



Developing Regional Long-Range Plans

A Guide for Pennsylvania Planning Partners

March 2006



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Introduction

Purpose of this Document

The purpose of this document is to assist the Pennsylvania Department of Transportation's (PennDOT) planning partners in developing more effective long-range transportation plans. This document does not establish strict rules or guidelines. Rather, it is intended to stimulate thinking about plan development issues and ideas.

Over the last few years, several of PennDOT's planning partners have expressed interest in guidance on the long-range plan development process. There are very few state- or national-level resources that offer such guidance, and it can be difficult, time-consuming, and expensive to attempt to figure out the process on one's own. This resource was developed to help fill that void. Our expectation is that over time, this guidance will enable planning organizations to develop their plans more effectively and will further improve the quality of long-range transportation planning in Pennsylvania.

In developing this document, we have focused the discussion and recommendations on issues and challenges identified by Pennsylvania planning organizations. In the interest of keeping the document most useful, we have limited its length, while including suggested sources of additional information on each topic. It is expected that this guide will be updated as planning requirements and best practices evolve.

This document is structured to function as a reference guide. Chapter 2 describes why long-range planning is important and provides a summary of the regulatory requirements for developing a long-range plan. Chapter 3 describes common characteristics of successful long-range plans. Chapter 4 provides a framework for developing a long-range plan and offers a step-by-step description of various plan activities, issues that should be considered, and resources that may be helpful. Chapter 5 provides guidance on how to keep a long-range plan a "living" document.

Several appendices are included for further reference. Appendix A includes the regulatory language that specifies long-range plan requirements. Appendix B includes changes to the regulatory language made under TEA-21. Appendix C provides interim guidance from the recent reauthorization, SAFETEA-LU. Appendix D provides a reference guide on sections that might be included in a long-range plan and the type of information and graphics that may be appropriate to include. Appendix E is a table showing various sources of data that are useful in the development of a long-range plan.

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**Need for a
Long-Range
Transportation
Plan**

Creating a Direction

Regional long-range transportation planning is required by the government through the U.S. Department of Transportation (USDOT) as a prerequisite for federal funding. However, the benefits of planning extend beyond simply complying with federal mandates.

First, the planning process provides an opportunity for citizens, government officials, planners, and associated stakeholders to come together to visualize the region's future, identify trends taking place within the region, and set goals for what the region hopes to achieve within the next 20 or more years. Furthermore, the planning process allows for update cycles, to ensure that the vision and goals are consistently revisited and reassessed to address the region's changing needs and support the region's desired transportation direction.

The plan establishes values and priorities that coordinate direction across various planning disciplines and geographies. Planners can include these values and priorities in other plans that address the environment, housing, and economic development, making improvements more strategic and effective across their region. Planning partners can also work in tandem with neighboring regions, the state, and localities to better coordinate planning approaches for more productive results. Transportation needs and issues are not contained within political boundaries, so long-term planning provides the opportunity for regions to openly communicate their vision to ensure local planning partners are working in a common direction.

Overall, the long-range transportation plan—both the document and the process—is a chance for a region to invest in its identity and future. Given the scale and longevity of investment and the impact it has on a region's economy and quality of life, the transportation system demands thoughtful planning. A long-range transportation plan is critical in helping a region realize its vision for the future.



Regulatory Requirements

Federal Planning Regulations for Long-Range Transportation Planning

Federal planning regulations date to the early 1960s when, under the Kennedy Administration, the federal government created requirements to ensure that transportation planning was conducted in a “comprehensive, continuous, and coordinated” manner. The Federal-Aid Highway Act of 1973 further formalized the 3-C’s process by mandating the creation of metropolitan planning organizations (MPOs) in each urbanized area with a population of 50,000 or greater. While long-range transportation planning was conducted in some fashion over the next three decades, it wasn’t until the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) that planning requirements—and the role of the MPO and rural planning organization (RPO)—were significantly strengthened.

Federal long-range planning regulations promulgated under ISTEA state that the purpose of the metropolitan planning process is to establish a “...framework for making transportation investment decisions in metropolitan areas.” This language was crafted with the intent of enabling states and regions, in cooperation with transit agencies, to develop regional transportation plans that reflect unique state and local priorities. The legislation strengthened the linkage between transportation planning and programming (prioritizing and funding specific projects) and formalized the way metropolitan areas were to address transportation and transportation-related impacts. However, the regulatory requirements were still rather broadly defined and non-prescriptive.

The strength of such a flexible approach is that it does not impose a one-size-fits-all structure on regional planning agencies. The down side is that without clear requirements and structure, many planning partners have been forced to muddle through a process, with little or no guidance as to what constitutes a good plan or product. This has resulted in plans varying widely in quality, substance, and content.

The Transportation Equity Act for the 21st Century (TEA-21) was enacted in 1998. TEA-21 maintained most of the regulatory requirements of ISTEA, providing guidance on what needs to be considered in a plan without actually prescribing how to get there. Planning regulations relating to long-range transportation planning are published in the Code of Federal Regulations (CFR), Part 23. A copy of the most relevant sections of CFR 23 is included in Appendix A.

With the authorization of TEA-21, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) were charged with revisiting the existing planning regulations. However, after several years of adjusting to the significantly revised regulations of ISTEA, many planning partners did not relish the prospect of another major overhaul of planning requirements. Discussions regarding proposed modifications to planning regulations persisted during the early years of the reauthorization, but the general consensus was there was not a need to substantially change the planning requirements of ISTEA.

In 2001, it was decided that significant changes in regulatory language relating to TEA-21 would be postponed. In February 2001, the FHWA and FTA issued a joint memorandum to advise FHWA and FTA staff and planning partners how to proceed with TEA-21 planning requirements in the absence of new planning regulations. In essence, the memo stated that although new planning regulations had not yet been issued, the core requirements of ISTEA would remain in effect. The full memorandum is provided in Appendix B.

On August 10, 2005, after nearly two years of extensions, the successor to TEA-21 was signed into law. The legislation is known as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). While states and MPOs are not required to abandon their current plan and program cycles to immediately incorporate changes from SAFETEA-LU, plans adopted after July 1, 2007 must be in compliance with the new requirements. The USDOT's interim guidance is provided in Appendix C. Additional guidance and updated regulations on planning requirements are expected in the near future.

Factors to Be Considered in a Long-Range Transportation Plan

Federal regulations require that the following eight factors be explicitly considered, analyzed as appropriate, and reflected in planning products:

- 1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- 2) Increase the safety of the transportation system for motorized and non-motorized users.
- 3) Increase security for transportation system users.
- 4) Increase the accessibility and mobility options available to people and for freight.
- 5) Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
- 6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- 7) Promote efficient system management and operation.
- 8) Emphasize preservation of the existing transportation system.

Although plans must consider each of these factors, the broad nature of each factor offers great flexibility in determining how these mandates align with regional planning efforts.

General Requirements

General requirements listed in these regulations state that metropolitan transportation plans shall:

- Use at least a 20-year planning horizon—but a 25-year horizon is recommended so during the years between updates, the plan never covers less than the 20-year requirement.
- Include both long-range and short-range strategies and actions that lead to the development of an integrated intermodal transportation system and address environmental mitigation, improved performance, multimodal capacity, and transportation enhancement activities.
- Be updated at least every four years in non-attainment and maintenance areas (i.e., areas that do not meet federal air quality standards) and at least every five years in attainment areas.

- Be approved by the MPO.
- Be coordinated with other state and regional planning activities, including consideration of environmental plans.
- Promote consistency between transportation improvements and land use and economic development plans and patterns.

A final requirement is that the planning process shall include the preparation of technical memoranda and other reports to document the development, refinement, and update of the transportation plan.

Long-Range Transportation Planning Process

Federal regulations do not explicitly detail a plan process. Instead the regulations provide some general guidance but leave the MPOs, in consultation with their state or states, to agree upon a process for developing their plan. Early coordination with the FHWA Division Office and FTA Region Office is strongly encouraged. In practice, there does seem to be a fairly standard long-range planning process that has been adopted by most planning organizations. Most entail the development of a vision and goals, problem identification, development of alternatives, evaluation of alternatives, and prioritization of projects—all of which feed into and inform the transportation plan.

Long-Range Plan Elements to be Addressed

Federal planning regulations provide more specific guidance on elements that should be addressed in the long-range plan. In summary, these regulations require that long-range transportation plans:

- Identify the projected transportation demand of persons and goods over the plan horizon.
- Identify current congestion management processes.
- Identify pedestrian walkway and bicycle transportation facilities and include such investments in its published list of projects.
- Reflect the consideration given to the results of the management systems.
- Assess capital investment and other measures necessary to preserve the existing transportation system.
- Include design concept and scope descriptions of all existing and proposed transportation facilities.
- Reflect a multimodal evaluation of the transportation, socioeconomic, environmental, and financial impact of the overall plan.
- For major transportation investments for which analyses are not complete, indicate that the design concept and scope (mode and alignment) have not been fully determined and will require further analysis.
- Reflect, to the extent that they exist, consideration of other federal, state, regional, and local plans and objectives pertaining to long-range land use, metropolitan development, economic development, housing, community development, employment opportunities, environmental resources, and energy.
- Indicate, as appropriate, proposed transportation enhancement activities.
- Include a financial plan that demonstrates the consistency of proposed transportation investments with already available and projected sources of revenue.

In addition, planning regulations state that metropolitan transportation plans shall:

- Include a proactive and ongoing public involvement process that extends through the plan development process.
- Be consistent with Title VI of the Civil Rights Act of 1964 and Environmental Justice requirements of Executive Order 12898.
- Identify actions necessary to comply with the Americans with Disabilities Act of 1990.
- Provide for the involvement of transportation advocacy groups, related agencies, authorities, private operators, and elected officials.
- Provide for the involvement of local, state, and federal environment resource agencies, as appropriate.

Finally, the plan must remain in compliance with other federal regulations.

Public Official and Citizen Involvement

Federal regulations require that public officials (elected and appointed) and citizens have adequate opportunity to participate in the development of the transportation plan before it is approved and adopted. The regulations explicitly identify several parties who should be engaged and involved throughout the plan development/update process. These include:

- Citizens
- Affected public agencies
- Representatives of transportation agencies
- Freight shippers
- Providers of freight transportation services
- Private providers of transportation
- Representatives of users of public transit
- Tribal organizations
- Bicycle interests
- Pedestrian interests
- Organizations representing the disabled
- State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation
- Other interested parties

The public involvement process shall include the publication and distribution of draft versions of the proposed plan, providing adequate opportunity for review and comment. The approved plan must also be published or made readily available in other ways for information purposes. Where possible, this process should include visualization techniques and make use of the Internet.

Finally, in non-attainment areas, there also needs to be at least one formal public meeting annually to review planning assumptions and the plan development process.

Air Quality Conformity Requirements

In non-attainment and maintenance areas for transportation-related pollutants, FHWA and FTA, as well as the MPO or RPO, must make a conformity determination on any new or revised plan in accordance with the Clean Air Act (CAA) and Environmental Protection Agency (EPA) conformity regulations. The intent of the conformity process is to ensure that regions do not undertake projects that are inconsistent with state obligations to meet National Ambient Air Quality Standards (NAAQS). To determine conformity, MPOs are required to forecast emissions of criterion pollutants and compare these forecasted levels to permissible levels as outlined in the State Implementation Plan. Conformity regulations require that planning partners collaborate with FHWA, FTA, and EPA to evaluate whether proposed plans would result in increased pollution levels and/or non-conformance. Regions where plans do not meet conformity requirements risk the loss or disruption of federal transportation funding.

Federal Approvals

Other than air quality conformity, there are no formal requirements for approval of long-range plans by FHWA or FTA. The only statutory requirement is that copies of the final plan be submitted to each agency.

State Planning Requirements for Regional Long-Range Transportation Planning

Pennsylvania's planning throughout geographical levels and across disciplines creates a coordinated effort for improving transportation for the state. The Municipalities Planning Code (MPC) requires that municipal and county comprehensive plans have a long-range transportation component. The MPC also requires these plans to have a level of consistency between them through multiple reviews and comment periods for each plan among associated planning partners. For single county planning partners, the county comprehensive plan and the long-range transportation plan may even be the same document. Larger regions should be sure their individual county comprehensive plans are incorporated into the MPO's or RPO's long-range transportation plan and that the long-range plan informs the comprehensive plan.

PennDOT provides further overarching guidance to its planning partners through its statewide long-range transportation plan, the Pennsylvania Mobility Plan. The initiatives within this plan outline how MPOs and RPOs can work toward the vision for the entire state by establishing similar objectives and goals in their regional long-range transportation plans.

- PA Municipalities Planning Code - www.newpa.com/download.aspx?id=426
- Pennsylvania Mobility Plan - www.pamobilityplan.com

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Qualities of the Process

Characteristics of Successful Long-Range Plans

Based on a review of best practices in the development of long-range transportation plans both within Pennsylvania and nationally, there are many common attributes of the more successful plans. While not every plan will display all of these qualities, MPOs and RPOs should strive to achieve these qualities in their plans.

- **Create Local/Regional Ownership:** Developing the plan with an active focus on and engagement of its stakeholders ensures they are fully vested in the plan, increasing the likelihood that the plan will be fully implemented.
- **Emphasize Planning, not Programming:** Although the plan must include a fiscally-constrained list of projects/solutions, the emphasis should be on defining the planning vision for the future and determining what priorities or types of projects best achieve that vision, rather than simply generating a project list.
- **Collaborate with Other Stakeholders:** Plan development should include meaningful and ongoing consultation with PennDOT, counties, neighboring planning regions, and other partners. This will ensure that the plan takes into account the issues and concerns of other stakeholders and is coordinated with their planning efforts.



- **Support Other Relevant Plans:** A long-range transportation plan exists within the larger context of community planning, infrastructure development, and political realities, and should therefore take into consideration other relevant local, regional, and statewide plans that are likely to impact the transportation system.
- **Articulate Clear Goals and Objectives:** The goals and objectives articulated within the plan should be straightforward and easily understood, relate to the overall vision of the region, and provide a basis for making investment decisions.
- **Address Quality of Life Issues:** Although they are not easily quantified, issues such as safety, health, recreation, and access to employment and services have taken on increasing importance in transportation and community planning. The plan should explicitly describe how these issues are addressed in the decision-making process.
- **Maintain an Open and Transparent Process:** Because the process used to develop a long-range plan is not always clear from the final products, the plan should include a description of how the plan was developed, including public outreach, technical analyses, and other critical work program elements. From the outset, and in consultation with key stakeholders, develop a process that works for the region and those involved in the plan's development.
- **Capitalize on the Experience of Others:** While it is important that every plan be tailored to the issues and context of the particular region, there is also much to be learned from what has been done successfully by others, whether in terms of public participation, technical analysis, document presentation, or other areas of plan development.
- **Consider Multiple Futures (Scenario Planning):** To convey the impacts that different courses of action could have, planning organizations should use the plan as an opportunity to explore possible “differing futures,” in terms of issues such as financing, modal emphasis, and land use.
- **Develop an Evaluation Framework:** In developing evaluation criteria that flow from the overall goals and objectives, planning organizations need to determine how they can measure the performance of proposed solutions in a structured manner.
- **Employ Strong Technical Analyses:** To provide a basis for properly evaluating potential solutions, the plan should be based on—but not necessarily solely driven by—a strong technical analysis that is clearly described in the plan document.
- **Link Solution Prioritization to Goals, Objectives, and Policies:** Rather than simply maintaining the existing project pipeline, prioritization of solutions should be clearly tied to the plan's goals, objectives, and policies through the use of linked evaluation criteria.

- **Ensure Investments are Distributed Equitably (Environmental Justice):** The plan should ensure that the burden or benefits of proposed transportation solutions are distributed fairly, both geographically and across racial or socioeconomic groups.
- **Organize Solutions in a Relevant Format:** The plan should organize potential solutions in a format that is relevant and useful for the region. The presentation of findings could be organized by mode, by geography, by corridor, or by some hybrid of these approaches.
- **Structure the Plan to be Relevant to Local Issues:** Planning partners should consider the types of problems and solutions that are most relevant to the region, and structure the plan to be responsive to these issues. If the region is experiencing significant corridor congestion, it may make sense to structure the plan in terms of corridors, whereas a region that is experiencing concentrated growth in specific areas may want to structure its plan according to geographic centers.
- **Include an Implementation Plan:** Because the plan defines a framework for future programming/investment decisions, it should clearly define how the plan's goals, objectives, and policies will transfer to the development of programming documents, such as the Twelve-Year Plan and Transportation Improvement Programs and other planning/project development initiatives.
- **Be Creative:** PennDOT wishes to see planning partners tailor their approach and product to local issues and conditions. While there are some basic requirements as well as some typical elements of most long-range plans, PennDOT challenges its planning partners to push themselves to set a compelling direction for transportation planning in their region.

