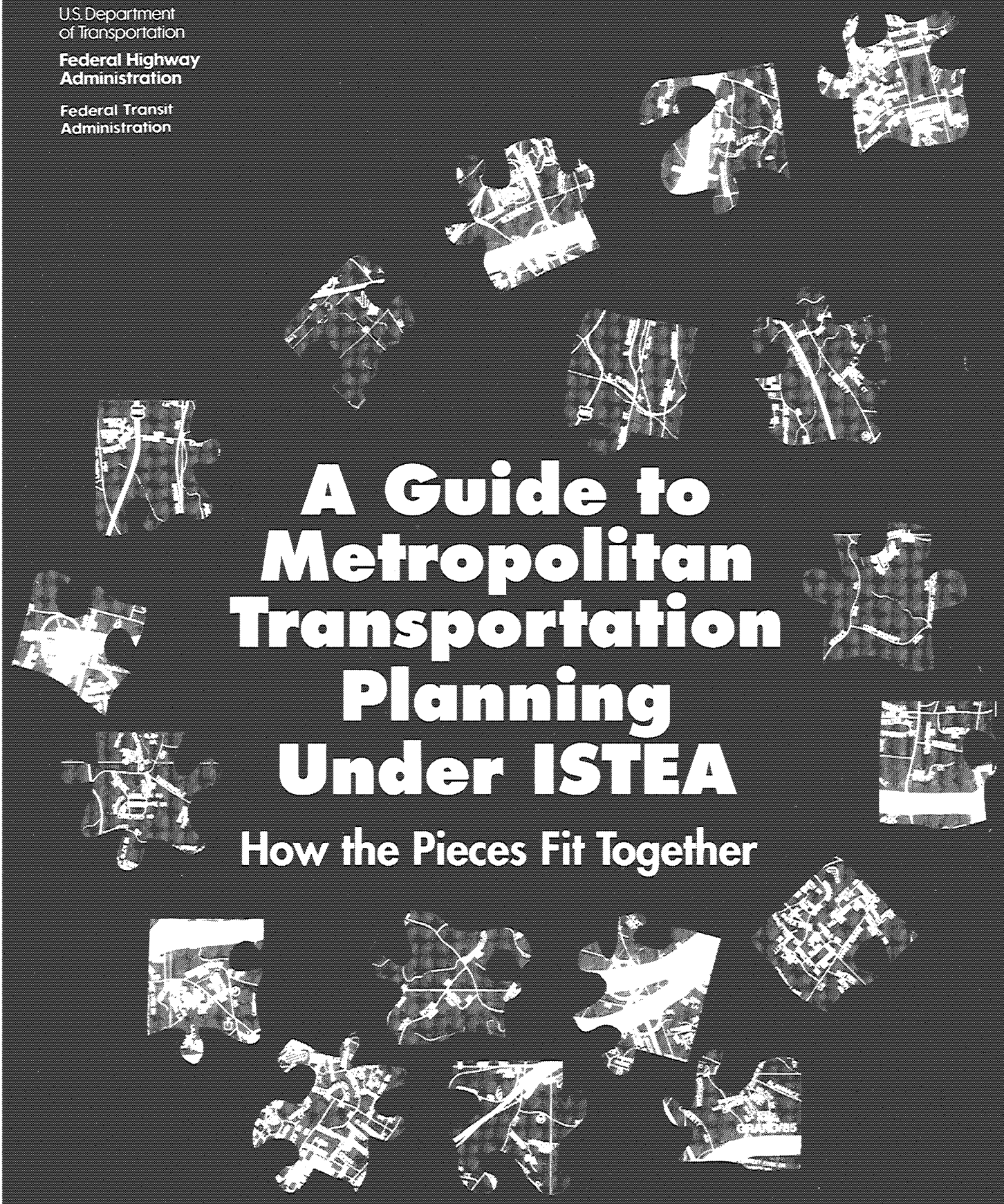
U.S. Department
of Transportation

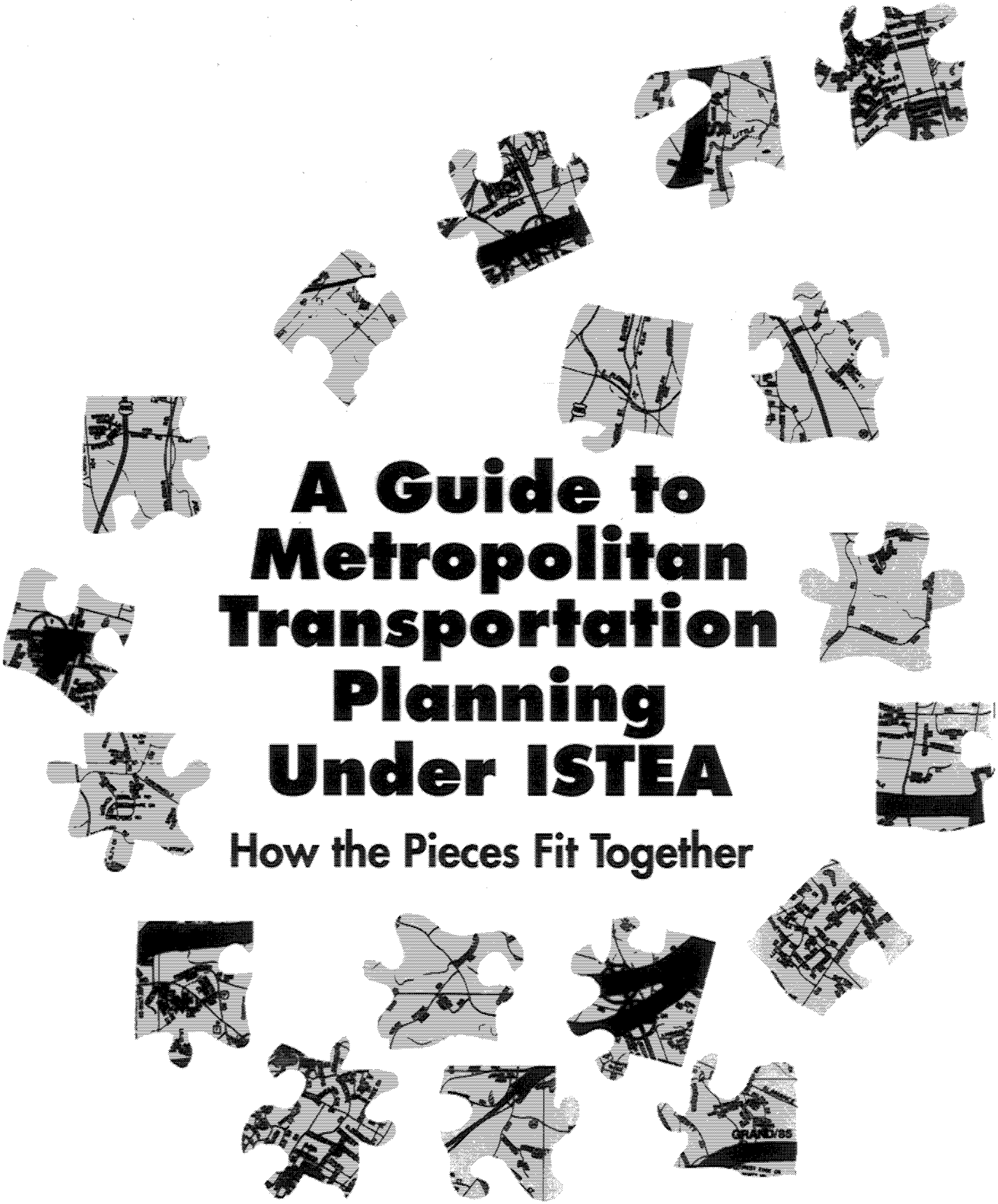
**Federal Highway
Administration**

**Federal Transit
Administration**



A Guide to Metropolitan Transportation Planning Under ISTEA

How the Pieces Fit Together



A Guide to Metropolitan Transportation Planning Under ISTEA

How the Pieces Fit Together

A Message to the Reader:

Each day, the lives of almost all 260 million Americans are affected by our Nation's transportation system. Anyone who wants to go anywhere finds the opportunities--and limitations--determined by whether and how the transportation system provides a safe, efficient, and effective means of travel. Improving that system is the goal of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which authorizes Federal highway and transit funding programs. The ISTEA views planning as a key strategy to improve the system and investment decisionmaking. It provides the framework for better planning and management of the Nation's transportation system.

President Clinton and Secretary Peña understand the importance of the transportation network to the Nation's prosperity and quality of life. They have committed the Federal Government to providing the funding, guidance, and technical assistance to State and metropolitan areas that need it to meet their particular transportation challenges. As part of that effort, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have prepared this guide for transportation professionals, elected officials, and policymakers, as well as community and business interests, who want to understand and participate in the transportation planning and decisionmaking process.

We have two objectives in publishing this guide: first, to provide a framework for linking the various elements of ISTEA's transportation planning process together in a comprehensive manner; and second, to provide information, suggestions, and examples of ways to carry out the metropolitan planning process.

Part One describes the changes Congress and the President envisioned in the transportation planning and investment process when they enacted ISTEA. Part Two discusses the products of the transportation planning process: the transportation plan and the Transportation Improvement Program (TIP). Part Three describes the elements of transportation planning and how metropolitan areas can use them to develop transportation plans and TIP's that meet their needs and the expectations of the Federal Government. Part Four provides a reference guide to Federal regulations, guidance, and other useful information that have been published on ISTEA and the planning process.

We commend transportation professionals and elected officials throughout the Nation for their enthusiastic response to the new directions outlined in ISTEA. In visiting metropolitan areas throughout the country, we have seen many examples of good planning practices and responses to the new requirements. This guide includes several examples of how the various elements of the planning practices in ISTEA are being implemented in different parts of the country.

