences of their proposals, document the analysis, and make this information available to the public for comment prior to implementation.

National Highway Performance Program (NHPP): Under MAP-21, the enhanced National Highway System (NHS) is composed of approximately 220,000 miles of rural and urban roads serving major population centers, international border crossings, intermodal transportation facilities, and major travel destinations. It includes the Interstate System, all principal arterials (including some not previously designated as part of the NHS) and border crossings on those routes, highways that provide motor vehicle access between the NHS and major intermodal transportation facilities, and the network of highways important to U.S. strategic defense (STRAHNET) and its connectors to major military installations.

The NHPP is authorized at an average of $21.8 billion per year to support the condition and performance of the NHS, for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in an asset management plan of a State for the NHS.

National Highway System (NHS): A network of primary highways and ferry routes designated by the FHWA, USDOT, considered most important to interstate travel, national defense, connection with other modes of transportation, and essential to international commerce. The focus of the NHS is the long-range movement of people, goods, and services. This approximately 160,000-mile network consists of the 42,500 miles of the Interstate System, plus other key roads and arterials throughout the United States. In the MOA, DOT&PF in consultation with AMATS handles the programming of NHS project funding. These principle arterials or connections to major transportation terminals include (1) Seward Highway from 5th Avenue to the southern MOA boundary line near Portage, (2) Glenn Highway (5th/6th Avenues) from L Street east to the MOA boundary near Knik River; (3) Minnesota Drive from 5th Avenue to its connection with the Seward Highway, (4) Post Access from 5th Avenue north to Hollywood Drive and the north end of the Port of Anchorage, (5) International Airport Road west of Minnesota Drive, (6) Muldoon Road, (7) Tudor Road, and (8) Boniface Parkway access to Joint Base Elmendorf-Richardson.

Nonattainment area: A designation of the U.S. Environmental Protection Agency indicating that a geographic region has not met the National Ambient Air Quality Standard (NAAQS) for one or more transportation-related pollutants. In Alaska, portions of Anchorage, Fairbanks, and Juneau are so designated.

Non-National Highway System (non-NHS): The portion of the transportation system outside the National Highway System that includes the remainder of the area roadways. AMATS designates the priorities for the non-NHS, based on a project priority process used in the development of the AMATS Needs List.

Official Street and Highway Landscape Plan (OSHLP): The plan that provides guidelines for the inclusion of landscaping along primary transportation corridors for both aesthetics and slope stabilization. The Landscape Improvement Study furnishes additional guidance.

Official Streets and Highways Plan (OS&HP): The plan that identifies the location and functional classification of roadways recommended in the LRTP. The OS&HP is used during land subdivision and development to ensure that right-of-way for planned roads is properly and adequately reserved. Also intended to guide and coordinate high traffic generation development along the appropriate class(es) of roadway.

Operating revenues: Monies used to fund general, day-to-day costs of running transportation systems. For transit, costs include fuel, salaries, and replacement parts; for roads, operating costs involve maintaining pavement, filling potholes, paying worker salaries, and other expenses.

People Mover Route Restructuring Plan: The 2002 Municipality of Anchorage report titled *The People Mover Blueprint: A Plan to Restructure the Anchorage Transit System*. This report, prepared by RLS and Associates, Inc., presents the results of a comprehensive analysis of the People Mover route structure to identify ways to provide more of a customer focus to the bus system. The recommended route structure will increase public transportation ridership because service will be more frequent, routes will be more direct, new routes will be provided, buses will run earlier and later in the day, transfers will be easier and quicker to make, and schedules will be easier to remember.

Planning: A phase in transportation system development to determine the likely future transportation needs of an area.

Planning and Zoning Commission (P&Z): An appointed Municipality of Anchorage body that, in one of its functions, serves as the official Citizen Advisory Committee to AMATS.

Policy Committee (PC): The formal decision-making body of AMATS, which approves final planning and programming documents.