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Activities of the Process

The Long-Range Planning Process

Overview

Recognizing that each of Pennsylvania’s planning partners has unique regional issues, it is neither PennDOT’s desire nor intent to impose specific requirements regarding the process of developing a regional long-range transportation plan. PennDOT recognizes that each partner should customize its approach according to local conditions and circumstances—factoring in considerations such as the geographic size of the region, current and expected future conditions, specific regional opportunities and challenges, and budgetary constraints. Planning organizations may choose to use the general framework provided in this chapter with minimal changes, or develop a specialized process that better reflects their needs and circumstances.

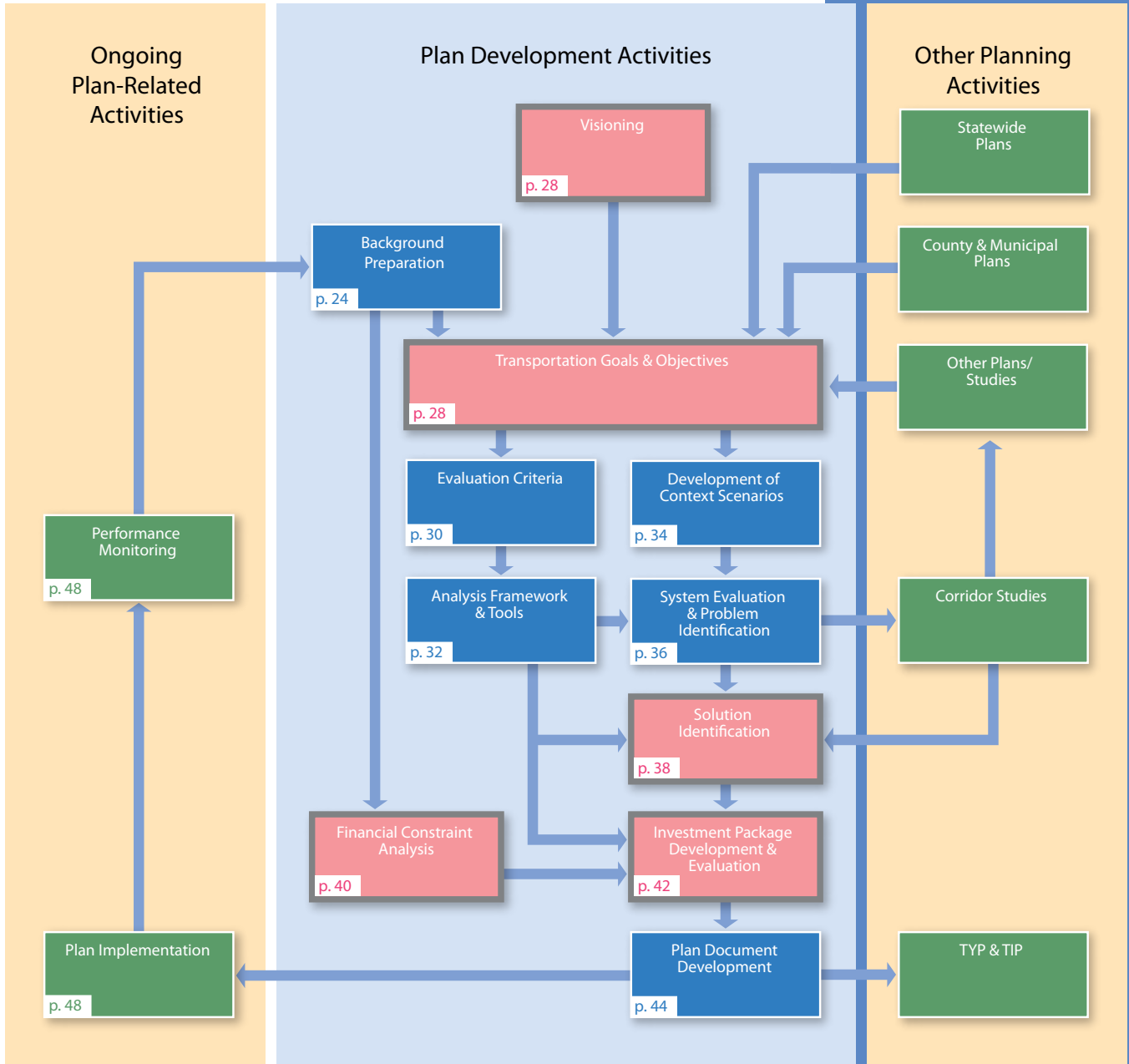
Figure 1 shows the typical process for developing a long-range transportation plan. It is not expected that partners who are undertaking a long-range plan for the first time will incorporate each of these activities into the development of their plan, but they may work toward this process as their capabilities and experience grow.

For each major activity presented in this chapter, there is a general discussion of the activity, a list of issues that should be considered, and resources and examples. These items are not intended to provide an exhaustive or mandatory approach, but are presented to jumpstart thinking about each activity.

In addition, several general long-range transportation planning resources are available via the links listed below. These sites are updated on an ongoing basis, and should be periodically checked for new and updated guidance and resources.

- FHWA’s Web site for Planning - www.fhwa.dot.gov/planning/index.htm
- FTA/FHWA’s Transportation Planning Capacity Building Program TPCBP - www.planning.dot.gov/default.asp
- Association of Metropolitan Planning Organizations - www.ampo.org/index.html
- Ruraltransportation.org, The National Association of Counties (NACo) and the National Association of Development Organizations (NADO) - www.ruraltransportation.org/library/index.shtml#general

Figure 1: Regional Long-Range Transportation Planning Process



Stakeholder & Public Involvement

Plan Development Checklist

The following page presents a list of planning elements to complete during the development of a long-range plan. While it would be ideal to have every planning partner address each of these elements, the reality is that the staffing, capacities, and financial resources of planning partners vary significantly across the state. Because of this, the development of thorough long-range plans will likely be an incremental and evolutionary process, with partners using each update as an opportunity to push their efforts a little further.

These elements have been tiered into three categories: Required, Preferred, and Ideal. Required elements are expected in any long-range plan. These elements may be suitable for planning partners who are engaging in their first long-range plan. Preferred elements include expanded and more sophisticated public involvement and the introduction of travel demand modeling. This could be undertaken for a first long-range plan, but might be more appropriate for an update or second plan. Ideal elements are those that should be included in plans of organizations that have undertaken a significant number of long-range plans.

These elements should be discussed with both USDOT and PennDOT staff prior to the start of plan development to discuss what is feasible, reasonable, and reaching for your organization.



Task	Required	Preferred	Ideal
Initial Plan Scoping Meeting with PennDOT and USDOT	✓	✓	✓
Public Involvement Plan	✓	✓	✓
Steering Committee	✓	✓	✓
Technical Advisory Committee		✓	✓
Policy Advisory Committee		✓	✓
Public Meetings	✓	✓	✓
Stakeholder Workshops		✓	✓
Focus Groups		✓	✓
Web Site		✓	✓
Surveys			✓
Visioning	✓	✓	✓
Background Analyses	✓	✓	✓
Demographic Trend Analysis	✓	✓	✓
Trends and Implications	✓	✓	✓
Review Of Other Pertinent Plans	✓	✓	✓
Inventory of the Existing Transportation System	✓	✓	✓
GIS Mapping of Facilities	✓	✓	✓
System Performance Analysis			✓
Develop New Goals and Objectives		✓	✓
Update Existing Goals and Objectives	✓	✓	✓
Evaluation Framework and Criteria	✓	✓	✓
Context Scenarios			✓
Modeling		✓	✓
System Evaluation			✓
Project Evaluation	✓	✓	✓
Financial Analysis	✓	✓	✓
Investment Packages		✓	✓
Implementation Plan	✓	✓	✓
Monitoring Plan	✓	✓	✓
Framework to Translate the Plan into Other Planning Activities	✓	✓	✓
Air Quality Conformity Analysis	✓	✓	✓
Congestion Management Processes*	✓	✓	✓
Promotional Plan		✓	✓
Project List	✓	✓	✓
Plan Document	✓	✓	✓
Posting on Web Site	✓	✓	✓
Plan in Accessible Formats	✓	✓	✓
Translation		✓	✓
Debriefing (Lessons Learned/Areas for Improvement)	✓	✓	✓

* Only required in non-conforming areas

Engaging the public will result in a better outcome.

Stakeholder & Public Involvement

Purpose

Engaging the public and stakeholders in the development of the plan will result in a better long-range planning process and outcome. It is also a federal planning requirement. However, engaging the public in something as potentially abstract as regional long-range transportation planning is challenging. At the outset of the plan development or update process, planning partners should review their public involvement plan to ensure that it is still appropriate for the scope and scale of their plan. Public and stakeholder involvement should be incorporated throughout the process to ensure that goals, policies, and solutions are developed to address the issues and concerns that are most relevant to the public, not simply those identified by transportation agencies.

One common means of improving stakeholder participation and involvement is to establish a long-range plan steering committee to guide the process. The steering committee should be limited to a manageable number of participants, and should include representatives of PennDOT and USDOT staff. Other participants might include political leaders, representatives of the general public, modal interests, freight shippers, advocacy groups, environmental organizations, and/or business associations.

In addition to a steering committee, planning partners might encourage the participation of a larger group of stakeholders by establishing an advisory committee that can be periodically asked to review materials or participate in strategic discussions. This approach not only creates additional interest in the plan, but also broadens the number of constituents and stakeholders who support and champion the plan. While stakeholder involvement must be balanced, manageable, and practical, opportunities to actively engage a wide variety of stakeholders should be pursued.

To better disseminate information and to keep everyone in the public involvement process informed, planning partners should also develop a communications plan that outlines a strategy for communicating with plan participants—and goes beyond simply hosting public meetings. Some of the more common means include project brochures, newsletters, web sites, and press releases. Much work has been performed on this front and many of the resources listed below can suggest innovative approaches to engaging stakeholders and the public.

The stakeholder and public involvement process should be ongoing throughout plan development, but may vary in frequency and intensity depending on the activities being undertaken at any given time. Some activities, such as the development of goals and objectives, lend themselves to significant stakeholder involvement. Others, such as information gathering and technical analysis, do not. It is important to realize that simply making a draft plan available for public review at the end of the process does not constitute an effective public involvement strategy, because it does not provide an opportunity for substantive public input to help shape the plan. As outlined below, there are numerous resources that address public involvement. Planning partners should take advantage of these resources, as well as the experience of peer planning agencies, as they develop a public and stakeholder involvement program.

Issues to be Considered

- Determining the scope and scale of the public involvement process and ensuring that it meets the needs of the general public and stakeholders within the region.

- Developing the schedule for public involvement, to ensure that public input is incorporated throughout the entire development of the plan.
- Identifying specific stakeholders and groups to be included in the process.
- Ensuring that Title VI and Environmental Justice issues are substantively incorporated into the process.
- Developing creative ways to keep the public engaged and involved throughout development of the plan.
- Obtaining input from a broad cross section of the public, not just special interest groups and professional activists.
- Managing expectations for public input and the impact that this input will have on development of the plan.
- Resolving tensions among constituencies with differing experiences and viewpoints, such as cities versus suburbs, urban versus rural, growth versus environmental preservation, local versus regional interests, and differing fiscal priorities.

Resources

- Public Involvement Techniques for Transportation Decision-Making- www.planning.dot.gov/Pitool/toc.asp
- Public Involvement in the Development of the Long-Range Transportation Plan - www.planning.dot.gov/Documents/Benchmark/BenchFinal/BenchFinal.htm
- National Transit Institute Course - Public Involvement in Transportation Decision Making - www.ntionline.com/CourseInfo.asp?CourseNumber=FP203
- PennDOT “Getting Involved” Public Involvement Brochure (Publication 304)- <ftp://ftp.dot.state.pa.us/public/Bureaus/BEQ/GettingInvolved.pdf>
- PennDOT Public Involvement Handbook (Publication 295) - <ftp://ftp.dot.state.pa.us/public/Bureaus/design/pub%20295.pdf>
- Every Voice Counts: PennDOT Office of Planning’s Environmental Justice Plan - ftp://ftp.dot.state.pa.us/public/Bureaus/Cpdm/WEB/EJ_Guidance.pdf
- Pennsylvania Mobility Plan - Public Involvement Highlights Report- www.pamobilityplan.com
- Harrisburg Area Transportation Study (HATS) - Guide to Public Involvement - www.tcrpc-pa.org/text/Hats/PubInv.pdf
- DVRPC’s Public Participation Plan: A Strategy for Citizen Involvement- www.dvrpc.org/publicaffairs/publicinvolvement/pdf/Participation.pdf
- Triangle Area Rural Planning Organization - Public Involvement Plan - <ftp://ftp.tjcog.org/pub/tarpo/pubinplan.pdf>
- Regional Transportation Plan Public Involvement Plan, Pikes Peak Area Council of Governments, CO - www.ppacg.org/Trans/2030/2030planpip.pdf

Environmental Justice: Every Voice Counts

PennDOT has developed comprehensive guidance to assist PennDOT planners and its planning partners in incorporating environmental justice (EJ) into planning and programming processes. The purpose of these efforts is to provide guidance and flexibility for addressing EJ through understanding the distinct character of their jurisdictions, including area demographics, the size and character (rural, suburban, or urban) of their jurisdictions, the specific transportation needs and priorities of the area’s elected leaders, and the agency’s resources. *Every Voice Counts* includes an executive summary, guidance document, and toolbox of supplemental information and resources.

ftp://ftp.dot.state.pa.us/public/Bureaus/Cpdm/WEB/EJ_Guidance.pdf

Background preparation provides critical context for a plan.

Background Preparation

Purpose

The purpose of the background analysis is to provide planning partners, the public, stakeholders, and other decision-makers with critical information to better assist in the development and direction of the plan. This information provides a context for the development of the plan and provides participants with a better understanding of relevant statistics, issues, and trends. The tasks that should be performed as part of this activity include:

- **Review of Previous Regional Plan and Discussion with Partners:** A review of the previous long-range plan at the start of the plan or update process allows staff and key stakeholders the opportunity to identify strengths and shortcomings—in process, content, or implementation—of the previous plan and adjust accordingly. While planning partners will likely have identified their own issues, there should also be the opportunity for additional stakeholders, such as PennDOT, advocacy organizations, and the public, to provide additional input on how the plan and process might be improved. In addition to a critique, this discussion provides an opportunity to share lessons learned from others as well as new and evolving approaches to long-range planning.
- **Review of Other Related Plans:** In developing the next plan, it is important to look at the direction of other plans—both short- and long-term—that could directly or indirectly impact a region’s transportation system. This is an opportunity to factor in the results of corridor studies as well as other transportation plans and studies at the local, state, and even national levels. With a recent emphasis on ensuring consistency and linkages with other ongoing planning activities, it is also important to consider county land use plans, long-range plans of transit properties, economic development plans, utility expansion plans, etc. Each of these external resources can provide valuable input into development of the next long-range transportation plan, thereby increasing the value and relevance of the document.

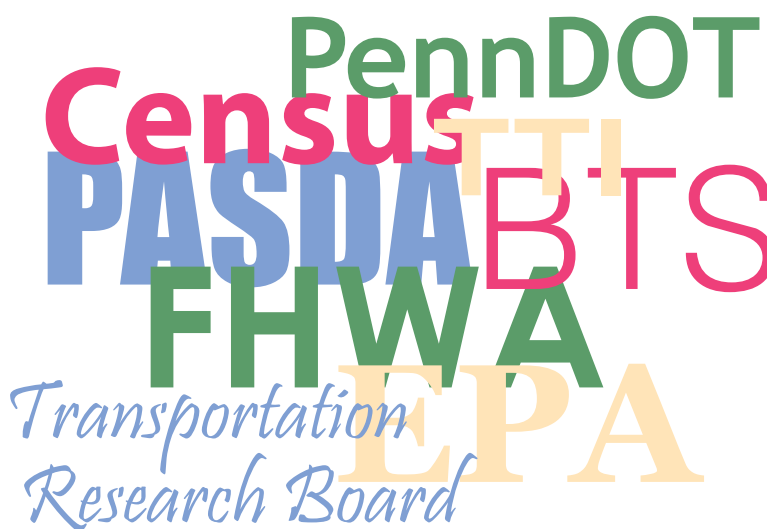




- **Documentation of the Current System:** The major elements of the existing transportation system should be documented. This information can be easily inventoried within a geographic information system, if available. In many cases this information may be available for free from PennDOT or other information providers. Elements that should be documented are higher-level roadways, transit services, rail services, airports, marine ports, rail corridors, bicycle networks and trails, intermodal passenger facilities, intermodal freight facilities and terminals, and other major transportation facilities. Once documented, this information can be presented both graphically via mapping and descriptively in tables. It is often useful to provide relevant information such as roadway classification, the number of lanes, daily volumes, etc., for highways. For transit, data on operational service characteristics, ridership, etc., are useful. Most of this information is available through PennDOT and should be updated or enhanced by the planning partners as part of this exercise. Once key elements of the system are documented, subsequent plan updates require only reviewing and updating this work.

