U.S. Department
of Transportation

**Federal Highway
Administration**

Innovative Finance and Statewide Financial Planning

INNOVATIVE FINANCE AND STATEWIDE FINANCIAL PLANNING

COURSE MANUAL

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UNIT 0: INTRODUCTION

PURPOSE:

The purpose of this unit is to outline the objectives of the course and to describe the course materials and schedule.

WHAT YOU WILL LEARN IN THIS UNIT:

1. Course Development and Sponsorship.

2. Course Objectives.

3. Course Schedule and Resources.

WHAT WILL HAPPEN IN THIS UNIT:

You will meet the class instructors and will be provided with information describing the course objectives, schedule and facilities.

Daine Ismart
Russell Fosha

1. INTRODUCTION

A. Course Sponsorship

This training course was developed under the sponsorship of the Federal Highway Administration (FHWA) Offices of Policy, Program Development and Fiscal Services for the purpose of information exchange. The intended audience for this course include State, metropolitan, and Federal transportation officials involved in financial planning, long range planning, and program development.

2. THE COURSE AND ITS OBJECTIVES

A. Importance of Transportation

Transportation is essential to our nation's economic well-being. It plays a central role in creating jobs and stimulating lasting growth for the nation and, at the same time enhances the country's international competitiveness. The important link between a healthy economy and a sound transportation system is reinforced by the increasingly global economy, greater reliance on efficient inventory systems, growing demand for travel, and the added economic cost of an aging infrastructure. Together these changes have revealed the need for additional investment strategies for the nation's infrastructure in order to ensure efficiency and to remain competitive.

B. Funding Challenges

Recently published results contained in the *1995 Status of the Nation's Surface Transportation System: Conditions and Performance Report* provides some indication of the level of financial needs in the transportation sector of the economy. In 1993, approximately $38.7 billion dollars was invested in highway and

bridge programs by all levels of government in the United States. However, the Nation needed $51.6 billion to maintain current conditions and $67.3 billion to improve the system. On the transit side, we spent $4.3 billion with annual needs in the $6.6 billion to $16 billion range.

Delaying improvements increases future costs and adds a variety of costly economic burdens. For example, deferred maintenance adds as much as 40 percent per mile cost of operating vehicles. Deferring $1 in highway resurfacing can impose up to $4 in additional reconstruction costs in just two years. Deferring improvements can also increase costs resulting from accidents and traffic delays as well as costs associated with environmental problems such as air pollution and noise.

Today's transportation related funding challenges are more diverse and fundamentally more complex than in the past, when the challenge for the transportation sector was straightforward: design and construct the Interstate Highway System. Because traditional government sources simply cannot provide sufficient funds to meet current transportation infrastructure needs, new approaches and funding mechanisms must be developed and implemented to use Federal transportation dollars more effectively. Addressing the growing disparity between the increasingly complex needs of the nation's transportation system and the current level of investment in the system is the challenge for transportation today. It is a challenge shared by Federal, State, and local governments as well as the private sector.

"Innovative Finance" is designed to help meet this challenge. **"Innovative finance" is a broadly defined term that refers to methods of transportation infrastructure finance other than relying on conventional highway user fees and taxes.** In terms of federal-aid to highways, "Innovative Finance" means no longer relying on a single strategy of grant reimbursement.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the National Highway System Designation Act of 1995 (NHS Act) provide transportation planners and engineers with an array of new tools to improve the financial management of transportation investment resources, including the use of innovative finance. ISTEA and its implementing regulations impose new, stringent financial planning requirements for Metropolitan Planning Organizations (MPOs), State Departments of Transportation (DOTs), and public transit agencies. At the state level, ISTEA requires the preparation of a long-range statewide plan which serves as the basis for the development of a three-year Statewide Transportation Improvement Program (STIP) that is financially constrained. At the metropolitan level, MPOs are required to prepare a 20 year long-range metropolitan plan and a three-year financially constrained Transportation Improvement Program (TIP). The financial plans prepared by MPOs must demonstrate how the metropolitan plan and TIP can be implemented using public and private revenue sources that are "reasonably expected" to be available as well as any innovative financing techniques that will be used to finance transportation programs and projects.

Although use of innovative finance techniques pre-date the passage of ISTEA, ISTEA created new opportunities to use innovative finance by encouraging multiple financing strategies and encouraging new partnerships among Federal, State, local, and private investment funding sources. The recently enacted NHS Act also contained several innovative finance provisions that build upon the experience of ISTEA and the Test and Evaluation 045 (TE 045) Innovative Financing Initiative. The TE 045 program was prepared in response to President Clinton's Executive Order 12983, *Principles for Federal Infrastructure Investment,* that established infrastructure investment as a priority for each executive department and agency.

In combination, ISTEA, the NHS Act, and TE-045 encourage the

use of innovative finance techniques to increase the amount of investment capital available for transportation infrastructure as well as more effective use of existing funds.

D. Course Objectives

In response to the ISTEA financial planning requirements and the various "Innovative Finance" initiatives, transportation professionals require enhanced knowledge and skills related to analyzing and forecasting revenues and costs and evaluating financing options associated with various plans and programs. This course is designed to fulfill these needs.

Upon completion of this course, each participant should have a basic understanding of the following:

- What "Innovative Finance" is and how it can be used to make more transportation projects feasible;
- Basic concepts which underlie the techniques of Innovative Finance;
- Case studies which illustrate the use of Innovative Finance techniques;
- Federal laws and regulations regarding the preparation financially constrained STIPs and TIPs;
- Funding programs contained within ISTEA, eligibility restrictions, and "flexibility" provisions related to each program;
- The fundamentals of financial analysis as they relate to statewide transportation planning and programming practice;
- Cost estimating and revenue forecasting.

3. COURSE MATERIALS AND SCHEDULE

A. Course Materials

The intended audience for this course include State, metropolitan, and Federal transportation officials involved in financial planning, long range planning, and program development. Each participant is provided with a Course Manual. This document contains all material required to complete the course. This course is designed to provide participants with an opportunity to discuss and apply the material that is presented. In addition, participants will have an opportunity to share experiences with others and are encouraged to engage in classroom discussions.

B. Course Schedule

The course is conduct over a two day period of approximately 8 hours per day. Breaks will occur as noted. A course evaluation will be conducted upon conclusion of the course. Cooperation in completing these forms is greatly appreciated.

AGENDA

FIRST DAY
(9:00 A.M. - 4:00 P.M.)

INTRODUCTION

FEDERAL-AID HIGHWAY PROGRAM

NHS INNOVATIVE FINANCE OVERVIEW

NHS INNOVATIVE FINANCE GUIDANCE

STATE INFRASTRUCTURE BANKS

REAUTHORIZATION/FTA/TE-045

AGENDA

SECOND DAY
(9:00 A.M. - 3:30 P.M.)

FEDERAL-AID ELIGIBILITY

INNOVATIVE FINANCE WORKSHOP

STIP AND TIP DEVELOPMENT

REVENUE ESTIMATION

COST ESTIMATION

COURSE WRAP-UP

Innovative Finance and Statewide Financial Planning

TRAINING NEED

Innovative Finance and Financial Planning Now A Key Component of Transportation Planning

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Innovative Finance and Statewide Financial Planning

COURSE OBJECTIVES

- **What is "Innovative Finance"**
- **Innovative Finance NHS Guidance**
- **Case studies illustrating "Innovative Finance"**
- **Federal laws and regulations regarding STIPs and TIPs**
- **Funding programs contained in ISTEA**
- **The fundamentals of financial analysis and planning**
- **Cost estimating and revenue methodologies**

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UNIT 1: FEDERAL-AID HIGHWAY PROGRAM

PURPOSE:

The purpose of this unit is to describe the Federal-aid Highway financing program. Special emphasis is placed on outlining these traditional highway financing procedures as a prelude to introducing the innovative financing concept that will presented in subsequent units of the course.

WHAT YOU WILL LEARN IN THIS UNIT:

1. How the Federal-Aid Highway Program is developed.
2. The basic budgetary procedures contained in Federal law.
3. Basic features of the Federal-Aid Highway Program.

WHAT WILL HAPPEN IN THIS UNIT:

The course instructor will explain the significant concepts contained within the Federal-Aid Highway program in relation to Innovative Financing.

1. INTRODUCTION

A. Congressional Procedures

The first step, and the most crucial in financing the Federal-Aid Highway Program, is the authorizing legislation, which is commonly called the "highway act." In 1978, 1982, 1987, and 1991, highway legislation was passed as part of comprehensive surface transportation acts. For other Federal Programs, the authorizing legislation may not be as significant. As explained later, the appropriations act, is of equal or greater importance to the financing process for other Federal Programs.

As a springboard for drawing up authorizing legislation, Congress holds hearings on the Federal-Aid Highway Program, usually about nine months to a year before new funding is needed. After hearings are completed, separate draft bills are prepared by Senate and House Committees. Not until a conference committee reaches agreement is there a single highway bill. The conference committee discusses the merits of different proposals, airs the disagreements, and arrives at a satisfactory compromise. Upon agreement in conference, the bill is sent back to each body of Congress for final passage. When the bill has passed both the House and Senate in identical form, it is transmitted to the President to sign.

As new highway acts are passed, Title 23 of the United States Code (23 U.S.C.) is amended. Title 23 is titled "Highways" and includes most of the laws that govern the Federal-Aid Highway Program. As new transit acts are passed, Chapter 53 of Title 49 of the United States Code (49 U.S.C) is amended. Chapter 53 of Title 49 includes most of the laws that govern the Federal-Aid Transit Program.

B. Federal-Aid Highway Act

The congressional procedures described in the previous section relate generally to the development of Federal-Aid Highway acts, the legislation of greatest importance to the Federal-Aid Highway Program. These acts, often know as authorizing legislation are distinct from appropriations acts, which will be discussed later. The most recent Federal-Aid Highway Act is contained in Title I of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) which became effective on December 18, 1991.

Highway acts will generally contain one or more of the following elements: 1) authority to start new programs or modify existing ones; 2) special requests (studies); and 3) specific funding (authorizations) for many categories of highway assistance.

C. Program Changes

As pointed earlier, highway acts, such as the ISTEA of 1991, are the primary instruments used by Congress to shape and redirect the Federal-Aid Highway Program. This is done by eliminating or adding programs, modifying characteristics of a program, and changing requirements. All of these actions were done in the ISTEA. The following are illustrations of such actions and do not include all changes:

Eliminated Programs. The Federal-aid primary, secondary, and urban programs where repealed along with the Federal-aid systems those programs supported. The Forest Highways Program was incorporated into a broader Public Lands Highways Program.

Added Programs. Several new programs were established, including the National Highway System (NHS), the Surface Transportation Program (STP), and the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

Modifying Characteristics of a Program. The previous Interstate

4R (resurfacing, restoring, rehabilitation, and reconstruction) Program was changed to the Interstate Maintenance Program, although the Interstate 4R Discretionary Program was retained.

Modifying Requirements. Newly required by the ISTEA is a statewide planning process that must include the development of a long-range transportation plan and a Statewide Transportation Improvement Program (STIP).

D. Studies

Congress often writes sections into legislation that contain special requests for studies. Studies are largely the result of an impasse among Members of Congress regarding the best solution to a problem or a lack of sufficient information to formulate a policy. The ISTEA requires the submission of 67 such reports.

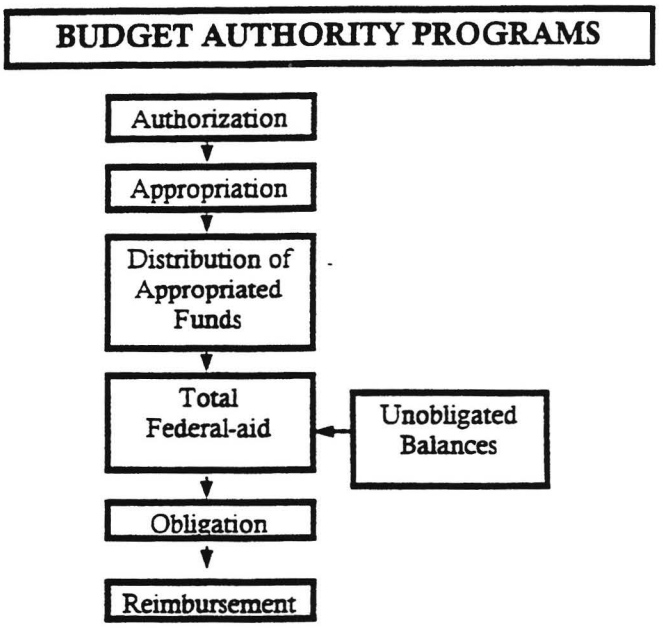
E. Authorizations

The authorizations contained in highway acts are the amounts of funds that the Secretary of Transportation, acting through the FHWA and other departmental agencies can obligate on behalf of the Federal Government. They are the upper limits on the commitments that the administering agency can make. Critical to understanding when these commitments can occur, which is determined by whether a program operates with budget authority that is appropriated or with contract authority

2. FEDERAL-AID FINANCING PROCEDURES

A. Budget Authority

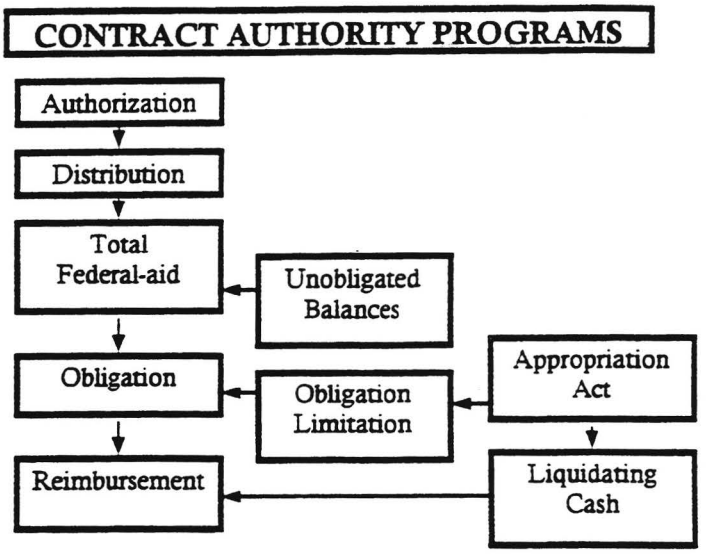
The license to proceed with Federal programs is generally called "budget authority." A two-step process implements most Federal programs. The initial step is the congressional passage of autho-



rizations. This, in itself, doesn't not permit the program to begin but only sets an upper limit on program funding. The program may start, i.e., the authorizations may be distributed and used, only after passage of a second piece of legislation, the appropriations act. In an appropriations act, the Congress appropriates an amount that can actually be used for the program. This amount cannot be exceed the amount provided in the authorizing legislation, but may be less. It is at this point that the program can proceed. In other words, "budget authority" - the approval to distribute, spend, loan, or obligate funds -has been granted through the appropriations act, although at the level of the appropriations not at the level of the originally authorized amount.

B. Contract Authority

Most programs within the Federal-Aid Highway Program do not require this two-step process to commit or obligate Federal funds. Through what is termed "contract authority" (a special type of budget authority), sums authorized in Federal-aid highway acts are



made available for obligation without an appropriations action. With respect to the Federal-Aid Highway Program, funds authorized for a fiscal year are to be apportioned on the first day of that fiscal year (October 1), at which time they can be obligated as the state chooses and the Secretary approves. Other funds may be distributed through allocation made on the first day of the fiscal year or later in the year. In either case, the entire amount of the authorization will be available for use; that is, there is no appropriation action that would reduce the amount of the authorization that can actually be used.

To have contract authority, a highway program must meet two criteria. First, it must be encompassed in Chapter 1 of Title 23, or its authorizing language must refer to Chapter 1. The second requirement for contract authority is that the program must be financed from the Highway Trust Fund.

It should be noted that, by definition, contract authority is unfunded and a subsequent appropriations act is necessary to liquidate (pay) the obligations made under contract authority.

B Limitation on Obligations

An "obligation" is a commitment of the Federal Government to pay through reimbursement to the States, the Federal share of a project's eligible costs. The commitment is made when the plans, specifications, and estimate for a project (PS&E) is approved or, in the case of certain project funded under the Surface Transportation Program (STP), when a quarterly certification is accepted. Obligation is a key step in financing. Obligated funds are considered "spent" even though no cash is transferred.

Because of contract authority, the flow of Federal-Aid Highway Program funds is not directly affected by the annual appropriations process. This permits a smooth and stable flow of Federal-aid to States, but this very advantage can be a disadvantage to overall Federal budgeting. The question arises: how can the highway program be covered under annual Federal budget decisions? The answer in recent years has been to place a ceiling, or limit on the total obligations that can be incurred for Federal-Aid Highway Programs during a year. This ceiling is also referred to as Obligational Authority.