In spite of the broad progress made thus far, we recognize that the vision of integrated planning called for in ISTEA is an evolutionary process that takes time to implement. The planning process must take into account local plans and expectations, community values, financial resources, and prior commitments. By providing this guide, the FHWA and the FTA hope to better provide those

participating in transportation planning and decisionmaking with the necessary information to make the most of ISTEA's opportunities for better meeting the transportation needs of their people and businesses.

We depend on good mobility to build and retain economic competitiveness in the global marketplace. We intend to facilitate the transportation planning and investment process in ways that will provide the flexibility needed at the State and local levels while ensuring that the Nation's transportation systems work harmoniously, fully involve our partners, and fully integrate environmental concerns. As we work to improve the Federal Government's operations, we also aim to streamline and simplify our requirements wherever possible to better serve our State and local partners. This guide is one product of this effort and we hope it proves useful.

Rodney E. Slater
Administrator
Federal Highway Administration

Gordon J. Linton
Administrator
Federal Transit Administration

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Part One: Changes in Metropolitan Planning Under ISTEA

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) was a landmark piece of legislation. It recognizes that the Interstate Highway System is nearly complete, and that system preservation rather than construction needs to become the higher priority.

Further, ISTEA recognizes the changing development patterns, the economic and cultural diversity of metropolitan areas, and the need to provide metropolitan areas with more control over transportation in their own regions.

It envisions achieving this through strengthening planning practices and coordination between States and metropolitan areas and between private and public sectors, and improving linkages and connections between different forms of transportation.

The ISTEA recognizes the need for a new outlook on transportation and how it serves the Nation's economic, mobility, and accessibility needs. While metropolitan areas historically have been required to undertake the "3C" process of "continuing, cooperative, and comprehensive" planning, ISTEA calls for a more integrated planning process to better meet the needs of all constituencies.

The ISTEA places significant emphasis on broadening participation in transportation planning to include key stakeholders who have not traditionally been involved, including the business community, members of the public, community groups, and other governmental agencies. This challenges transportation professionals and elected officials because meaningful engagement of diverse interests can be difficult. However, broader participation should ensure that decisions will be more responsive to local needs.

The ISTEA also reflects an understanding of the constraints imposed upon further expansion of the highway network, particularly in metropolitan areas, and that the maximization of system efficiency and system preservation need to become priorities.

The ISTEA promotes protection of the human and natural environments (the fabric of metropolitan areas) and accessibility to--and equity in--the provision of transportation services.

Finally, ISTEA includes unprecedented linkages to achievement of the air quality objectives embodied in the Clean Air Act Amendments of 1990 (CAAA) and in State air quality plans.

The CAAA recast the planning function to ensure that, in areas failing to meet Federal air quality standards, transportation planning is geared to improving air quality as well as mobility. The CAAA challenges officials to reduce vehicle emissions, to reduce the number of single occupant vehicles, and to make alternatives such as transit and bicycles a more viable part of the transportation network.

Given these changes, how can transportation professionals and decisionmakers fully realize ISTEA's potential? The balance of this document provides information and assistance on how to fit the planning elements of ISTEA together to meet both local needs and national priorities.

Part Two: Products of the Transportation Planning Process

The ISTEA promotes transportation systems that maximize mobility and accessibility and minimize transportation-related fuel consumption and air pollution. To do this, metropolitan planning organizations (MPO's), in cooperation with the States and key transportation providers, must develop transportation plans and programs for metropolitan areas.

The metropolitan planning process set forth in ISTEA emphasizes the link between improved planning and better decisions and provides the tools for comprehensive planning. It includes six major elements which, together, will ensure a planning process which produces investment decisions that result in safe and efficient mobility and accessibility and protection of the human and natural environments.

The planning process produces the transportation plan and the Transportation Improvement Program (TIP). Elements of the planning process which result in the development of the plan and TIP are depicted in Chart #1 on the following page and briefly discussed below. The chart shows the interactions between these elements and portrays the continuous nature of transportation planning. (Part Three of this guide discusses each element in more detail.)

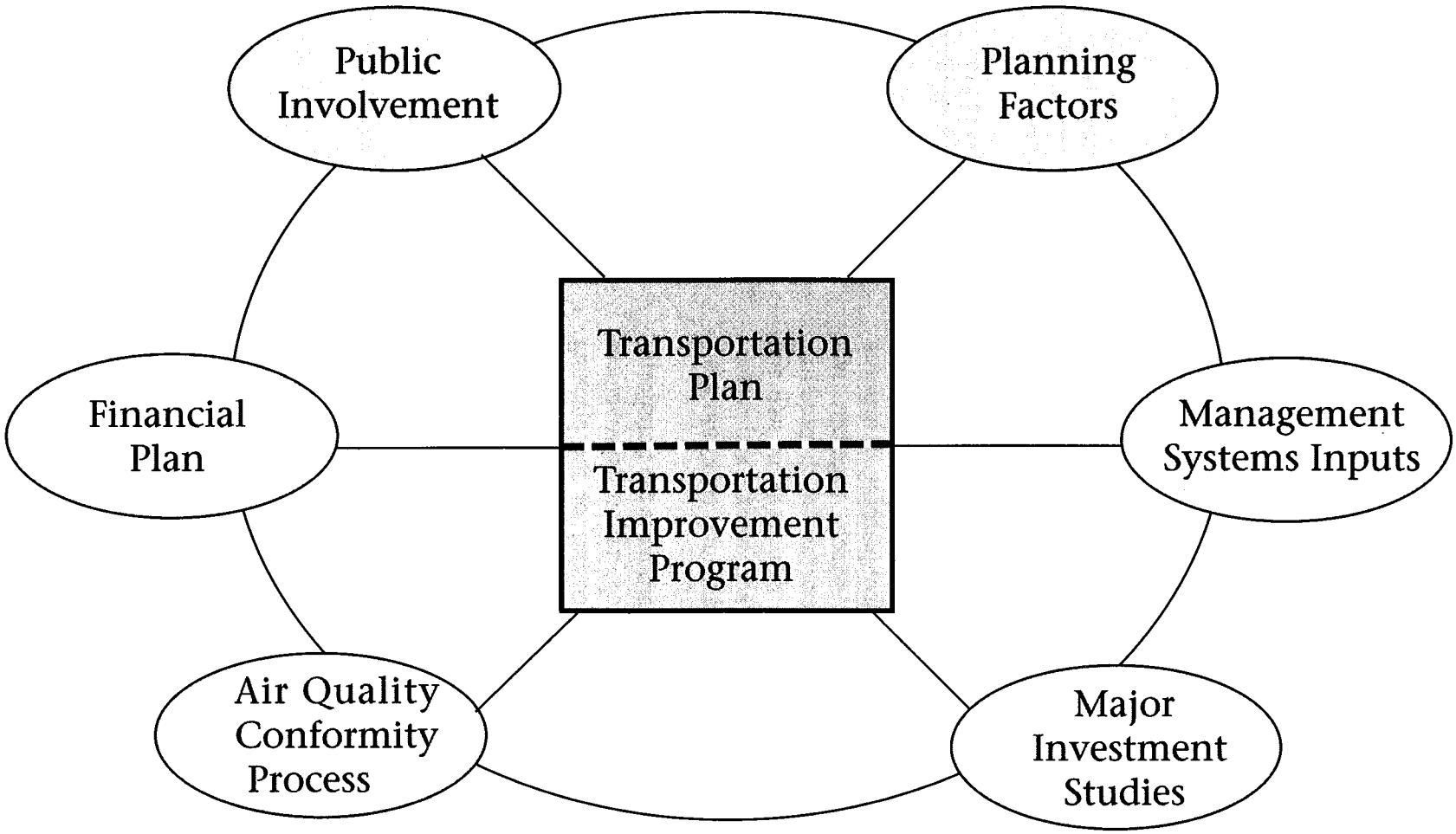
Major Elements of Transportation Planning in Metropolitan Areas

- A proactive and inclusive **public involvement process**;
- Consideration of **15 specific planning factors** to ensure that the transportation planning process reflects a variety of issues and considers other concerns such as land-use planning, energy conservation, and environmental management;
- As part of plan development, **major investment studies** are conducted to address significant transportation problems in a corridor or subarea that might involve the use of Federal funds;
- Development and implementation of **management systems** including:
  - **intermodal management system**
  - **congestion management system**
  - **public transit facilities management system**
  - **pavement management system**
  - **bridge management system**
  - **safety management system**
- Development of **financial plans** for implementing the transportation plan and TIP; and
- Assurance that **the transportation plan and TIP conform** to the State Implementation Plan (SIP) pursuant to the standards of the CAAA;

These requirements apply to local, metropolitan, and State agencies involved in metropolitan transportation planning and program development.

Chart #1

Major Elements of Metropolitan Transportation Planning Process



Transportation Plans

Based on consideration of the six major elements of transportation planning, the MPO must develop a transportation plan which covers a 20-year period and identifies facilities (including but not limited to major roadways, transit, and intermodal facilities) that should function as an integrated regional system. The plan needs to include both short- and long-term actions that develop and maintain an integrated, intermodal transportation system that is accessible and that efficiently moves people and goods.

The MPO, in cooperation with the State and such transportation providers as public transit operators, carries out the metropolitan transportation planning process. That includes development of the transportation plan and the TIP. They should be developed with input from the public and be coordinated with transportation providers including regional airports, maritime operators, rail-freight operators, and others within the area.

> The transportation plan reflects environmental and intermodal considerations and provides a financially-constrained vision of future transportation investments.

Transportation Improvement Programs

The TIP is a short-term document covering at least 3 years, and it must be updated at least every 2 years. The TIP includes the list of priority projects to be carried out in each of the 3 years. Projects included in the TIP must be consistent with the transportation plan. These projects originate in the following way: the MPO develops a transportation plan in cooperation with the respective implementing agencies and the implementing agencies carry out the plan's elements in the priority reflected in the TIP.