- **Trends, Issues, and Implications:** When developing a long-range plan, it is critical to analyze probable future conditions and how these will affect the transportation system and transportation needs. Providing information on trends and, where possible, projections, serves to better inform both staff and decision-makers about critical long-term issues. In many cases this information is collected as part of ongoing monitoring efforts. To the greatest extent possible, planning partners should use existing sources of data to minimize primary data collection and analysis. Appendix E provides a list of some readily available data sources that may be helpful for long-range planning. The following types of information may be particularly useful in establishing context for the plan:
 - o Demographic data
 - o Economic indicators
 - o Development patterns
 - o Travel demand (trips, vehicle-miles-traveled ridership, mode share)
 - o Mode choice
 - o Travel patterns
 - o Goods movement and trucking
 - o Safety (types of accidents and accident rates)
 - o Operational performance
 - o Congestion and delay
 - o Environmental impacts - air quality, water
 - o Energy consumption
 - o Infrastructure condition
 - o Construction costs
 - o Productivity and efficiency
 - o Funding and finance

Understanding the above factors for a region provides the needed context regarding current and future issues and is vital to developing an appropriate plan vision, goals, and objectives.



Data is available at various sources. Consult Appendix E for more.

Issues to be Considered

- Determining the resources (budget and manpower) that will be available for development of the next plan.
- Identifying data that are available for performing the background analysis.
- Identifying other studies that are available that will be informative to the long-range transportation plan.

Resources

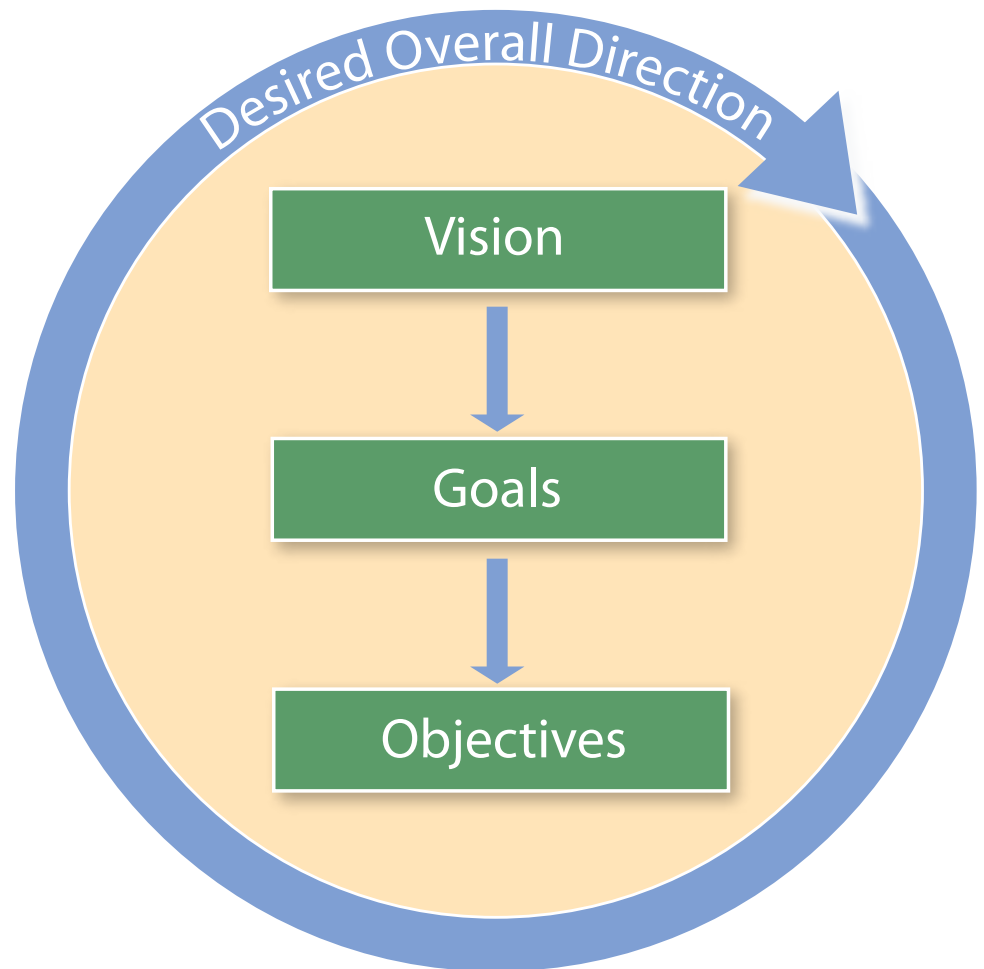
- FTA/FHWA -The Metropolitan Transportation Planning Process: Key Issues - A Briefing Notebook for Transportation Decision Makers, Officials, and Staff - www.planning.dot.gov/documents/BriefingBook/BBook.htm
- FHWA/FTA Planning for Transportation in Rural Areas - www.fhwa.dot.gov/planning/rural/planningfortrans/ruralguide.pdf
- FTA Innovative State And Local Planning For Coordinated Transportation - www.fta.dot.gov/907_ENG_HTML.htm
- National Transit Institute Course - Metropolitan Transportation Planning - www.ntionline.com/CourseInfo.asp?CourseNumber=FP208
- Pennsylvania Mobility Plan, Trends and Issues Report - www.pamobilityplan.com
- Colorado Regional Transportation Planning Guidebook - www.dot.state.co.us/StatewidePlanning/PlansStudies/originals/Regional_Planning_Guidebook_2003.pdf
- Regional Transportation Planning Guide, Wisconsin DOT - www.dot.state.wi.us/localgov/docs/planningguide.pdf
- Regional Transportation Planning Guidebook, Washington DOT - www.wsdot.wa.gov/ppsc/planning/RTPOmanual/planningmanual.pdf
- DVRPC 2025 Long-Range Land Use and Transportation Plan—Trends and Forces - www.dvrpc.org/LongRangePlan/2025/final/trends.htm
- Harrisburg Area Transportation Study (HATS) -Trends and Issues - www.tcrpc-pa.org/text/Hats/RTP2030/2%20Trends%20Projections.pdf

A plan's vision, goals, and objectives clearly articulate a desired direction for the region.

Visioning/Transportation Goals & Objectives

Purpose

The purpose of developing a vision is to clearly articulate a desired overall direction for the region. This vision can then be further defined through more specific goals and objectives. The vision, goals, and objectives should then be supported throughout the plan, particularly when evaluating and prioritizing solutions. The vision should take into account the overall desires and aspirations of the community, and include a variety of factors beyond transportation that may influence the region's transportation solutions. This broad vision can then be translated into the transportation-related goals and objectives that set the direction for more specific aspects of the plan. The development of a vision, goals, and objectives needs to be inclusive and should occur primarily through a strong public involvement and outreach process, to ensure that the region's future transportation system adequately addresses the needs of the public it is intended to serve.



Issues to Consider

- Determining how frequently the visioning process should be conducted, particularly for regions that are on a shorter update cycle. Many regions do not develop a new vision, goals, and objectives for each plan. They may instead limit the process to validating and updating their existing goals and objectives each time they update the plan, and revisit the overall vision on every other plan update.
- Tying the information in the previous plan to the new plan or plan update, to ensure some level of continuity. This is particularly an issue if there are unresolved issues from the previous plan, which can often be the case given the short time between new plans.
- Integrating external policies into the visioning process, since part of the purpose of visioning is to factor non-transportation issues and policies into the transportation plan.

Resources

- Planning for the Future: A Handbook on Community Visioning - www.ruralpa.org/visioning.pdf
- Community Visioning/Strategic Planning Handbook, NCL Staff, 3rd Printing, 2000 - www.ncl.org/publications/online/VSPHandbook.pdf
- Visioning, National Parks Service - www.nps.gov/phso/rtca/visionin.htm
- Pennsylvania Mobility Plan Transportation Choices for Pennsylvania - www.pamobilityplan.com
- DVRPC 2025 Long-Range Land Use and Transportation Plan - Vision, Policies and Strategies - www.dvrpc.org/LongRangePlan/2025/final/transportation.htm
- Harrisburg Area Transportation Study (HATS) - Transportation Plan - www.tcrpc-pa.org/text/Hats/RTP2030/5%20Transportation_Plan.pdf
- Syracuse Metropolitan Area's LRTP - Goals and Objectives - http://web.smtcmpo.org/extranet/smtc/reports/LRTP_update_2004/ch02.pdf
- Dover/Kent County MPO - Long Range Transportation Plan Update (Chapter 2 Vision) - www.doverkentmpo.org/documents/Chapter2TheVision.pdf

Developing evaluation criteria will systematically determine whether proposed solutions support the plan's vision, goals, and objectives.

Evaluation Criteria

Purpose

The purpose of developing evaluation criteria is to systematically determine whether proposed solutions support the plan's vision, goals, and objectives. As part of the Mobility Plan, PennDOT is preparing guidance on how planning partners can evaluate and prioritize projects for their long-range plans and programming based on both statewide and regional goals and objectives. An appropriate first step for this task is to consult with PennDOT staff regarding the status of this guidance, expected to be completed by June 2006.

The evaluation criteria feed into several subsequent plan activities, including system assessment/problem identification, solution analysis, and policy development. Ideally, the plan's goals and objectives would easily translate into quantifiable performance measures to permit an objective analysis and comparison of investment alternatives. The reality is that many goals and objectives are difficult—or nearly impossible—to quantify. In the absence of quantitative analysis, many regions have employed the use of qualitative measures. Qualitative measures can be just as valid as quantitative measures (particularly for analyzing quality of life issues), if they are used in a structured and objective manner. However, it is important to be aware of the challenges inherent in qualitative measures, including the potential for subjectivity, problems in separating perception from reality, the need to carefully describe each solution so it can be fairly rated, and the difficulty in predicting the qualitative benefits of any given solution.

There are literally hundreds of potential evaluation measures, each with its own strengths and weaknesses, making it challenging to determine which measures are most appropriate for a given region. Developing this evaluation framework will likely require significantly more effort to reach consensus than one might expect. Adequate time and resources should be devoted to this task to ensure it does not delay the overall plan development process.

Evaluation criteria should:

- Directly reflect and relate to one or more transportation objectives.
- Be technically sound.
- Be understandable to decision-makers and the public.
- Be focused on outcomes rather than outputs.
- Be relevant to system users' interests.
- Be possible to analyze using clear and transparent tools or frameworks.
- Be applicable to multiple modes, whenever possible.
- Be easily and accurately predicted or estimated using current models and data.
- Be limited in number.
- Be potentially transferable to any transportation system or plan monitoring effort.

Issues to Consider

- Determining if and how criteria will be weighted.
- Effectively comparing “softer” qualitative measures against “harder” quantitative measures.
- Properly using model outputs in the evaluation process.
- Developing a framework that can compare investments among modal projects.
- Developing a framework that can compare system preservation, operational, and capacity expansion projects.
- Deciding whether life cycle costs can or will be analyzed for each solution.

Resources

- FTA/FHWA -Summary of System Performance Measurement in Statewide and Metropolitan Transportation Planning - www.planning.dot.gov/Peer/PerfMeasRT/PerfMeasRT.htm
- NCHRP Report 446 - A Guidebook for Performance-Based Planning- http://gulliver.trb.org/publications/nchrp/nchrp_w26-a.pdf
- Pennsylvania Mobility Plan - www.pamobilityplan.com
- Arizona Long-Range Transportation Plan - Performance Factors and Measures - www.moveaz.org/Documents/MoveAZ_AppD.pdf
- 2030 Transportation and Development Plan For Southwestern Pennsylvania- Chapter 2 (Objectives with Performance Measures) - www.spcregion.org/pdf/chap%202.pdf
- Performance Measures Report for the 2001 Regional Transportation Plan for the San Francisco Bay Area, Metropolitan Transportation Commission, 2001 - www.mtc.ca.gov/library/2001_rtp/downloads/PM/Performance_Measures.pdf
- Regional Transportation Plan Southern California Association of Governments - Chapter 5 How Will The Plan Perform? - www.scag.ca.gov/rtp2001/2004draft/Final/FinalCh5.pdf
- Lee County MPO Draft Objectives and Performance Measures - www.swfrpc.org/MPO/LRTP/MOEtalev7120904.pdf

This activity will define and develop tools to analyze the transportation system and specific solutions.

Analytic Framework & Tools

Purpose

The purpose of this activity is to define and develop the tools to analyze both the overall transportation system as well as specific solutions. For many planning organizations, this involves the use of a network-based travel demand model. For other planning organizations (particularly those with more limited resources), this may involve simply developing a structured evaluation methodology based on a combination of qualitative assessment and relatively simple quantitative analysis tools.

In most cases, evaluation criteria and analytical tools are developed in tandem to arrive at a set of evaluation measures that accurately reflect goals and objectives and can be effectively analyzed. However, evaluation criteria should not be selected only according to ease of analysis.

Due to the considerable time and investment needed to develop sound analytical tools, partners should be realistic in determining how much they can and should take on within the plan development process. Experience has shown that expectations about level of effort and development timeframes are often too optimistic. While partners should challenge themselves, they should recognize that delays in tool delivery can lead to delays in plan development. Advance consideration should also be given to how the outputs from an analytical tool will be used, rather than developing the tool and later realizing that its output is not particularly valuable in the subsequent analyses. Planning partners may wish to develop a long-term plan for the development and incorporation of additional analytical tools. This will help ensure that the analytical capabilities of the planning partner are being advanced both during and outside of plan development.

Once an analytical framework has been developed and refined, the approach should be documented and circulated for review to ensure that it is technically sound. It is usually desirable to document it in a technical report or appendix for future reference and to increase the transparency of the process. Steps for improving the capabilities of the analytical framework should also be identified



and prioritized. These recommendations can be acted upon in the years between updates to improve ongoing use of the analytical framework and upgrade it for the next plan update.

Planning partners are also encouraged to assist each other in implementing innovations and best practices. One means to foster better technical exchanges may be to create a users' group in which planning partner staff who work on long-range planning can periodically meet to exchange lessons learned and best practices.

Issues to Consider

- Balancing qualitative and quantitative analysis. Quantitative tools are often presumed to be more reliable, but they don't always provide answers to all questions. It is important that qualitative analyses be conducted in a structured and reproducible manner, to ensure that the results are sound and understandable.
- Determining the level of resources that can be dedicated to modeling—both for the plan and on an ongoing basis. In some cases, it may be possible (and preferable) to share and build upon work completed by other regions.
- Identifying and collecting reasonably accurate and reliable data.
- Developing a means to properly evaluate the performance of non-traditional solutions, such as operational improvements.
- Developing an analytical framework that allows for meaningful comparisons among potentially different sets of evaluation criteria.

Resources

- FHWA Planning Tools - www.fhwa.dot.gov/planning/plngtool.htm
- FHWA - Land Use Planning Toolkit - www.fhwa.dot.gov/planning/landuse/tools.cfm
- FHWA's Toolbox for Regional Policy Analysis - www.fhwa.dot.gov/planning/toolbox/index.htm
- FHWA Guidebook on Statewide Travel Forecasting (1999) - www.fhwa.dot.gov/hep10/state/swtravel.pdf
- Methods to Estimate Non-Motorized Travel - www.tfrc.gov/safety/pedbike/vol1/contents.htm
- Okaloosa-Walton Long-range Transportation Plan Model Validation, FL- www.wfrpc.dst.fl.us/owtppo/2030update/validationreport.pdf
- Skagit Metropolitan Planning Organization - Chapter 7 Forecasts and Analysis - www.scog.net/home/Portals/_scog/Documents/Chapter%207.pdf
- 2001 Region Transportation Plan, Equity Analysis and Environmental Justice Report - www.mtc.ca.gov/library/2001_rtp/downloads/EJ/EquityReport.pdf

Developing context scenarios shows what impacts alternative futures hold for a region which translates into better decision-making.

Development of Context Scenarios

Purpose

NOTE: Because the impacts of scenarios can typically best be measured with the assistance of a travel demand model, this activity will likely be most valuable in regions that have such capabilities.