A limitation on obligations acts as a ceiling on the sum of all obligations within a specific time period, usually a fiscal year. Because of multi-year programs, it would be difficult administratively to keep track of ceiling placed on the use of a particular year's apportioned funds over several years. Thus, a limitation is placed on obligations that can take place within a certain fiscal year, regardless of the year in which the funds were apportioned. If there happens to be any limitation unused at the close of a fiscal year, it cannot be carried over to the next fiscal year.

The annual obligation limitation established by Congress through the appropriation process for a particular fiscal year is divided among all States based on each State's relative share of the total apportioned and allocated funds to all states for that fiscal year.

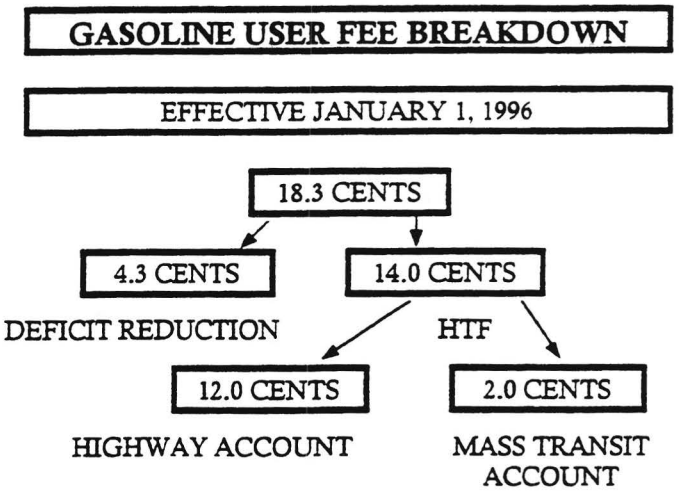
The law provides for a redistribution on August 1 of the obligation ceiling from those States unable to obligate their share of the full ceiling to other States that are able to obligate more than their initial share of the ceiling. This ensures that the total limitation will be used.

It is important to recognize that the distribution and redistribution of the individual State ceilings do not constitute a grant or retraction of apportioned or allocated sums. The limitation relates only to how much of the State's total unobligated balance or apportionments and allocations may be obligated during a given year. The unobligated balance of apportionments or allocations that the State has remaining at the end of any fiscal year is carried over for use by that State during the next fiscal year. Again, any unused limitation does not carry over.

C. Flexible Fund Management

As presented above, for budgetary reasons, each fiscal year a ceiling is placed on most programs contained in the overall Federal-aid highway program. What this generally means is that the sum total of all FHWA obligations in any fiscal year for these programs cannot equal the sum total of available funds for that year; instead each State has the authority to obligate only up to a lesser amount, i.e., "obligation ceiling." The gap between the sum of FHWA apportionments and the obligation ceiling is carried over as an unobligated balance, available for obligation in future years.

Because this ceiling is applied by Congress to the sum total of all Federal-aid highway and safety construction program apportionments and not to each individual program, States have the option to obligate the mix of FHWA programs which best meet their transportation needs. MPOs, transit operators, and other project sponsors need to be aware that this choice allows the State to obligate funds for projects that are immediately ready for implementation



regardless of individual funding. This may prevent States from obligating their full apportionment of STP, CMAQ, or other flexible funds if a State has already reached its obligation ceiling. It is essential, therefore for all players engaged in metropolitan and statewide planning to understand the obligation limitation mechanism and work together to best manage a State's obligation authority.

C. Highway Trust Fund

Cash to liquidate obligations incurred for the Federal-Aid Highway program are derived from the user supported Highway Trust Fund. Taxes collected for the HTF currently include 18.3 cents per gallon gasoline tax as well as a variety of other excise taxes on fuel, tires, truck and trailer, and truck use taxes. The life of the Trust Fund must be extended periodically, since it is not enacted permanently. Highway-user taxes dedicated to the fund and expenditures from the fund are now scheduled to terminate on September 30, 1999.

The balance of the Highway Trust Fund has long been a point of controversy. Because of the nature of a reimbursable program like the Federal-Aid Highway Program, there will always be case in the fund that is not needed for immediate use. It is important to understand that this is not excess cash but will be needed to reimburse the States as vouchers are submitted. For example, if highway revenues were to have stopped completely at the close of FY 1991, the debts (unpaid obligations and authorizations) would have exceeded cash on hand by about $22 billion.

3. BASIC FEATURES

A. Reimbursable Program

The Federal-Aid Highway Program is a reimbursable program; that is, the Federal Government only reimburses States for costs actually incurred. Apportionments and allocations distributed to the States represent lines of credit upon which States may draw as they advance federally assisted projects. The draw on the line of credit by obligating or committing some portion of it for a project. No cash is disbursed at this point. The States generally start a project and receive cash for the Federal share of the project's cost as work is completed.

1. Traditional Funding

Under traditional funding procedures, States are required to have enough obligational authority to cover the entire Federal share of a Federal-aid project before construction starts. This approach tends to impede construction of large scale projects because of the number of years it takes for States to reserve the full obligational authority needed before construction can commence. Also, to reserve sufficient obligational authority for a large scale project, a State would have to delay Federal reimbursement on smaller scale projects.

2. ISTEA Procedures

As a result of the programmatic changes defied in the ISTEA, policies regarding the timing and administration of Federal funds can now increase States' ability to finance transportation projects. New consideration is being given to providing States with more options for using their Federally apportioned money to begin a greater number of projects, expedite project construction (thereby delivering transportation benefits earlier) and manage capital for larger projects which take time to develop.

B. Matching Requirements

With few exceptions, the Federal Government does not pay for the entire cost of construction or improvement of a Federal-aid highway project. Federal funds are normally "matched" with State and/or local government funds to account for the necessary dollars to complete the project. The maximum Federal share is specified in the legislation authorizing the program. Most projects will have an 80 percent Federal share.

1. Traditional Procedures

Traditional highway funding arrangements requires States to fund the entire non-Federal share from State and local funds. Any in-kind contributions, except right-of-way donated by a private entity, have been deducted from the total project cost before the level of Federal assistance is determined. States, therefore, have realized a savings of only 20 percent of such contributions. Evidence suggests that this restriction does not provide an incentive for States to identify and utilize all available local and private resources, nor does it minimize cost.

C. Eligible Systems

1. Traditional Procedures

Most highways providing similar functions have historically been categorized as either (1) highway receiving Federal aid for which there is no charge for use; or (2) toll roads which receive no Federal aid.

Federal-aid Roads: State-initiated highway projects are generally eligible for 80 percent Federal aid. States must fund 20 percent of he total project cost as a match of Federal funds. Sources of matching funds traditionally include State-contributed equity in a project in the form of State funds and/or proceeds from general obligations bonds.

Toll Roads Receiving No Federal Aid: Various States have independently developed toll roads which were not traditionally eligible for Federal-aid funding or which pre-date the Interstate Highway Program. Project costs were funded entirely by the State and/or the authority operating the toll road with proceeds from revenue bonds backed by the expected toll revenues. These funds are often augmented with internally generated capital and/or State contributed equity.

States which have developed both types of highways have been required to fund the full cost of the toll road's construction and ongoing maintenance, and fund the matching share of Federal-aid highways. In these States, there is little or no incentive to expand upon the toll road's ability to deliver and maintain transportation infrastructure and reduce the demand for State and Federal-aid funds through user-fee financing.

2. ISTEA Procedures

Among the breakthrough changes under the ISTEA were the following: 1) new toll roads can now receive Federal aid, and 2)

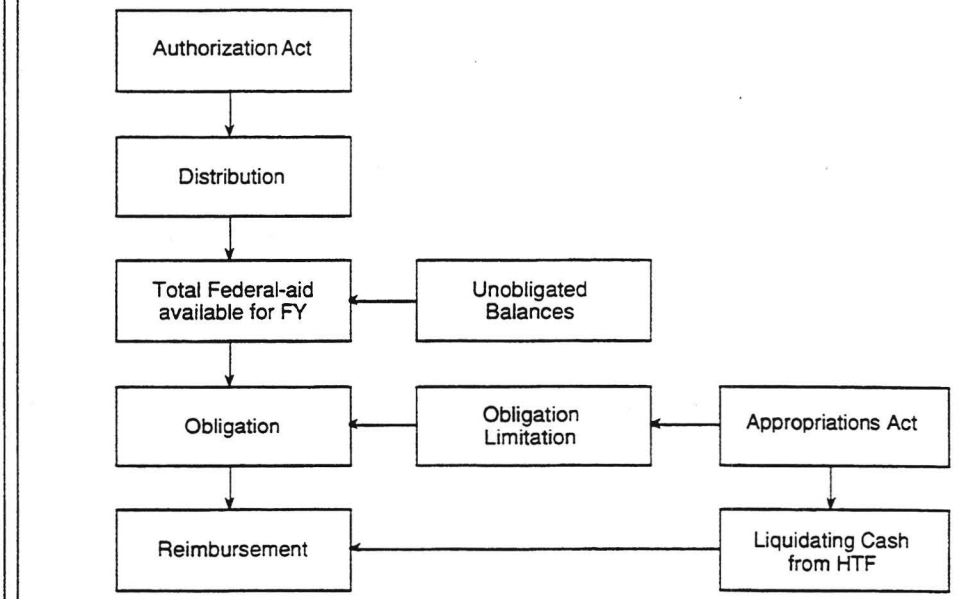
certain non-tolled roads can now be converted to toll roads, which would reduce the amount of public funds required for maintaining and rehabilitating such projects.

4. SUMMARY AND CONCLUSIONS

This unit describes the basic features of the Federal-aid highway program including how the program is developed, the basic budgetary features contained in Federal law, and the basic features of the program. The purpose of this discussion has been to develop an appreciation of the significant element of the Federal-aid highway program that are affected by the various innovative finance concepts that will be described in the following unit.

Innovative Finance and Statewide Financial Planning

CONTRACT AUTHORITY PROGRAMS



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Innovative Finance and Statewide Financial Planning

FY96 AUTHORIZATIONS (Billions)

National Highway System	**$ 3.60**
Surface Transportation Program	**$ 4.10**
Congestion Mitigation and Air Quality	**$ 1.00**
Interstate Reimbursement	**$ 2.00**
Interstate Maintenance	**$ 2.90**
Bridge Replacement	**$ 2.80**
Other	**$ 2.20**
Total	**$18.60**
Obligation Limitation	**$17.55**

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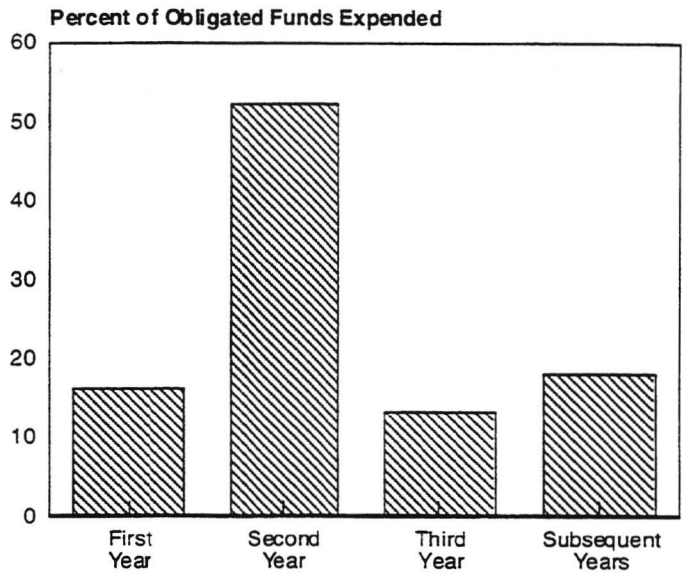
Innovative Finance and Statewide Financial Planning

RATE OF LIQUIDATING CASH



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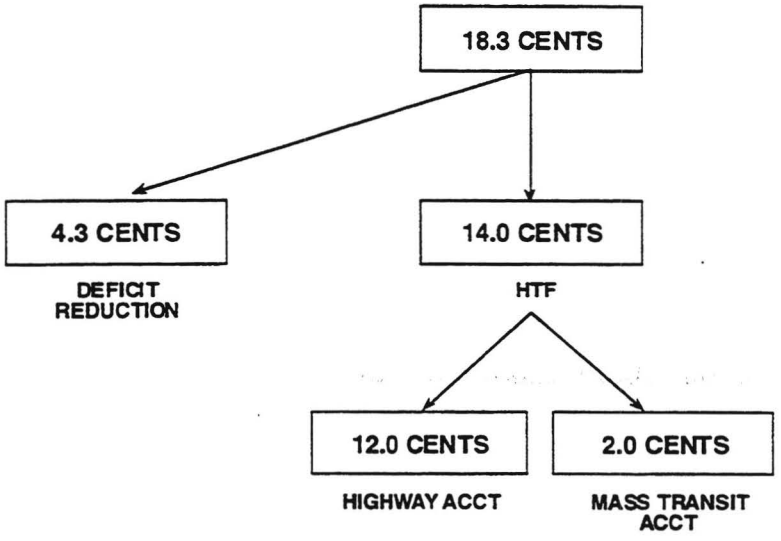
GASOLINE USER FEE BREAKDOWN

Effective January 1, 1996



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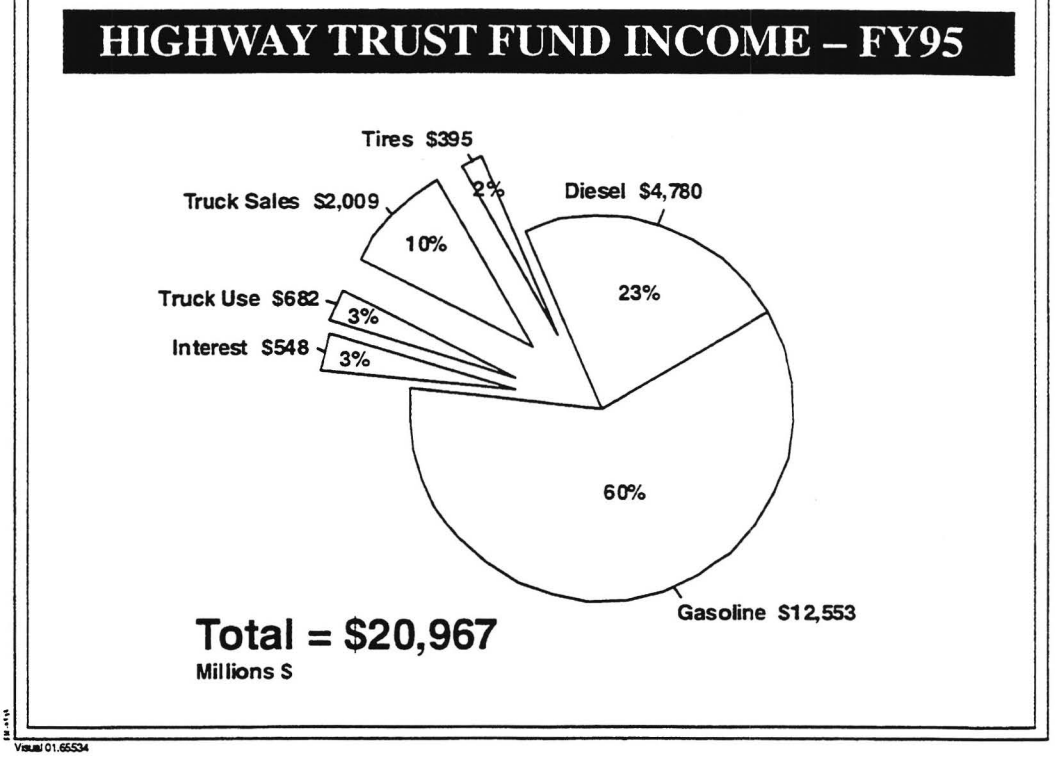

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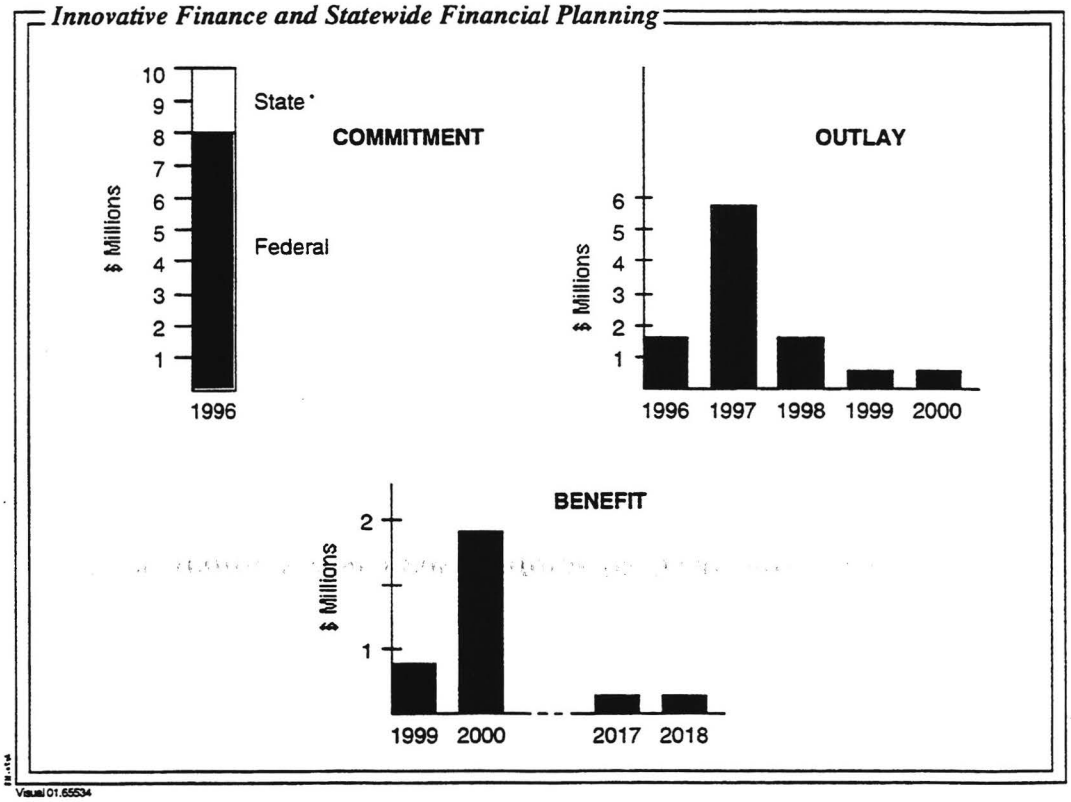


UNIT 2: NHS GUIDANCE AND INNOVATIVE FINANCE

PURPOSE:

The purpose of this unit is to present guidance that has been developed for the innovative finance provisions contained in the NHS Act.