Project Management Manual (PPM): The document presenting municipal policy that guides individuals who are responsible for the development and construction of municipal projects. (See Design Criteria Manual.)

Programming: A phase in transportation system development when the type and level of resources needed to design and build a project are determined and the scheduling of those resources occur.

Public Involvement Program (PIP): A program identifying the processes and techniques required to be proactive in transportation decision-making.

Record of Decision (ROD): A document issued as the final step in the Environmental Impact Statement process. The ROD identifies the selected alternative, presents the basis for the decision, identifies all the alternatives considered, specifies the "environmentally preferable alternative," and provides information on the adopted means to avoid, minimize, and compensate for environmental impacts.

Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA): Federal legislation that carries on much of the program structure begun under the Intermodal Surface Transportation

Efficiency Act of 1991. SAFETEA provides funding authorizations for highways, safety, and mass transportation from the Highway Trust Fund.

Single-occupancy vehicle (SOV): A vehicle with one occupant, the driver, who is sometimes referred to as a "drive-alone."

State Implementation Plan for Air Quality (SIP): The document describing the strategies necessary to bring nonattainment areas into conformity with the National Ambient Air Quality Standards. The SIP shows how the State of Alaska will meet air quality standards, as required by the 1977 Clean Air Act Amendments.

State of Alaska Department of Transportation and Public Facilities (DOT&PF): The state agency that is responsible for highways, mass transit, aviation, and ports and implements the State of Alaska's overall transportation policy.

Statewide Transportation Improvement Program (STIP): A transportation improvement program produced by the Alaska Department of Transportation and Public Facilities (DOT&PF). The Anchorage Metropolitan Area Transportation Solutions (AMATS) holds special status under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) for program development. As an urban area with greater than 200,000 population, the Anchorage urban area falls under the Transportation Management Area (TMA) rules. Under ISTEA, AMATS is empowered to determine its own priority for projects and prepare its own Transportation Improvement Program (TIP) based on funding allocated to AMATS within the STIP. In the other 49 states, TMAs are allocated funds based on a statutory formula. ISTEA contains an exception to this requirement for Alaska, in that the allocation of funds for Alaska TMAs is determined by DOT&PF within the STIP.

Surface Transportation Program (STP): A new categorical funding program created with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). A specific clause found in the ISTEA legislation directs that these funds may be spent on any public road in Alaska, regardless of classification. Of the STP funds, 10 percent must be spent on Transportation Enhancement projects. Funds may be used for a wide variety of purposes, including roadway construction, reconstruction, resurfacing, restoration, and rehabilitation; roadway operational improvement; capital costs for transit projects; highway and transit safety improvements; bicycle and pedestrian facilities; scenic and historical transportation facilities; and preservation of abandoned transportation corridors. The federal funds ratio varies and is either 90.97 percent or 93.4 percent, depending on the specific category of work.

Technical Advisory Committee (TAC): A formal body of representatives from various agencies and interests that reviews transportation planning documents and advises the Policy Committee of Anchorage Metropolitan Area Transportation Solutions (AMATS).

Trails and Recreational Access for Alaska (TRAAK): A program and component of Governor Tony Knowles' Transportation Initiative (June 1995) established to improve access and recreational opportunities in the state. Administered by DOT&PF, TRAAK addresses trails, scenic highways, recreational access points, and interpretive facilities. The program is funded primarily with federal dollars from the Surface Transportation Program.

Transit Facilities Design Guidelines: The document specifying guidelines and recommended methodology for the location and design of bus stops and other transit facilities within the Municipality of Anchorage. Items addressed include transit vehicle dimensions, location and design of bus pullouts, and other transit amenities.

Transportation demand management (TDM): A general term for strategies that result in more efficient use of transportation resources. Representative low-cost ways to reduce demand by automobiles on the transportation system include programs to promote telecommuting, flex time, and ridesharing.