One challenge of long-range planning is that none of us can know how the world (or our region) may change over the next 25 years. To improve the likelihood that planning translates into better decision-making, it can be useful to project what impacts alternative futures may hold for a region and its transportation system.

These alternative futures, or “context scenarios,” can assist in identifying future transportation problems and opportunities under various “what ifs.” Context scenarios should be developed with current trends and issues in mind. Scenarios may also flow logically from the development of a plan’s vision, goals, and objectives, as stakeholders and the general public begin to think creatively about the future of the region.

The rationale for the development of alternative futures may be rooted in external factors (changing economy, market-driven growth patterns, etc.) or could be crafted to reflect conscious policy choices (incentives for infill development, etc.). Some context scenarios used elsewhere have included considering the effects of differing levels of population and employment growth, continued or accelerated dispersion of growth, redensification (infill development), and changes in the regional economy. While it is unlikely that any of these will represent the actual future, they can provide useful information to assist in decision-making. They should be viewed as an opportunity to educate planners, the public, and stakeholders about what different futures may hold and to demonstrate the sensitivity of the transportation system to external factors.

This type of analysis can be used for several purposes. It can:

- Serve to educate the public about the effects of alternative futures on system characteristics such as mobility, accessibility, land use and consumption, air quality, etc.
- Identify locations or corridors that are or will be overtaxed with traffic and those that may have excess capacity and are better suited to accommodate growth.
- Identify whether continued (or restricted) development in certain areas might lead to (or avoid the need for) expensive capacity expansion projects.
- Identify areas or corridors that would experience problems under any scenario and require attention.
- Determine whether changes in growth and travel patterns would produce significant impacts.
- Be used in identifying proposed solutions.

This activity requires the development of a baseline scenario and several alternative scenarios. The baseline should represent what is truly expected to occur over the planning horizon. While never perfect, planners will ultimately need to develop a baseline using current best information and professional judgment.

The most critical set of variables that affects a transportation system over the long term tends to be population and employment, and the demographics and

future location of both variables. The estimation of these is often a source of contention and debate.

When developing context scenarios, it is most useful to change only one of the inputs, in order to present a clear picture of the impacts of the scenario. While these scenarios will represent an oversimplification of what is likely to occur, the purpose is simply to explore what might happen if one of these assumptions is significantly changed. Partners should not be overly concerned about the need to create truly realistic scenarios or trying to represent every possible option for the future.

Prior to analysis, planning partners should make every effort to ensure reasonable buy-in regarding assumptions. Third-party data may be the most appropriate source for items such as population and employment projections, because they are based on an objective source. Third-party projections are often prepared at the county level, so some assumptions may still need to be made regarding where within the study area projected population and employment changes may occur. The development of these assumptions can, at times, become contentious. Because growth projections can greatly affect a long-range plan, it is critically important that the allocation of growth and land uses be done in as impartial and realistic a manner as possible.

Finally, scenarios will likely produce location-specific impacts, so partners should be aware that policy-driven scenarios that “work” in one region should not be assumed to be applicable elsewhere.

Issues to Consider

- Deciding which issues are important enough to warrant testing through the use of scenarios.
- Deciding how many scenarios are appropriate to analyze, given available resources and the range of potential scenarios that are of interest to the region.
- Defining the “baseline scenario.”
- Determining the appropriate level of detail for defining each scenario, again given available resources. This may depend on whether the scenario is to be used in a qualitative or quantitative analysis.
- Determining which trends and projections to use and how to resolve or reconcile differences.

Resources

- FHWA Scenario Planning - www.fhwa.dot.gov/planning/scenplan/index.htm
- Scenario Development, Envision Utah - www.envisionutah.org/index.php?id=NDk2
- Regional Analysis of What-If Transportation Scenarios, Delaware Valley Regional Planning Commission - www.dvrpc.org/LongRangePlan/2030/WhatIfFinal.pdf
- Sacramento Region Blueprint Scenarios - www.sacregionblueprint.org/sacregionblueprint/the_project/discussion_draft_preferred_scenario.cfm

This step involves assessing the performance of the current or planned transportation system.

System Evaluation & Problem Identification

Purpose

The purpose of this activity is to identify current and future transportation system problems and establish a baseline to compare with possible future investments. Using future projections, and possibly context scenarios, this step involves assessing the performance of the transportation system (current or planned) as a basis for identifying problems and issues that currently exist or are likely to exist within the plan's time horizon. This assists in identifying potential network problems and can serve to inform stakeholders and decision-makers as projects and solutions are conceived.

After conducting an analysis, it may be useful to prepare a brief report or presentation highlighting the results, presenting participants with hard data at the system level. This approach improves the understanding of system issues for all involved, and provides a broader context for developing solutions.

This assessment can also highlight problems that may extend beyond individual locations or facilities. Broader problems may warrant more detailed corridor or area studies, which can then analyze sub-areas in greater detail. The findings and recommendations of such studies, which often take several years, can then feed into the next iteration of the plan, strengthening the basis for selecting and prioritizing potential investments.

Issues to Consider

- Performing this analysis at an appropriate level of detail, given the analytical tools that are available.
- Developing a sound and consistent basis for determining what constitutes a problem or issue that needs to be resolved, particularly in an environment where congestion is a problem to be managed, rather than solved.





Resources

- Arizona Long-Range Transportation Plan - Demand and System Performance Analysis - www.moveaz.org/Documents/MoveAZ_AppE.pdf
- City of Eau Claire Wisconsin, Transportation System Analysis - www.ci.eau-claire.wi.us/Departments/CompPlan2005/CompPlanText/Transportation%20Analysis_2.pdf
- Benton-Franklin Council of Governments, Washington - Regional Transportation Issues - www.benton-franklin.cog.wa.us/RTP_Chapter2.pdf
- 2025 Plan: A Bold First Step, Sacramento, CA - www.sacog.org/mtp/pdf/chapter8.pdf
- Tri-Cities Area Year 2026 Transportation Plan, Virginia - www.craterpdc.state.va.us/MPO/mpo_docs/2026LRTP.pdf

This activity represents the heart of the planning process—“How will the region address future transportation challenges?”

Solution Identification

Purpose

This activity represents the heart of the planning process, where all of the inputs in terms of vision, goals, and objectives; system performance; and problems/issues begin to shape solutions. The term “solution” is used instead of “project” to communicate the increasing importance of improvements other than traditional capital projects. Solutions should be broader and include strategies such as policy changes, operational improvements, demand reduction programs, as well as major capital projects. Stakeholders are beginning to acknowledge that some of our transportation issues might be better addressed through better policies and system management than capacity expansion projects.

While it is important to not artificially constrain potential solutions, it should be recognized that the solutions and/or projects from the previous plan and Twelve-Year Program will likely be the basis for the candidate solution list for the new plan. It is also clear that some projects (particularly those programmed in the current TIP) may have momentum beyond the plan and may not be completely open for reconsideration. However, even projects that appear well on their way toward construction can be reopened for evaluation, and it is important that planning organizations not assume that just because a project is “in the pipeline” it cannot be reconsidered. Partners should also ensure that the general public, stakeholders, and decision-makers are provided adequate opportunity to comment on proposed solutions. This can often be done through an open request for solution recommendations.

Following this initial identification of potential solutions, there may need to be a screening process to cull the list of candidates to a reasonable number. This might be done by having a small committee qualitatively rate the projects according to the evaluation criteria. It is likely that many projects will rise to the top or sink to the bottom quickly, based on professional judgment. All decisions should be documented and explanations provided to ensure that the stakeholders and the public understand why suggestions were advanced or eliminated.

Once a shortened list of candidate solutions has been identified, solutions should be evaluated according to the evaluation criteria, using the analytical tools where appropriate. This process could potentially be iterative as it might be possible to refine certain solutions based on an initial evaluation. However, with the recognition that time and resources are limited, decisions may need to be made with less than perfect information. However, the results of this analysis should provide a basis for prioritizing projects for inclusion in the plan’s project list.

Issues to Consider

- Generating potential solutions from a wide range of stakeholders, including planning organization staff, technical committees, the plan steering committee, stakeholders, and the general public.
- Deciding whether to carry all proposed solutions through analysis or to pre-screen proposed solutions.
- Determining which “pipeline” projects will or will not be open for reconsideration.



Resources

- Arizona Long-Range Transportation Plan - Project Evaluation Process-
www.moveaz.org/Documents/MoveAZ_AppF.pdf
- 2030 Transportation and Development Plan For Southwestern Pennsylvania- Chapter 4 -
www.spcregion.org/pdf/chap%204.pdf
- Harrisburg Area Transportation Study (HATS) -Project Ranking Criteria- www.tcrpc-pa.org/text/Hats/Project%20Ranking%20Criteria%20-%20202005%20TIP%20Update.pdf
- 2025 Plan: A Bold First Step, Sacramento, CA, Chapter 5 - Comparing Alternatives -
www.sacog.org/mtp/pdf/chapter5.pdf
- Technical Appendix 7 Evaluation Criteria and Ranking, 2030 RTP San Diego, CA -
www.sandag.org/programs/transportation/comprehensive_transportation_projects/2030rtp/2030rtpta_7_final.pdf

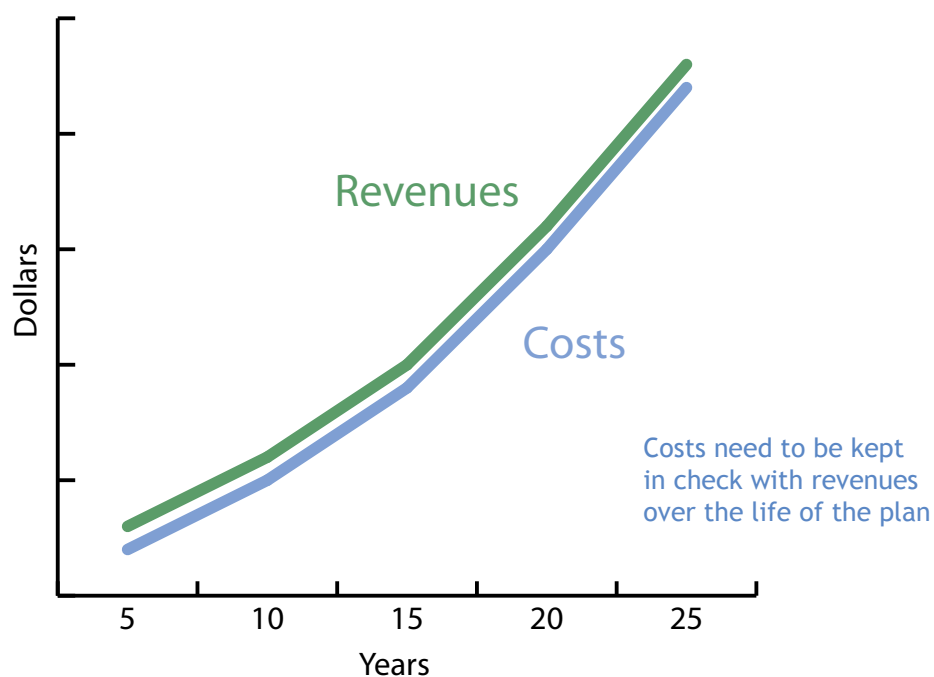
Planning partners need to develop defensible estimates based on reasonable and realistic funding assumptions.

Financial Constraint Analysis

Purpose

As required by federal regulations, the long-range plan must be fiscally constrained, based on an analysis of revenues that can reasonably be expected over the chosen planning horizon. Therefore, partners need to develop defensible estimates based on reasonable and realistic funding assumptions for the plan's entire design horizon. In addition, costs need to be kept consistent with revenues throughout the years of the plan; for example, 20 years worth of projects cannot be committed in the first 10 years of the LRTP. Although predicting future revenues is in many ways more an art than a science, there are various methods of developing these estimates. Some are extremely simple, assuming that current funding levels will remain constant, while others are more complex, such as those based on historical trends or projections. Some regions use this as an opportunity to play out a scenario where additional revenue sources (such as increased gas taxes or tolls) are available, to estimate the levels of investment that these additional revenues would allow. In addition to providing an opportunity to list out solutions that are outside the fiscal constraint, this also provides an opportunity for comparing the benefits and drawbacks of various revenue-enhancing options. While these estimates are partially informed by projections developed by PennDOT, they can often become a source of debate, as these assumptions can drive how many projects can be implemented, and how quickly.

The single greatest challenge in this activity is attempting to predict funding streams for such a long-term time horizon. It is possible to obtain more precise estimates for near-term projects and revenue streams while costs and revenues further into the future can fall into a wider range of estimation. Partners may wish to consider developing their baseline fiscal constraint with the assistance of PennDOT and federal representatives, not only to better



predict future funding streams, but also to ensure some level of consistency within the state. It is unlikely that most regions will have sufficient funding to meet all their desired solutions with traditional sources of funding. Therefore, regions may need to explore alternative funding sources, whether through leveraging private transportation investments, public-private partnerships, innovative financing mechanisms, or alternative revenue sources, and determine how they could realistically be incorporated into a region's transportation plan.

Issues to Consider

- Determining the proper basis for the fiscal constraints. Some regions simply extrapolate current funding trends, while others develop more complex analyses for estimating future revenue.
- Determining whether additional funding scenarios will be considered.

Resources

- Information on Noteworthy Metropolitan Planning Organization (MPO) Practices: Cooperative Revenue Forecasting and Annual Listings of Obligated Projects, The Association of Metropolitan Planning Organizations, November 2001 - www.planning.dot.gov/documents/finalreport/finalreport_cover.htm
- Fall 2002 FHWA Domestic Scan Tour: Financial Planning and Fiscal Constraint - www.fhwa.dot.gov/planning/fcindex.htm and Excel worksheets tools: - www.fhwa.dot.gov/planning/fctools62805.htm
- FHWA: Major Project Program Cost Estimating Guidance- www.fhwa.dot.gov/programadmin/mega/cefina.htm
- National Transit Institute Course: Financial Planning in Transportation- www.ntionline.com/CourseInfo.asp?CourseNumber=ID811
- DVRPC 2025 Long-Range Land Use and Transportation Plan -Financial Plan - www.dvrpc.org/LongRangePlan/2025/final/transportation.htm
- 2030 Transportation and Development Plan For Southwestern Pennsylvania- Chapter 11 - www.spcregion.org/pdf/chap%2011.pdf
- Harrisburg Area Transportation Study (HATS) - Transportation Plan - www.tcrpc-pa.org/text/Hats/RTP2030/5%20Transportation_Plan.pdf
- Syracuse Metropolitan Area's LRTP - Long-Term Outlook and the Financial Plan - http://web.smtcmpo.org/extranet/smtc/reports/LRTP_update_2004/ch08.pdf

Investment packages must be analyzed using evaluation criteria to determine overall performance.

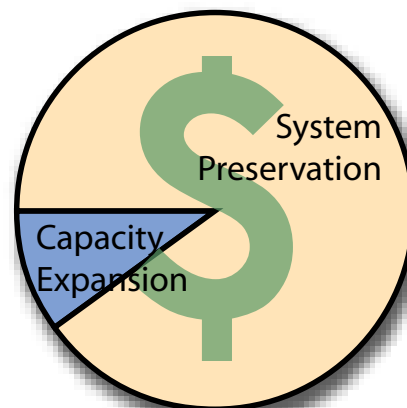
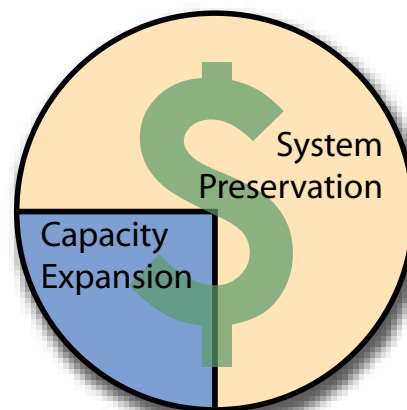
Investment Package Development & Evaluation

Purpose

This activity involves the development and analysis of one or more investment packages—potential spending of available transportation improvement funds on a specific blend of projects or solutions. Packages should be developed based on the screened list of potential solutions and limited by the budget determined through the fiscal constraint analysis. Packages can be crafted to reflect different policy choices (greater funding for system maintenance and reconstruction, greater funding for capacity expansion, greater funding for transit, etc.). These packages can then be analyzed using the analytical tools and evaluation criteria to determine how each set of investments performs.

Development and evaluation of these packages provides a tool for looking at different policy options, since different investment packages can be tailored to achieve various policy goals, as articulated through the initial visioning. One package may include all of the highest ranking projects from the solution identification process. However, if a region wishes to promote transit usage, it might develop an investment package that prioritizes transit investment. Development of these packages may also reveal synergies that are not immediately apparent based on the stand-alone analyses of projects. Investment packages can also be analyzed within the context scenarios, to better understand the interaction between different futures and the package of solutions that would be implemented.