> The TIP serves as a strategic management tool which accomplishes the objectives of the plan.

The MPO, the FHWA, and the FTA must determine that new or amended TIP's conform with the SIP's purpose of attaining the National Ambient Air Quality Standards (NAAQS). The only exception is for amendments involving projects explicitly exempted by the U.S. Environmental Protection Agency (EPA) conformity regulation.

In air quality nonattainment and maintenance areas, the plan and TIP must give priority to and provide for timely implementation of eligible Transportation Control Measures (TCM's) included in the approved SIP for attainment of air quality standards.

In addition, the TIP must be financially constrained by year and include only those projects for which funding has been identified using current or reasonably-available revenue sources. It's financial plan is developed by the MPO in cooperation with the State and transit operators. In order to enable the MPO to conduct adequate financial planning, the State and transit operators provide the MPO with information early in the TIP development process concerning the likely amount of Federal and State funding available to the MPO.

In air quality nonattainment and maintenance areas, projects included in the first 2 years of the TIP must be limited to those for which funds are available or committed.

The TIP may be modified at any time, with appropriate public involvement. However, minor TIP amendments may, unless specifically required by the MPO public involvement process, be made without public involvement. Additionally, projects may be advanced from the second and third years of the TIP to the first year without a TIP amendment. In air quality nonattainment and maintenance areas, modifications must also be made in accordance with the EPA's conformity requirements.

The TIP must be approved by the MPO and the Governor and a conformity determination must be made by the FHWA and the FTA. It then becomes, without modification, part of the Statewide Transportation Improvement Program (STIP). The frequency and cycle for updating the TIP should be compatible with that of the STIP.

Part Three:
Elements of Transportation Planning Under ISTEA

How Do the Pieces Fit Together?

This section reviews each of the six major elements of the planning process, how they fit together to form the basis for the plan and TIP, and the Federal expectations for each element. It is designed to guide metropolitan areas in formulating their strategy for plan and program development and updates. It also prepares them for the planning certification review which the FHWA and the FTA must undertake every 3 years in metropolitan areas with populations of over 200,000. These areas are called Transportation Management Areas (TMA's) and they often, though not always, have the same boundaries as the MPO.

Public Involvement

The ISTEA recognizes that transportation investment decisions have far-reaching effects. It requires that planning processes consider such factors as land-use and "the overall social, economic, energy, and environmental effects of transportation decisions."

Public involvement and input is essential to adequately consider these impacts. The intended outcome of the public involvement process is that better decisions will be made and that those decisions will reflect the community's mobility and accessibility needs.

Expectations for Public Involvement

While each metropolitan area will have different needs, concerns, values, and priorities, there are general guidelines on the Federal Government's expectations of the public involvement process. It may also be helpful for the MPO to compare its process to other attempts in the metropolitan area (for example, by the State, city, county, or transit operator) to elicit public involvement in planning or service delivery.

> Effective public involvement will result in opportunities for the public to participate in the planning process.

The ISTEA regulations require that a formal public involvement process--itself the product of public involvement--be adopted by the MPO. Desirable outcomes of public involvement include:

- Informed and involved citizens who have access to public records and the decisionmaking process;
- A planning approach that is proactive and open to participation by all;
- A process that not only encourages broad public participation but also considers and responds to public input;
- Appropriate interagency consultation in air quality nonattainment areas;

- Ample opportunity for public comment when the final plan or TIP differs from the draft. In air quality nonattainment areas which are TMA's, at least one public meeting must be held to review planning assumptions and the plan development process. At least one meeting must be held during the TIP development process. These meetings may be combined.

MPO's are encouraged to have public involvement in all planning activities. Some elements, such as the provision of timely information and accessibility to information, should be part of the MPO's routine operations.

In planning certification reviews, Federal agencies will consider whether adequate public involvement opportunities are provided and they may suggest that the planning partners augment their efforts to increase participation of under-served groups.

The MPO's are encouraged to make continuous efforts to broaden and improve participation in planning. MPO's should periodically assess their efforts and make necessary adjustments. Plans and programs should reflect community needs, encompass community values, interests and priorities, and have broad community support. Lack of controversy resulting from planning decisions is not necessarily a measure of effective public involvement. Public involvement's impact should be apparent on all aspects of the overall planning process--including on the choice of priorities and investment decisions.

Public Involvement Includes Improved Public Communication

The Metropolitan Transportation Commission (MTC), the MPO for the San Francisco Bay Area, has compiled a Citizens' Guide to MTC to give community members an understanding of MTC's roles and responsibilities. The guide also helps to clarify the transportation programming and decision making processes. For information contact:

Ellen Griffin
MTC
101 Eighth Street-Third Floor
Oakland, California 94607
510/464-7700

Public Involvement Efforts Play Key Role in Minnesota

The Minnesota Department of Transportation (Mn/DOT) has two parallel processes to bring citizens and local officials into transportation planning--the Process for Transportation Investment Decisions (PTID) and the Strategic Management Strategy (SMS).

The PTID places a priority on preserving existing facilities and improving their operation, promoting shared authority and responsibility for decisions between State and local agencies, broadening the planning process, and increasing public involvement.

The SMS is intended to bring a fresh perspective to the agency's operations by involving the people and focuses on basing State transportation project decisions on long-range planning and regional cooperation. The SMS is designed to guide the Mn/DOT staff to increase their responsiveness to the public. The Mn/DOT sponsored eight regional forums to gather views on how to create a framework for future decisions. The participants identified forces affecting transportation, including trends in education, the economy, health care needs, demographics, environment, technology, resource availability, and government. Ten strategic directions were set and a "Global Equilibrium" scenario was selected. The scenario reflects a world in which collaborative efforts on the part of government, business, and citizens effectively utilize resources, technology, labor, communication, and funds in ways that benefit Minnesotans without penalizing others. The scenario serves as a guide for the Mn/DOT to follow.

For more information contact:

Jon A. Bloom/Barbara Nelson
Minnesota Department of Transportation
395 John Ireland Boulevard, Room 807
St. Paul, MN 55155

Metropolitan Planning Factors

The metropolitan planning process must explicitly consider and analyze, as appropriate, 15 factors that reflect sound planning principles. It may be helpful to think about them in three general groupings which reflect major themes of the ISTEA: **Mobility and Access for People and Goods**; **System Performance and Preservation**; and **Environment and Quality of Life**.

These factors should be incorporated in the planning process at an early stage, although the relevance of each factor will vary depending upon local circumstances. The 15 factors, arrayed in the three general groupings, are:

Mobility and Access for People and Goods

- Effects of all transportation projects, whether Federal-aid funded or not;
- International border crossings and the promotion of access to critical areas and activities;
- Road connectivity from inside to outside metropolitan areas;
- Enhancement of efficient freight movement; and,
- Expansion and enhancement of transit services and use.

System Performance and Preservation

- Congestion relief and prevention;
- Preservation and efficient use of existing transportation facilities;
- Transportation needs identified through the implementation of management systems;
- Preservation of rights of way; and,
- The use of life-cycle costs in the design and engineering of bridges, tunnels, or pavement.

Environment and Quality of Life

- Overall social, economic, energy, and environmental effects of transportation decisions;
- Consistency of planning with energy conservation measures;
- Relationships between transportation and short- and long-term land-use planning;
- Programming of expenditures on transportation enhancement activities; and,
- Capital investments that increase transit system security.

While the manner in which MPO's will consider and analyze the planning factors will vary, it is important that the factors be given <u>explicit and appropriate</u> consideration.

The FHWA and the FTA recognize the complexities involved in the consideration and analysis of some of these factors. Their consideration may be also be a part of the public involvement process, a Major Investment Study (MIS), or adjustments to management systems implementation, all of which are required in the metropolitan planning process. Nonetheless, these agencies have established general guidelines with respect to the consideration and analysis of the 15 factors.

Environment and Quality of Life Concerns Reflected in North Carolina's Planning

North Carolina Governor James B. Hunt signed an Executive Order that called for "every reasonable effort" to be made to "accommodate the development of greenway systems in North Carolina." This order was the result of a report developed by the North Carolina Greenways Advisory Panel.

The report called for close ties between greenways and historic preservation and for coordination between the two efforts. It also recommended that State transportation officials work with greenway advocates to integrate greenway and highway planning. For more information contact:

North Carolina Department
of Environment, Health,
and Natural Resources
P.O. Box 27687
Raleigh, NC 27611

Expectations Regarding Consideration and Analysis of Planning Factors

- **Have processes been developed to consider and assess all fifteen factors?**

Methods to assemble or collect relevant information about these factors should be part of the planning process. This requires an understanding of many facets of the metropolitan area and linkages with a variety of officials and organizations.

Consideration of the appropriate factors will benefit from positive working relationships between State and local governments; transportation operators and system users; environmental, energy, land-use planning, housing and development officials and organizations; citizen advocates; and the general public.

For example, consideration of freight enhancements may require regular contact with shippers or port authorities. Assessing land-use implications may require contacts with cities, counties, or other agencies responsible for zoning and land-use, as well as major developers.

Transit expansion and enhancements may require contacts with transit agencies and user groups. Social, economic, energy and environmental effects may require active contacts with a wide variety of agencies and public groups.

The actual process of considering these factors will differ from one metropolitan area to the next and may be qualitative or quantitative, as appropriate.

The important point is that processes be put in place to gather information about the factors and to use the information to consider and analyze the factors throughout the planning process. Mechanisms to gather information about these factors may be formal or informal, but should provide the MPO with useful information for the analysis of each factor.

- **Is consideration and analysis of the factors reflected in the transportation plan?**

Consideration and analysis of the 15 factors is evidence of good planning and should be reflected in the plan. For example, a MIS may result from identification of freight movement problems or problems with accessibility to jobs by transit in a particular corridor or subarea.

The study may also need to consider and analyze environmental effects, congestion relief, or short- and long-term land-use plans. Some of the factors may not apply to the metropolitan area, and others may be of greater importance in one area than in another.