Transportation Enhancement: A category of projects defined in the Intermodal Surface Transportation Efficiency Act as involving "provisions of facilities for pedestrians and bicycles; acquisition of scenic easements or historic sites; scenic or historic highway programs; landscaping and other scenic beautification; historic preservation, rehabilitation and operation of historic highway buildings, structures, or facilities (including railroad facilities); preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian or bicycle trails); control and removal of outdoor advertising, archaeological planning and research; and mitigation of water pollution due to highway runoff." Transportation Enhancement projects have been of particular interest to the general public and users of nontraditional transportation-related facilities.

Transportation Equity Act for the 21st Century (TEA-21): The most recent comprehensive federal transportation enabling legislation, enacted on June 9,1998. This act retains and expands many of the programs created in 1991 under the Intermodal Surface Transportation Efficiency Act (ISTEA). It reauthorizes federal surface transportation programs for 6 years (1998–2003) and significantly increases overall funding for transportation.

Transportation Improvement Program (TIP): A 3-year capital program of transportation projects, focused on federal funding for roadway, trails, and transit capital projects for the urbanized area. The TIP covers federal, state, and local funding for roadway, transit, trails, and enhancement projects. The document includes new projects, as well as previously funded projects that require additional effort.

Transportation Equity Act: A Legacy for Users of 2005 (SAFETEA-LU): Legislation reauthorizing the federal highway and transit programs formerly authorized under Transportation Equity Act for the 21st Century (TEA-21).

Transportation Management Area (TMA): An area subject to special federal requirements for congestion management systems, project selection, and certification. These special requirements are for urbanized areas having a population of more than 200,000.

Transportation system management (TSM): A congestion management approach that focuses on identifying improvements to new and existing facilities of an operational nature. The techniques rely on better management and operation of transportation facilities to improve traffic flow and safety. Examples include traffic signal enhancements and deployment of intelligent transportation system components.

Urban Design Commission (UDC): A group whose members review and make recommendations for public facilities such as street and roadway landscape improvement projects. The members provide advice on urban design matters.

Unified Planning Work Program (UPWP): Federally required document outlining the activities to be undertaken in support of federally funded transportation projects.

U.S. Department of Transportation (USDOT): The federal cabinet-level agency that is responsible for highways, mass transit, aviation, and ports and implements the nation's overall transportation policy. Headed by the Secretary of Transportation, the USDOT includes the Federal Highway Administration and the Federal Transit Administration, among others.

U.S. Environmental Protection Agency (EPA): The federal agency that reviews air quality conformity analysis and advises the Federal Highway Administration and Federal Transit Authority on approval of a conformity finding.

Appendix

ENVIRONMENTAL JUSTICE

The U.S. Department of Transportation has issued a final order on Environmental Justice. This final order requires that metropolitan planning organizations, like Anchorage Metropolitan Area Transportation Solutions (AMATS), identify and address disproportionately high and adverse public health and environmental effects of transportation policies, programs, and activities on low-income and minority populations.

The purpose of this appendix is to conduct such an evaluation of the 2035 Metropolitan Transportation Plan (MTP). The analysis contains two parts: (1) analysis of the transportation needs of low-income and minority populations and (2) determination of whether the benefits and burdens of the existing and proposed transportation system investments (contained in the 2035 MTP) are distributed equitably among target (low-income and minority) and non-target population within Anchorage.

TRANSPORTATION NEEDS OF LOW-INCOME AND MINORITY POPULATIONS

From a review of U.S. Census data and other, locally gathered survey information, it appears that low-income and minority populations are disproportionately dependent on the public transportation system. According to the 2005-2009 American Community Survey, approximately 2.5% of the minority population in the Municipality of Anchorage ride the bus to work compared to only 1% of the non-minority population. Moreover, the majority

of persons using transit to travel to work are low-income with over 62% of the transit riders making less than $25,000 per year compared to 29% of the general population (2005-2009 ACS).