WHAT YOU WILL LEARN IN THIS UNIT:

1. ISTEA and TE-045 innovative finance provisions.

2. NHS Act innovative finance provisions.

3. NHS Act innovative finance guidance.

WHAT WILL HAPPEN IN THIS UNIT:

The course instructors will describe the historical background and development of innovative finance and discuss the guidance concerning the NHS Act innovative finance provisions.

1. INTRODUCTION

A. What is Innovative Finance?

"Innovative Finance" is a broadly defined term that refers to moving the traditional federal-aid highway financing process from a single strategy of Federal funding on a "grants reimbursement" basis to a diversified approach that provides new options drawn from the most innovative financing concepts developed both from the public and private sectors. A prime objective is to maximize the ability of States to leverage Federal capital for needed investment in our nation's transportation system as well as more effective use of existing funds.

Innovative Financing techniques are now available to all states as part of the regular federal-aid program as a result of the National Highway System Designation Act of 1995 (NHS Act) and administrative change. The Innovative Financing techniques that FHWA and the states are utilizing include both leveraging tools, designed to increase the funds available for transportation infrastructure investment, and cash flow tools, designed to get transportation projects into construction more quickly. Leveraging tools include: flexible match, federal share on toll projects, bonds and debt instruments, ISTEA 1012 loans, and ISTEA Section 1044 Toll Investment Credits. Cash flow tools include: advance construction and partial conversion of advance construction. Leveraging and cash flow tools can be particularly powerful when used in combination. This variety of tools was made available to states to provide the greatest number of choices for states to determine which would be the most effective tools for their state transportation system.

All of the leveraging and cash flow tools listed above are now available to all states as part of the regular federal-aid program as a result of the NHS Bill. The two exceptions to this are the Section 1044 Toll Investment Credits and partial conversion of advance

construction which were made available to states through administrative change.

B. Why is Innovative Finance Important?

Traditional funding sources simply cannot provide sufficient funds to meet current transportation infrastructure needs. Therefore, new approaches and financing mechanisms must be developed to use scarce transportation dollars more effectively. In order to fulfill this need, it necessary to adapt traditional federal-aid funding partnerships through the introduction of new new roles and risk-sharing arrangements for the public and private sector.

Project risk can be divided into three stages: 1) preconstruction, 2) construction, and 3) operation. In many situations, a plan of finance targeted for each stage will often minimize costs because each can be tailored to the unique interests of different types of investors seeking different investment risk/return tradeoffs.

The greatest uncertainties occur during preconstruction when environmental and design studies must be prepared and right-of-way acquired. Because of these uncertainties, the capital markets often regard this stage of a project as highly speculative. If financing is available it may carry a much higher borrowing interest rate than would be required at later stages of the project. There is an increased recognition that States must use multiple financing strategies in a manner similar to the commercial market in managing financial risks associated with project development and construction.

During the construction phase, a project has more definable financing risks however there is still a possibility that problems will arise with construction logistics and costs. Although construction risks are lessened at this stage, investors do not seek to tie up their capital for a long time. Private sector capital financing typically is sup-

ported by more short-term construction financing that is refinanced during the operation phase where a lower interest rate can be obtained because more is know about the project risks and investors may be willing to invest for a longer period of time.

There is a demonstrated need to modernize and standardize obligation and outlay rules to smooth the role of Federal money in the construction stage of projects. The traditional reimbursement practices lead to "serial" instead of "parallel" construction methods and, therefore, create a bias against starting larger construction projects due to single-year obligation constraints. State issued "anticipation notes" to start projects, later replaced by permanent funding, is one way to help improve project cash flow and foster additional project starts.

Just a few years ago, virtually everyone believed that highway infrastructure could be provided only by the public sector and financed almost exclusively on a "grants reimbursement" basis with Federal tax dollars. Reliance on a single financial strategy for highway investment has not allowed transportation to keep up with the Nation's needs in a growing economy.

Transportation Infrastructure financing is a challenge faced by all levels of government and the private sector. The funding needs faced today will require the development of new partnerships to define the optimum combination of financing tools to meet this challenge.

C. Legislative and Policy Background

1. Innovative Finance Test and Evaluation Project (TE-045)

President Clinton's Executive Order 12893, *Principles for Infras-*

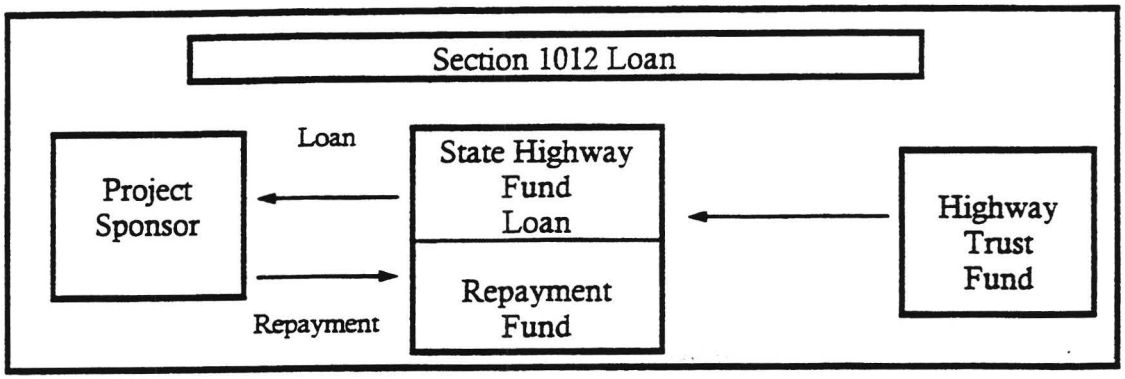
tructure Investment, established infrastructure investment as a priority for the Administration and directs agencies to establish programs for developing more effective investment from federal funds. As an outgrowth of this order FHWA launched Innovative Finance Test and Evaluation Project (TE-045) under its statutory authority to conduct research. The goals of TE-045 Innovative Financing Project are fourfold: (1) to move projects into construction more quickly than traditional financing procedures; (2) to create incentives for State to take full advantage of ISTEA financial opportunities; (3) to assist states in their efforts to leverage their current spending to produce additional investment for transportation; and (4) to create a record of achievement to develop a base of knowledge to provide more ways for State and local projects to proceed with optimal financing.

In a *Federal Register* notice published on April 8, 1994, FHWA asked States, communities, and the private sector to come forward with nontraditional financing ideas. To date, FHWA's TE-045 program has approved more than 60 projects in 31 States totaling over $5 billion. FHWA is continuing to accept TE-045 proposals on a continuing basis.

Several key points emerged during the evaluation of State's projects under TE-045:

Fees and Charges: There is a greater than anticipated willingness to levy local fees and tolls to provide necessary funding to accelerate project construction in targeted areas. Many States proposed such charges as local option gas taxes and development impact fees.

Credit Support: States expressed interest in various "credit support" concepts such as lines of credit, credit enhancement, and project-specific loans. These concepts are particularly important during the riskier periods of construction and initial operation of a project. There is also a need to provide particular assistance to



projects that are targeted towards interstate commerce or have multi-State benefits. Requests for credit support also reveal explicit demand to expand the capacity of the traditional "grants reimbursement" program to serve as project "construction financing" as seen in the private sector.

2. Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The ISTEA contains two provisions that are of particular importance to Innovative Finance: Section 1012 Loans (23 U.SC. Section 129) and Section 1044 Toll Investment Credits. In addition, the ISTEA marked important changes for the prospects for toll road financing.

a. Section 1012 Loans

Under the traditional approach to highway funding, money from the Highway Trust Fund is paid to States only as reimbursement for highway construction outlays under Title 23. This limitation, in effect, requires that Federal funds be used only once, as an equity investment. Under Section 1012, a State may loan money to a project sponsor. Federal funds can reimburse up to the federal share of the project costs. States can lend any Federal-aid funding

such as Interstate Maintenance, Surface Transportation Program, and Congestion Mitigation and Air Quality program funds to leverage investment in any eligible Title 23 program. The loan may be repaid to the State with revenue generated by the project. States may use funds from Section 1012 loan repayments for a variety of eligible Title 23 transportation projects.

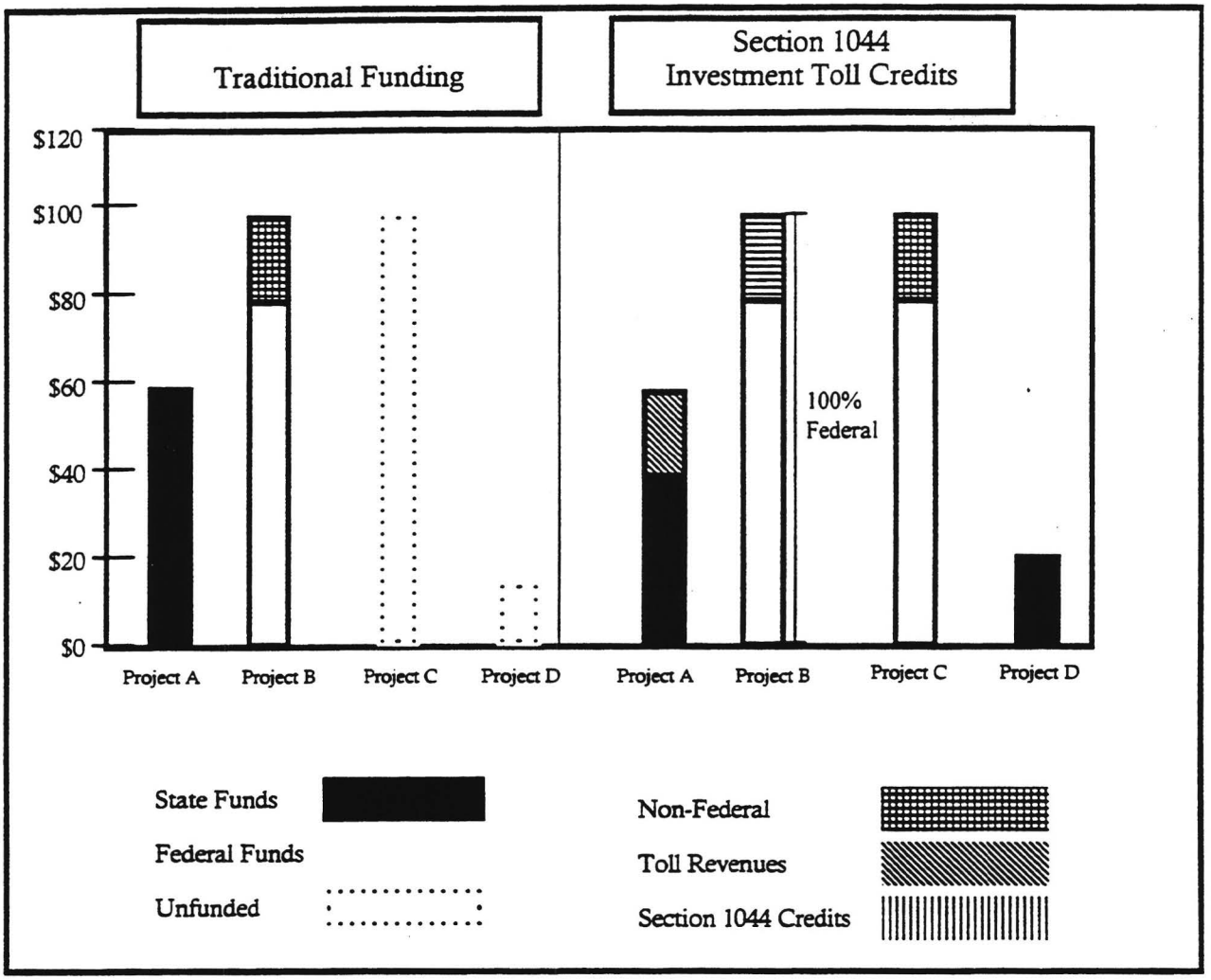
Although ISTEA states that loan repayment proceeds must be used to fund other surface transportation or ISTEA projects, it does not limit the State's financing options for such projects. Potential State uses of Section 1012 include the option to (1) grant the funds to one or more projects; (2) lend the funds to new projects, with repayment by project revenue; or (3) use the funds to capitalize a revolving loan fund. States can also use a combination of these three approaches.

ISTEA Section 1012 can:

- Lower interest rates
- Be subordinated to other loans for a project
- Reduce overall project costs
- Make more projects feasible.

b. Section 1044 Toll Investment Credits

A State DOT can receive an investment credit for certain toll revenue expenditures on highway, bridge, or tunnel infrastructure. The State can apply the credit towards the non-Federal matching share of all programs authorized by Title 23 and ISTEA. To the extent credits are available, a State may use up to 100 percent Federal funds on benefiting projects. To earn credits from toll road expenditures, a State must meet a Maintenance of Effort (MOE) Test. A State can pass the MOE requirement by demonstrating that it is keeping up its commitment to non-Federal transportation investing. Credit for ongoing toll revenue investment provides



another mechanism for meeting the non-Federal share requirement. For States that are already using their full Federal-aid allocation, the 1044 credit allows them to free up traditional state dollars for projects that might otherwise go unfunded. States have greater incentives to expand upon toll roads' ability to deliver and maintain transportation infrastructure.

For example, a State has $80 million in State funds available for highway projects. Under traditional funding, as shown in the chart above, that $80 million accomplishes only two projects totaling

$160 million: Project A @ $60 million and 100% State funded and Project B @ $100 million including $80 million Federal funds and $20 million non-Federal matching funds. Under Section 1044 Investment Toll credits, the $80 million in State funds in conjunction with $20 million in toll revenues accomplishes four projects: Project A @ $60 million including $40 million in State funds and $20 million in toll revenues; Project B @ $100 million funded 100% with Federal funds; Project C @ $100 million including $80 million in Federal funds and $20 million in non-Federal matching funds; and Project D @ $20 million and 100% State funded.

c. ISTEA and Toll Roads

The ISTEA expanded the use of federal funding for toll road, bridge, and tunnel projects to include construction of new toll facilities (except in the interstate highway system), reconstruction, resurfacing, restoration, and rehabilitation of existing toll facilities, and conversion of free facilities (except interstate roads) to toll facilities. For the first time, privately owned toll facilities became eligible for ISTEA funding so long as there is a contractual agreement between the state and the private entity.

3. National Highway System Designation Act of 1995 (NHS Act)

The NHS Act contains a number of Innovative Finance provisions including:

Section 308: Limitation on advance construction

Permits the State to advance construct projects provided the project is on the State's Transportation Improvement Program (STIP). This eliminates the requirement that: (1) future year authorizations had to be in place in order to advance construct, and (2) the total of advance construct projects that could not exceed a cumulative

dollar limit.

Section 311: Eligibility of bond and other debt instrument financing for reimbursement as construction expenses

Allows States to use Federal-aid funds for bond principal, interest costs, issuance costs, and insurance on Title 23 eligible projects. Although these costs are eligible for Federal participation, such eligibility does not constitute a federal commitment or guarantee on the part of the United States to provide for payments of principal and interest.

Section 313: Toll roads

Sets the Federal share for toll projects at a maximum 80 percent of eligible costs. Before this change the Federal share for toll projects varied from 50 percent to 80 percent based on activity and system designation. Also this provision allows Federal-aid loans to non-tolled projects with dedicated revenue streams and permits interest rates at or below market rates, as needed to make the project feasible. Repaid funds can now be used to credit enhance similar projects.