What will Result from Considering and Analyzing these Factors?

Integration of the 15 factors into all stages of the planning process will shape the decisions made on projects and programs included in the plan and TIP. As a result of considering these and other relevant factors, transportation plans and programs should better reflect local needs and interests and improve decisionmaking.

The public involvement process may be a forum through which complex linkages and trade-offs between transportation needs and other community needs and values can be discussed.

Access and Mobility for People Matters in St. Louis-
MPO Strives to Improve Access

The East-West Gateway Coordinating Council, the MPO for St. Louis, Missouri, is initiating a Community Mobility Market Analysis in tandem with the Missouri Department of Social Services.

The MPO's goal is to include specific design improvements for individual access to the St. Louis region by mid-1995. An even more important initiative is one among several major public agencies in the State to locate and deliver services, such as child care and social programs, to areas where residents can reach them on foot or public transit. For more information contact:

Blair Forlaw
East-West Gateway
Coordinating Council
911 Washington Avenue
St. Louis, Missouri 63101

Major Investment Study Requirements

Where the planning process identifies a problem in a corridor or subarea that suggests the possible need for a major investment using Federal funds, then a MIS may be required. A "major investment" in the transportation industry is the construction of a large new facility or a substantial expansion of an existing facility. Examples of major investments might include adding lanes to a freeway or limited access highway or building a light-rail line. Such projects are likely to have substantial costs and substantial transportation benefits.

The MIS's purpose is to analyze solutions to address substantial transportation problems and present this information to decisionmakers. As part of the metropolitan planning process, the MIS leads to better decisions on strategies to be included in the plan.

The identification of the need for a major investment and the need for an MIS should be a collaborative process in which all stakeholders, including the public, participate. Each MIS should be conducted in accordance with the MPO's adopted public involvement process, which can be tailored, as needed, to the MIS.

The MIS also provides a framework for addressing transportation problems that suggest the need for a major Federal investment. While the MIS process is not specifically required by ISTEA, it is necessary to reconcile the various requirements of the ISTEA, the CAAA, and the National Environmental Policy Act (NEPA).

> The MIS process provides an opportunity for transportation professionals to plan with the public and to consider public input as crucial to decisionmaking.

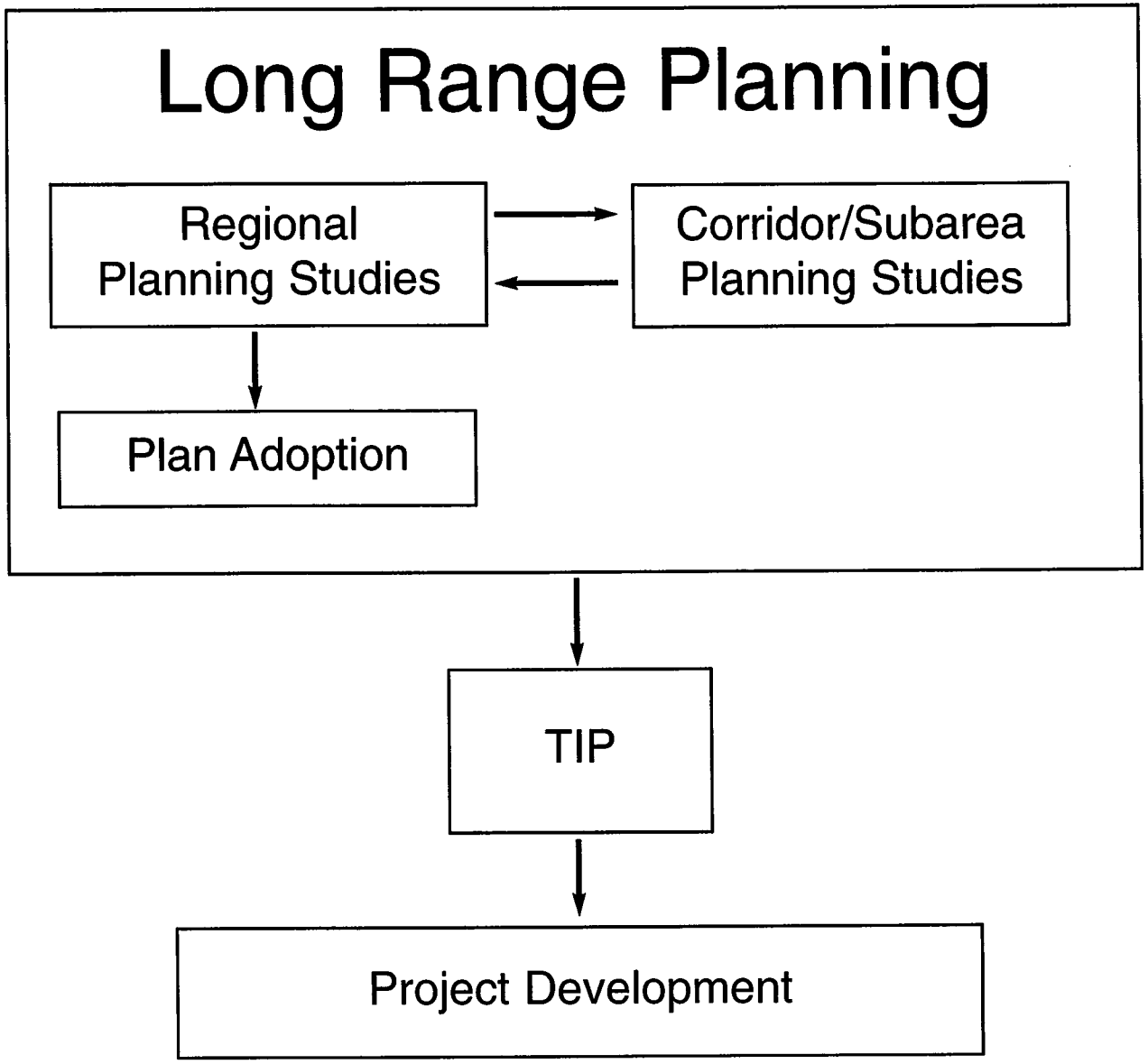
Therefore, the MIS integrates the planning and environmental processes. For example, if alternatives are adequately considered during the MIS process with the involvement of citizens and environmental agencies, they should not need to be reconsidered in the subsequent project development process.

The overall planning and environmental process can be streamlined because analyses are only done once. Chart #2 shows how the MIS process fits into the overall planning process and a detailed discussion of NEPA and the MIS relationships appears in Appendices B and C.

The MIS requirement provides a general framework that is extremely flexible. The FHWA and the FTA expect that each MIS will be tailored to the decisions that will be made, the choices available, and the information that decisionmakers, the public, and other stakeholders need.

The level of detail of the MIS should be appropriate to the decision to be made and must be sufficient to distinguish between alternative options. All aspects of the MIS should be thoroughly documented including alternatives considered and their impacts on the factors listed below.

Chart #2


Long Range Planning
Regional Planning Studies
Corridor/Subarea Planning Studies
Plan Adoption
TIP
Project Development

Strength of the MIS Process Demonstrated in Pocatello, Idaho

In July 1994, the Bannock Planning Organization (BPO) urged the State of Idaho Department of Transportation (IDOT) to do an MIS in conjunction with an evaluation it was conducting to determine the best way to solve a congestion problem. The project chosen 10 months and $40,000 later, was not one of the original three under review. Thus, the "best" solution was identified through the MIS/planning process. The IDOT was much more informed than before the MIS, and the BPO considered funding constraints as real issues. Through the MIS process, all stakeholders had good information, and this helped to produce public consensus. The solution chosen was the one that best combined cost-effectiveness and congestion reduction. The MIS also carried out studies which probably will not need to be duplicated under NEPA, saving time and money.
For more information contact:
Bannock Planning Organization
280 South Arthur Avenue
Pocatello, Idaho 83204

Expectations in the MIS Process

The MIS should evaluate the overall effectiveness and cost-effectiveness of alternative investment strategies. Alternatives selected for study should include reasonable solutions to the problem, including different combinations of modes of transportation.

The MIS also should consider factors such as direct and indirect costs of the alternatives, mobility and accessibility improvements, and the impacts on social, economic, environmental, safety, operating efficiencies, land-use, economic development, financing, and energy consumption.

What is the Relationship Between the MIS and the NEPA Requirements?

The FHWA and the FTA have integrated the MIS requirement with that of NEPA and its subsequent guidance. For ease of reference, and a better understanding of how the MIS process and NEPA fit together, more information on NEPA requirements is included the next section of this guide and in Appendix B.

As envisioned by the FHWA and the FTA, the MIS can be documented in two different ways: either in a final report or in a draft environmental document. The choice of which process to use lies with the cooperating partners and should be carefully considered prior to initiating the MIS. The two scenarios anticipated by the Federal agencies in the documentation of an MIS and the integration with existing NEPA requirements discussed in detail in Appendices B and C.

Management Systems Development and Integration into the Planning Process

To ensure that transportation infrastructure is effectively managed and maintained and that it operates as efficiently as possible, ISTEA called for each State to develop six management systems. Three of these systems (pavement, bridge, and public transit facilities) focus primarily on **asset management.** They are intended to track asset conditions concerning the operational, maintenance, safety, repair, and replacement needs of these assets and provide input to the transportation

planning and program development process so their continued viability is ensured.

The other three systems (intermodal, congestion management, and safety) are oriented toward ensuring efficient **performance** of the transportation network.

While all but the congestion management system (CMS) are to be developed by State DOT's, the CMS should be developed for metropolitan areas with close coordination between the State, the MPO, and other major stakeholders such as freight operators, ports, airports, and transit agencies. In nonattainment TMA's, ISTEA explicitly limits SOV capacity projects to those which are products of a CMS.

The actions, strategies, and needs identified through the implementation of the management systems, including those which enhance system performance, should be considered and reflected in the development of and revisions to the transportation plan and TIP.