The ACS data is reinforced by past surveys conducted by the MOA Public Transportation Department. According to a 2001 telephone survey, there is a wide difference between the household income of People Mover riders and the general adult public. Although only 3 percent of the general adult public reported income of less than $10,000, 28 percent of People Mover riders reported incomes at that low level. There is also a substantial difference in the ethnic composition of People Mover riders and the general adult public. Only 44 percent of People Mover riders self-identify as "white" while 79 percent of the adult public identifies itself as "white." In addition, 28 percent of the riders surveyed identify themselves as "Alaska Natives" while only 5 percent of the general adult public population identifies itself as Alaska Native. Similarly, all other minority ethnic groups in the general population form a somewhat greater proportion of the People Mover ridership.

The demonstration of a higher dependence on public transportation by low-income and minority populations should not be construed to mean that these groups do not benefit from highway improvements. After all, 68 percent of workers (16 or older) with incomes less than $25,000 drive alone to work, compared to 76 percent of all Municipality of Anchorage workers (2005-2009 ACS).

Benefits and Burdens of MTP Projects

The MTP contains many recommendations for transportation improvements, including highway, transit, pedestrian, bicycle, and transportation demand management strategies. Recommendations that have the greatest impact on low-income and minority populations are typically found in the road and public transportation sections of Chapter 7.

Public Transportation

The People Mover bus transit system is the primary means of public transportation available to residents of Anchorage. The MTP makes many recommendations to improve the existing bus service, including the following route changes and additions:

- The top transit routes that produce the highest ridership—Routes 3, 7, 9, 15, 36, and 45—should move to more frequent service, 15-minute intervals in morning and afternoon commute periods and every 30 minutes in other hours.
- Other routes should operate at 30-minute frequency all day.
- Express bus commuter service on the Glenn Highway (with its origin in the Matanuska-Susitna Borough) during peak periods should be implemented to provide 30 minute service to ease congestion and deliver riders to employment centers in the Anchorage Bowl.
- A new Hillside bus route will connect this part of town to the UMED, Midtown and Downtown Districts.
- A new express bus route will connect south Anchorage to Midtown and Downtown.
- Three new circulator routes will be initiated; Abbott-Elmore, International Airport Road-University of Alaska Anchorage campus, and Klatt-Southport.
- A new Bus Rapid Transit service will operate between Downtown, Midtown, and the UMED District
- Restoration of local bus service in Chugiak-Eagle River.

Other improvements to the bus system are system wide improvements, including

- Traffic signal preemption should be implemented to enable buses to increase speed of travel.
- Monthly passes, electronic ticketing, and easy-to-remember schedules should be part of transit service.
- Traveler information should be improved to make transit use easier, faster, and more attractive.
- Employers should be encouraged to incorporate transit incentive programs to reduce automobile dependency.

The analysis of the transportation needs of low-income and minority populations discussed in the previous section indicated that the recommended improvements to the bus system listed above would deliver important benefits to low-income and minority populations in Anchorage. Of course, improvements to bus frequency and service must be accessible to the target population to be beneficial.

To determine the accessibility of the proposed transit recommendations (described above) the 2035 transit route service improvements were overlaid on maps of income and minority statistical data.

One of the major changes called for an increase in the frequency of service on the six most productive routes from 30 to 15 minutes. As the figures indicate, all six routes are located in areas that predominantly serve low-income and minority populations. Three of these routes (3, 36, and 45) are recommended for service upgrades in the short-term and the other three (7, 8, and 15) are recommended for service upgrades in the long-term.