The level of effort dedicated to this activity will vary significantly from region to region, but it is an exercise that is likely to have value for all planning organizations, since it requires that they think creatively about the mix of solutions they wish to implement. Even if packages of solutions are only evaluated qualitatively without modeling analysis, this provides an opportunity to discuss how different transportation investments may impact quality of life, mobility, land use, and other factors. While it is unlikely that any given package will be completely retained and



progressed into the final plan, this activity provides a better understanding of how priorities should be set.

Note: Because “packages” may include dozens, perhaps even hundreds of projects, a very large number of combinations could be assembled. However, the central purpose of this step is to test differing policy and investment scenarios, and packages should be assembled with this in mind. A limited set of packages (perhaps three or four) should be sufficient to provide useful information about the impacts of various mixes of investments. It should also be conveyed that simply because a particular package performs best does not mean that all of the projects in that package will or should be recommended for the plan. Instead, this step is meant to provide additional information regarding potential alternative futures for the benefit of those involved in the plan process. Projects still should be prioritized based on the evaluation criteria. In addition, it is necessary to decide how individual solutions will be analyzed prior to the development of packages, or whether solutions will be analyzed solely as part of the larger packages.

Issues to Consider

- Determining how many investment packages to consider. This will typically depend on the issues that are of particular interest within the region. These issues (such as modal and land use concerns) will typically help to shape the emphasis of the packages that are developed.
- Effectively comparing different types of solutions (operational programs versus capital projects) within or across different investment packages.

Resources

- Effective Methods for Environmental Justice Assessment NCHRP Report 532 - http://gulliver.trb.org/publications/nchrp/nchrp_rpt_532.pdf
- Project Prioritization Guidance - Guidance for Metropolitan Planning Organizations in Prioritizing Candidate Transportation Projects - Wisconsin TransLinks 21 - <http://ntl.bts.gov/DOCS/ppg.html>
- PennDOT’s Environmental Justice Guidance Toolbox of Resources and Additional Information, May 2004 - <ftp://ftp.dot.state.pa.us/public/Bureaus/Cpdm/WEB/Toolbox.pdf>
- Arizona Long-Range Transportation Plan - Project Evaluation Process - www.moveaz.org/Documents/MoveAZ_AppF.pdf
- Florida’s Strategic Intermodal System Plan - State of the Practice in Project Prioritization: Technical Memorandum - www.dot.state.fl.us/planning/sis/resources/wp005_prioritization.pdf
- Portland Metro. Regional Transportation Plan - Growth and the Priority System - www.metro.dst.or.us/library_docs/trans/2004rtp_chapter5.pdf
- Surface Transportation Program (STP) Project Prioritization & Selection Process, Tulsa - www.incog.org/Transportation/Surface%20ransportation%20Program%202008.pdf

Solution Prioritization

In addition to evaluating packages of solutions, it is also important to look at prioritizing solutions. This prioritization should be based on evaluation criteria (consistent with factors identified in SAFETEA-LU) as well as cost and the urgency of the problem being addressed. Another important factor to consider is geographic distribution, since the plan likely considers regional equity on some level. While this prioritization will be further refined as the solutions progress into more detailed programming documents, this initial evaluation will help to determine which solutions should be given greater attention as planning and programming activities move forward. Although it may not be possible to rank each individual solution, even organizing potential solutions into priority categories such as high, medium, and low will help to provide some guidance for future investments.

The final plan needs to be summarized in a clear, concise, meaningful way.

Plan Document Development

Purpose

This activity includes developing draft and final versions of the plan. While this task may seem self-evident, summarizing the entire long-range transportation planning process and findings in a clear, concise, meaningful way should not be treated lightly. The document itself can greatly influence how well the plan is received, and how useful the plan is in guiding future decision-making and investments. As a result, creation of a document that is thorough, thoughtful, and user-friendly should not be treated as an afterthought.

Document Development Process

- **Participants:** Planning organizations should strongly consider engaging professional assistance in both editing and graphic design to ensure that the document can be easily understood by its ultimate audience and reflects well on the planning organization. Engaging these professionals early in the plan development process—rather than engaging them to fix document problems at the end of the process—will help ensure the most effective final product.
- **Review and revision:** Circulating a draft version of the document provides the opportunity to collect constructive feedback from planning staff, decision-makers, and the public. Develop a formal, transparent method for collecting and considering feedback received during the draft plan review phase. However, seek continuous input through interim reviews—do not wait until the draft document is prepared to solicit input, as this will not provide a chance for meaningful input and adjustment of the document. Develop an internal review process to anticipate questions that may be received from the public or stakeholders.
- **Communication:** Consider the process by which comments are solicited on the draft plan, to ensure that none of the draft conclusions comes across as a final decision. Also avoid surprises—consider communicating potentially controversial issues or recommendations prior to publishing the draft document.

Document Content

Federal planning regulations specify that the following elements must be included in a long-range transportation plan:

- **Multimodal:** The long-range plan must be multimodal in nature. For years, transportation plans were often developed with modal components—typically entailing discrete highway plans and transit plans. A defining characteristic of ISTEA was that it acknowledged that a transportation system should be treated as a single, linked network encompassing all modes. Because of this, long-range planning is now likewise required to be multimodal in nature. This should be reflected in not only the content but in the plan process and framework as well.
- **Project List:** In order for a project to be included in the regional Transportation Improvement Program (TIP), it must first be consistent with the most recent update to the long-range transportation plan. To be in compliance, the long-range plan must include a list of projects that may be implemented during its planning horizon. This project list must be fiscally constrained. However, it is becoming more common

for additional projects to be included, either in a supplementary list or as part of a scenario in which additional transportation revenues will become available during the planning horizon (the projects are often referred to as an “illustrative list” of projects). Because the planning horizon is 20 years or more, different projects will be defined at varying levels of detail, ranging from near-term projects that are well defined and have reasonably accurate cost estimates, to long-range projects that are likely to undergo changes in terms of scope and budget before approaching implementation. In some cases, projects may also be defined more broadly as solutions, to encompass operations and management improvements that are less capital-intensive than typical transportation projects.

- **Fiscal Analysis:** Federal regulations require that long-range transportation plans be fiscally constrained, including the list of projects proposed for implementation during the planning horizon. Therefore, the plan must include a section that details the projected transportation revenues that will be allocated within the plan. This fiscal analysis is typically based both on current revenue streams and new sources of revenue that are reasonably expected to become available. The timing of these revenue streams must be consistent with the timing of project implementation. While existing revenue sources are typically reasonably well understood, assumptions about new sources of funding from either the public or private sectors can vary widely, and will typically reflect the future needs and aspirations of the region, as well as the political realities attached to generating new revenues.
- **Conformity Analysis:** Consistent with the requirements of the 1990 Clean Air Act Amendments, a long-range transportation plan for a non-attainment area must include an analysis of air quality, to ensure that the projects and policies contained within the plan are in conformity with the State Implementation Plan (SIP) for clean air. Because of the varying level of detail at which projects are defined, performing this conformity analysis will usually require making significant assumptions about the expected impacts of long-range projects. However, these assumptions will be updated, solidified, and verified as each project reaches the point of inclusion on the TIP.



Air Quality Conformity

As per federal requirements, plans for regions that are not in conformity with the Clean Air Act Amendments must include a detailed analysis that demonstrates how the plan is meeting the region’s goals for achieving conformity. While this is a procedural requirement, it is also an opportunity to demonstrate the region’s commitment to environmental improvements.

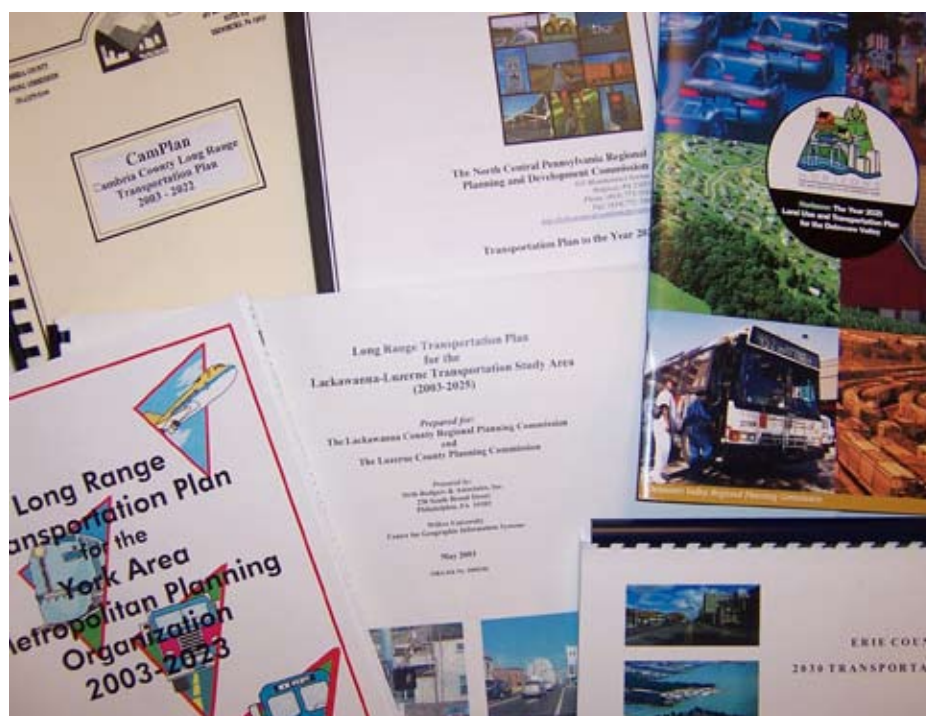
- **Congestion Management Processes:** In non-attainment areas, long-range plans must identify any processes that are to be used for managing congestion within the region and must demonstrate that a systematic approach is being taken to manage future congestion and transportation demand.
- **Public Involvement:** As described previously, public involvement must also be designed into the plan framework to ensure adequate opportunity for public and stakeholder input.

Appendix D provides an expansive list of the types of sections, maps, and graphics that might be considered in development of the plan.

Document Style

Careful thought should be given to creating a document that is compelling to both a lay audience and technical professionals. A document's style—its organization, writing, and design—is directly related to its usefulness and the ultimate value of the technical expertise that went into the overall planning process. Attention to the following items will improve the plan document:

- **Organization:** Establish a document outline that provides a logical flow of ideas and is easy to navigate. Provide an executive summary for those seeking only the highlights and conclusions of the plan, along with an appendix containing detailed supporting data that may be useful to more technical readers. Consider chapter summaries or bullets to quickly convey the main points of each section. A glossary of technical terms may be helpful for lay readers.
- **Writing:** A long-range transportation plan should be understandable even to a person with no planning background, while also being engaging and practical for a planning professional. Avoid jargon and define all acronyms and terms that would not be clear to the general public. Without “dumbing down” the document, express ideas as clearly and with as few words as possible. While the document's tone should always be professional, it should be more conversational than academic.



Because plans are typically drafted section-by-section by technical professionals with widely varying writing styles, allow enough time in the project schedule for thorough editing of the complete document, to ensure consistency and coherency and eliminate redundancy.

- **Design:** How a plan is visually presented greatly influences how well it is received and comprehended. At a minimum, ensure that the plan has a consistent, clean format with clear heading styles and a readable page layout. Traditional letter-sized documents with occasional 11x17 fold-out maps or graphics are the most convenient to read and store. Use color and photos or other graphics—with discretion—to enhance the layout and visually reinforce points made in the text. Most plans will be made available electronically, so the document’s design must be readable and practical both in hard copy and on screen, and when printed in black and white or color by a range of readers, all using different computer systems. Be aware of file size—many readers will still be using dial-up Internet connections and older computers. Provide options to download the document in its entirety or chapter-by-chapter in smaller files. Finally, creating accessible web sites (usable by those with various disabilities) is an increasingly important issue, and guidelines are available to ensure that electronic documents are fully accessible.

Issues to Consider

- Identifying professionals such as technical editors and graphic designers who can enhance the final plan document.
- Determining the best way to disseminate and receive feedback on the draft plan, including documenting and addressing comments for integration into the final plan or subsequent plan updates.
- Confirming that the plan meets all federal requirements.
- Developing the final plan document and maximizing its readability and effectiveness in communicating the planning process and results.
- Distributing the final plan in its various forms (paper, electronic, etc). In regions with high populations of non-English-speaking residents, it may be necessary to translate the plan into one or more languages.
- Developing a means to effectively promote and distribute the plan.

Resources

- How to Write in Plain English - www.plainenglishcampaign.com/plainenglishguide.html
- Writing User Friendly Documents - www.plainlanguage.gov/howto/guidelines/reader-friendly.cfm
- Technical Report Writing - NASA Technical Memorandum 105419, 2000- <http://grcpublishing.grc.nasa.gov/Editing/vidcover.CFM>
- American with Disabilities Act website - www.ada.gov
- Section 508 of the Rehabilitation Act - www.section508.gov/index.cfm?FuseAction=Content&ID=3
- Regional Transportation Planning Guide, Wisconsin DOT - www.dot.state.wi.us/localgov/docs/planningguide.pdf

These activities will ultimately determine the lasting value and impact of the plan.

Plan Implementation & Monitoring

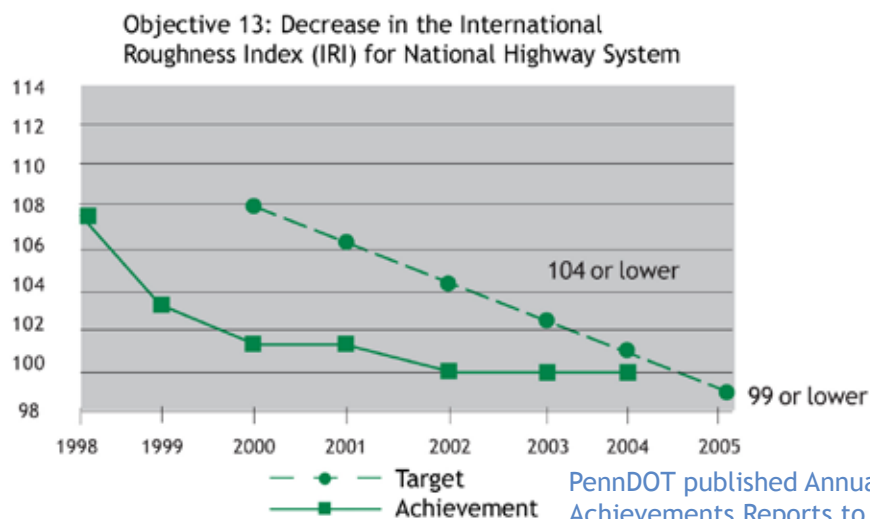
Purpose

Long-range plans should include elements related to both implementation and monitoring. For this document, we are treating these related topics as one, although for each element there are really two steps. The first, which should be completed as part of the plan, is for planning partners to develop specific strategies for how they will execute implementation and monitoring. The second step is the actual process of implementing and monitoring the plan. While this second step occurs outside the plan development process, it is this “follow through” that will ultimately determine the lasting value and impact of the plan, and which will feed into the development of the next plan update.

The plan’s implementation section should outline how to translate the plan’s policies, programs, and projects into reality, particularly through the Twelve-Year Program and the Transportation Improvement Program. While it is usually clear how the required list of projects will be translated into programming documents, integrating the more theoretical policies and programs can be more challenging. The most common approach entails identifying actions related to plan development, the parties responsible for their completion, significant implementation issues, and timelines for milestone completion. However, planning partners must carefully consider the contents of their plan, as well as the local context, and develop an implementation plan that is tailored to their specific needs.

In addition, the implementation section should address the manner in which the more theoretical concepts in the plan will translate into the day-to-day activities of regional planning agencies, as well as their local, regional, and state partners. Finally, the implementation section should also address how the plan’s vision, goals, and objectives will be used on an ongoing basis for interim decision-making related to regional transportation investments. Without developing an explicit connection between the plan and ongoing process and programming responsibilities, planning partners will not realize the full benefits of the efforts that they invested in developing their long-range transportation plan.

The plan should also include a section devoted to monitoring, which should outline a framework or process through which the planning partner intends to track the implementation of the plan. This section should describe the specific



PennDOT published Annual Achievements Reports to monitor progress in implementing PennPlan objectives.

items that are to be monitored, how they will be monitored, and the frequency with which they will be monitored. Planning partners should also think carefully about how the items that are monitored will be recorded, categorized, analyzed, and presented, to ensure that the monitoring process has value while being manageable and realistic to implement.