The States must certify annually that the management systems are being implemented. Chart #3 provides an illustration of how management systems and their input can be incorporated into the planning process.

> Management systems should provide information that will enhance investment decisions and improve system efficiency.

Congestion Management System

The Congestion Management System (CMS) should include an ongoing method to provide information on the performance of the transportation system and on alternative strategies to alleviate congestion and enhance mobility.

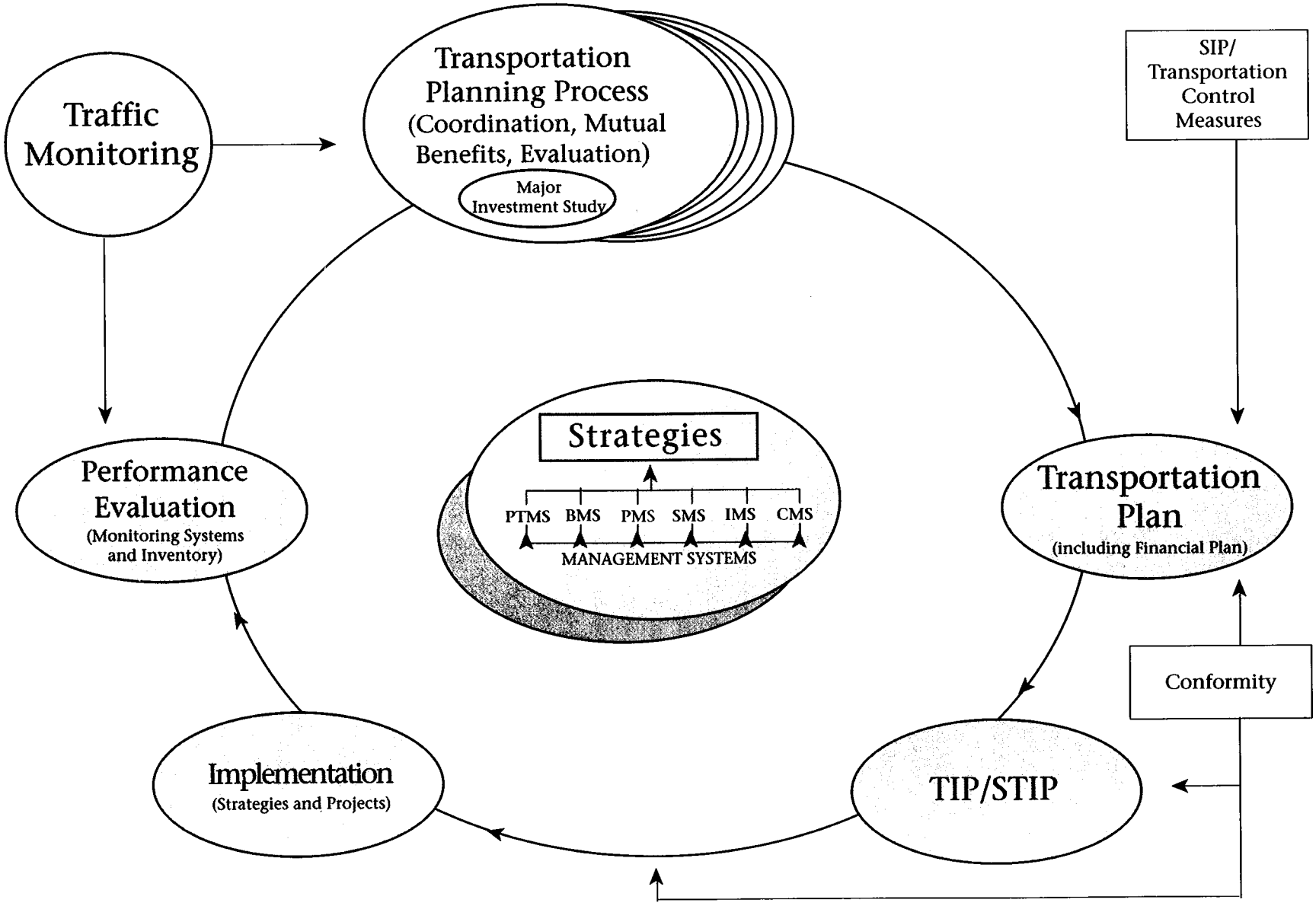
The key to the CMS in metropolitan areas is monitoring and analysis of the entire **transportation system's performance,** in the broadest terms, not the performance of one mode or another as measured by narrowly-defined mode specific criteria. Performance can be measured in terms of congestion relief and other State- and- locally- selected performance indicators.

The CMS is designed to emphasize **effective management of existing facilities** through use of travel demand and operational management strategies.

In TMA's that are in nonattainment of ozone or carbon monoxide (CO) standards, Federal funds may not be advanced for any new project that will significantly increase the carrying capacity for single-occupant vehicles (SOV's) unless the project results from a CMS.

SOV projects that are a part of the CMS must include operational management and/or travel demand reduction strategies to effectively manage these facilities so system performance does not worsen after the facilities are constructed.

Chart #3


Traffic Monitoring
Transportation Planning Process (Coordination, Mutual Benefits, Evaluation)
Major Investment Study
SIP/ Transportation Control Measures
Performance Evaluation (Monitoring Systems and Inventory)
Strategies
PTMS BMS PMS SMS IMS CMS
MANAGEMENT SYSTEMS
Transportation Plan (including Financial Plan)
Conformity
Implementation (Strategies and Projects)
TIP/STIP

The CMS should include the following components as appropriate:

- Performance measures;
- A program for continuous data collection and system monitoring;
- Identification and evaluation, as part of the planning process, of possible congestion management strategies, including but not limited to:

  -travel demand management measures;
  -traffic operational improvements;
  -measures to encourage use of high occupancy vehicle lanes (HOV);
  -public transit capital and operational improvements;
  -measures to encourage use of nonmotorized modes;
  -congestion pricing;
  -growth management;
  -access management techniques;
  -incident management techniques;
  -intelligent transportation systems applications;
  -addition of general purpose lanes;

- Incorporation of strategies into plans and TIP's; and,

- Evaluation of the effectiveness of implemented strategies.

Intermodal Management Systems

Since new transportation investments should complement existing infrastructure and improve the efficiency of the transportation system as a whole, intermodal management systems (IMS) are meant to ensure that connections and transitions between modes for both passenger and freight service are as seamless as possible.

States are taking different approaches to developing their IMS. Since the ISTEA was enacted, much emphasis has been placed on improving connections between modes, particularly for the freight sector. Many examples exist of projects which have been adopted into plans and TIP's to achieve smooth connections, and MPO's are encouraged to consider the needs reflected in the State's IMS in their plan and TIP.

Public Transit Facilities Management System

The public transit facilities management system (PTMS) is intended to provide decisionmakers with sufficient information to select cost-effective strategies for providing and maintaining transit assets in a serviceable condition.

The PTMS supports Statewide and metropolitan planning and programming by identifying transit capital needs. Development of the PTMS should be a collaborative effort, with State DOT's, MPO's, and transit operators cooperatively defining system goals and objectives which best meet community needs.

Information gathered in management systems implementation should be used in planning. Potential strategies identified to manage system deficiencies or to enhance system performance should be analyzed in the development of plans and TIP's.

How Will the Planning Process Reflect the Input of the Management Systems?

The integration of the results of management systems into plans and TIP's could result in strategies that reduce congestion and travel demand; improve safety; improve mobility; reduce vehicular emissions; and improve the efficiency of transportation facilities.

The performance measures or other evaluative processes used in the management systems should assist the MPO in assessing the needs and priorities for projects and programs.

Transportation and Air Quality Considerations (Conformity)

One of the most dramatic examples of how transportation planning changed under ISTEA is the linkage with the transportation conformity requirements of the CAAA.

The integration of transportation and air quality planning is required in areas that fail to meet the NAAQS and in so-called "maintenance" areas. The EPA issued the transportation conformity rule in 1993, and compliance with its requirements is mandatory for nonattainment or maintenance areas.

Basics of Transportation Conformity

The essence of transportation conformity is that, in nonattainment and maintenance areas, transportation plans and programs which are financed wholly or partly with Federal-aid are required to be in conformance with the transportation provisions of the SIP--the statewide planning document which demonstrates how each State will attain the NAAQS.

> Requirements to consider the linkages between transportation and air quality planning have served as a catalyst to encourage broader thinking about the impacts of transportation investments.

For ozone and CO nonattainment areas, the MPO must coordinate the development of the transportation plan with the process for developing TCM's included in the SIP.

The TIP must be consistent with the transportation plan. Additional requirements of ISTEA for prioritization of projects in the TIP within 3-year time periods complement the CAAA's priority and 3-year emission reduction requirements applying to the more serious nonattainment areas.

The roles of the FHWA and the FTA are explicitly articulated in the conformity regulation, and the planning process in affected areas must address conformity and air quality issues in several ways. Appendix A contains an overview of the EPA's transportation conformity requirements.

Expectations With Respect to Transportation Conformity

Conformity with a SIP means conformity to a SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of the standards. There are significant differences in the way the MPO's will address air quality issues depending on whether they are attainment areas (i.e. never been designated as nonattainment areas) or nonattainment or maintenance areas (i.e. previously nonattainment but redesignated as attainment).

The MPO must make conformity determinations on the plan and TIP to ensure they conform to the SIP. The FHWA and the FTA must also review the plan and TIP and make a conformity determination in order for the projects contained in the plan and TIP to be eligible for Federal funding or approvals.

Financial Planning and Constraints

One of the most challenging requirements of ISTEA is that financial planning needs to be fully integrated into the plan and TIP development process.

Resources are limited at all levels of government, and financial planning is fully appropriate for transportation plans and TIP's. The purpose of this requirement is to encourage good financial planning and to prevent plans and TIP's from becoming "wish-lists" of projects with no realistic chance of implementation. Without constraints, the need to make choices and set priorities is often ignored. Financial constraint requirements also ensure that maintenance and operation of the existing system is funded.