Most of the areas that are currently underserved by transit are lower density areas, which also happen to be higher income and contain fewer minority residents than the rest of the Municipality of Anchorage. As a result, most of the new transit routes recommended in the 2035 MTP update do not serve low-income and minority areas as well as the existing route service improvements. The new services include the Klatt Road/Southport, Abbott Road/Elmore Road, and International Airport Road/University of Alaska Anchorage campus circulator routes; the South Anchorage to Downtown Express route; the South Anchorage/Hillside express route; and the restored Chugiak-Eagle River local bus service. The core Bus Rapid Transit (BRT) route to be implemented in the long term is another new service improvement that will connect downtown with the Midtown and UMED employment areas. It is unclear what benefit this new service will have on meeting the transportation needs of low-income and minority populations. Finally, the new Palmer/Wasilla to Anchorage commuter express service is intended to provide a high level of transit service to the growing suburban areas of the Matanuska-Susitna Borough (MSB) in order to serve commuter demand. Previous studies have shown that MSB commuters are generally higher income individuals who can afford to commute from the MSB to Anchorage due to their relatively higher paying jobs. As a result, this new service is not expected to have a significant benefit to low-income and minority populations.

Road Improvements

Most of the road projects identified in the MTP is designed to meet the transportation demand of the fastest growing areas of the region. These include several projects on the Hillside (Abbott Road, Rabbit Creek Road, O'Malley Road, and Huffman Road); all of the Chugiak-Eagle River projects (Eagle River Road, and Hiland Road); as well as improvements along the Glenn Highway. The areas through which these projects traverse are almost exclusively higher income with low number of minority residents.

An exception to the above statement is the Seward Highway to Glenn Highway connection project linking the existing Glenn Highway, where the controlled access ends at Bragaw Street, with the existing Seward Highway, for which controlled access ends at 36th Avenue. Although the exact alignment of the highway-to-highway connection has not been identified, it could very likely follow the general corridor, which could bisect the low-income neighborhoods of Mountain View and Fairview.

The Seward Highway to Glenn Highway connection would introduce some benefits as well as some potential burdens for the adjacent neighborhoods. The area located between the existing highways currently experiences some of the worst congestion in Anchorage. Higher-than-average traffic

crashes occur because of increased congestion. Cut-through traffic trying to avoid the congested bottlenecks is also cited as a major problem in the adjacent neighborhoods. The construction of the Seward Highway to Glenn Highway connection is expected to take a significant amount of traffic (about 100,000 trips per day) off the surrounding arterial and collectors streets, reducing crashes and cut-through traffic problems. The MTP includes a study (Project 579) to conduct an investigation and provide recommendations for pedestrian safety improvements within the Ingra-Gambell couplet corridor that may be implemented in advance of the Seward Highway to Glenn Highway connection improvements.

A substantial effort has been made to identify strategies to mitigate the adverse impacts of the Seward Highway to Glenn Highway project on adjacent neighborhoods. Strategies include depressing the highway to reduce visual blight and noise impacts; covering the freeway at strategic locations, allowing opportunities to develop parks or open spaces on top of the freeway; and the extensive use of bridges to improve pedestrian access and reconnect neighborhoods currently divided and isolated. Another strategy is to convert streets that are now heavily traveled (such as Ingra and Gambell Streets) into pedestrian-friendly main streets.

Inevitably, in a project such as the Seward Highway to Glenn Highway connection, low- to moderate-income housing would be lost. It is the intent of AMATS to actively explore replacing low- and moderate-income housing through the construction of new housing utilizing the federal housing provisions of the Uniform Relocation and Real Property Acquisition Policy Act of 1970.

CONCLUSION

On the basis of the analysis described above, AMATS has determined that the recommendations contained in the 2035 MTP do not have a disproportional impact on areas of high concentration of low-income and minority populations. Furthermore, the MTP duly considers the transportation needs of low-income and minority populations and provides many recommendations that will substantially benefit these populations.