Section 322: Donations of funds, materials, or service for federally assisted projects

Allows private funds, materials, or services to be donated to a specific Federal-aid project and permits the State to apply the value to the State's matching share. Before this change, States could receive credit only for donations of private property incorporated into a Federal project, or for State and local funds.

Section 350: State infrastructure bank pilot program

Allows up to 10 States or multi-State entities to establish trans-

portation infrastructure banks; the U.S. DOT will establish procedures for choosing the participants in the program. The infrastructure banks may be used to make project loans, enhance credit, subsidize interest rates, and provide other assistance for eligible highway and transit capital projects. The funds from the bank may not be used as a grant. The recipients of the assistance can be public and private entities.

No new Federal-aid funds are provided to capitalize the banks. States entering into cooperative agreement with the Secretary to establish infrastructure banks could contribute up to 10% of several categories of their Federal-aid highway and Federal transit funds to capitalize the bank. Funds attributable to urbanized areas over 200,000 could only be used with permission of the MPO for the area. States must match 25% (lower for sliding scale States) of the Federal contribution with funds from non-Federal sources. Federal-aid funds are considered obligated when contributed to the bank.

By March 1, 1997 the Secretary must have reviewed the financial condition of each transportation infrastructure bank and report to Congress with an evaluation of the pilot program.

Guidance covering the innovative finance provision of the NHS Act are included in the back of this unit.

On April 4, 1996 the Transportation Secretary announced that eight states have been selected to test the use of SIBs: Arizona, Ohio, Oklahoma, Oregon, Texas, Florida, South Carolina and Virginia. The two additional states will be selected shortly. Furthermore, the Secretary requested $250 million in FY '97 funding to extend the SIB program beyond the existing 10 State pilot established by the NHS Act.

4. FTA Innovative Finance Handbook

On May 9, 1995 FTA published in the *Federal Register* a notice on Innovative Financing. The notice described various innovative financing techniques that may be used by transit operators receiving Federal financial assistance. Transit agencies may use FTA grant funds, or assets acquired with Federal assistance to enhance the effectiveness of their capital investment programs with these techniques. The response to this notice provided the basis for development of FTA's "Innovative Finance Handbook" which serves as a reference document for the development of innovative finance ideas.

Among the techniques contained in this handbook are included the following:

- Repaying bonds and Certificates of Participation
- State Revolving Loan Funds
- Lease Payments
- Joint Development of Transit Assets
- Cross Border Leases
- Super Turnkey and Private Financing
- Delayed Local Match
- Toll Revenue Credits.

3. CASH FLOW TOOLS

Cash flow tools are Innovative Finance tools that are designed to get projects on the ground sooner. These tools have to do with when Federal funds become available to States. They are designed to permit Federal and non-Federal funds to work in a more complimentary fashion. Among the approaches to be discussed in this section are included:

- Advance Construction; and

- Partial Conversion of Advance Construction.

The improved cash flow management provided by these tools will help states begin a greater number of projects, expedite project construction thereby delivering transportation benefits earlier, and manage capital for larger projects which take time to develop.

A. Advance Construction

Under traditional funding procedures, the share of Federal funds for a surface transportation project is not differentiated by phase of project development. Thus, a State may have difficulty funding the completion of needed feasibility studies and environmental assessments. This could be problematic if the State hopes to bring the project to the private capital markets.

States also have been required to have enough obligational authority to cover the entire Federal share of a Federal-aid project before construction starts. For example, if a State has available only $20 million in Federal-aid obligational authority amounts each year and wants to execute a $100 million project, of which the Federal share would total $80 million, the State would have to limit Federal funding for the project or build it in phases.

The requirement to reserve sufficient obligational authority before project construction can start can affect the delivery of Federal-aid projects in a number of ways:

- This approach tends to impede construction of large-scale projects because of the number of years it takes for the States to reserve the obligational authority needed before construction can commence.

- Also, to reserve enough obligational authority for a large

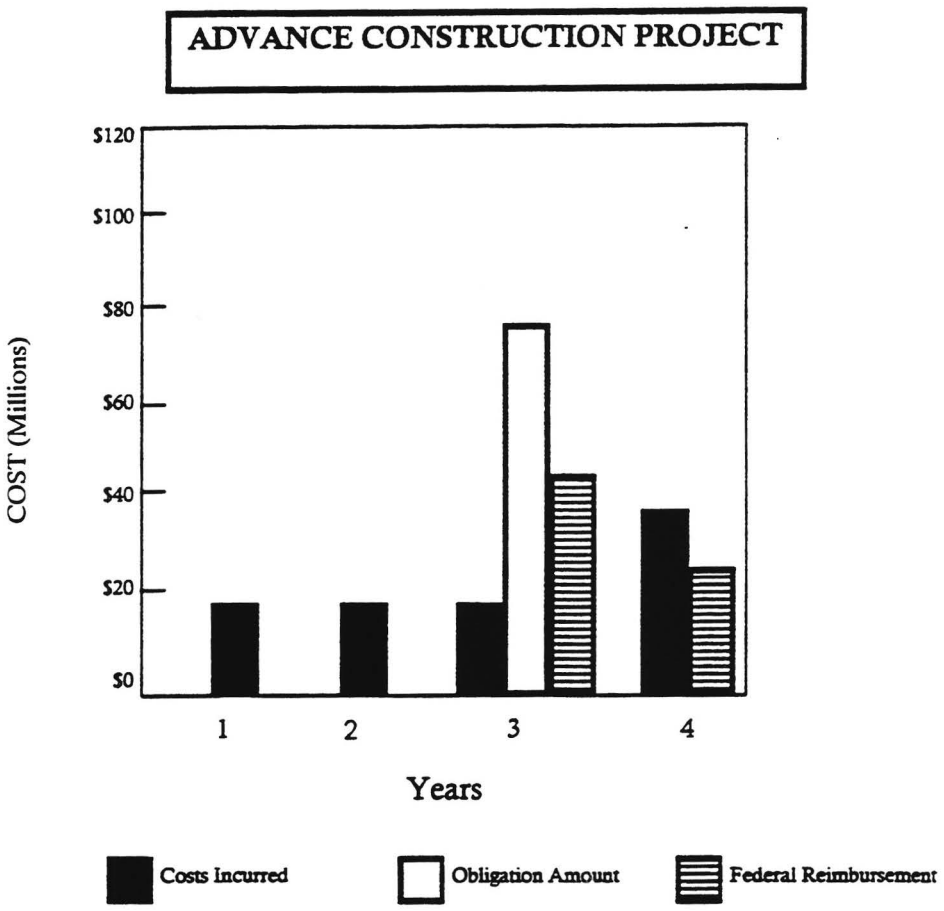
scale project, a State may have to delay Federal reimbursement on smaller scale projects.

- The requirement also presents difficulties for States interested in when developing support for a Statewide transportation plan.

Through *advance construction* a State can independently raise up-front capital required for a project and preserve eligibility for future Federal-aid funding for that project. At a later point, the State can obligate Federal-aid funds for reimbursement of the Federal share. This technique allows a State to build a transportation project that is eligible for Federal aid when the need arises, rather than having to set aside obligational authority for the Federal share. This allows a State the ability to access capital from a variety of sources, including its own funds and private capital in the form of anticipation notes, commercial paper, and bank loans.

In order to receive future reimbursement for an *advance construction* project, a State must have FHWA "designate" the project and approve it as an advance construction project. However, the State itself can determine when to obligate funds for reimbursement of the project, by later "converting" the entire project to a regular Federal-aid highway project in a single year - provided that the State has the capacity to obligate sufficient funds for full Federal reimbursement in a single year. This allows States to manage their Federal-aid funds more effectively, by choosing when to seek reimbursement.

When used to its fullest, this approach can resemble the "construction finance" seen in private capital markets such as commercial real estate development, where a developer uses short-term debt to finance construction and then replaces the short-term debt with long-term debt after construction is competed and the building is ready to generate revenue or provide benefits to the



public.

Essentially, this approach can define the Plan of Finance for construction separately from that for post-construction. If the State can combine advance construction with a public-private partnership, it can share some of the preconstruction and construction risks with the private partner.

Under advance construction, a State must set aside the full amount of obligational authority needed for the full Federal share of the project costs before "converting" the project and therefore receiving Federal reimbursement. For example, suppose a State constructed

a $100 million project anticipating $80 million in Federal funding paid out of the State's annual obligational authority. The state would have to set aside the $80 million of obligational authority necessary to convert the project from one financed exclusively with State funds to one receiving 80 percent Federal funding.

The NHS act allows states to advance construct projects provided that the project is on the State's Transportation Improvement Program (STIP). The NHS Act removes the requirements that:

- States must have future year authorizations in place in order to advance construct;
- the total of Advance Construction projects cannot exceed a cumulative dollar limit.

B. Partial Conversion of Advance Construction

Partial conversion of advance construction is a form of *advance construction* in which the State converts, obligates, and receives reimbursement for only part of its funding of an advance construction project in a given year. This removes any requirement to wait until the full amount of obligational authority is available. The State can therefore obligate varying amounts for the project eligible cost in each year, depending on how much of the State's obligational authority is available. This removes any requirement to wait until the full amount of obligational authority is available. The State can therefore obligate varying amounts for the project's eligible cost in each year, depending on how much of the State's obligational authority is available.

As a result of partial conversion of advance construction, a State can:

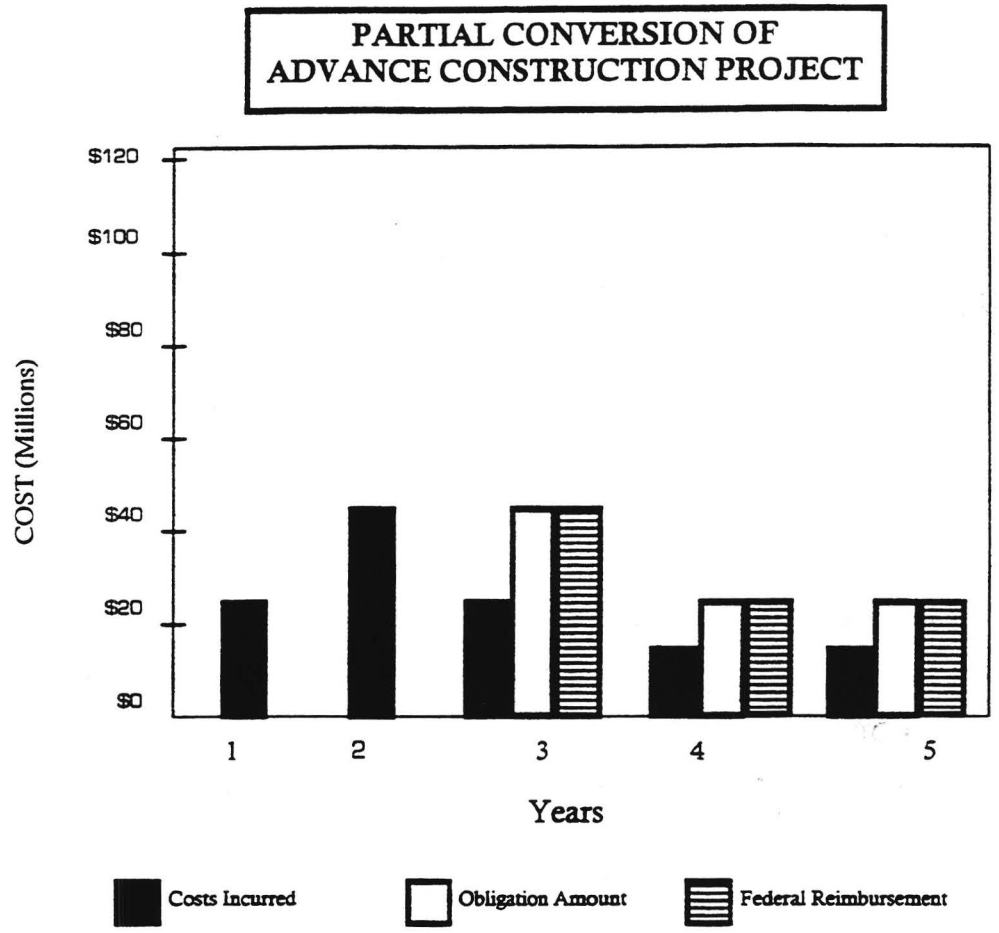
- Reprogram partially converted funds into new projects;

- Eliminate a major single year "draw down" of Federal funds and obligational authority due to one project; and

- Demonstrate better project cash flows to State financial decision makers.

In addition to securing project benefits earlier and improving cash flow to a State, partial conversion is particularly useful when a variable revenue stream is dedicated to the cost of a project (e.g., increment sales taxes, development impact fees, local option gas taxes, and tolls). In many of these situations, particularly when there is no revenue history, it is not clear at the time of construction exactly how much Federal funding is going to be needed by the project. Using the option to partially convert the Federal share after revenues have materialized makes bond and note financing more viable and Federal-aid funds available to support a greater number of projects. FHWA regulations have been changed to allow an advance construction project to be converted to a regular Federal-aid project in a series of years. Partial conversion was implemented through a *Federal Register* Notice on July 19, 1995.

As presented below, suppose a state wishes to construct a $100 million project that is eligible for Federal-aid at a matching rate of 80 percent of the total project cost. The State decides, under partial conversion of advance construction, to convert a portion its obligational authority for this project year until the entire Federal share of $80 million is used for this project. The State decides to finance the early phase of the project with a dedicated revenue source and will use Federal-aid for later phases. This strategy allows the State to start the project quickly while maintaining Federal-aid eligibility for the project. In addition, the State does not have to wait until the entire obligational authority available for this project is set aside before receiving reimbursement for eligible Federal-aid expenses.



4. LEVERAGING TOOLS

Leveraging tools are designed to make more funds available to transportation providers. Included among these approaches are:

- Flexible Match
- Federal Share on Toll Projects
- Bonds and Debt
- ISTEA Section 1012 Loans
- ISTEA Section 1044 Toll Credits.

The additional dollars that these approach can attract to transportation investments can help States in meeting the financial challenges evident in today's funding environment.

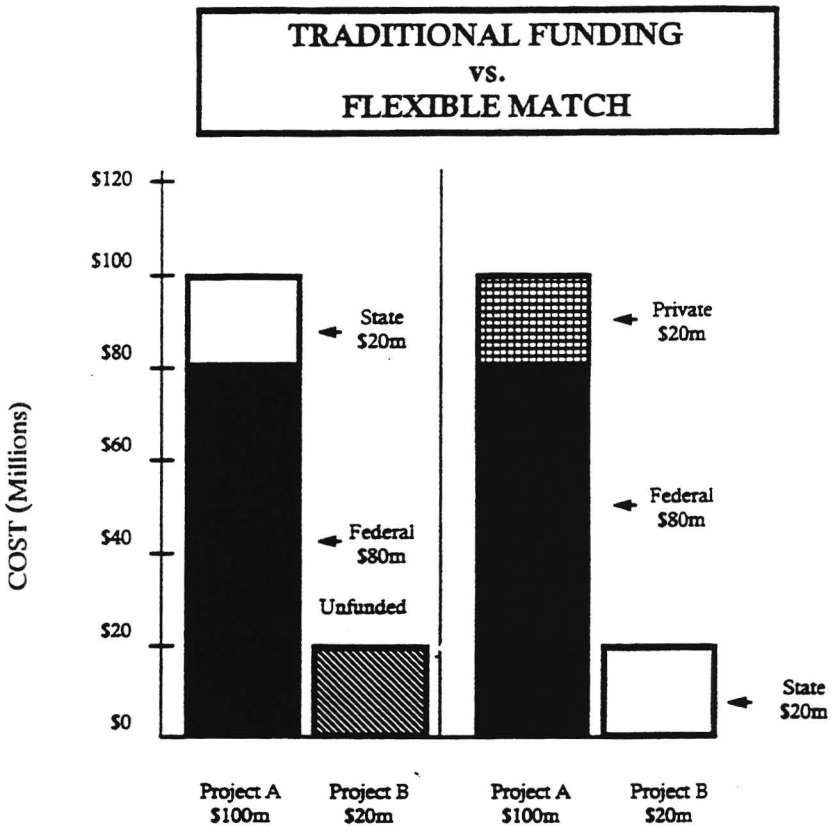
A. Flexible Match

In order to receive their share of Federal-aid money, States must fund a fixed, minimum percentage of a project's cost. Traditional highway funding arrangements requires States to fund the entire non-Federal matching requirements from State and local funds. Any in-kind contributions, except right-of-way donated by a private entity has been deducted from the total project cost before the level of Federal assistance is determined. Evidence suggests that this restriction does not provide an incentive for States to identify and utilize all available local and private resources.

Under the NHS Act, private funds, materials, or assets to be donated to a specific Federal-aid project can be applied to the State's matching share. Donations made by a public agency, e.g., Federal, State, or local government cannot be applied to the State's matching share. One exception is Federal funds with specific legislative authority to match other Federal funds.