The plan must also include a financial element which identifies resources that are reasonably expected to be available to carry out the plan and recommends any innovative financing techniques needed to fund projects and programs, including such mechanisms as value capture, tolls, and congestion pricing.

One of the reasons that the financial constraint requirement is so challenging is that it forces policymakers to consider trade-offs and make choices among alternative transportation investments and policies.

Although the MPO adopted plan must be financially constrained, at the option of local officials, a "vision plan" may be prepared that provides value by illustrating additional facilities and services that the region may wish to implement. Vision plans are useful as a way to explore new, imaginative, or innovative funding sources for transportation investments.

Vision Plan Pays Off in Los Angeles

In 1980, in response to the development of a long-range transportation plan presented by the then-Los Angeles County Transportation Commission, the voters of Los Angeles County approved a ½ percent sales tax to be dedicated to transportation investments.

The voters approved another ½ percent sales tax in 1990. These two tax measures now provide approximately 70 percent of the transportation funds available in Los Angeles County, over $700 million in funding per year that was not available prior to 1980.

Financial Element of Transportation Plans

"Fiscal constraint" for transportation plans means that the total estimated costs of projects included in a plan cannot exceed estimated revenues and the estimated cost of constructing, operating, and maintaining the total (existing plus planned) transportation system over the period of the plan.

Financial constraint requirements for **plans** do not prohibit the inclusion of projects where funding is uncertain, but merely require that such projects be linked to new funding sources, and that a reasonable strategy for securing funds be included in the plan.

The financial plan should identify which projects can be implemented using current revenue sources and which projects are to be implemented using proposed revenue sources.

If these funds are proposed from new revenue sources, realistic strategies to ensure their availability must be identified.

Financial Element of the TIP

The TIP must be financially constrained by year and cover at least 3 years. Only projects for which funds can reasonably be expected to be available during the period of the TIP may be programmed.

> For TIP's, financial constraint means funds must be identified for the period of the TIP and associated with specific projects. In nonattainment areas, the TIP must be constrained for the first 2 years to available and committed funds.

Expectations for Financial Constraint of Plans and TIP's

Below are suggestions to help MPO's in their financial planning.

- Revenue estimates and estimated costs of building, operating, and maintaining the transportation system in the metropolitan region should be developed, recognizing that uncertainties exist about the availability of funds from other agency's budgets, economic forecasts, and unforeseeable events. In addition, more reliable cost estimates will emerge from the project development and detailed planning process.

- Notwithstanding such uncertainties, the State, transit operators, and other involved agencies are encouraged to provide timely and accurate revenue estimates to the MPO concerning what sources and amounts of Federal and other funds they estimate will be available to the region.

- Realistic cost and revenue estimates should be incorporated into the goals, priorities, and criteria for transportation plan and TIP development. One reason for this requirement is that it prevents capital investments in new capacity while ongoing operations, rehabilitation, and maintenance needs go unfunded.

- Financial studies and cost projections should be documented in a consistent and realistic manner.

- All parties participating in the planning process should be informed about project costs and available financing.

- When a new revenue source is proposed in a plan or a TIP, a reasonable and timely strategy for securing the additional revenue is essential.

  For example, funds requiring a technical change in a State tax law might reasonably be available if the law has already received considerable support, although not formal approval, from the Governor and a majority of the State legislature.

  However, reliance on funding from a ballot initiative that has failed five times may not be reasonable. Further, funds from a sales tax increase that will become available 2 years from the effective date of the TIP may be assumed to be available in year three, but not year one or two of the TIP.

NATIONAL ENVIRONMENTAL POLICY ACT

NOTE: While the NEPA requirements were not changed as a result of the ISTEA, the FHWA and the FTA continue to streamline the NEPA process and integrate the various planning and project development components of the ISTEA with NEPA procedures. Therefore, this guide provides basic information on NEPA requirements especially because of the many linkages with the MIS and planning processes. It should be stressed that the NEPA process focuses on projects after they have been included in the plan and TIP. For a more detailed look at the NEPA process and its relationship to MIS, refer to Appendices B and C where both processes are discussed.

In August 1987, the U.S. DOT issued regulations governing environmental impact statements and related documents under grant programs administered by the FHWA and the FTA. The rules were designed to streamline the project-development process and delegate greater decisionmaking authority to Federal agency field offices.

The regulations were also intended to contribute to the establishment of a streamlined, "one-stop environmental process" in which public involvement is fully integrated with the other project development and environmental procedures.

When U.S.DOT concludes the NEPA process with a Record of Decision (ROD), a Finding of No Significant Impact (FONSI), or a Categorical Exclusion (CE), it has made a determination of a proposal's concept, location, and major design features. This is in addition to a comprehensive review of social, economic, and environmental impacts along with mitigation and enhancement.

This entire process is a collaborative effort involving the public, affected parties, decision-makers, and other Federal, State, and local agencies. This combining of requirements into the NEPA documentation is a clear attempt to avoid situations such as having an agency meet all the necessary requirements to be in full compliance with NEPA, only to then, for example, request a wetlands permit from the U.S. Army Corps of Engineers, and be forced to go back and revisit the same issues covered in the NEPA document.

The NEPA process is much more than a simple review of factors relating to the environment, such as wetlands, community impacts, or air quality. It has been carefully nurtured over the years to create a framework for project decision-making relating to the location and major design features of the proposed project.

The NEPA process involves the consideration of alternatives, identification of the impacts of those alternatives, public involvement, and an interdisciplinary approach before decisions are made. The NEPA is not just about preparing documents.

In order to create the opportunity for "one-stop" shopping at the Federal level, the document prepared to comply with the NEPA is the instrument used to address the requirements all other related environmental laws, such as the CAAA, Clean Water Act, and the National Historic Preservation Act.

Pittsburgh's Southern Expressway Project: Cooperation between Agencies Pays-off in NEPA Process

In the mid-1980s, the Federal Aviation Administration (FAA) approved a FONSI for the relocation of the Greater Pittsburgh International Airport. The FAA's FONSI included a reference to a new expressway to serve the airport.

The Pennsylvania Department of Transportation (PennDOT) and the FHWA worked together to advance an Environmental Impact Statement (EIS) quickly with the FAA's cooperation. A series of monthly meetings were convened to resolve major concerns and objections which had been raised over the original Draft Environmental Impact Statement (DEIS).

Issues such as project need, traffic projections, land-use plans, development of alternatives, wetlands avoidance and mitigation plans were revisited. Through a cooperative approach and effort, the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) were completed in time to construct the road before the new terminal opened. This model served in the development of techniques later employed by the FHWA's Region 3 NEPA/404 Integration Task Force.

When the U.S. DOT is the lead agency for a proposal, the NEPA process is used to build agency and public consensus for the location and major design features, not just the "environmental clearance." The primary focus is on ensuring an efficient process that includes concurrent reviews and involvement and avoids sequential review by Federal agencies.

The greatest impact the ISTEA and the CAAA have had on the NEPA process has been to place even more emphasis on considering environmental and social factors in the early stages of decisionmaking.

In air quality nonattainment areas, since projects must come from a transportation plan that is in conformance with the SIP, the design concept and scope must be adequately defined to make that determination.

Many of U.S. DOT's current efforts with the MPO's, State DOT's and resource agencies are devoted to developing ways to merge traditional planning processes with improved social and environmental considerations.

Part Four: References

The following is a chronological list of references, including regulations and guidance that have been issued by the FHWA, the FTA, or the EPA concerning various aspects of the metropolitan planning process and related activities. Copies of any of these publications, regulations, or guidance may be obtained by contacting the FHWA or the FTA at 400 Seventh St. S.W., Washington, D.C. 20590.

In addition, many other publications have been issued relating to ISTEA implementation by both public and private sector organizations, States, and non-profit groups. Information on obtaining such documents may be obtained by contacting trade associations, non-profit organizations, State departments of transportation, MPO's, and the Transportation Research Board.

Federal Highway Administration, Federal Transit Administration, Title 23, Code of Federal Regulations, Part 771, (1987) Final Rule: Environmental Impacts and Related Procedures August 28, 1987.

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Federal Highway Administration, Federal Transit Administration, (1994) Guidance on Major Investment Studies, August 19, 1994.

Federal Highway Administration, Federal Transit Administration, (1994) Public Involvement in Transportation Decision Making, November 16, 1994.

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U. S. Department of Transportation, (August 1993) Review of the Transportation Planning Process in the Southern California Metropolitan Area, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Cambridge, MA. RSPA/VNTSC-SS-TM392-03.

U. S. Department of Transportation, (March 1993) Review of the Transportation Planning Process in the Pittsburgh Metropolitan Area, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Cambridge, MA. RSPA/VNTSC-SS-TM392-04.

U. S. Department of Transportation, (July 1993) Review of the Transportation Planning Process in the Houston Metropolitan Area, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Cambridge, MA. RSPA/VNTSC-SS-TM392-05.

U. S. Department of Transportation, (March 1993) Review of the Transportation Planning Process in the Minneapolis-St. Paul Metropolitan Area, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Cambridge, MA. RSPA/VNTSC-SS-TM392-06.

U. S. Department of Transportation, (November 1994) Review of the Transportation Planning Process in the Portland, Oregon Metropolitan Area, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Cambridge, MA. RSPA/VNTSC-SS-TM392-07.

U. S. Department of Transportation, (September 1994) Review of the Transportation Planning Process in the Sacramento Metropolitan Area, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Cambridge, MA. RSPA/VNTSC-SS-TM392-08.

U. S. Department of Transportation, (November 1994) Review of Transportation Planning Process in the Denver Metropolitan Area, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Cambridge, MA. RSPA/VNTSC-SS-TM392-09.