Appendix C

NOTES TO TABLE 6-3: REVENUE SOURCES

1) Years 2011-2014 reflects actual amounts received provided by the MOA. 2015-2020 reflects the 2015-2020 Capital Improvement Program (CIP) Numbers for projects in the MTP. Year 2021 is the 2011-2020 CIP MTP Road average with CPI applied beginning in 2022.
2) 2011-2015 reflects Capital Budget 2035 MTP NHS/Non-NHS appropriations. 2019 is an average of the 2005-2015 Capital Budget grants to 2035 MTP projects. CPI applied beginning in 2017.
3) 2011-2014 reflects obligated NHS numbers provided by DOT&PF. 2015 is an average of 2000-2014 obligated NHS numbers with CPI beginning in 2020.
4) 2011-2014 reflects obligated AMATS allocation amounts listed in the 20111-2014 Obligation Reports provided by DOT&PF. 2015-2018 reflects the current 2015-2018 TIP. 2019-2035 reflects expected AMATS Non-NHS allocation. Reduced by 10% for Transportation Alternatives, 10% for CMAQ and 15% for Pavement Replacement each year based on current AMATS policy. CPI applied beginning in 2020.
5) 2011-2014 reflects obligated amounts provided by DOT&PF. 2015 and 2016 reflects the current 2015-2018 AMATS TIP for MTP projects. 2017 is an average of 2011-2016 HSIP amounts with CPI applied beginning in 2020.
6) State required match of 9.03% of total Federal amounts on NHS, Non-NHS, HSIP, and Federal Other.
7) New Program Alaska Transportation Fund (ATF) created for Statewide improvements in 2025 with initial funding at $400M annually and a 5% return on investment (28% of that investment returns to the Anchorage area based on Historical AMATS allocation formula funding recommended by the TAC for the 2035 MTP).
8) Based on an average of GO bonds in 2002, 2008, and 2013. Assumes next GO Bond infusion in 2025 and 2031. Increased annually by CPI.
9) Amount based on calculation of 9.03% of Federal funds to ARRC
10) Railway/railroad infrastructure projects funded by combination of ARRC, FTA Sec 5307 and 5309, and FRA Federal funds. 2011-2014 reflects the 2011-2014 TIP. 2015-2018 reflects the current 2015-2018 TIP. 2019 is average of 2011-2018 with CPI being applied being in 2020.
11) 10% of AMATS allocation per current policy
12) Assumes State Match of 50% of TE funds
13) Assumes Local Match of 50% of TE funds

14) 2011-2014 = actual amounts received. 2015-2020 = proposed CIP of MTP projects. 2021 = 2011-2016 average of actual/ proposed bonds to MTP projects and then increased annually by CPI starting in 2022.

15) 2011-2015 reflects State Legislative Capital Grants to the MOA for non-motorized projects. 2019 is an average of the 2005-2015 Capital Budget grants to 2035 MTP projects. CPI applied beginning in 2017.

16) FTA Section 5307, 5309, 5310, 5316, 5317, 5339, 5340 and FTA Earmarks to MOA. MAP-21 consolidated 5316 and 5317 and created 5339 as a new funding source. CPI applied beginning in 2020.

17) MOA Bonds are used to match FTA formula funds at 80%/20%. MOA Bonds are requested at a flat rate and do not experience inflation.

18) 10% of AMATS allocation per current policy

19) Amount of additional CMAQ money given to AMATS as a set aside from the DOT&PF STIP.

20) Assumes State Match of 50% of CMAQ funds.

21) Assumes Local Match of 50% of CMAQ funds.

22) MOA received 25% of total state amount.

23) State Transit Match Assistance was changed from SB77 to AMC with MAP-21. MOA is expected 25%. This comes from the State Capital budget and is different from the match amount that comes from DOT&PF.

24) State Legislative Grants assist in fleet replacement. Assumes funding hits in 2018, 2020, and 2022, with future funding happening every 12 years. CPI increases these amounts per year beginning in the year following each funding hit.