If a State has a proposal under TE-045, the State can use the value of public or private donations to count as the State's non-Federal share requirement. Public donations can include publicly owned rights of way; private donations can include funds and assets.

For example, as shown below a State is interested in funding two projects totaling $120 million. Under traditional funding, one project is partially funded with Federal and State resources and the second project is not funded at all. Using a private donation of $20 million, the State is able to fund both projects.



B. Federal Share on Toll Road Projects

The first modern U.S. toll roads were in the Northeast, including the Pennsylvania in 1940 followed by the New Jersey Turnpike and the Garden State Parkway, which today is the heaviest traveled toll road in the world.

Many of these early toll roads became important components of the Interstate and Defense Highway System. Today, 29 States operate 37 toll roads and 44 toll bridges having a total length of 5,000 miles. Another 1,560 miles of toll roads with a cost of $24.6 billion are being planned. Recently expanded and new toll roads total 252 miles in length at an estimated cost of $5.04 billion.Nationwide, toll

NEW OR RECENTLY EXPANDED TOLL ROADS

Completion Date	State	Project	Length Miles	Cost ($Mill)
1996	CA	Orange Lanes (SR91)	14	$ 90.0
1997	CA	San Joaquin Hills Corridor	15	$793.0
1999	CA	Foothill Transportation Corridor	30	$746.0
2000	CA	Eastern Transportation Corridor	23	$630.0
1991	CO	E-470 — First Segment	5	$ 82.0
1986	FL	Swaggers Expressway	23	$178.0
1993	GA	Georgia State Route 400	10	$270.0
1989	IL	North-South Tollway	17	$487.0
1990	NJ	New Jersey Turnpike	10	$294.0
1993	PA	Hutchinson Bypass	13	$175.0
1987	TX	Dallas North Tollway Ext	7	$124.0
1988	TX	Hardy Toll Road	22	$366.0
1990	TX	Sam Houston Tollway	28	$436.0
1988	VA	Powhite Parkway Ext	9	$ 88.0
1989	VA	Dulles Toll Road	12	$ 91.0
1996	VA	Dulles Toll Road Ext	14	$190.0
		Total	252	$5,040.0

facilities today account for 6.5 percent of the length of the Interstate Highway System and carry approximately 7 percent of the Vehicle Miles of Travel carried on the Interstate Highway System. Toll revenue provides only five percent of today's overall highway revenues, although the amount is significant in some States.

Under the NHS Act, the Federal share for eligible toll facility activities is 80 percent. For privately owned toll facilities, the private entity is allowed to assume responsibility for the required non-Federal share of a toll project. In most cases, a toll agreement must be executed. The agreement must require that all toll revenues are first used for any of the following: debt service; reason-

able return on private investment; and operations and maintenance, including 4R work. An acceptable use of toll revenues can also be the establishment of reserve funds typically used by a toll authority in its financing structure. The reasonableness of the return to investors is a matter to be determined by the State.

At the option of the State, the agreement may also include provisions regarding toll revenues in excess of those needed for the required uses outlined above. This provision would entitle the State to use these excess revenues for the purposes authorized in Title 23 if the State certifies annually that the facility is being adequately maintained.

C. Bonds and Debt

There are two broad categories of financing strategies that a State may pursue to construct capital project: 1) "pay-as-you-go; and 2) debt financing. Under "pay-as-you-go" a State waits until sufficient capital has accumulated from various State dedicated revenue sources and Federal-aid grant reimbursement funds until commencing construction. Under a debt financing strategy, the State issues bond and other debt instruments to borrow the funds necessary to construct the project. Each approach has both advantages and disadvantages which ultimately must be considered when pursuing any financing strategy

The NHS Act allows States to use Federal-aid funds for bond principal, interest costs, issuance cost, and insurance on Title 23 eligible projects. Importantly, while these costs are eligible for reimbursement, such eligibility does not constitute a Federal commitment or guarantee on the part of the United States to provide for payments of principal and interest.

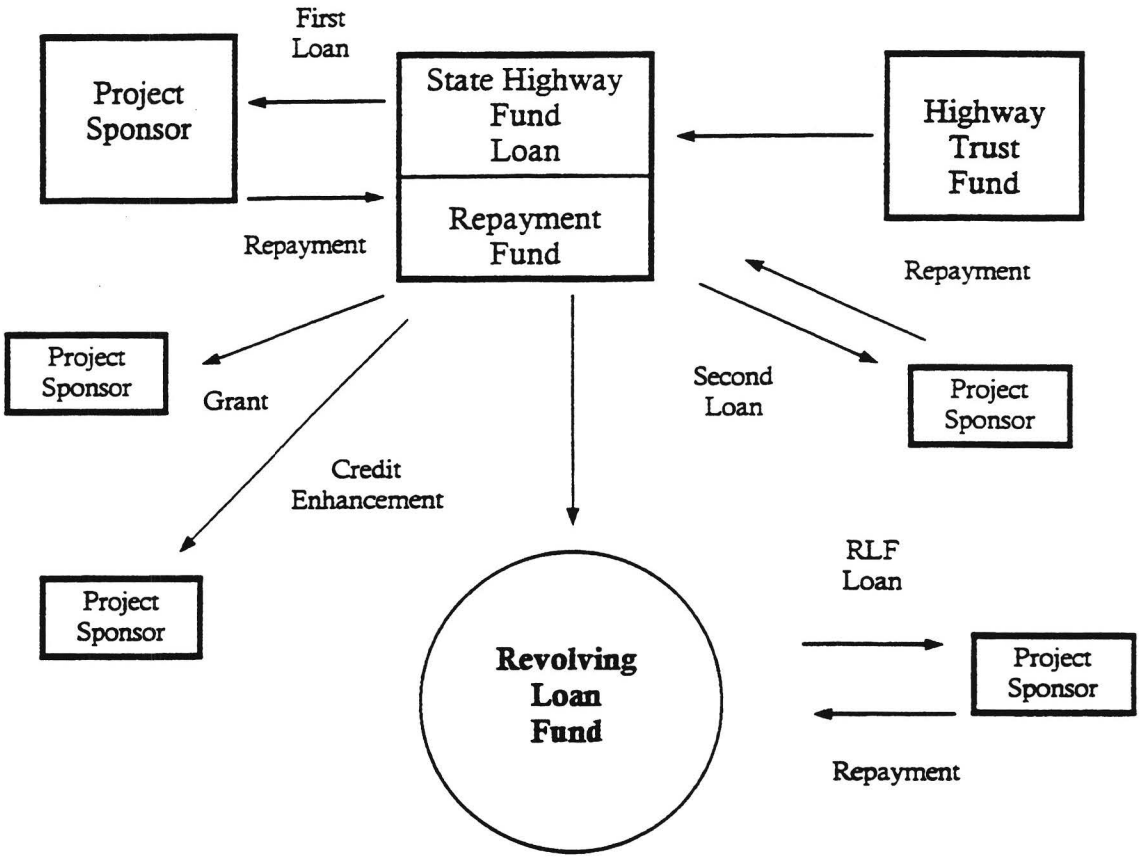
D. ISTEA Section 1012 Loans

As originally adopted in 1991, Section 1012 of ISTEA allowed States much greater flexibility in using Federal-aid highway funds to participate in the construction of toll facilities. For the first time, it specifically allowed States to make loans with Federal funds to public or private entities which are constructing a toll project that is eligible for Federal-aid funding. However, due to various technical problems, the Section 1012 loan provisions were not used by the States.The NHS Act adopted by the U.S. Congress in November 1995 codified several innovative Section 1012 loan structuring techniques. Under the NHS Act, States have the ability to loan Federal highway funds not only to a toll project but also to a non-toll project with a dedicated revenue source. Under the NHS Act, States also have the flexibility to negotiate interest rates and other terms of ISTEA Section 1012 loans (under the original Section 1012 provisions, interest rates were dictated by Federal regulations).

States can now make loans to non-toll facilities with revenue-producing potential. Revenue-producing projects include projects that levy excise taxes, sales taxes, property taxes, and motor vehicle use taxes, and doe not necessarily include tolls, Under Section 1012 as originally adopted, loans could only be made to eligible toll projects.

States can now negotiate interest rates with project sponsors at subsidized levels and offer favorable repayment terms. Under Section 1012 as originally adopted, federal regulations required that the interest rate be equal to the average rate on the State's pooled investment fund earned over the preceding 52-week period. Like Section 1012, the NHS Act has broad requirements that repayment begin with 5 year of project completion and be fully paid off within 30 years after the loan is first obligated.

States can take loan repayments from the first Section 1012 loan and make new loans to other surface transportation projects with revenue-generating potential. Second generation loans must sup-



port a Title 23 project with revenue-generating potential.

Section 1012 loan repayments can be used for:

• **Grants** States - can use loan repayments to make cash grants to specific projects at their discretion.

• **Leveraging a Revolving Fund** - States have the ability to use loan repayments to serve as collateral in order to borrow additional funds (or leverage) in the bond markets.

• **Credit Enhancement** - The NHS Act of 1995 allows States to use loan repayments to provide credit enhancement to eligible

projects, including the purchase of bond insurance or to be used as a capital reserve.

D. ISTEA Section 1044 Toll Credits

Section 1044 permits a State to use certain toll revenue expenditures as a credit toward the non-Federal matching share of all programs authorized by Title 23 and ISTEA. This is in essence a "soft match" provision that allow the Federal share to be increased up to 100 percent to the extent credits are available. Initial implementing guidance for Section 1044 was provided on June 22, 1992 in a memorandum issued jointly by FHWA, FTA, and NHTSA. The FHWA continues to serve as the lead Agency in administering this provision. This initial guidance has been modified in two subsequent memoranda issued September 22, 1992 and April 13, 1995. Copies of these memoranda are included in the back of this unit.

The amount of credit earned is based on revenues generated by the toll authority (i.e., toll receipts, concession sales, right-of-way leases or interest) including borrowed funds (i.e., bonds, loans) supported by this revenue stream that are used by the authority to build or improve highways, bridges or tunnels that serve interstate commerce.

To be able to use credits, a Maintenance of Effort (MOE) determination must be conducted as described in the guidance.

5. STATE INFRASTRUCTURE BANKS

A. Background

State Infrastructure Banks (SIBs) are infrastructure investment funds which can be created at the State or regional (multi-State) level. SIBs can provide States with new flexible financing capabili-

ties by offering a wide range of loan and credit enhancement assistance to eligible projects. As envisioned, SIBs will be initially capitalized by a combination of State an/or Federal funds. In short, A SIB is like a private bank which needs equity capital to get started, and offers customers a range of loan and credit options.

The NHS Act allows the ten SIB pilot states to allocate up to 10 percent of their Federal apportionment as a Federal capitalization grant to their SIB. States must also match 25 percent of the Federal capitalization grant with funds from non-Federal sources. The State match can include funds contributed by private entities; States may also choose to contribute funds in excess of the required State match. Finally, the NHS Act allows States to use up to two percent of the Federal capitalization grants to pay for administration costs.

B. Loans

Loans will be common form of assistance SIBs offer. Each SIB has the flexibility to structure loans specifically to meet an individual project's needs. SIBs can also be structured as revolving loan funds where loan repayments are recycled for new projects. Types of loans SIBs can offer include:

Subordinate Loans --SIBs can make loans on a subordinate basis to other project debt, allowing the project allowing the project to get less expensive financing on its other debt due to its higher payment priority and stronger coverage levels.

Short-term Construction Loans --SIBs can provide short-term financing to help projects with cash flow during construction.

Interest-only Loans --SIBs may provide interest-only loans not only during construction but in the initial, "ramp-up" years immediately after construction completion.

Low-interest Loans.

C. Credit Enhancement

SIBs can offer various mechanisms which provide a third-party guarantee to projects to ensure that sufficient revenues are available to pay project costs and/or debt service. Credit enhancement can be provided to portions of a project's financing package or to the total financing package.

Letter to Credit or Loan Guarantee --SIBs can extend a letter of credit (LOC) or loan guarantees to transportation projects. An LOC or loan guarantee issued by a SIB protects investors from an issuer's default by committing the SIB to make debt service payments in the event the issuer cannot do so. Bonds covered by a SIB LOC receive the rating of the SIB rather than the stand-alone rating of the project itself.

Lines of Credit --As a means of attracting private capital, SIBs can extend a contingent line of credit to projects to cover construction cost overruns or revenue shortfalls. Bonds issued for projects that are granted contingent lines of credit would not receive the rating of the SIB. A contingent line of credit increases the attractiveness of projects to investors, however, because a portion of the total financing of the project is assured.

Reserve Fund -SIBs could fund a debt service reserve fund for a project. If the reserve fund is drawn upon, the SIB may be obligated to replenish the fund. (This form of contingent back-up is similar to a line of credit).

State-aid Intercept --If a State desires, it can give its SIB the statutory authority to intercept state transportation aid to a specific

project or sponsoring jurisdiction and redirect it to pay bondholders.

Pooled Issues for Small Debt Issuers --If a State desires, a SIB can be given the statutory authority to aggregate smaller debt issues into a larger debt issue. This benefits the small issuer by providing economics of scale in costs of issuance and by giving investors a broader range of issuers to look to pay debt service, thereby enhancing credit quality and lowering interest rates.

D. Structuring an Infrastructure Bank

States will most likely have to adopt specific enabling legislation authorizing the creation of a SIB, especially if it is to receive authority to issue debt. The types of assistance that any particular SIB offers will depend primarily on the specific transportation financing needs of each State or multi-State region and the statutory authority given each SIB. For SIBs that are considering leveraging, the types of assistance offered may also be impacted by credit and rating constraints. The administration and operation of the SIB can be located within the State DOT, in an independent entity, or split between multiple State agencies (i.e., the State finance department and the State DOT). Placement may in part be determined by the level of financial expertise found in different state agencies. Leveraging will generally allow SIBs to provide more lendable funds to projects. The decision of whether or not to leverage will depend on each SIB's assessment of overall loan demand and comfort with bond-financed programs. In practice, the leveraging decision may not be confronted until later in the SIB's life cycle when loan demand can be more easily identified and quantified.

States can provide the required State match from their traditional sources of matching Federal aid highway programs or from other sources, including bond proceeds, existing loan repayments, and

other State general revenues. If demand for SIB financial assistance exceeds the required State match and Federal capitalization grants, States could contribute funds in excess of the required match or pledge other State revenues as additional credit enhancement.

The facilitation of public-private partnerships is a key goal of SIB assistance. States must identify any existing legal and regulatory barriers they face in dealing with private partners in infrastructure projects, and then evaluate what types of assistance will best encourage public-private partnership formation.

6. SUMMARY AND CONCLUSIONS

This unit provides extensive background on innovative finance provisions of ISTEA, the TE-045 program, and the NHS Act. Various guidance documents have been included in the back of the unit for more information.

Innovative Financing techniques are now available to all states as part of the regular federal-aid program as a result of the National Highway System Designation Act of 1995 (NHS Act) and administrative change. The Innovative Financing techniques that FHWA and the states are utilizing include both leveraging tools, designed to increase the funds available for transportation infrastructure investment, and cash flow tools, designed to get transportation projects into construction more quickly. Leveraging tools include: flexible match, federal share on toll projects, bonds and debt instruments, ISTEA 1012 loans, and ISTEA Section 1044 Toll Investment Credits. Cash flow tools include: advance construction and partial conversion of advance construction. Leveraging and cash flow tools can be particularly powerful when used in combination. This variety of tools was made available to states to provide the greatest number of choices for states to determine which would be the most effective tools for their state transportation system.

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CASH FLOW TOOLS

These tools have to do with <u>when</u> Federal funds become available to States. They are designed to permit Federal and non-Federal funds to work in a more complementary fashion.