In an era of increasing demands for accountability on the part of public agencies, many have demanded that plans be “measurable.” However, this term is used rather loosely and can mean a wide array of things: outcomes of the plan, completion of activities, system performance, etc. Most often, the term is taken to mean that a plan should be measurable using a set of defined performance criteria. However, there are several challenges that accompany this approach.

- First, this can imply a monitoring effort for a long-range plan. Most of the actions outlined in such a plan will take years to implement and may be impossible to monitor prior to the next plan update.
- Second, there are many external factors that can greatly affect the more common transportation performance measures such as VMT, congestion, and accidents. Planning partners can often influence these, but they are not necessarily within the control of PennDOT or its planning partners.
- Third, data related to many of the more valuable measures are difficult and/or expensive to collect, and second-best measures and proxies are often not as technically sound.
- Finally, certain objectives commonly included in plans, such as creating long-term economic development, simply don’t lend themselves to performance measurement.

A long-range plan is intended to take a long-term perspective and will include many actions, strategies, and policies that may take years or decades to be fully implemented. Attempting to measure the effectiveness of a long-range plan through the use of short-term indicators is neither fair nor appropriate. However, this does not mean that performance measurement is not valuable. This process is often extremely useful for better informing decisions, but needs to be given an appropriate weight given that the focus on near-term results may not be appropriate for a long-term plan.

A second approach is to focus monitoring on ensuring that actions outlined in the plan are implemented. The most obvious shortcoming of this approach is that it focuses on outputs (simply completing actions) as opposed to outcomes (effectiveness of actions). However, given the challenges of using performance measures as mentioned above, this approach might be entirely appropriate, particularly considering the data and resource limitations that affect most partners. While not guaranteeing that all actions undertaken as part of the plan are being measured for effectiveness, at a minimum this approach ensures that a partner is simply following through with their stated program of plan implementation activities. Partners that employ this approach should also think carefully about the implementation actions that they define in the plan, to ensure that these activities are closely related to their goals and objectives.

Partners may wish to consider yet another approach to implementation monitoring. This would entail “monitoring” in two parts. The first component would be to simply monitor the completion of actions identified in the plan. This is relatively easy to do and reflects follow-through on the plan. The second would be to develop an additional monitoring effort that uses performance measures focused primarily on the performance and condition of the transportation system

or other transportation-related factors such as land use, air quality, economic impact, etc. The intent of this second component would not be to assign responsibility, but instead to simply provide better information for decision-makers and stakeholders. Such information would be valuable in the background analysis portion of subsequent plan development. To prevent the performance measures from becoming a yardstick by which the success of the plan is measured, it might also be best to separate such an effort from the long-range plan. Over a long period of time and given a stable set of performance measures, it might also eventually be possible to relate the content of the plan to the performance of the transportation system, although careful interpretation of any such analysis would be required.

Whichever framework is used, the intent is to have partners hold themselves accountable for implementing the plan. Documents such as the PennPlan “Annual Achievements Report” and state of the system reports have provided fairly effective venues for analyzing and disseminating such information.

Issues to Consider

- Involving external parties to lead or champion actions and initiatives contained in the plan.
- Linking long-range planning with day-to-day planning partner activities and the programming process.
- Determining an appropriate level of monitoring effort for the plan, recognizing that it may require significant resources.
- Ensuring that the monitoring program is meaningfully tracking the implementation of the plan.
- Incorporating the results and lessons learned from the implementation and monitoring process into the next plan update.

Resources

- NCHRP Report 446 - A Guidebook for Performance Based Planning - http://gulliver.trb.org/publications/nchrp/nchrp_w26-a.pdf
- PennPlan Annual Report of Achievements - ftp://ftp.dot.state.pa.us/public/pdf/PennPlanMoves/PennPlan_2004.pdf
- DVRPC’s Horizons 2025 Implementation: Municipal Tools and Techniques - www.dvrpc.org/planning/community/MCDtools/pdf/ToolsAndTechniques.pdf
- 2030 Transportation and Development Plan For Southwestern Pennsylvania- Chapter 12 - www.spcregion.org/pdf/chap%2012.pdf
- Performance Measures Report for the 2001 Regional Transportation Plan for the San Francisco Bay Area, Metropolitan Transportation Commission, 2001 - www.mtc.ca.gov/library/2001_rtp/downloads/PM/PerformanceMeasures.pdf
- Regional Transportation Plan Southern California Association of Governments - Chapter 6 Implementing Our Plans and Monitoring Our Progress. - www.scag.ca.gov/rtp2001/2004draft/Final/FinalCh6.pdf
- Benton-Franklin Council of Governments, Washington - Chapter Eleven - Plan Implementation - www.benton-franklin.cog.wa.us/RTP_Chapter11.pdf

5

Creating a Living Document

Creating a Living Plan

The long-range transportation planning process will result in a document that includes a list of projects, the air quality conformity analysis, the fiscal analysis, and a variety of other analyses and reports specific to the region. The facts and analysis will remain unchanged, but the plan itself must be a “living plan,” with ongoing relevance and usefulness to the region.

There are three main elements that go into making a long-range transportation plan a living plan:

- **Ongoing Updates:** Although planning organizations are required to make regular updates to the plan, there may be issues that arise over time (such as changes in the economy or major developments) that may occur between the cyclical updates. While these should not necessarily require a full update of the plan, it may be useful to make minor updates to the plan, or undertake supplementary planning exercises that use the plan as a starting point and for overall context. These efforts may also include supplemental corridor and area studies that look in greater depth at problems identified during the plan, and which will be used to inform subsequent updates.
- **Use in Ongoing Transportation Planning:** In Pennsylvania, planning organizations are required to produce Transportation Improvement Programs with a four-year planning horizon and also to collaborate with PennDOT to develop the Commonwealth Twelve-Year Program. The long-range transportation plan should serve as a vital input into these shorter-range planning efforts, to ensure coordination between the different types of planning. This coordination should take into account both the projects in the pipeline that are being planned/programmed and the more general issues, such as goals and objectives and evaluation criteria. Over time, this ongoing coordination between the various planning processes will ensure the development and implementation of projects that achieve the region’s larger goals and objectives.
- **Inclusion in Other Planning Efforts:** In addition to taking the plan into consideration as part of the overall transportation planning process, the plan should also serve as an input to (and take inputs from) the statewide long-range transportation plan and other planning activities that are ongoing in the region. This could encompass a wide range of issues, such as open space planning, general community planning, affordable housing planning, solid waste planning, and other planning activities that are critical to the region’s ongoing development. This exchange of information among the various planning activities within the region will ensure that the various plans are coordinated, and help to maximize the value of each individual planning effort by creating an understanding how that effort fits within the larger regional planning context.

The creation of a living plan requires an ongoing effort to coordinate with other planning activities and keep the plan’s concept up to date. This reinforces the idea that regional long-range transportation planning is a continuous process that is punctuated by the development and publication of a plan, as opposed to a project-based activity that is oriented around the production of the long-range transportation plan. By viewing the plan development process as an ongoing planning effort that involves coordination with the entire range of regional planning activities, planning partners can maximize the utility of their efforts and ensure the development of a cohesive and comprehensive transportation system.

6

Appendices

Appendix A: Selected Sections of the Federal Planning Regulations

23 CFR

Highways

CHAPTER I

FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

SUBCHAPTER E -- PLANNING AND RESEARCH

Subpart C -- Metropolitan Transportation Planning and Programming

§450.312 Metropolitan transportation planning: Responsibilities, cooperation, and coordination.

- (a) The MPO in cooperation with the State and with operators of publicly owned transit services shall be responsible for carrying out the metropolitan transportation planning process. The MPO, the State and transit operator(s) shall cooperatively determine their mutual responsibilities in the conduct of the planning process, including corridor refinement studies, described in §§450.316 through 450.318. They shall cooperatively develop the unified planning work program, transportation plan, and transportation improvement program specified in §§450.314 through 450.318. In addition, the development of the plan and TIP shall be coordinated with other providers of transportation, e.g., sponsors of regional airports, maritime port operators, rail freight operators, etc.
- (b) The MPO shall approve the metropolitan transportation plan and its periodic updates. The MPO and the Governor shall approve the metropolitan transportation improvement program and any amendments.
- (c) In nonattainment or maintenance areas, the MPO shall coordinate the development of the transportation plan with the SIP development process including the development of the transportation control measures. The MPO shall develop or assist in developing the transportation control measures.
- (d) In nonattainment or maintenance areas for transportation related pollutants, the MPO shall not approve any transportation plan or program which does not conform with the SIP, as determined in accordance with the U.S. EPA conformity regulation (40 CFR Part 51).
- (e) If more than one MPO has authority in a metropolitan planning area (including multi-State metropolitan planning areas) or in an area which is designated as nonattainment or maintenance for transportation related pollutants, the MPOs and the Governor(s) shall cooperatively establish the boundaries of the metropolitan planning area (including the twenty year planning horizon and relationship to the nonattainment or maintenance areas) and the respective jurisdictional responsibilities of each MPO. The MPOs shall consult with each other and the State(s) to assure the preparation of integrated plans and transportation improvement programs for the entire metropolitan planning area. An individual MPO plan and program may be developed separately. However, each plan and program must be consistent with the plans and programs of other MPOs in the metropolitan planning area. For the overall metropolitan planning area, the individual MPO planning process shall reflect coordinated data collection, analysis and development. In those areas where this provision is applicable, coordination efforts shall be initiated and the process and outcomes documented in subsequent transmittals of the UPWP and various planning products (the plan, TIP, etc.) to the State, the FHWA, and the FTA.
- (f) The Secretary must designate as transportation management areas all UZAs over 200,000 population as determined by the most recent decennial census. The Secretary designated TMAs by publishing a notice in the FEDERAL REGISTER. Copies of this notice may be obtained from the FHWA Metropolitan Planning Division or Office of Planning FTA. The TMAs so designated and those designated subsequently by the FHWA and the FTA (including those designated upon request of the MPO and the Governor) must comply with the special requirements applicable to such areas regarding congestion management systems, project selection, and certification. The TMA designation applies to the entire metropolitan planning area boundary. If a metropolitan planning area encompasses a TMA and other UZA(s), the designation applies to the entire metropolitan planning area regardless of the population of constituent UZAs.

(g) As required by 23 CFR part 500, the required management systems shall be developed cooperatively by the State, the MPOs and transit operators for each metropolitan planning area. In TMAs, the congestion management system will be developed as part of the metropolitan transportation planning process.

(h) The State shall cooperatively participate in the development of metropolitan transportation plans. The relationship of the statewide transportation plan and the metropolitan plan is specified in subpart B of this part.

(i) Where a metropolitan planning area includes Federal public lands and/or Indian tribal lands, the affected Federal agencies and Indian tribal governments shall be involved appropriately in the development of transportation plans and programs.

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CHAPTER I
FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION
SUBCHAPTER E -- PLANNING AND RESEARCH

Subpart C -- Metropolitan Transportation Planning and Programming

§450.316 Metropolitan transportation planning process: Elements.

(a) Section 134(f) of title 23, U.S.C., and Federal Transit Act section 8(f) (49 U.S.C. app. 1607(f)) list 15 factors that must be considered as part of the planning process for all metropolitan areas. The following factors shall be explicitly considered, analyzed as appropriate, and reflected in the planning process products:

- (1) Preservation of existing transportation facilities and, where practical, ways to meet transportation needs by using existing transportation facilities more efficiently;
- (2) Consistency of transportation planning with applicable Federal, State, and local energy conservation programs, goals, and objectives;
- (3) The need to relieve congestion and prevent congestion from occurring where it does not yet occur including:
 - (i) The consideration of congestion management strategies or actions which improve the mobility of people and goods in all phases of the planning process; and
 - (ii) In TMAs, a congestion management system that provides for effective management of new and existing transportation facilities through the use of travel demand reduction and operation management strategies (e.g., various elements of IVHS) shall be developed in accordance with §450.320;
- (4) The likely effect of transportation policy decisions on land use and development and the consistency of transportation plans and programs with the provisions of all applicable short- and long-term land use and development plans (the analysis should include projections of metropolitan planning area economic, demographic, environmental protection, growth management, and land use activities consistent with metropolitan and local/central city development goals (community, economic, housing, etc.), and projections of potential transportation demands based on the interrelated level of activity in these areas);
- (5) Programming of expenditures for transportation enhancement activities as required under 23 U.S.C. 133;

(6) The effects of all transportation projects to be undertaken within the metropolitan planning area, without regard to the source of funding (the analysis shall consider the effectiveness, cost effectiveness, and financing of alternative investments in meeting transportation demand and supporting the overall efficiency and effectiveness of transportation system performance and related impacts on community/central city goals regarding social and economic development, housing, and employment);

(7) International border crossings and access to ports, airports, intermodal transportation facilities, major freight distribution routes, national parks, recreation areas, monuments and historic sites, and military installations (supporting technical efforts should provide an analysis of goods and services movement problem areas, as determined in cooperation with appropriate private sector involvement, including, but not limited to, addressing interconnected transportation access and service needs of intermodal facilities);

(8) Connectivity of roads within metropolitan planning areas with roads outside of those areas;

(9) Transportation needs identified through the use of the management systems required under 23 U.S.C. 303 (strategies identified under each management system will be analyzed during the development of the transportation plan, including its financial component, for possible inclusion in the metropolitan plan and TIP);

(10) Preservation of rights-of-way for construction of future transportation projects, including future transportation corridors;

(11) Enhancement of the efficient movement of freight;

(12) The use of life-cycle costs in the design and engineering of bridges, tunnels, or pavement (operating and maintenance costs must be considered in analyzing transportation alternatives);

(13) The overall social, economic, energy, and environmental effects of transportation decisions (including consideration of the effects and impacts of the plan on the human, natural and man-made environment such as housing, employment and community development, consultation with appropriate resource and permit agencies to ensure early and continued coordination with environmental resource protection and management plans, and appropriate emphasis on transportation-related air quality problems in support of the requirements of 23 U.S.C. 109(h), and section 14 of the Federal Transit Act (49 U.S.C. 1610), section 4(f) of the DOT Act (49 U.S.C. 303) and section 174(b) of the Clean Air Act (42 U.S.C. 7504(b)));

(14) Expansion, enhancement, and increased use of transit services;

(15) Capital investments that would result in increased security in transit systems; and

(16) Recreational travel and tourism.

(b) In addition, the metropolitan transportation planning process shall:

(1) Include a proactive public involvement process that provides complete information, timely public notice, full public access to key decisions, and supports early and continuing involvement of the public in developing plans and TIPs and meets the requirements and criteria specified as follows:

(i) Require a minimum public comment period of 45 days before the public involvement process is initially adopted or revised;

(ii) Provide timely information about transportation issues and processes to citizens, affected public agencies, representatives of transportation agency employees, private providers of transportation, other interested parties and segments of the community affected by transportation plans, programs and projects (including but not limited to central city and other local jurisdiction concerns);

(iii) Provide reasonable public access to technical and policy information used in the development of plans and TIPs and open public meetings where matters related to the Federal-aid highway and transit programs are being considered;

- (iv) Require adequate public notice of public involvement activities and time for public review and comment at key decision points, including, but not limited to, approval of plans and TIPs (in nonattainment areas, classified as serious and above, the comment period shall be at least 30 days for the plan, TIP and major amendment(s));
- (v) Demonstrate explicit consideration and response to public input received during the planning and program development processes;
- (vi) Seek out and consider the needs of those traditionally underserved by existing transportation systems, including but not limited to low-income and minority households;
- (vii) When significant written and oral comments are received on the draft transportation plan or TIP (including the financial plan) as a result of the public involvement process or the interagency consultation process required under the U.S. EPA's conformity regulations, a summary, analysis, and report on the disposition of comments shall be made part of the final plan and TIP;
- (viii) If the final transportation plan or TIP differs significantly from the one which was made available for public comment by the MPO and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts, an additional opportunity for public comment on the revised plan or TIP shall be made available;
- (ix) Public involvement processes shall be periodically reviewed by the MPO in terms of their effectiveness in assuring that the process provides full and open access to all;
- (x) These procedures will be reviewed by the FHWA and the FTA during certification reviews for TMAs, and as otherwise necessary for all MPOs, to assure that full and open access is provided to MPO decisionmaking processes;
- (xi) Metropolitan public involvement processes shall be coordinated with statewide public involvement processes wherever possible to enhance public consideration of the issues, plans, and programs and reduce redundancies and costs;

(2) Be consistent with Title VI of the Civil Rights Act of 1964 and the Title VI assurance executed by each State under 23 U.S.C. 324 and 29 U.S.C. 794, which ensure that no person shall, on the grounds of race, color, sex, national origin, or physical handicap, be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination under any program receiving Federal assistance from the United States Department of Transportation;

(3) Identify actions necessary to comply with the Americans With Disabilities Act of 1990 (Pub. L. 101-336, 104 Stat. 327, as amended) and U.S. DOT regulations "Transportation for Individuals With Disabilities" (49 CFR parts 27, 37, and 38);

(4) Provide for the involvement of traffic, ridesharing, parking, transportation safety and enforcement agencies; commuter rail operators; airport and port authorities; toll authorities; appropriate private transportation providers, and where appropriate city officials; and

(5) Provide for the involvement of local, State, and Federal environment resource and permit agencies as appropriate.