ACKNOWLEDGMENTS

This guide contains several examples of planning practices found throughout the United States and documented through the efforts of the Surface Transportation Policy Project (STPP). The work of the Transportation Systems Center (TSC) in Cambridge, Massachusetts, has also been extremely helpful and used extensively in assembling this guide. The TSC, under contract to the FTA and the FHWA has thoroughly reviewed and documented planning activities in nine metropolitan areas over the past several years. The gracious assistance and sharing of information by both groups is much appreciated. This guide was prepared by Sarah J. Siwek & Associates under contract to the FHWA.

APPENDIX A
OVERVIEW OF TRANSPORTATION CONFORMITY

What is Conformity?

Conformity is a determination made by MPO's and U.S. DOT that transportation plans and programs in air quality nonattainment and maintenance areas meet the "purpose" of the SIP: reducing pollutant emissions to meet the NAAQS.

Specifically, the transportation plan and program must contribute to reducing motor vehicle emissions; and projects must be drawn from a conforming transportation plan and TIP. All regionally-significant projects, including non-federally assisted projects, must be included in the plan and TIP conformity analysis. Chart #4 illustrates the steps in the conformity process.

According to the CAAA, transportation plans and programs cannot:

- Create new NAAQS violations
- Increase the frequency or severity of existing NAAQS violations
- Delay attainment of the NAAQS

Who Makes the Conformity Determination?

The MPO and the U.S. DOT have an "affirmative responsibility" to ensure that the metropolitan transportation plan and program conform to the SIP. Conformity determinations for projects within and outside of the metropolitan area's boundaries[1] are the responsibility of the U.S. DOT and the project sponsor.

How Often Is the Conformity Determination Made?

Conformity determinations are to be made no less than every 3 years or as changes are made to plans, TIP's, and projects. Certain events, such as SIP revisions that establish or revise a transportation-related budget or that add or delete TCM's will also trigger a new conformity determination. For exact schedules, see the transportation conformity regulation promulgated by the EPA (*Federal Register,* Title 40, Code of Federal Regulations, Parts 51 and 93) on November 24, 1993.

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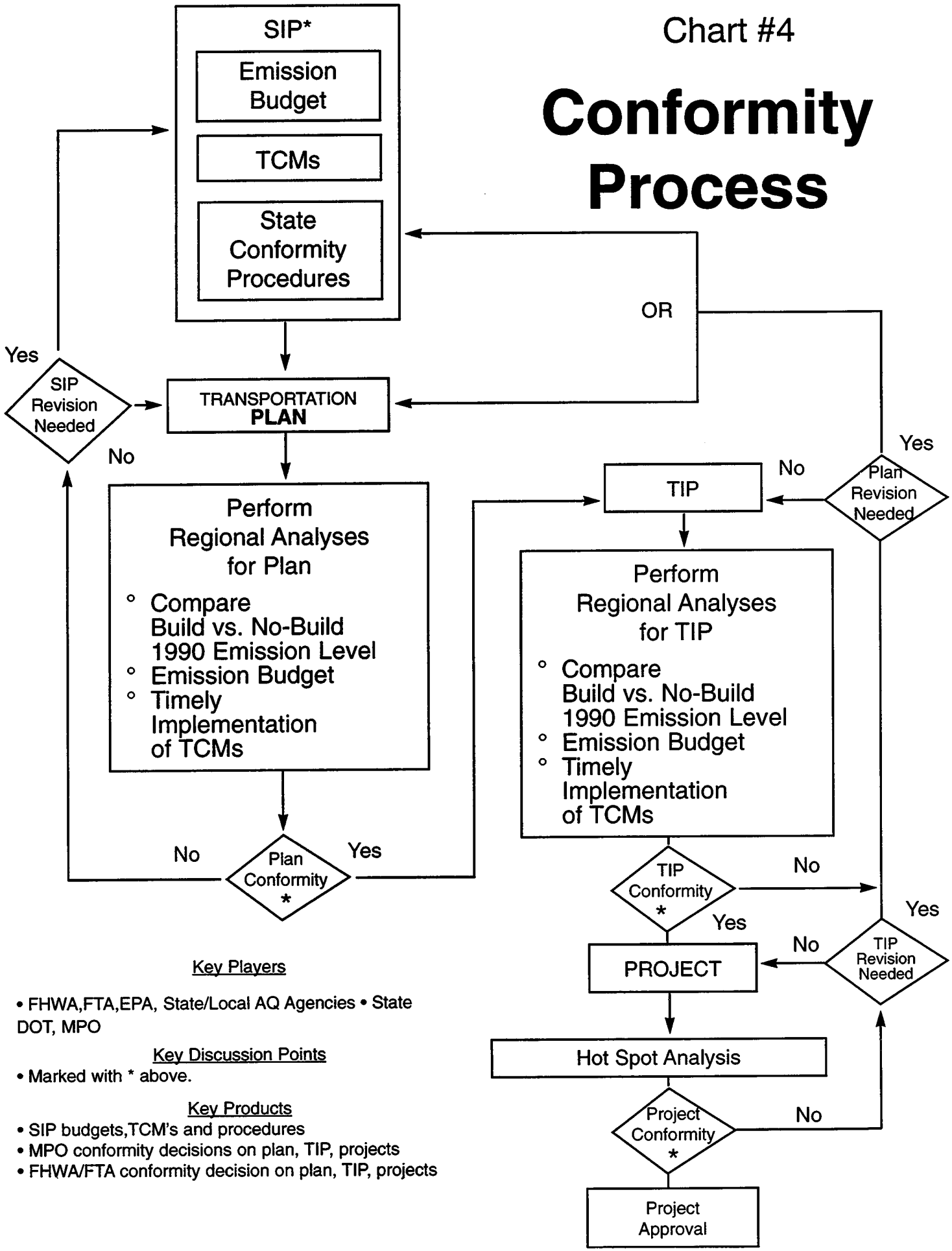
[1]In air quality nonattainment areas, the planning boundaries coincide with the nonattainment boundaries, except as otherwise provided by agreement between the affected MPO and the Governor. This will include the "donut-shaped" area located outside the urbanized planning boundaries, but within the nonattainment boundaries. If boundaries are revised, it is the responsibility of the MPO and the State to determine how conformity in the nonattainment area outside the planning area will be ensured.

Chart #4

Conformity Process



Key Players

• FHWA,FTA,EPA, State/Local AQ Agencies • State DOT, MPO

Key Discussion Points

• Marked with * above.

Key Products

• SIP budgets,TCM's and procedures
• MPO conformity decisions on plan, TIP, projects
• FHWA/FTA conformity decision on plan, TIP, projects

What help is available to an MPO to ensure its transportation plan and TIP conform to the SIP?

Conformity determinations for transportation plans, TIP's, and projects are based on the EPA transportation conformity regulations and summarized below:

Transportation Plans and Programs

- The transportation plan and program must be fiscally constrained.
- The transportation plan and program must use the most recent estimates of mobile source emissions and latest planning assumptions.
- The transportation plan and program must provide for expeditious implementation of TCM's in the SIP.
- The transportation plans and programs of MPO's for areas designated as nonattainment and maintenance areas for ozone or CO must contribute to annual emissions reductions and/or meet emissions budgets.
- The transportation plan and programs of MPO's for areas designated nonattainment and maintenance areas for PM10 and NOx must contribute to emissions reductions or must not increase emissions; or meet emission budgets.

Transportation Projects

- Transportation projects must come from conforming transportation plan and TIP.
- The design concept and scope of the project that was in place at the time of the conformity finding must be maintained throughout implementation. The design concept and scope refer to the number and types of roadway lanes, degree of access control, etc.
- Project design and scope had to be sufficiently defined to determine emissions at the time of the conformity determination for the TIP.
- A project in CO nonattainment areas must show a reduction in the number and severity of CO violations in the area substantially affected by the project.

or, if these criteria cannot be met:

- Demonstrate that the project emissions, when considered with the emissions projected for the conforming transportation plan and TIP, do not cause the plans and programs to exceed the emissions budget in the SIP.

Other procedures and criteria that are addressed by the conformity regulations are:

- Consultation procedures to ensure coordination and cooperation by the MPO, State transportation and air quality agencies, and the DOT before the conformity determination is made;

- How conformity determinations will be made with respect to maintenance plans.

Each State must revise its SIP to include conformity procedures and criteria based on those established in EPA's regulations. It is important for State and local transportation and air quality officials to work together in the initial development and periodic updates of these procedures.

What happens if a transportation plan, TIP, or project does not meet the conformity requirements?

If a transportation plan, TIP, or project does not meet conformity requirements, transportation officials have the following options:

- Modify the plan, TIP, or project to offset the emissions;
- Work with the appropriate State agency to modify the SIP to offset the plan, TIP, or project emissions;

If the above is not accomplished, the plan, TIP, or project cannot advance. This can affect both transit and highway projects.

Other Requirements

- Agreements and procedures must be in place between the MPO and the air quality agency describing roles and responsibilities for transportation related air quality issues.

- For ozone and CO nonattainment areas, the MPO must coordinate the development of a transportation plan with the process for development of the TCM's in the SIP.

- Any projects that will significantly increase capacity for SOV's in TMAs that are classified as nonattainment for ozone and/or CO must result from a CMS and must incorporate all reasonable strategies to effectively manage the SOV facility.

- The environmental effects of transportation decisions must be considered as one of the planning factors regardless of the metropolitan area's air quality classification.

- Environmental effects of transportation decisions must be considered in the MIS process.

- The Unified Planning Work Program (UPWP) for each TMA must describe all metropolitan transportation and transportation related air quality planning activities planned during the next 1 or 2 year period.

- Plans and TIP's must be financially constrained in accordance with the financial constraint requirements of the metropolitan planning regulations. In nonattainment areas, all funds for the first 2 years of the TIP must be shown to be available by year and committed to those projects. In addition, the nonattainment area must show that it can operate and maintain the existing transportation system and services.