- **Advance Construction (NHS)**
- **Partial Conversion of Advance Construction (Administrative Change)**

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ADVANCE CONSTRUCTION NHS ACT PROVISIONS

- **Allows a State to initiate a project using non-Federal funds**
- **Preserves eligibility for future Federal-aid**
- **No present or future Federal funds are committed**
- **After project is authorized, the State may convert to regular Federal-aid funding provided Federal funds are available**
- **AC projects must be on approved STIP--previous limitation required that future year authorizations be in effect one year beyond FY for which an AC application was sought**

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ADVANCE CONSTRUCTION ELIGIBLE PROJECTS

- NHS (includes IC and IM)
- Interstate substitute
- CMAQ
- STP
- HBRR
- State P&R, Metro Planning

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ADVANCE CONSTRUCTION CONDITIONS

Except for NHS, IC, and IM one of the following conditions must be met to qualify for AC

- State has obligated all the funds apportioned or allocated for the specific program
- State has used its obligation authority, or
- State can demonstrate that it will use its obligation authority by end of fiscal year

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ADVANCE CONSTRUCTION PROCEDURES

- AC project must meet same requirements and be processed in same manner as regular FA project -- authorization does not constitute commitment of FA
- At time of project approval, FHWA and State execute a project agreement -- specifies that the total cost of the project is an obligation of the State
- No federal obligation is created until project is converted to regular FA project
- State may submit written request to FHWA that a project be converted at any time -- provided sufficient FA and OA are available
- Partial conversion is permitted

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ADVANCE CONSTRUCTION STIP REQUIREMENTS

- AC projects must be included on STIP -- both in year of authorization and year of conversion(s)
- Total amount of AC limited as follows:
  - State's current unobligated balance of apportionments, plus
  - Amount of Federal funds anticipated in subsequent fiscal years of an approved STIP

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ADVANCE CONSTRUCTON PAYMENT FOR BOND INTEREST

- **After November 28, 1995 -- all bond related costs authorized by 23 U.S.C. 122 are eligible**
- **Before November 28, 1995 -- interest earned and payable is eligible but limited to estimated increase in construction cost as reflected in the national construction cost index**

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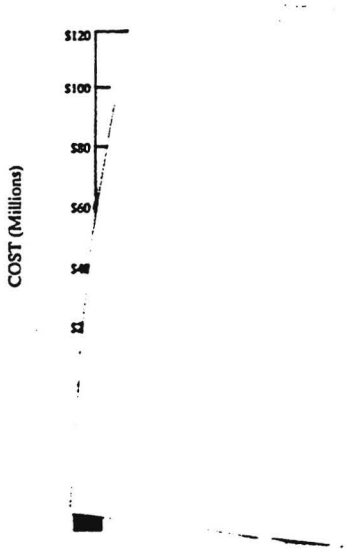
ADVANCE CONSTRUCTION PROJECT



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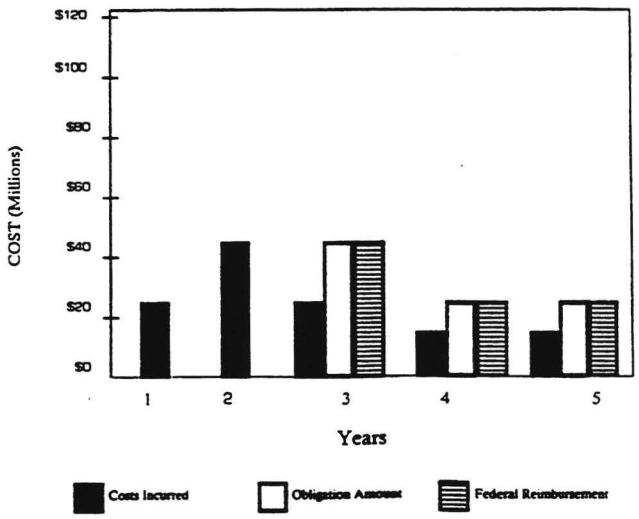
PARTIAL CONVERSION OF ADVANCE CONSTRUCTION



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LEVERAGING TOOLS

These tools are designed to make <u>more funds available</u> to transportation providers.

- **Matching Credit for Private Funds, Materials, or Services Donated to Federally Assisted Projects (NHS)**
- **Bonds and Debt Instruments (NHS)**
- **ISTEA Section 1012 Loans (NHS)**
- **Federal Share on Toll Projects (NHS)**
- **ISTEA Section 1044 Toll Investment Credits (Adminstrative Change)**

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MATCHING CREDIT FOR MATERIALS OR SERVICES DONATED TO FEDERAL-AID PROJECTS

This provision allows private funds, materials, or assets to be donated to a specific federal-aid project and permits the state to apply the value to the states matching share. Previously, states could only receive credit for state and local funds or for donations of private property incorporated into a federal project.

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THIRD PARTY DONATIONS ELIGIBLE DONATIONS

- **Allows donated funds, materials, and services to be used as State's matching share**
- **Third par ty includes an individual, company, association -- but not government agency**
- **Donations must be made after the date the project is approved by FHWA and prior to approval of final voucher**
- **No donations are eligible prior to November 28, 1995**
- **Donated materials and services must meet the eligibility requirements of the project**
- **In few cases, Federal funds may be used as match**

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THIRD PARTY DONATIONS VALUATION OF DONATIONS

- Valued at market value at time of donation
- Donated labor valued at rates consistent with rates ordinarily paid for similar work in donor's organization
- If donor does not have employees performing similar work -- rates will be consistent with those ordinarily paid by others for similar work
- Equipment will be valued at the fair market rental value or reasonable rates

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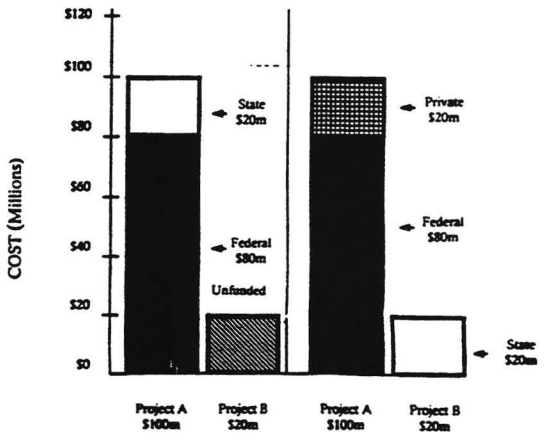
TRADITIONAL FUNDING VS. FLEXIBLE MATCH



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FEDERAL SHARE ON TOLL PROJECTS

This provision sets the Federal share for toll projects on highways, tunnels, and bridges at a maximum of 80% of eligible costs. Until now federal share varied from 50% to 80% based on activity and system designation.

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TOLL FACILITIES NHS ACT PROVISION

- **Sets Federal share for toll projects at 80 percent**
- **Toll activities eligible:**
  - **Initial construction of toll highways, bridges, or tunnels except on Interstate routes**
  - **4R work on existing toll facilities**
  - **Reconstruction or replacement of free bridges or tunnels and conversion to toll facilities -- contains no Interstate restriction**
  - **Preliminary studies to determine the feasibility of the above toll construction activities**

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TOLL FACILITIES
TOLL AGREEMENTS

- **Must be executed prior to either authorization of Federal funds or State undertaking re-construction and conversion project on its own**
- **No agreement needed for feasibility study**
- **Toll agreement must require that all toll revenues are first used for**
  - **debt service**
  - **reasonable return on private investment**
  - **operation and maintenance -- including 4R**

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TOLL FACILITIES
TOLL AGREEMENTS (Cont.)

- **Acceptable use of toll revenues can also be establishment of reserve funds**
- **Reasonableness of return to investors is determined by State**
- **Excess tolls can be used for Title 23 purposes**
- **State determines if facility stays tolled after debt retirement**

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TOLL FACILITIES
TOLL AGREEMENT FORMAT AND PROVISIONS

- Standard agreement has not been developed
- Simplification is desired
- Headquarters will provide review comments on draft agreements if possible
- Toll agreement must include
  - Description of toll facility covered by agreement
  - Commitment on toll revenue use
  - Provisions regarding use of excess toll revenues
  - Stipulation regarding access to records

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TOLL FACILITIES
IMPOSITION OF TOLLS

- Amount of tolls charged is made by toll entity subject to State and local laws
- Requires no review or input from the FHWA
- Decisions regarding whether tolls are collected in only one direction of travel versus both are at State's discretion

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TOLL FACILITIES OWNERSHIP

- **Allows private ownership of a Federally funded toll facility if the public authority having jurisdiction over the toll facility has entered into a contract with a private entity to design, finance, construct and operate the facility**
- **If privately owned, the public authority having jurisdiction must ensure Title 23 compliance as required**

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BONDS AND OTHER DEBT INSTRUMENTS ELIGIBLE FOR REIMBURSEMENT AS CONSTRUCTION EXPENSES

States can be reimbursed with federal-aid funds for bond principal, interest costs, issuance costs, and insurance on Title 23 projects. To date, federal-aid funds have been limited to bond retirement costs on certain categories of projects, and interest costs were eligible only on some Interstate projects.

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BOND AND OTHER DEBT INSTRUMENT FINANCING
NHS ACT PROVISION

- Replaces 23 U.S.C. 122 and makes bond related costs eligible for Federal reimbursement on any FA project eligible under Title 23, U.S.C.
- Previous Section 122 allowed certain types of projects to be approved as bond issue projects -- these projects were advanced without any commitment of Federal funds until bonds matur ed and project converted to regular FA

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BOND AND OTHER DEBT INSTRUMENT FINANCING
ELIGIBLE PROJECTS

- Projects authorized after November 28, 1995 -- bond related costs are an eligible cost of construction on projects authorized under Title 23, including ISTEA demonstration projects
- Projects authorized prior to November 28, 1995 -- subject to the requirements in effect at date of project authorization

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BOND AND OTHER DEBT INSTRUMENT FINANCING
ELIGIBLE COSTS

- **Eligible instrument -- bond, note, certificate, mortgage or lease arrangement used for eligible FA project**
- **Interest payments**
- **Retirement of principal**
- **Cost of issuance**
- **Cost of insurance**

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BOND AND OTHER DEBT INSTRUMENT FINANCING
ELIGIBLE COSTS (Cont.)

- **Any other cost incidental to sale or debt financing instrument**
- **Reimbursement based on amount of bond proceeds actually applied to FA project**
- **Eligibility does not constitute a commitment, guarantee, or obligation of Federal funds**

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ISTEA SECTION 1012 LOANS

States can loan federal-aid funds to toll and non-toll projects with dedicated revenue streams. A loan can be made for any phase of a project including engineering and right-of-way work. At the State's option, the amount of any loan eligible for Federal reimbursement may be subordinated to any other financing for the project.

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LOAN PROVISIONS NHS ACT PROVISION

- **Expands eligibility of State loans for construction of non-toll facilities with a dedicated revenue source**
- **States given greater flexibility in determining the interest rate for loans and given the authority to use loan repayments for additional credit enhancement activities**

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LOAN PROVISIONS ELIGIBILITY

- Section 129(a)(7)(A) allows the State to make loans to a public or private entity which is constructing, or proposing to construct, a toll project that is eligible for FA funding or a non-toll highway project with a dedicated revenue source
- State may loan to public or private entity
- Amount loaned is considered an eligible FA project cost
- No federal requirements apply to how a State selects a public or private entity to be a recipient of the loan
- Selection process governed by State law
- State's reponsibility to ensure loan is used for specified purpose

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LOAN PROVISIONS DEDICATED REVENUE SOURCE

- Dedicated revenue source is the revenue source which the loan recipient, or other appropriate entity, pledges for repayment of the loan
- Revenue sources can include, but not limited to, excise taxes, sales taxes, real property taxes, motor vehicle taxes, incremental property taxes -- criteria limit use of airport revenues
- Pledge may involve all or only a portion of a revenue source
- State will identify the dedicated revenue source(s) and provide written assurance that a pledge had been secured

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LOAN PROVISIONS AUTHORIZATION

- Loan may be made at anytime -- for any amount provided the maximum Federal share is not exceeded
- Loan can be initiated on an active, eligible project, but cannot include work done prior to loan authorization
- A loan can be authorized under advance construction provisions
- Federal-aid funds are obligated in conjunction with each incremented authorization
- State is considered to have incurred a cost at the time the loan is made
- Federal funds will be available to State at the time the loan is made

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LOAN PROVISIONS COMPLIANCE WITH LAWS

- State must ensure that project is carried out in accordance with Title 23 and other applicable Federal laws, including any environmental and ROW provisions
- Initial toll or non-toll project is subject to same basic requirements and FHWA oversight followed for comparable non-loan Federal-aid projects

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LOAN PROVISIONS
REPAYMENT / TERMS OF LOAN

- **Loans must be repaid to the State**
- **Repayment must begin within 5 years after project is completed and opened to traffic**
- **Repayment must be completed within 30 years after the date Federal funds are authorized for the loan or first increment of the loan**
- **Interest on loan is at or below market rates, as determined by the State, to make the project receiving the loan feasible**

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LOAN PROVISIONS
SUBSEQUENT USE OF REPAID AMOUNTS

- **Any eligible project under Title 23, or**
- **The purchase of insurance or for use as a capital reserve for other forms of credit enhancement**
- **No Federal requirement attached to activities advanced with funds repaid to the State**

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LOAN PROVISIONS OTHER ISSUES

- **Loan guarantees are not an eligible activity -- however a reimburseable loan could act as a credit enhancement**
- **Federal funds can participate either through a direct commitment of funds or through a loan to public or private entity building the project**
- **Project can be funded through a mix of regular Federal-aid for one portion and a reimburseable loan for another portion**
- **Consultant selection – if Federal-aid funding is only via loan project, the entity receiving the loan is allowed to select consultant or contractors using whatever manner it chooses -- as long as State procedures are followed**

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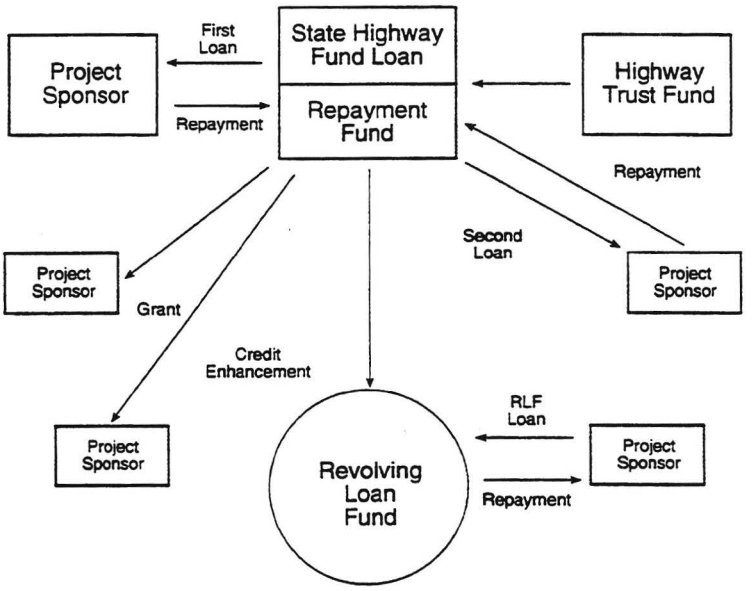
REVOLVING LOANS



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ISTEA SECTION 1044 – TOLL CREDITS

A State DOT can receive an investment credit for certain toll revenue expenditures on highway, bridge, or tunnel infrastructure. The State can apply the credit towards the non-Federal matching share of all programs authorized by Title 23 and ISTEA. To the extent credits are available, a State may use up to 100 percent Federal funds on benefiting projects.

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SECTION 1044 TOLL CREDITS

- **Permits a State to use certain toll revenue expenditures as a credit toward non-Federal matching share of all programs authorized by Title 23 and ISTEA**
- **This is a "soft match" provision that allows the Federal share to be increased up to 100 percent to the extent that credits are available**

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SECTION 1044
DETERMINATION OF CREDIT

- **Amount of credit is based on revenues generated by the toll authority including borrowed funds supported by this revenue stream that are used to build, improve, or maintain highways, bridges, or tunnels that serve interstate commerce**
- **Amount of credit is based on non-Federal expenditures (outlays) for capital improvements to build, improve, or maintain public highway facilities**
- **Expenditures for routine maintenance, debt service, or costs of collecting tolls are excluded**

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SECTION 1044
OTHER PROVISIONS

- **Once a credit is established it will remain available until used by the State**
- **The only time MOE test will be required is at time credit is established**
- **Soft match provisions are available for all Title 23 and ISTEA projects at discretion of the State**

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U.S. Department
of Transportation

Federal Highway Administration

Memorandum

Subject: INFORMATION: Innovative Finance Provisions of the National Highway System Designation Act of 1995 (the NHS Act)

Date: May 17, 1996

From: Executive Director

Reply to Attn. of: HFS-40

To:

Associate Administrators
Staff Office Directors
Director, ITS Joint-Program Office
Regional Administrators
Division Administrators
Federal Lands Highway Program Administrator

For the past two years, we have been involved in a cooperative effort with State and local governments, toll authorities, and private companies to implement new strategies for financing transportation projects. The return on that effort came sooner than we expected with the passage of the NHS Act. The Act added five key financing provisions to title 23, United States Code which had been shown to be valuable tools in our innovative finance projects. (The Act also included a pilot program for State Infrastructure Banks. Information on the pilot program is available from HPP-20.)

Attached is the implementing guidance on the five Title 23 provisions:

Section 308 - Advance Construction of Federal-aid Projects
Section 311 - Payment to States for Bond and Other Debt Instrument Financing
Section 313(a) - Toll Facilities Under Section 129(a) of Title 23
Section 313(b) - Loan Provisions Under Section 129(a)(7) of Title 23
Section 322 - Donations of Funds, Materials, or Services for Federally Assisted Projects

You are to be commended for your work on innovative financing. It has and will continue to produce results. Now, I challenge you to implement these new financing provisions by encouraging the States and the local governments to take full advantage of the flexibility they offer.