25) Years 2011-2014 reflect actual amounts received. 2015 is an average of 2011-2014. CPI applied beginning in 2020

Appendix

FINANCIAL CONSTRAINT ANALYSIS

SHORT-TERM (2011-2023), $ IN MILLIONS

SHORT TERM (2011-2023)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Road, Bike/Ped/Trail, Railroad Project Costs	1254.2	1157.3	1132.2	952.8	851.7	791.3	743.5	696.4	648.8	559.6	465.4	364.2	257.6
Less: Year's Spending	125.2	52.7	202.7	121.9	79.7	65.9	64.1	63.4	102.8	105.5	110.1	112.9	115.9
Projects Deferred to Future Years	1129.1	1104.6	929.6	830.9	772.0	725.4	679.4	633.0	545.9	454.1	355.3	251.3	141.7
Inflation	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Deferred Projects	1157.3	1132.2	952.8	851.7	791.3	743.5	696.4	648.8	559.6	465.4	364.2	257.6	145.2
Total Transit Project Costs	100.0	89.5	76.5	64.8	55.1	43.6	33.9	24.0	11.0	2.0	(9.2)	(18.9)	(31.0)
Less: Year's Spending	11.8	14.2	12.6	10.5	12.2	10.2	10.2	13.2	9.0	11.1	9.4	11.6	9.8
Projects Deferred to Future Years	88.2	75.3	63.9	54.3	42.9	33.4	23.7	10.8	2.0	(9.1)	(18.6)	(30.5)	(40.8)
Inflation	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Deferred Projects	89.5	76.5	64.8	55.1	43.6	33.9	24.0	11.0	2.0	(9.2)	(18.9)	(31.0)	(41.4)
Total Project Costs	1354.2	1246.8	1208.7	1017.6	906.8	834.8	777.4	720.4	659.8	561.6	456.2	345.3	226.6
Less: Year's Spending	137.0	66.9	215.3	132.4	91.9	76.1	74.3	76.6	111.8	116.6	119.5	124.5	125.7
Projects Deferred to Future Years	1217.3	1179.9	993.4	885.2	814.9	758.7	703.1	643.8	547.9	445.0	336.7	220.8	100.9
Deferred Projects	1246.8	1208.7	1017.6	906.8	834.8	777.4	720.4	659.8	561.6	456.2	345.3	226.6	103.8

LONG-TERM (2024-2035), $ IN MILLIONS

LONG TERM (2024-2035)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Road, Bike/Ped/Trail, Railroad Project Costs	1518.2	1448.3	1297.5	1207.7	1111.0	1007.3	895.7	776.1	560.4	420.9	272.1	113.5
Less: Year's Spending	118.8	194.7	130.7	134.2	137.8	141.9	145.8	234.7	153.7	158.0	162.5	166.7
Projects Deferred to Future Years	1399.4	1253.6	1166.8	1073.5	973.2	865.4	749.9	541.4	406.7	262.9	109.6	(53.2)
Inflation	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035
Deferred Projects	1448.3	1297.5	1207.7	1111.0	1007.3	895.7	776.1	560.4	420.9	272.1	113.5	(55.1)
Total Transit Project Costs	132.0	123.7	115.1	95.0	85.6	75.6	65.0	49.8	38.4	23.7	11.2	(4.6)
Less: Year's Spending	10.1	10.3	21.5	10.7	11.1	11.6	15.9	12.0	15.0	12.7	15.7	13.2
Projects Deferred to Future Years	121.9	113.4	93.6	84.3	74.5	64.0	49.1	37.8	23.4	11.0	(4.5)	(17.8)
Inflation	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Deferred Projects	123.7	115.1	95.0	85.6	75.6	65.0	49.8	38.4	23.7	11.2	(4.6)	(18.0)
Total Project Costs	1650.2	1572.1	1412.7	1302.7	1196.6	1082.9	960.7	826.0	598.8	444.7	283.3	108.9
Less: Year's Spending	128.9	205.0	152.2	144.9	148.9	153.5	161.7	246.7	168.7	170.7	178.2	179.9
Projects Deferred to Future Years	1521.3	1367.1	1260.5	1157.8	1047.7	929.4	799.0	579.3	430.1	274.0	105.1	(71.0)
Deferred Projects	1572.1	1412.7	1302.7	1196.6	1082.9	960.7	826.0	598.8	444.7	283.3	108.9	(73.1)

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