APPENDIX B
OVERVIEW OF THE NEPA PROCESS

Policy Context of 1987 NEPA Regulation

As stated in the 1987 Final Rule, "to the fullest extent possible, all environmental investigations, reviews, and consultations be coordinated as a single process, and compliance with all applicable environmental requirements be reflected in the environmental document required by the regulation." NEPA documentation also will ensure that "alternative courses of action be evaluated and decisions be made in the best overall public interest based upon a balanced consideration of the need for safe and efficient transportation, the social, economic, and environmental impacts of the proposed transportation improvement, and of National, State, and local environmental protection goals."[2]

Classes of Actions

There are three classes of actions which prescribe the level of documentation required in the NEPA process. The actions relate to the type of transportation investments and, in normal circumstances, their anticipated impacts on the environment.

Class I (Environmental Impact Statements) These are actions which significantly affect the environment and require an Environmental Impact Statement (EIS). Examples of such actions are a new controlled-access freeway or new construction or extension of fixed-rail transit facilities.

Class II (Categorical Exclusions Categorical Exclusions (CE's) are actions which normally do not individually or cumulatively have a significant environmental effect and are excluded from the requirement to prepare an Environmental Assessment (EA) (See class 3). Examples of such types of projects are:

- Activities which do not involve or lead directly to construction, such as planning and technical studies, engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed;
- Approval of utility installations along or across a transportation facility;
- Construction of bicycle paths, pedestrian lanes, and facilities;
- Activities included in a State highway safety plan;
- Installation of noise barriers or alterations to existing publicly owned buildings to provide for noise reduction;
- Landscaping;
- Installation of fencing, signs, pavement markings; and
- Emergency repairs.

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[2]Federal Highway Administration, Federal Transit Administration, Title 23 Code of Federal Regulations, Part 771, Final Rule: Environmental Impacts and Related Procedures, August 28, 1987.

Additional actions may be designated as CE's subject to Federal approval. To obtain such approval, the applicant (MPO, State, or transit operator) should demonstrate that the specific conditions or criteria for these CE's are satisfied and that significant environmental effects will not result. Examples of actions whose impacts may be such that they may be classified as CE's include:

- Modernization of a highway by resurfacing, restoration, or rehabilitation;
- Reconstruction, adding shoulders, or adding auxiliary lanes;
- Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting;
- Bridge rehabilitation, reconstruction, replacement, or construction of grade separations to replace existing at-grade railroad crossings; and,
- Approvals for changes in access control.

Class III (Environmental Assessments) Actions in which the significance of the environmental impact is not clearly established call for Environmental Assessments (EA's). All actions that are not Class I or II are Class III. All actions in this class require the preparation of an EA to determine the appropriate environmental document required. An EA can result in a recommendation to the FHWA or the FTA for a finding of no significant impact (FONSI) or for a full EIS.

An EA must be prepared by the applicant in consultation with the Federal agency (FHWA or FTA) for each action that is not a CE and does not clearly require the preparation of an EIS, or where the Federal Government believes an EA would assist in determining the need for an EIS.

Public Participation Process for Environmental Assessments

For actions which require an EA, the applicant, in consultation with DOT, should at the earliest appropriate time, begin consultation with interested agencies and others, including the public, to advise them of the scope of the project.

The scope of the EA should achieve the following objectives: determine which aspects of the proposed action have potential for social, economic, or environmental impacts; identify alternatives and measures which might mitigate adverse environmental impacts; and identify other environmental review and consultation requirements. The applicant must accomplish this through an early coordination process or through a scoping process. Public involvement must be documented and summarized and the results of agency coordination included in the EA.

The EA need not be circulated for comment but the document must be made available for public inspection at the applicant's office and at the appropriate Federal agency field offices. Notice of the availability of the EA must be sent to affected units of Federal, State, and local governments. State public involvement procedures for the NEPA process contain criteria for whether a public hearing is held on an EA project.

If no significant impacts are identified in the EA, the applicant shall furnish the Federal Government with a copy of the EA, the public hearing transcript (if held), copies of any comments received and responses thereto, and recommend a FONSI. When the Federal agency expects to issue a FONSI for an action, copies of the EA will be made available for public review for a minimum of 30 days before the Federal agency makes its final decision. The public availability will be announced by a notice similar to a public hearing notice.

If, at any point in the EA process, a Federal agency determines that the action is likely to have a significant impact on the environment, the preparation of an EIS will be required.

Draft Environmental Impact Statement Requirements

A draft EIS (DEIS) must be prepared when a determination is made that the action is likely to cause significant impacts on the human or natural environment. When that determination is made, the FHWA or the FTA, in cooperation with the applicant, will begin a "scoping" process.

The scoping process identifies the range of alternatives and impacts and the significant issues to be addressed in the EIS. Again, there are many linkages with the MIS documentation process and combining the processes can save time and effort. The scoping process is normally achieved through public and agency involvement procedures required by early coordination, public involvement, and project development aspects of the NEPA procedures.

The DEIS must evaluate all reasonable alternatives and discuss the reasons why other alternatives, which may have been considered, were eliminated from detailed study. The DEIS shall also summarize the studies, review, consultation, and coordination required by environmental laws or Executive Orders, to the extent appropriate, at this stage in the environmental process.

The DEIS must be circulated for comment by the applicant on behalf of the FHWA or the FTA and made available to public officials, interest groups, and members of the public known to have an interest in the proposed actions or the DEIS. The DEIS shall also be made available to Federal, State and local government agencies expected to have jurisdiction or responsibility over, or interest or expertise in, the action including State and Federal land management entities that may be significantly affected by the proposed action or any of the alternatives. A State must hold a public hearing or offer the opportunity for a public hearing.

Final Environmental Impact Statement Requirements

After circulation of a DEIS and consideration of comments received, a final EIS (FEIS) must be prepared by the FHWA or the FTA in cooperation with the applicant or where permitted by law, by the applicant with appropriate guidance and participation by the FHWA or the FTA. The FEIS will identify the preferred alternative and evaluate all reasonable alternatives considered. It will also discuss substantive comments received on the DEIS and responses thereto, summarize public involvement, and describe the mitigation measures that are to be incorporated into the proposed actions. Mitigation measures presented as commitments in the FEIS must be incorporated

into the project as specified. Every reasonable effort must be made to resolve interagency disagreements on actions before processing the FEIS. The FEIS is reviewed for legal sufficiency prior to FHWA or FTA approval.

Record of Decision

The FHWA or the FTA will complete and sign a Record of Decision (ROD) no sooner than 30 days after publication of the FEIS notice in the *Federal Register* or 90 days after publication of a notice of the DEIS, whichever is later. The ROD will present the basis for the decision, summarize any mitigation measures that will be incorporated in the project, and document any required findings or approvals. Until the ROD has been signed, no further approvals may be given except for administrative activities to secure further project funding.

Supplemental EIS

A DEIS, FEIS, or supplemental EIS (SEIS) may be supplemented at any time. An EIS shall be supplemented whenever the Federal Government determines that changes to the proposed action would result in significant environmental impacts that were not evaluated in the EIS or new information or circumstances relevant to environmental concerns and bearing on the proposed actions or its impacts would result in significant environmental impacts not evaluated in the EIS.

APPENDIX C
RELATIONSHIP BETWEEN MIS PROCESS AND NEPA DOCUMENTS

OPTION #1

The first option is to complete the MIS using a final report, leading to selection of one alternative strategy to be included in the transportation plan and TIP. The NEPA documents such as draft and final EIS's, or EA's, reflecting the results of the MIS, would be prepared subsequently as part of project development.

OPTION #2

The second option is for the DEIS/EA to be developed in conjunction with the MIS. Under this option, the MIS process would again lead to selection of one alternative to be included in the plan and TIP.

The difference in the two options is the point at which the NEPA documentation is formally initiated and prepared. In both cases, the MIS leads to selection of a preferred strategy at the level of design concept and scope. Chart #5 illustrates the two options and their relationship to NEPA documentation requirements.

Technical Activities Associated with an MIS

The MIS will identify, analyze, and consider all reasonable alternative methods for meeting the anticipated transportation need in a corridor or subarea. The MIS is envisioned as a collaborative process with an initial meeting to be held to establish roles and responsibilities of participating agencies, the range of alternatives to be studied, and the scope of the analysis to be conducted. (Under Option #2, this meeting would be part of the NEPA scoping process.)

The alternative investment strategies which are examined should include, as appropriate, consideration of alternative modes and technologies, general alignment and capacity options, and low capital cost options such as demand and systems management strategies. Land-use, pricing, and other policy options may also be considered. The general principles to be followed in the analysis include consideration of all reasonable investment strategies to respond to the problem which has been identified. This may include goods and freight movement issues, as well as mobility, accessibility, safety, economic development, and clean air objectives. Use of growth projections, modeling assumptions and travel demand should be consistent for all alternatives considered and with conformity, TIP, and plan assumptions.

Public involvement in the MIS should be proactive, tailored to each specific MIS, started early in the process, be continuing, and assist in the impact analysis and in the final decisions which result from the MIS. In addition, the public should have access to complete information and timely public notice of meetings. Due to the size and scope of alternatives anticipated to be the subject of the MIS process, the FHWA and the FTA expect public interest and involvement in the MIS process to be substantial.

Chart #5

MIS/Environmental Documentation

MIS

OPTION 1
START OF PROCESS

STUDY INITIATION

MIS REPORT

Environmental Analyses of Alternatives

OPTION 2
START OF PROCESS AND NEPA DOCUMENTATION

SCOPING

CIRCULATION/PUBLIC HEARING/DEIS

Identification of Preferred Strategy Incorporated into Plan/TIP

PE

START OF NEPA DOCUMENTATION

SCOPING

CIRCULATION/ PUBLIC HEARING/ DEIS

FEIS

Environmental Analyses of Project

Design Alternatives

FEIS

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