Headquarters staff is available to assist you as noted in the implementing guidance. Let me know if there are any other ways in which we can help you in implementing the Act.

Anthony R. Kane

Attachments

May 10, 1996

GUIDANCE ON SECTION 308 OF THE NHS ACT
ADVANCE CONSTRUCTION OF FEDERAL-AID PROJECTS

NHS Act Provision

Advance construction is a technique which allows a State to initiate a project using non-federal funds while preserving eligibility for future Federal-aid funds. Eligibility means that FHWA has determined that the project technically qualifies for Federal-aid; however, no present or future Federal funds are committed to the project. After an advance construction project is authorized, the State may convert the project to regular Federal-aid funding provided Federal funds are made available for the project.

Section 308 of the NHS Act replaced 23 U.S.C.115(d) relating to the amount of advance construction that may be authorized. The previous limitation required that future year authorizations be in effect one year beyond the fiscal year for which an advance construction application was sought, thus limiting the States' flexibility to advance construct during the final year of an authorization act.

The NHS Act replaces that limitation with a requirement that advance construction projects be on the approved Statewide Transportation Improvement Program (STIP). The STIP covers a period of at least three years and is a financially constrained program which is not limited to the period of the authorization act. This change in the advance construction limitation will provide the States with more flexibility in financing projects and developing financial plans. From a State and local perspective, this provision allows more projects to begin construction sooner.

Eligible Projects

The following programs are eligible for advance construction:

- National Highway System (includes Interstate Construction and Interstate Maintenance)
- Interstate Substitute
- Congestion Mitigation and Air Quality Improvement Program
- Surface Transportation Program
- Bridge Replacement and Rehabilitation
- State Planning and Research, and Metropolitan Planning.

Except for projects using National Highway System, Interstate Construction, or Interstate Maintenance funds, one of the following conditions must be met to qualify for advance construction:

- the State has obligated all the funds apportioned or allocated for the specific program,
- the State has used its obligation authority, or
- the State can demonstrate it will use it obligation authority before the end of the fiscal year.

Procedures

An advance construction project must meet the same requirements and be processed in the same manner as a regular Federal-aid project, except the FHWA authorization does not constitute a commitment of Federal funds on the project.

At the time of project approval, FHWA and the State will execute a project agreement. The project agreement contains provisions for advance construction project and specifies that the total cost of the project is an obligation of the State. No Federal obligation is created until the project is converted to a regular Federal-aid project.

The projects must be included on the STIP and meet the tests of financial constraint required by 23 U.S.C. 135(f). The total amount that may be advance constructed will be limited as follows: the Federal share of all advance construction projects (amount not converted to Federal-aid) cannot exceed the sum of the State's current unobligated balance of apportionments plus the amount of Federal funds anticipated in the subsequent fiscal years of an approved STIP, i.e., the amount used in developing the approved STIP. If this limit is reached, the FHWA Division Administrator will not approve any additional advance construction projects.

State planning and research, and metropolitan planning projects authorized under 23 U.S.C. 307(c) and 23 U.S.C. 104(f) are not required to be included on the STIP to be eligible for advance construction.

Conversion to a Regular Federal-aid Project

The State may submit a written request to the FHWA that a project be converted to a regular Federal-aid project at any time provided that sufficient Federal-aid funds and obligation authority are available. The State may request a partial conversion where only a portion of the Federal share of project costs is obligated and the remainder may be converted at a later time provided funds are available. Only the amount converted is an obligation of the Federal Government. The project should be identified on the STIP each year a conversion occurs.

Payment for Bond Interest on Advance Construction Projects

For projects authorized before November 28, 1995, interest earned and payable on bonds issued by a State is an eligible cost of construction but is limited as follows:

Participating interest cost is based on the actual expenditure of bond proceeds on the Federal-aid project. The interest on the bonds is applied to the amount of bond proceeds expended on the project from the date of expenditure.

The amount of interest determined in the previous paragraph cannot exceed the estimated increase in the physical construction cost of the project which would have occurred had the project been authorized on the date of conversion. The estimated increase in the physical construction cost is determined by applying the increase, if any, in the national construction cost index in effect on the date of conversion over the index in effect on the date of the FHWA authorization to the actual cost of physical construction.

For projects authorized on or after November 28, 1995, all bond related costs authorized by 23 U.S.C. 122 are eligible.

[Questions relating to this guidance should be directed to Max Inman, Office of Fiscal Services, at 202-366-2853.]

May 10, 1996

GUIDANCE ON SECTION 311 OF THE NHS ACT PAYMENT TO STATES FOR BOND AND OTHER DEBT INSTRUMENT FINANCING

NHS Act Provision

Section 311 of the NHS Act replaces 23 U.S.C. 122 and expands the Federal eligibility of bond related costs. The previous section 122 allowed certain types of projects to be approved as bond issue projects. Similar to advance construction, these projects were advanced as Federal-aid projects without any commitment of Federal funds until the bonds matured and the State converted the projects to regular Federal-aid. The section also allowed for reimbursement of bond interest costs on certain Interstate construction projects.

The new section 122 makes bond related costs eligible for Federal reimbursement on any Federal-aid project eligible under title 23, U.S.C. The definition of construction is also revised in 23 U.S.C. 101 to include a reference to bond related costs.

Eligible Projects

Bond related costs are an eligible cost of construction on projects authorized under title 23, U.S.C., including ISTEA demonstration projects, which are authorized by FHWA on or after November 28, 1995.

Bond projects authorized prior to November 28, 1995, under 23 U.S.C. 115, Advance Construction, and under section 122, Payment to States for Bond Retirement, are subject to the requirements in effect on the date of project authorization.

Eligible Costs

Eligible costs include interest payments under an eligible debt financing instrument, the retirement of principal of an eligible debt financing instrument, the cost of the issuance of an eligible debt financing instrument, the cost of insurance for an eligible debt financing instrument, and any other cost incidental to the sale of an eligible debt financing instrument.

Eligible debt financing instrument means a bond or other debt financing instrument, including a note, certificate, mortgage, or lease agreement, issued by a State or political subdivision of a State or a public authority, the proceeds of which are used for an eligible Federal-aid project.

Questions regarding the eligibility of debt instruments or incidental costs should be submitted to the FHWA division office and forwarded to the Office of Fiscal Services for an eligibility determination.

Federal reimbursement will be based on the amount of bond proceeds actually applied to Federal-aid projects. General costs relating to a debt financing instrument will be equitably distributed to Federal-aid and non Federal-aid projects.

Conditions

The eligibility of a debt financing instrument for reimbursement does not constitute a commitment, guarantee, or obligation of Federal funds to provide for payment of principal or interest; or create any right of a third party against the Federal government for payment.

[Questions relating to this guidance should be directed to Max Inman, Office of Fiscal Services, at 202-366-2853.]

May 10, 1996

GUIDANCE ON SECTION 313(a) OF THE NHS ACT
TOLL FACILITIES UNDER SECTION 129(a) OF TITLE 23

NHS Act Provision

Section 313(a) replaced paragraph (a)(5) of 23 U.S.C., Section 129, relating to the Federal share for toll projects. The previous provision established a Federal share for toll projects that varied from 50 percent to 80 percent based on the activity and facility involved. The NHS Act amendment sets the Federal share for toll projects at 80 percent.

Background

Section 129(a) of Title 23 sets forth the statutory requirements governing use of Federal-aid highway funding for toll facilities. These provisions were significantly modified by the 1991 ISTEA and have been further amended by Section 313 of the NHS Act.

The ISTEA modifications were implemented by memoranda from FHWA Headquarters dated March 12, 1992, and May 14, 1993. In addition to the implementing guidance, FHWA Headquarters also issued a November 20, 1995, memorandum discussing the format and procedures for processing toll agreements.

The purpose of this guidance is to consolidate in one document, information on Federal-aid funding of toll facilities contained in the three previous memoranda, modified as appropriate to implement the NHS Act.

Additionally, the ISTEA also amended Section 129 by adding Section 129(a)(7) to allow Federal participation in a State loan to a toll project. The NHS Act modified the loan provisions of Section 129(a)(7) and expanded them to include nontoll highway facilities. The original implementing guidance for this section was included in the above noted March 12, 1992, and May 14, 1993, memoranda. Separate guidance will be issued on loan provisions that will consolidate into one document information on loan provisions contained in the two previous memoranda, modified as appropriate to reflect the NHS Act amendments.

The following provides implementing guidance on the Section 129(a) toll provisions.

Eligibility

Section 129(a)(1) establishes five broad categories of toll activities eligible for Federal-aid highway funding. These are:

1. Federal-aid funds may be used for the initial construction of toll highways, bridges or tunnels except on Interstate System routes. Federal funds may not participate in the initial construction of toll bridges or tunnels on the Interstate System.

2. Resurface, restoration, rehabilitation and reconstruction (4R) work on existing toll facilities [129(a)(1)(B)].

   4R work on existing toll facilities is eligible for Federal participation regardless of whether or not the toll facility had in effect a prior Section 129 toll agreement with the FHWA.

3. Reconstruction or replacement of free bridges or tunnels and conversion to toll facilities [129(a)(1)(C)].

   Examples of reconstruction would be widening existing bridges or tunnels to add lanes or providing a dual facility. On the other hand, certain types of work clearly do not meet the intent for reconstruction. For example, putting up toll booths, painting and updating bridge rail are not considered to be work that would qualify a bridge for conversion. Although these latter types of activities could be eligible for Federal participation as part of a reconstruction effort, in and of themselves, they are not viewed as reconstruction.

   The criteria of reconstruction could be satisfied by construction of a dual bridge or tunnel. The two bridges or tunnels do not have to be side-by-side; however, to be considered a dual facility, the new and existing bridge or tunnel must serve together as one to carry traffic on a single route.

   Reconstruction or replacement and conversion from free to toll for a bridge or tunnel previously constructed with Federal-aid funds can be accomplished with or without Federal-aid participation. In either case, a Section 129(a)(3) toll agreement will need to be executed prior to undertaking the conversion project.

   It is also noted that Section 129(a)(1)(C) contains no Interstate System restriction. Accordingly, existing Interstate System bridges or tunnels may be reconstructed or replaced and converted to toll facilities. This includes any Interstate tunnel or bridge, regardless of its size and significance.

4. Reconstruction of free highways, except Interstate System, and conversion to toll facilities [129(a)(1)(D)].

   Examples of reconstruction include adding new lanes to increase capacity, acquisition of access control coupled with construction of interchanges, or replacement of the full pavement structure.

   Reconstruction and conversion from free to toll for a highway previously constructed with Federal-aid funds can be accomplished with or without Federal-aid participation. In either case, a Section 129(a)(3) toll agreement will need to be executed prior to undertaking the conversion project.

5. Preliminary studies to determine the feasibility of the above toll construction activities [129(a)(1)(E)].

Federal Share/Non-Federal Share

The Federal share for eligible toll facility activities under Section 129(a)(1), as outlined above, is 80 percent. Since Federal share for Federal-aid toll facility projects is controlled by Section 129 and not Section 120 of Title 23, the sliding scale provisions of Section 120 may not be applied to these projects. For privately owned toll facilities, the private entity is allowed to assume responsibility for the required non-Federal share of a toll project.

Toll Agreements - General

If Federal-aid funds are used for construction of or improvements to a toll facility or the approach to a toll facility or if a State plans to reconstruct and convert a free highway, bridge or tunnel previously constructed with Federal-aid highway funds to a toll facility, a toll agreement under Section 129(a)(3) must be executed. The toll agreement must be executed prior to either authorization of Federal funds for any work or the State undertaking a reconstruction and conversion project on its own. In addition, for 4R work on existing toll facilities, before authorization of Federal funds, a toll agreement needs to be executed or the existing toll agreement with the FHWA needs to be modified to incorporate the provision of Section 129(a)(3). A toll agreement is not needed for preliminary studies to determine the feasibility of constructing a toll facility.

The toll agreement must require that all toll revenues are first used for any of the following: debt service, reasonable return on private investment and operation and maintenance, including 4R work. An acceptable use of toll revenues can also be the establishment of reserve funds typically used by a toll authority in its financing structure. The reasonableness of the return to investors is a matter to be determined by the State.

At the option of the State, the agreement may also include a provision regarding toll revenues in excess of those needed for the required uses outlined above. This provision would entitle the State to use these excess revenues for purposes authorized under Title 23 if the State certifies annually that the facility is being adequately maintained.

The issue of whether a toll facility is to become free when debt is retired or at some other future point in time or whether tolls are to be continued indefinitely is a matter to be determined by the State. The toll agreement should reflect the State's decision on this matter.

Toll Agreement Format and Provisions

The toll agreement must include a:

- Description of the toll facility covered by the agreement;
- Commitment on toll revenue use;
- Provision regarding use of excess toll revenues; and
- Stipulation regarding access to records.

A standard toll agreement format has not been developed. The attached executed agreement serves as an excellent example of a toll agreement that is simple and adequately addresses the above requirements.

Based on recent experience, there has been a trend towards including extraneous items in toll agreements. These include discussion on specific Federal-aid project funding or financing arrangements, Federal share, design standards, compliance with other Federal-aid requirements or other Federal laws, project oversight, etc. These items are not required by Section 129(a)(3) and represent project specific issues that are inappropriate for inclusion in an agreement being executed by the Federal Highway Administrator. If there is a desire for written agreement on specific project issues, it should be handled through a two-party State/toll authority agreement. Any assurances regarding project specific Federal-aid issues should be handled by the division administrator.

As future toll agreements are developed, we expect them to only address those items needed to satisfy Section 129(a)(3). Toll agreements that contain extraneous provisions will be returned for revision and simplification and must be resubmitted for execution.

Processing of Toll Agreements

If requested, Headquarters will provide review comments on a draft toll agreement before the final agreement is prepared for signature by State and/or toll authorities. For quick review and comment, it is suggested the draft toll agreement be informally submitted to HCC-32, either by E-mail or fax.

The Administrator is the FHWA executing official for toll agreements, including modifications to previously executed agreements. The agreements should be transmitted from the region office to the Office of Chief Counsel, to the attention of General Law, HCC-32. General Law coordinates FHWA Headquarters review of the agreement and recommends execution by the Administrator.

For the convenience of the parties, a minimum of two counterpart originals of the toll agreements are needed (more may be submitted if the State desires) for execution by the Administrator. After execution by the Administrator, one original will be retained in Headquarters in the Federal-Aid and Design Division. The other original (or originals) will be returned to the region for transmittal to the State. The execution date of a toll agreement will be the date the FHWA Administrator signs it, so do not include one. The other signers can, however, affix a date to their signatures if they so choose.

Modification of Section 119 or 129 Free-up Toll Agreements

Existing free-up toll agreements executed prior to December 18, 1991, under Section 119(e) or Section 129 of Title 23 (including former Section 129(d) toll agreements for approaches to Interstate highways) may be modified to allow for continuation of tolls. A provision covering the annual State maintenance certification and use of tolls, as provided for in Section 129(a)(3), may be added to these agreements. An agreement modification needs to be executed by all parties to the agreement including the FHWA Administrator.

If an existing free-up toll agreement is not modified, the State is bound by the terms of that agreement covering the use of toll revenues and free-up requirements.

Imposition of Tolls

Decisions regarding the amount of tolls charged are made by the toll entity subject to requirements under State and local laws and regulations. This decision requires no review or input from the FHWA.

For toll activities under Section 129(a)(1)(A), (C) or (D) previously discussed in the eligibility portion of this guidance, tolls may not be imposed prior to the award of the

physical construction contract. Decisions regarding whether tolls are collected in only one direction of travel versus both directions are at a State's discretion.

Ownership

In addition to public ownership, Section 129(a)(2) allows private ownership of a federally funded toll facility if the public authority having jurisdiction over the toll facility has entered into a contract with a private entity to design, finance, construct and operate the facility. If privately owned, the public authority having jurisdiction over the toll facility must ensure compliance with Title 23 requirements. In addition, to be eligible for Federal funding, the privately owned facility must be on a "public road" as defined in 23 U.S.C. 101(a).

Direct Payment to Other Entities

Section 129(a)(4) allows a State to request that the FHWA directly reimburse another public authority for the Federal share of a toll construction project undertaken on a facility under the jurisdiction of the other public authority. This applies to any toll facility eligible for construction or reconstruction under Section 129(a)(1).

[Questions relating to this guidance should be directed to Jim Overton, Federal-aid and Design Division, at 202-366-4653.]