(c) In attainment areas not designated as TMAs simplified procedures for the development of plans and programs, if considered appropriate, shall be proposed by the MPO in cooperation with the State and transit operator, and submitted by the State for approval by the FHWA and the FTA. In developing proposed simplified planning procedures, consideration shall be given to the transportation problems in the area and their complexity, the growth rate of the area (e.g., fast, moderate or slow), the appropriateness of the factors specified for consideration in this subpart including air quality, and the desirability of continuing any planning process that has already been established. Areas experiencing fast growth should give consideration to a planning process that addresses all of the general requirements specified in this subpart. As a minimum, all areas employing a simplified planning process will need to develop a transportation plan to be approved by the MPO and a TIP to be approved by the MPO and the Governor.

(d) The metropolitan transportation planning process shall include preparation of technical and other reports to assure documentation of the development, refinement, and update of the transportation plan. The reports shall be reasonably available to interested parties, consistent with §450.316(b)(1).

[58 FR 58064, Oct. 28, 1993, as amended at 61 FR 67175, Dec. 19, 1996]

23 CFR

Highways

CHAPTER I

FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

SUBCHAPTER E -- PLANNING AND RESEARCH

Subpart C -- Metropolitan Transportation Planning and Programming

§450.322 Metropolitan transportation planning process: Transportation plan.

(a) The metropolitan transportation planning process shall include the development of a transportation plan addressing at least a twenty-year planning horizon. The plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods. The transportation plan shall be reviewed and updated at least triennially in nonattainment and maintenance areas and at least every five years in attainment areas to conform its validity and consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period, except that the transportation plan for the New York Metropolitan Transportation Council that was reviewed and updated on September 30, 1999, shall be reviewed and updated no later than September 30, 2005. The transportation plan must be approved by the MPO.

(b) In addition, the plan shall:

- (1) Identify the projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan;
- (2) Identify adopted congestion management strategies including, as appropriate, traffic operations, ridesharing, pedestrian and bicycle facilities, alternative work schedules, freight movement options, high occupancy vehicle treatments, telecommuting, and public transportation improvements (including regulatory, pricing, management, and operational options), that demonstrate a systematic approach in addressing current and future transportation demand;
- (3) Identify pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g);
- (4) Reflect the consideration given to the results of the management systems, including in TMAs that are nonattainment areas for carbon monoxide and ozone, identification of SOV projects that result from a congestion management system that meets the requirements of 23 CFR part 500;
- (5) Assess capital investment and other measures necessary to preserve the existing transportation system (including requirements for operational improvements, resurfacing, restoration, and rehabilitation of existing and future major roadways, as well as operations, maintenance, modernization, and rehabilitation of existing and future transit facilities) and make the most efficient use of existing transportation facilities to relieve vehicular congestion and enhance the mobility of people and goods;
- (6) Include design concept and scope descriptions of all existing and proposed transportation facilities in sufficient detail, regardless of the source of funding, in nonattainment and maintenance areas to permit conformity determinations under the U.S. EPA conformity regulations at 40 CFR part 51. In all areas, all proposed improvements

shall be described in sufficient detail to develop cost estimates;

(7) Reflect a multimodal evaluation of the transportation, socioeconomic, environmental, and financial impact of the overall plan, including all major transportation investments in accordance with §450.318;

(8) For major transportation investments for which analyses are not complete, indicate that the design concept and scope (mode and alignment) have not been fully determined and will require further analysis. The plan shall identify such study corridors and subareas and may stipulate either a set of assumptions (assumed alternatives) concerning the proposed improvements or a no-build condition pending the completion of a corridor or subarea level analysis under §450.318. In nonattainment and maintenance areas, the set of assumed alternatives shall be in sufficient detail to permit plan conformity determinations under the U.S. EPA conformity regulations (40 CFR part 51);

(9) Reflect, to the extent that they exist, consideration of: the area's comprehensive long-range land use plan and metropolitan development objectives; national, State, and local housing goals and strategies, community development and employment plans and strategies, and environmental resource plans; local, State, and national goals and objectives such as linking low income households with employment opportunities; and the area's overall social, economic, environmental, and energy conservation goals and objectives;

(10) Indicate, as appropriate, proposed transportation enhancement activities as defined in 23 U.S.C. 101(a); and

(11) Include a financial plan that demonstrates the consistency of proposed transportation investments with already available and projected sources of revenue. The financial plan shall compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses, and the estimated costs of constructing, maintaining and operating the total (existing plus planned) transportation system over the period of the plan. The estimated revenue by existing revenue source (local, State, and Federal and private) available for transportation projects shall be determined and any shortfalls identified. Proposed new revenues and/or revenue sources to cover shortfalls shall be identified, including strategies for ensuring their availability for proposed investments. Existing and proposed revenues shall cover all forecasted capital, operating, and maintenance costs. All cost and revenue projections shall be based on the data reflecting the existing situation and historical trends. For nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of projects and programs to reach air quality compliance.

(c) There must be adequate opportunity for public official (including elected officials) and citizen involvement in the development of the transportation plan before it is approved by the MPO, in accordance with the requirements of §450.316(b)(1). Such procedures shall include opportunities for interested parties (including citizens, affected public agencies, representatives of transportation agency employees, and private providers of transportation) to be involved in the early stages of the plan development/update process. The procedures shall include publication of the proposed plan or other methods to make it readily available for public review and comment and, in nonattainment TMAs, an opportunity for at least one formal public meeting annually to review planning assumptions and the plan development process with interested parties and the general public. The procedures also shall include publication of the approved plan or other methods to make it readily available for information purposes.

(d) In nonattainment and maintenance areas for transportation related pollutants, the FHWA and the FTA, as well as the MPO, must make a conformity determination on any new/revised plan in accordance with the Clean Air Act and the EPA conformity regulations (40 CFR part 51).

(e) Although transportation plans do not need to be approved by the FHWA or the FTA, copies of any new/revised plans must be provided to each agency.

[58 FR 58064, Oct. 28, 1993, as amended at 61 FR 67175, Dec. 19, 1996; 67 FR 62373, Oct. 7, 2002]

Appendix B: FHWA/FTA Memorandum on TEA-21



U.S. Department
of Transportation
**Federal Highway
Administration
Federal Transit
Administration**

Memorandum

Subject: **ACTION:** Implementing TEA-21 Planning Provisions Date: February 2, 2001
From: **ORIGINAL SIGNED BY:** Reply to: HEPM-10
Cynthia J. Burbank, Program Manager Attn. of: TPL-12
Planning and Environment CBU
FHWA

ORIGINAL SIGNED BY:
Charlotte Adams, Associate Administrator for Planning
FTA

To: FHWA Division Administrators
FTA Regional Administrators

The purpose of this memorandum is to advise you how to proceed with TEA-21 planning requirements absent new planning regulations. Although new planning regulations have not been issued, the requirements in TEA-21 are in effect. Hence, FHWA and FTA field offices should be working with MPOs, State DOTs, and transit operators to ensure a basic level of compliance with TEA-21 planning requirements, based on the statutory language.

We would particularly draw your attention to these TEA-21 requirements:

1. Annual listing of projects
2. Revenue estimates for Plans and TIPs
3. State consultation with local officials in non-metropolitan areas
4. Consultation with transit users and freight shippers and service providers
5. MIS integration
6. Federal planning finding for STIP approvals
7. Consolidation of planning factors
8. Public involvement during certification reviews

The statutory language for each of these provisions is attached. Because of the uncertain status of the planning regulations, we are not providing written guidance at this time. However, we ask that you advise your State, MPO, and transit partners that these statutory requirements are legally in effect since the enactment of TEA-21, and ask that you work with them to ensure basic compliance.

The current FHWA/FTA metropolitan and statewide planning regulations remain in effect, except where superseded by TEA-21 statutory changes.

Attachment

cc: Directors of Field Services
HCC-1

TEA-21 PLANNING REQUIREMENTS

Statutory Provisions

1. **Annual listing of projects** (23 U.S.C. 134(h)(7)(B); 49 U.S.C. 5303(c)(5)(B)):

“An annual listing of projects for which Federal funds have been obligated in the preceding year shall be published or otherwise made available by the metropolitan planning organization for public review. The listing shall be consistent with the categories identified in the transportation improvement program.”

2. **Sharing of revenue estimates for TIPs and Plans** (23 U.S.C. 134 (g)(2)(B) and (23 U.S.C. 134(h)(1)(B); 49 U.S.C. 5303(a)(1) and (f)(1)(E) and 49 U.S.C. 5304(a)(2)):

“ . . . For the purpose of developing the long-range transportation plan, the metropolitan planning organization and State shall cooperatively develop estimates of funds that will be available to support plan implementation.”

“For the purpose of developing the transportation improvement program, the metropolitan planning organization, public transit agency, and State shall cooperatively develop estimates of funds that are reasonably expected to be available to support program implementation.”

3. **State consultation with local officials in non-metropolitan areas** (23 U.S.C. 135 (c)(1), (e)(2)(B), (f)(1)(B)(ii)(I) and (II), (f)(3)(A) and (B); 49 U.S.C. 5323(1)):

“With respect to each non-metropolitan area, the long-range transportation plan shall be developed in consultation with affected local officials with responsibility for transportation.”

“With respect to each non-metropolitan area in the State, the program shall be developed in consultation with affected local officials with responsibility for transportation.”

4. **Consultation with transit users and freight shippers and service providers** (23 U.S.C. 134(g)(4) and (h)(4) and (23 U.S.C. 134(e)(3)(A) and (f)(1)(C); 49 U.S.C. 5303(f)(4) and 49 U.S.C. 5303(a)(1)):

“Before approving a long-range transportation plan, each metropolitan planning organization shall provide citizens, affected public agencies, representatives of transportation agency employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transit, and other interested parties with a reasonable opportunity to comment on the long-range transportation plan, in a manner that the Secretary deems appropriate.”

5. **MIS integration** (Pub. Law 105-85, Sec. 1308):

“The Secretary shall eliminate the major investment study as set forth in section 450.318 of title 23 Code of Federal Regulations, as a separate requirement, and promulgate regulations to integrate such requirement, as appropriate, as part of the analyses required to be undertaken pursuant to the planning provisions of title 23, United States Code, and chapter 53 of title 49, United States Code, and the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) for Federal-aid highway and transit projects. The scope of the applicability of such regulations shall be no broader than the scope of such section.”

6. **Federal planning finding for STIP** (23 U.S.C. 135(f)(4); 49 U.S.C. 5323(1)):

“A transportation improvement program developed under this subsection shall be reviewed and, on a finding that the planning process through which the program was developed is consistent with this section, section 134, and sections 5303 through 5305 of title 49, approved not less frequently than biennially by the Secretary.”

7. **Planning factors** (23 U.S.C. 134(f)(1)(A-G) and (23 U.S.C. 135(c)(1)(A-G); 49 U.S.C. 5303(a)(1)(A-G)):

“The metropolitan (and statewide) transportation planning process for a metropolitan area (or State) under this section shall provide for consideration of projects and strategies that will:

- A. Support the economic vitality of the metropolitan area (or State), especially by enabling global competitiveness, productivity and efficiency;
- B. Increase the safety and security of the transportation system for motorized and nonmotorized users;
- C. Increase the accessibility and mobility options available to people and for freight;
- D. Protect and enhance the environment, promote energy conservation, and improve quality of life
- E. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- F. Promote efficient system management and operation; and
- G. Emphasize the preservation of the existing transportation system.”

8. **Public involvement in certification reviews** (23 U.S.C. 134(i)(5)(D)):

“In making certification determinations under this paragraph, the Secretary shall provide for public involvement appropriate to the metropolitan area under review.”

NOTES:

For the purposes of additional information, please contact Charlie Goodman, Chief, Metropolitan Planning Division, FTA, (202) 366-1944, Paul Verchinski, Chief, Statewide Planning Division, FTA, (202) 366-1626, Sheldon Edner, Team Leader, Metropolitan Planning and Programs, FHWA, (202) 366-4046 or Dee Spann, Team Leader, Statewide Planning and Programs, FHWA, (202) 366-4086.

Item 8 refers to a TEA-21 requirement that FHWA and FTA implement a process for public involvement during the certification process for transportation management areas. We required this process administratively prior to TEA-21. TEA-21 made it a statutory requirement.

Source: www.fhwa.dot.gov/hep/tea21mem.htm



U.S. Department
of Transportation
**Federal Highway
Administration
Federal Transit
Administration**

Memorandum

Subject: **ACTION:** Interim Guidance on SAFETEA-LU Provisions that Affect Planning, Environment, and Air Quality Date: September 2, 2005

From: **ORIGINAL SIGNED BY:** Cynthia J. Burbank, Associate Administrator Planning, Environment and Realty, FHWA Reply to: HEP-1
Attn. of:

ORIGINAL SIGNED BY:
David J. Vozzolo for Brigid Hynes-Cherin, Associate Administrator for Planning and Environment, FTA

To: FHWA Division Administrators
FTA Regional Administrators

We are sending this memorandum to provide FHWA and FTA field offices with Interim Guidance on SAFETEA-LU provisions that affect the joint responsibilities of FHWA and FTA in the areas of planning, environment, and air quality. We prepared this Interim Guidance to meet the need of FHWA and FTA field offices for information on how to implement changes in SAFETEA-LU, especially those that are immediately effective.

This Interim Guidance focuses on joint FHWA-FTA authorities. For SAFETEA-LU provisions that are not joint FHWA-FTA responsibilities, we will be transmitting guidance separately.

We hope this Interim Guidance is helpful to you in administering the Federal-aid highway and transit programs. As noted in the attachment, we will be providing additional guidance and rulemaking for certain provisions, and will do so as soon as possible.

Attachment

cc: FHWA Directors of Field Services
HEP Office Directors

Federal Highway Administration
EMurakami:LSB: 6X6971:11/29/00
cc: HEPM – Reading/Chron File

INTERIM GUIDANCE FOR IMPLEMENTING KEY SAFETEA-LU PROVISIONS ON PLANNING, ENVIRONMENT, AND AIR QUALITY FOR JOINT FHWA/FTA AUTHORITIES September 2, 2005

This joint FHWA/FTA interim guidance is intended for the use of FHWA and FTA field offices in working with their State/local planning partners and grantees in implementing SAFETEA-LU. Short summaries of key changes to the statutory requirements for planning and environmental reviews are provided, followed by guidelines for how FHWA Division and FTA Region Offices should administer and oversee highway and transit programs during this TEA-21/SAFETEA-LU transitional period. This interim guidance covers planning, air quality, and environmental requirements that are jointly administered by FHWA and FTA. Additional information and case study examples of the new or changed requirements under SAFETEA-LU will be developed, as appropriate.

FHWA and FTA will be issuing separate interim guidance on SAFETEA-LU provisions and funding programs that each agency will be administering separately.

I. PLANNING PROVISIONS:

- **Section 6001 – Transportation Planning:** This section, along with virtually identical language in sections 3005 and 3006, retains and revises the metropolitan and statewide transportation planning statutory requirements. Although most of the text in these sections mirrors previous law, key statutory changes are summarized below. Furthermore, sections 3005 and 6001(b) provide that “The Secretary shall not require a State or metropolitan planning organization to deviate from its established planning update cycle to implement changes made by this section.”

Most of the transportation planning requirements became effective immediately when SAFETEA-LU was signed into law on August 10, 2005. However, many of these provisions require rulemaking to implement the changes. FHWA and FTA expect to initiate a comprehensive rulemaking to update the metropolitan and statewide planning regulations in the near future. In the interim, FHWA and FTA realize that the planning process must continue to function as a whole. It would be difficult for States and MPOs to separate out the schedule requirements in the current regulations from the content requirements. Therefore, FHWA and FTA have determined that, in order to not require a State or MPO to “deviate from its established planning update cycle,” States and MPOs are allowed to continue to comply with existing planning regulations for this current set of updates. Any transportation plans, metropolitan transportation improvement programs (TIPs), and state transportation improvement programs (STIPs) currently under development (per TEA-21 schedules), may be completed under the pre-SAFETEA-LU planning requirements, including adherence to plan and TIP update cycles and content requirements.

*While all TIPs, STIPs, and plans adopted after July 1, 2007, must comply with SAFETEA-LU planning provisions. States and MPOs may wish to take advantage of the SAFETEA-LU provisions prior to July 1, 2007, and they are encouraged to do so. If a State or MPO opts to implement the SAFETEA-LU planning provisions prior to July 1, 2007, they must meet **all** SAFETEA-LU requirements in Section 6001, since the various provisions are closely interrelated.*

If plans and TIPs are prepared under the new update cycle described below, they must also comply with the expanded scope, consultation, mitigation, and participation requirements set forth in SAFETEA-LU. In addition, in no instance should the next update of a STIP or TIP be more than 4 years from the most recent update.

Implementation of the new 4-year cycle allowed for FHWA/FTA certification of planning processes in Transportation Management Areas (TMAs) is the responsibility of the FHWA/FTA field offices and can take place immediately under certain circumstances, as discussed below.

We have provided some basic guidance below for those States and MPOs that opt to implement SAFETEA-LU immediately.

[The following are selected sections regarding metropolitan and state plans.]

- **Metropolitan Plan Cycles:** Metropolitan transportation plans shall be updated at least every four years in air quality nonattainment and maintenance areas, and at least every five years in attainment areas. *To align the MPO adoption of the transportation plan in nonattainment and maintenance areas and conformity determinations, the date of the FHWA/FTA conformity determination on the transportation plan is to be used as the basis for tracking update cycles in nonattainment and maintenance areas.*
- **Metropolitan and Statewide Plans –Environmental Mitigation:** Metropolitan and statewide transportation plans must include a discussion of types of potential environmental mitigation activities, to be developed in consultation with Federal, State and Tribal wildlife, land management, and regulatory agencies. *Details on these “discussions of types of potential environmental mitigation activities” are outlined in amended 23 U.S.C. 134(i)(2)(B) and 23 U.S.C. 135(f)(4), respectively, based on the consultation requirements highlighted below. Identical provisions for transit appear in the amended 49 U.S.C. 5303(i)(2)(B) and 49 U.S.C. 5304(f)(4). The environmental mitigation requirement must be in place prior to MPO and State adoption/ approval of transportation plans addressing SAFETEA-LU provisions.*
- **New Consultations:** MPOs and States must consult “as appropriate” with “State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation” in developing long-range transportation plans. Additionally for the Long-Range Statewide Transportation Plan, States must consult with Federally-recognized Tribal agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. *These new requirements must be in place prior to MPO and State adoption/approval of transportation plans addressing SAFETEA-LU provisions. Details for metropolitan and statewide planning are outlined in the amended 23 U.S.C. 134(i)(4) and 23 U.S.C. 135(f)(2)(D), respectively, and for transit, in the amended 49 U.S.C. 5303(i)(4) and 49 U.S.C. 5304(f)(2)(D).*
- **Consistency of Transportation Plan with Planned Growth and Development Plans:** Revises the previous planning factor related to environment to add “promot[ing] consistency between transportation improvements and State and local planned growth and economic development patterns.” *This new requirement must be in place prior to MPO and State adoption/approval of transportation plans addressing SAFETEA-LU provisions.*
- **Transportation System Security:** SAFETEA-LU calls for the security of the transportation system to be a stand-alone planning factor, signaling an increase in importance from prior legislation, in which security was coupled with safety in the same planning factor. *This new requirement must be in place prior to MPO and State adoption/approval of transportation plans addressing SAFETEA-LU provisions.*

- **Operational and Management Strategies:** Metropolitan transportation plans shall include operational and management strategies to improve the performance of the existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods (see amended 23 U.S.C. 134(i)(2)(D)) and 49 U.S.C. 5303(i)(2)(D)). *The requirement for the inclusion of operational and management strategies must be in place prior to MPO adoption of transportation plans addressing SAFETEA-LU provisions.*
- **Participation Plan:** MPOs must develop and utilize a “Participation Plan” that provides reasonable opportunities for interested parties to comment on the content of the metropolitan transportation plan and metropolitan TIP. Further, this “Participation Plan” must be developed “in consultation with all interested parties”. This consultation requirement is intended to afford parties who participate in the metropolitan planning process a specific opportunity to comment on the plan prior to its approval. *A participation plan must be in place prior to MPO adoption of transportation plans and TIPs addressing SAFETEA-LU provisions. FTA/FHWA particularly expect this to encompass governmental and nonprofit organizations that receive Federal assistance from a source other than the Department of Transportation to provide non-emergency transportation services and recipients of assistance under section 204 of title 23, U.S.C.*
- **Visualization Techniques in Plans and Metropolitan TIP Development:** As part of transportation plan and TIP development, MPOs shall employ visualization techniques (see amended 23 U.S.C. 134(i)(5)(C)(ii)) and 49 U.S.C. 5303(i)(5)(C)(ii)). States shall also employ visualization techniques in the development of the Long-Range Statewide Transportation Plan (see amended 23 U.S.C. 135(f)(3)(B)(ii)) and 49 U.S.C. 5304(f)(3)(B)(ii)). *States and MPOs must employ visualization techniques prior to adoption of statewide and metropolitan transportation plans and metropolitan TIPs addressing SAFETEA-LU provisions.*
- **Publication of Plans and TIP/STIP:** MPOs shall publish or otherwise make available for public review transportation plans and TIPs “including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web” (see amended 23 U.S.C. 134(i)(6) on plans and 23 U.S.C. 134(j)(7)(a) on TIPs, and for transit, amended 49 U.S.C. 5303(i)(6) and 49 U.S.C. 5303(j)(7)(a)). States also shall use a similar approach for the Long-Range Statewide Transportation Plan (see amended 23 U.S.C. 135(f)(8)) and 49 U.S.C. 5304(f)(8)). *These publication requirements must be in place prior to adoption of transportation plans and TIPs addressing SAFETEA-LU provisions.*

Appendix D: Compendium of Illustrative LRTP Contents

The following outlines possible sections to include in a long-range transportation plan. The list is not exhaustive nor is it necessary to include each one of these sections in order to produce a successful plan. The organization is merely a suggestion to provide ideas on which elements are useful and constructive to include in a plan. Further, each section lists recommended maps, charts, and tables that help illustrate and analyze data.

Executive Summary

1. Introduction

- a. Purpose of Plan
- b. Information on the Planning Organization
- c. Planning Process
 - Summary of Planning Process
 - ▣ Graphic of the Process
 - Brief Description of Public and Stakeholder Involvement (Details in the Appendix)

2. Regional Overview

- a. Brief History of Region
- b. Transportation History of the Region
- c. Geography of Region
 - 🌐 Map of Political Jurisdictions of the Region
 - 🌐 Map of Physical Features of the Region

3. Progress Since Last Plan

- a. List and Status of Targets
- b. List of Projects Completed Since Last Plan
- c. List of Projects in Progress Since Last Plan

4. Inventory of Existing Transportation System (Current Conditions and Performance)

- a. Highways
 - Travel Corridors
 - 🌐 Map Corridors of State and Regional Significance
 - General Travel
 - 🌐 Map by Roadway Classification Type
 - 🌐 Map by AADT
 - ▣ Chart Regional VMT by Classification
 - 🌐 Map by LOS
 - ▣ Chart Regional VMTs Traveled Under Each LOS
 - Truck Traffic
 - 🌐 Map by Truck Volumes by Thickness/Color Code by Percentage
 - ▣ Chart Regional Truck Volumes Over Time
 - Road Quality
 - 🌐 Map by IRI or PMS rating
 - ▣ Chart Percentages by IRI or PMS Rating Over Time
 - Bridge Ratings Quality
 - 🌐 Map by Volume and Rating
 - ▣ Chart Percentages by Bridges by Rating Over Time
 - ▣ Chart Percentage of Annual Bridge Crossings by Rating Over Time
 - Safety
 - ▣ Chart Regional Accident Rates Over Time by Facility Type
 - 🌐 Map Accidents per 100,000 VMT for Each Facility
 - 🌐 Map At-Grade Crossing and Accidents Over Period

Acronyms

- **AADT** - Average Annual Daily Traffic
- **IRI** - International Roughness Index
- **ITS** - Intelligent Transportation Systems
- **LOS** - Level of Service
- **PMS** - Pavement Management System
- **TAZ** - Traffic Analysis Zones
- **VMT** - Vehicle Miles Traveled

- Intelligent Transportation Systems
 - Descriptions of System and Equipment Employed
 - 🌐 Mapping of Existing ITS Equipment
- Ridesharing
 - 📊 Ridesharing Over Time
- Travel Demand Management
- b. Public Transit
 - 🌐 Map Transit Service Network, Agency Jurisdictions, and Intermodal Passenger Facilities
 - 📊 Chart Ridership and Operational Statistics Over Time
- c. Bicycle and Pedestrian
 - 🌐 Map Bike/Trail Network
- d. Passenger Rail Service
 - 🌐 Map Passenger Rail Service
- e. Passenger Air Travel
 - 🌐 Map Airports by Type (commercial, business, general aviation)
 - 📊 Chart Boardings and Alightings, Operations Over Time
- f. Private Carriers
 - 🌐 Regional Bus Service
 - 🌐 Charter Bus Services
 - 🌐 Taxi Services
- g. Freight
 - 📊 Chart Goods Movements by Mode Over Time
- h. Truck Freight
 - 🌐 Map by Truck Volumes by Thickness/Color Code by Percentage
 - 📊 Chart Regional Truck Volumes Over Time
 - 🌐 Map Intermodal Facilities
 - 📊 Chart Regional Trucking Tonnage/Values Over Time
- i. Rail Freight
 - 🌐 Map Rail Freight Network
 - 🌐 Map Corridors and At-Grade Crossing
 - 📊 Chart Rail Freight Tonnage Over Time
- j. Ports and Waterways
 - 🌐 Map Ports and Navigable Waterways
 - 📊 Chart Port Tonnage Over Time
- k. Air Cargo Facilities
- l. Security
 - Generically Describe Current Plans (without any sensitive details)

5. Trends and Projections

- a. Population Trends and Projections
 - 📊 Chart Population, Households and Growth Over Time by County and Major Centers
 - 📊 Table of Average Household Population Over Time
 - 🌐 Map Population Density
 - 🌐 Map Population Growth (Absolute or Growth Rate)
- b. Economic Trends and Projections
 - 📊 Chart Average Household Income Over Time
 - 🌐 Map Current Average Household Income
 - 🌐 Map Current Unemployment
- c. Employment Trends and Projections
 - 📊 Chart Employment, Businesses and Growth Over Time by County and Major Centers
 - 🌐 Map Employment Density
 - 🌐 Map Employment Growth (Absolute or Growth Rate)
 - 📊 Chart Employment by Major Industry Over Time

- d. Travel Patterns and Trends
 - ☒ Table/Map Trip Volumes
 - ☒ Table Trips by Purpose
 - ☒ Table Trips by Mode Over Time
 - ☒ Table Commuting Time and Distance
 - ☒ Table Vehicle Ownership
 - 🌐 Map Congested Hot Spots
 - ☒ Table/Map Accessibility of Jobs

6. Land Use

- a. Development Patterns
 - 🌐 Map Land Uses Over Time
 - 🌐 Map Designated Urban Centers
 - 🌐 Map Percentage of Developed Land
 - ☒ Chart Amount of Developed Land Over Time
 - ☒ Chart Developed Land Per Capita Over Time
 - 🌐 Map Future Projected Land Use
- b. Open Space
 - 🌐 Map Open Space
- c. Transit-Oriented Development
- d. Land Use Scenarios

7. Regional Issues

- a. Analysis of Background Research
- b. System Condition
- c. System Operations
- d. Trends Affecting Regional Transportation

8. Corridor Identification and Evaluation

- a. Context Scenario Development and Evaluation

9. Vision, Goals, Objectives, and Targets

- a. TEA-21 Planning Factors and State Guidelines
- b. Description of Plans Reviewed During the Development of This Plan
 - State
 - Regional
 - County
 - Local
 - Modal Plans
 - Corridor Studies
 - Other PennDOT Initiatives (Sound Land Use, etc.)
 - Other State Initiatives (Growing Greener, etc.)
 - Regional Vision
 - Regional Transportation Priorities, Goals and Objectives
 - Matrix Showing Links to Planning Factors
 - Regional Actions and Targets

10. Evaluation Criteria

- a. Explanation of Evaluation and Prioritization Process
- b. Development of Project Evaluation Criteria
- c. Linkages to Regional Goals and Objectives
- d. Land Use Scenarios
 - Land Use Vision
 - Development of Land Use Policies
 - Development of Land Use Scenarios

11. Funding Scenarios

- a. Discussion of Current Issues That May Affect Funding
- b. Discussion Regarding the Thinking Behind Alternative Funding Scenarios
- c. Development of Alternative Funding Scenarios

12. Project Evaluation

- a. Prioritization and Ranking
 - ☒ Table Projects/Solutions in Terms of Evaluation Criteria

13. Finance

- a. Past and Current Funding
 - ☒ Table of Dollars and Percentage by Category or Project Type
- b. Investment Scenarios
 - By Investment Types
 - Maintenance and Preservation
 - Capacity Expansion
 - Investment in Non-Highway Modes
 - At Different Funding Levels
 - Arbitrary Levels (higher/lower levels of funding)
 - Finance Mechanism Specific Levels (e.g. quarter percent sales tax, 4-cent increase in gas tax, etc.)
 - Future Alternative Funding Mechanisms

14. Development of Project List

- a. Project Evaluations
- b. Project Prioritization
 - ☒ Table Project Cost List

15. Corridor Plans

16. Plan Monitoring

- a. System Performance Monitoring
- b. Action Items

17. Appendices

- a. Glossary
- b. Environmental Impact Report
- c. Modeling Process
 - Description of Models and Data Sources
- a. Air Quality Conformity Analysis
 - ☒ Table Vehicle Emissions by Alternates
- b. Public Involvement Plan
 - Public Involvement Documentation
- a. Environmental Justice Report
 - 🌐 Map of Communities (present and future)
 - 🌐 Map Change in Employment Accessibility to Jobs by TAZ/Tract
 - ☒ Table Accessibility to Jobs by Race/Income
 - ☒ Table Average Travel Time by Race/Income
- b. Companion Studies/Reports

Appendix E: Data Sources

As part of background preparation, it is critical for planning partners to begin to analyze their region in order to understand the consequences of current demographic, economic, and travel trends. Below is a list of key sources that provide data to be used in long-range planning. In addition, some of these sites have existing research publications which may also be useful.

Federal

- Bureau of Economic Analysis: Regional Economic Analysis - www.bea.doc.gov/region/gsp
- Bureau of Labor Statistics - www.bls.gov
- Bureau of Transportation Statistics: State Transportation Profiles - www.bts.gov/publications/state_transportation_profiles
- Census Data for Transportation Planning - www.trbcensus.com
- EPA: Air Pollution Data - www.epa.gov/air/data/index.html
- EPA: National Emissions Inventory - www.epa.gov/air/data/neidb.html
- FHWA: Freight Management and Operations - http://ops.fhwa.dot.gov/freight/freight_analysis/faf
- Hazardous Materials Incidents Data - <http://hazmat.dot.gov/pubs/inc/hmisframe.htm>
- National Center for Statistics and Analysis - www.nrd.nhtsa.dot.gov/departments/nrd-30/nrsa/index.html
- National Household Travel Survey - www.bts.gov/programs/national_household_travel_survey
- National Transit Database - www.ntdprogram.com/NTD/ntdhome.nsf/?Open
- U.S. Census Bureau - www.census.gov
- U.S. Census Bureau: Topologically Integrated Geographic Encoding and Referencing system - www.census.gov/geo/www/tiger/index.html

State

- PennDOT: Bureau of Planning and Research - www.dot.state.pa.us
- Pennsylvania Department of Aging - www.aging.state.pa.us
- Pennsylvania Spatial Data Access - www.pasda.psu.edu
- Pennsylvania State Data Center - <http://pasdc.hbg.psu.edu>

Other

- 10,000 Friends of Pennsylvania - www.10000friends.org
- Brookings Institution - www.brook.edu
- Highway Safety Information System - www.hsisinfo.org
- I-95 Coalition - www.i95coalition.org
- IssuesPA - www.issuespa.net
- ITS America - www.itsa.org
- Texas Transportation Institute: 2005 Urban Mobility Study - <http://mobility.tamu.edu/ums>
- TRB Publications - www.trb.org
- TRIP: Road Information Program - www.tripnet.org
- Woods and Poole Economics, Inc. - www.woodsandpoole.com

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