Attachment

AGREEMENT BETWEEN SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION AND FEDERAL HIGHWAY ADMINISTRATION FOR FUNDING FOR CONSTRUCTION OF TOLL HIGHWAY

This Agreement, made and entered into this 28th day of September, 1993, by and between the **SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION**, an agency of the State of South Carolina, hereinafter referred to as "SCDOT" and the **FEDERAL HIGHWAY ADMINISTRATION**, United States Department of Transportation, hereinafter referred to as "FHWA";

W I T N E S S E T H:

WHEREAS, SCDOT desires to construct a toll highway, designated as the Conway By-Pass in Horry County, South Carolina; and,

WHEREAS, Section 129(a)(1) of Title 23, United States Code, as amended, permits Federal participation in the initial construction of toll highways; and,

WHEREAS, SCDOT and FHWA have agreed to be bound by and to comply with provisions of Section 129(a) of Title 23, United States Code, as amended, for the project; and,

WHEREAS, Paragraph 3 of Section 129(a) of Title 23, United States Code, as amended, restricts the use of revenues:

> "(3) Limitation on Use of Revenues - . . ." all toll revenues received from operation of the toll facility will be used first for debt service, for reasonable return on investment of any private person financing the project, and for the costs necessary for the proper operation and maintenance of the toll facility, including reconstruction, resurfacing, restoration, and rehabilitation. If the State certifies annually that the tolled facility is being adequately maintained, the State may use any toll revenues in excess of amounts required under the preceding sentence for any purpose for which Federal funds may be obligation by a State under this title."

NOW, THEREFORE, SCDOT and FHWA hereto agree as follows:

1. The SCDOT agrees that the toll revenues from the operation of the project will be used first for debt service, for reasonable return on investment of any private person financing the project, and for the costs necessary for the proper operation and maintenance of the toll facility, including reconstruction, resurfacing, restoration, and rehabilitation, as provided in

Paragraph 3 of Section 129(a) of Title 23, United States Code, as amended.

2. In accordance with Section 129(a) of Title 23, United States Code, as amended, the SCDOT hereby certifies that it can and will comply with the following requirements provided in Paragraph 3 of Section 129(a), Title 23, United States Code, as amended.

The SCDOT agrees to certify annually that the toll facility is being adequately maintained. The SCDOT is entitled to use any toll revenues in excess of amounts required under Paragraph 3 of Section 129(a), as amended, for any purpose for which Federal funds may be obligated by a State under Title 23, United States Code.

3. The SCDOT agrees, upon reasonable notice, to make all its records pertaining to the toll facility subject to audit by the FHWA. The SCDOT agrees to annually audit the individual project records for compliance with the provisions of this agreement and report the results thereof to FHWA. In lieu of the SCDOT performing said audit, a report of an independent auditor furnished to FHWA by SCDOT may satisfy the requirements of this section.

4. That this Agreement will be prepared in duplicate originals so that each signatory will have an original Agreement.

IN WITNESS WHEREOF, the SCDOT and FHWA hereunto have caused this Agreement to be duly executed in duplicate as of this day and year first written above.

ATTEST:

W.L. McIlwain

W.L. MCILWAIN
Director of Finance and Administration

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

Daniel P. Fanning

DANIEL P. FANNING
Executive Director

WITNESSES:

Elizabeth Maly

Melissa L. McMonigle

RECOMMENDED BY:

Robert L White

ROBERT L. WHITE
State Highway Engineer

ATTEST:

FEDERAL HIGHWAY ADMINISTRATION

Rodney E. Slater

Administrator

May 10, 1996

GUIDANCE ON SECTION 313(b) OF THE NHS ACT LOAN PROVISIONS UNDER SECTION 129(a)(7) OF TITLE 23

NHS Act Provision

Section 313(b) replaced 23 U.S.C. 129(a)(7), relating to eligibility of State loans for Federal-aid reimbursement. The previous provision established the eligibility of State loans for construction of toll facilities for Federal-aid reimbursement. The NHS Act amendment expanded eligibility of loans to include State loans to non-toll facilities with a dedicated revenue source for Federal-aid reimbursement. Further, the States were given greater flexibility in determining the interest rates for loans and given the authority to use loan repayments for additional credit enhancement activities.

Background

The ISTEA amended Section 129 to allow Federal participation in a State loan to a toll project. This provision was implemented by memoranda from FHWA Headquarters dated March 12, 1992, and May 14, 1993. Section 313 of the NHS Act amended the loan provisions of Section 129(a)(7).

The purpose of this guidance is to consolidate in one document, information on the loan provisions of Section 129(a)(7) contained in the two previous memoranda, modified as appropriate to implement the NHS Act amendments. The following provides implementing guidance on the Section 129(a)(7) loan provisions.

Eligibility

Section 129(a)(7)(A) allows the State to make loans to a public or private entity which is constructing, or proposing to construct, a toll project that is eligible for Federal-aid funding or a non-toll highway project with a revenue source specifically dedicated to support the project. The State may request authorization of a project for the purpose of making a loan to the public or private entity. The amount loaned by the State is considered an eligible Federal-aid project cost.

There are no Federal requirements that apply to how a State selects a public or private entity to be a recipient of a State loan. This selection process, including creation of public/private partnerships, is governed by State law. Further, it is the State's responsibility to ensure that the loan recipient has used the loan for the purposes specified.

Dedicated Revenue Source - Non-toll Projects

A specifically dedicated revenue source is a revenue source which the loan recipient, or other appropriate entity, pledges for repayment of the loan. Revenue sources can include, but are not limited to, excise taxes, sales taxes, real property taxes, motor vehicle taxes, incremental property taxes, or other beneficiary fees. (However, there are criteria that limit use of airport revenues as a dedicated revenue source, and any proposal to use airport revenues must receive Headquarters' concurrence prior to authorization of the loan.)

The pledge for repayment may involve all or only a portion of a revenue source or a combination of various revenue sources. In requesting authorization of Federal-aid funding for a loan to a project with a dedicated revenue source, the State will identify the dedicated revenue source(s) and provide written assurance that a pledge has been secured regarding use of the revenue sources(s) for repayment of the loan.

Authorization

If a project meets the test for eligibility, a loan can be made at any time. The loan may be for any amount, provided the maximum Federal share of the total eligible project cost is not exceeded. Total eligible project cost is limited to the costs of engineering, right-of-way acquisition, and physical construction remaining to be accomplished at the time the FHWA authorizes the loan to be made. In other words, a loan can be initiated on an active, eligible project, but the amount cannot include the cost of work done prior to the loan authorization. A loan project can be authorized under the advance construction provisions of 23 U.S.C. 115 that apply to the type of Federal-aid funds being used.

Federal-aid funds for loans may be authorized in increments. Federal-aid funds are obligated in conjunction with each incremental authorization. The State is considered to have incurred a cost at the time the loan, or any portion of it, is made. Federal funds will be made available to the State at the time the loan is made.

Federal Share/Non-Federal Share

The Federal share for a loan project under Section 129(a)(7) is established by Section 129(a)(5). Accordingly, the Federal share is 80 percent and may not be adjusted in accordance with a sliding scale under 23 U.S.C. 120. The non-Federal share may be provided by the public or private entity receiving the loan.

Compliance with Federal Laws

The State must ensure that the project is carried out in accordance with Title 23 and other applicable Federal laws, including any environmental and right-of-way provisions included

in Federal law. The only exception, discussed under "Other Issues," concerns procurement of consultants or contractors by a private entity or toll authority. The initial toll or non-toll project for which a State has requested Federal payment for a loan is viewed as a Federal-aid project subject to the same basic requirements and FHWA oversight responsibilities which are being followed for comparable non-loan Federal-aid projects.

Subordination of Debt

At a State's option, the amount of any loan eligible for Federal reimbursement under Section 129(a)(7) may be subordinated to any other debt financing for the project.

Repayment/Terms of Loan

Loans must be repaid to the State. The repayment must begin within 5 years after the project is completed and opened to traffic and must be completed within 30 years after the date Federal funds are authorized for the loan or first increment of the loan. Interest on the loan is at or below market rates, as determined by the State, to make the project which is receiving the loan feasible.

Subsequent Use of Repaid Amounts

The State may use repaid amounts for:

- Any project eligible under Title 23, or
- The purchase of insurance or for use as a capital reserve for other forms of credit enhancement for project debt in order to improve credit market access or to lower interest rates for projects eligible under Title 23.

No Federal requirements attach to activities advanced with funds repaid to the State.

Other Issues

Loan guarantees are not an eligible activity under the Section 129(a)(7) loan program. However, a reimbursable Section 129(a)(7) loan could well act as credit enhancement where a public or private entity is seeking market financing for a project.

Federal funds can participate in the construction of a toll facility or a non-toll facility with a dedicated revenue source either through a direct commitment of funds to the project (a regular Federal-aid construction project) or through a loan(s) to the public or private entity building the project. A State could also choose to use its Federal-aid funds to

finance a portion of a project as a regular Federal-aid project and use a reimbursable loan for another portion of that project.

If Federal funding involves a regular Federal-aid project, the consultants or contractors used on the Federal-aid project must be selected under the Brooks Act or Title 23 competitive bidding procedures, respectively. However, if the Federal-aid funding is only via a Section 129(a)(7) loan project to a private entity or toll authority, that entity is allowed to select the consultant or contractors in whatever manner it sees fit as long as the selection process follows State laws and procedures.

[Questions relating to this guidance should be directed to Jim Overton, Federal-aid and Design Division, at 202-366-4653.]

May 10, 1996

GUIDANCE ON SECTION 322 OF THE NHS ACT THIRD PARTY DONATIONS OF FUNDS, MATERIALS, OR SERVICES FOR FEDERALLY ASSISTED PROJECTS

NHS Act Provision

The NHS Act amended 23 U.S.C. 323 to allow donated funds, materials, and services to be used as the State's matching share. Section 323 previously limited eligible donations to real property.

Eligible Donations

These guidelines only apply to third party donations of funds, materials, and services. Third parties may include an individual, company, association, etc., but do not include a Federal, State, or local government agency.

Donations must be made by the third party after the date the project is approved by FHWA and prior to approval of the final voucher. No donations are eligible prior to the date of the NHS Act, November 28, 1995. Donated materials and services must meet the eligibility requirements of the project.

Eligible donations may be applied to the State's matching share of the project on which the donation was made. Donations cannot be used to revise matching shares on unrelated projects. At no time may the Federal share of costs exceed the total project costs actually incurred by the State. If donations exceed the State's share, the excess will be used to reduce the remaining project cost. If cost overruns occur, any excess donations previously used to reduce the remaining project cost, may be used to satisfy the State's matching share of the cost overruns.

Federal Funds Used as Matching

In a few cases, Federal funds with specific legislative authority may be used to match other Federal funds. The following Federal funds may be used to match Federal-aid highway funds:

- State and Local Assistance Act (P.L. 92-512)
- HUD Community Development Block Grants (P.L. 93-383)
- Public Works Employment Act of 1976 (P.L. 94-369)
- Delaware and Lehigh Navigation Canal National Heritage Corridor Act of 1988 (P.L. 100-692).

Documentation

Donations applied to the State's matching share must be documented. Records must show how the value placed on in-kind materials and services was derived. To the extent feasible, volunteer services will be supported by the same methods that the organization uses to support the allocability of regular personnel costs, i.e., time sheets, time cards, etc. (This is reiterated in OMB Circular A-87, Attachment B Section 11(i) Donated Services and 49 CFR 18.24.)

Valuation of Donations

Donated materials and services will be valued at their market value at the time of the donation. Donated services may include labor, equipment, and costs related to providing the service. Donated labor will be valued at rates consistent with those ordinarily paid for similar work in the donor's organization. If the donor does not have employees performing similar work, the rates will be consistent with those ordinarily paid by other employers for similar work in that location. Equipment will be valued at the fair market rental value or reasonable use rates.

[Questions relating to this guidance should be directed to Max Inman, Office of Fiscal Services, at 202-366-2853.]

U.S. Department of Transportation

Federal Highway Administration

Subject: Information: Section 1044 of the ISTEA, Credit for Non-Federal Share - Modification of Implementing Guidance

Date: April 29, 1996

From: Associate Administrator for Program Development

Reply to Attn of: HNG-12

To:

Regional Administrators

Previous implementing guidance for Section 1044 was provided to you by a June 22, 1992, memorandum issued jointly by the FHWA, FTA and NHSTA, and by September 2, 1992, and April 3, 1995, memorandums from this office that provided further clarifications or modifications. The FHWA continues to serve as the lead Agency in administering this provision.

In order to provide the States greater flexibility and to simplify administration of this section of law, the FHWA has decided to change two requirements in the implementing guidance related to use of credit earned. First, the requirement regarding lapse of credit after the fiscal year earned plus 3 additional fiscal years is eliminated. Once a credit amount is appropriately established, this credit will remain available until used by the State. Second, the requirement that the maintenance of effort (MOE) test must be met for the fiscal year the credit is to be used is eliminated. The only time the MOE test will be required is at the time the credit amount is established.

These changes are effective the date of this memorandum. Any previously approved credit from Federal FY 1992 that has lapsed may be restored. This restored credit and any other unused balances of previously approved credit are available to a State to use on future work authorized under Title 23 and the ISTEA. This credit may not be used to adjust the non-Federal share of projects authorized prior to the date of this memorandum.

My April 3, 1995, memorandum set forth three alternate methods of establishing which 4-year period will be used in the MOE determination. These three alternates remain available to a State for use when satisfying the MOE test required to initially establish credit for a fiscal year. A State continues to have a one-time opportunity to determine which MOE alternate it wants to use consistently for all credit determinations. For a State that has not previously had a Section 1044 credit approved, this one-time opportunity will be exercised with its initial application for establishing credit under Section 1044. For a State with a previously approved Section 1044 credit, it will be given another opportunity, during its next application for credit, to verify which MOE alternate it wants to use.

The one-time opportunity to select the MOE alternate during a State's next application for credit is also available to those States that have previous selected either MOE Alternate 2 or 3; however, if a State elects to change from either MOE Alternate 2 or 3 to another MOE alternate, it will not be allowed to use the same 4-year period for more than one MOE determination. is suggested that any proposals under this paragraph be discussed with Headquarters prior to the State submitting a request.

Questions regarding this memorandum should be directed to Mr. Jim Overton of the Federal-Aid and Design Division at 202-366-4653.

Thomas J. Ptak

Federal Highway Adminstratior
HNG-12:JMOverton:cad:64654:04/10/96
cc
HPD-1 HNG-1 HNG-10 HNG-12
HFS-1 HFS-40 HPP-1 Ms. Derby (NRO-01)
Mr. Walker (TPM-1) Ms. Sahaj (TPM-10)
Official File, 3134 Reader file, HNG-12

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U.S. Department of Transportation

Federal Highway Administration

Memorandum

Subject: Information: Section 1044 of the ISTEA, Credit for Non-Federal Share - Modification of Implementing Guidance

Date: April 3, 1995

From: Associate Administrator for Program Development

Reply to Attn of: HNG-12

To: Regional Federal Highway Administrators

Initial implementing guidance for Section 1044 was provided to you by a June 22, 1992, memorandum issued jointly by the FHWA, FTA and NHSTA. The FHWA continues to serve as the lead Agency in administering this provision.

The initial guidance on the maintenance of effort (MOE) determination is being modified by this memorandum. This modification gives the States more flexibility in deciding which 4-year period of time will be used in the MOE determination. There will now be three alternates as follows:

- MOE Alternate 1 - This alternate will use the 4 years prior to the Federal FY. This is the existing method and follows the instructions set forth in the June 22, 1992, implementing guidance. (Example: The MOE for Federal FY 1995 would be satisfied if a State's FY 1994 non-Federal transportation capital expenditures equal or exceed the average of such expenditures for FYs 1991, 1992 and 1993.)

- MOE Alternate 2 - This alternate will use the 4-year period beginning 3 years prior to the Federal FY with the fourth year being the Federal FY itself. This is a new method for making the MOE determination. (Example: The MOE for Federal FY 1995 would be satisfied if a State's FY 1995 non-Federal transportation capital expenditures equal or exceed the average of such expenditures for FYs 1992, 1993 and 1994.)

- MOE Alternate 3 - This alternate will use the 4-year period beginning 2 years prior to the Federal FY and extending through the year after the Federal FY. This is a new method for making the MOE determination. (Example: The MOE for Federal FY 1995 would be satisfied if a State's FY 1996 non-Federal transportation capital expenditures equal or exceed the average of such expenditures for FYs 1993, 1994 and 1995.)

If a State decides to use MOE Alternate 1, it should continue to follow the process established by the June 22, 1992, implementing guidance. A State's MOE certification should continue to be forwarded to FHWA Headquarters for approval action.

If a State decides to use either MOE Alternate 2 or MOE Alternate 3, it will request approval from the FHWA to do so. The State's submission will not include a "certification" but instead merely be a request to use either MOE

Alternates 2 or 3. Since both of these alternates rely on determining actual expenditures at a future point in time, the certifications will subsequently be made by the State once the time period involved has transpired. For example, if in Federal FY 1995 a State decides to use MOE Alternate 3, compliance with the MOE will not be known until after the end of the State's FY 1996, at which time the MOE certification would be submitted for approval. A State's request to use either MOE Alternates 2 or 3 and the subsequent certifications must be submitted to FHWA Headquarters for approval action.

Both MOE Alternates 2 or 3 represent increased risks for a State since these alternates rely on future year non-Federal transportation capital expenditures that could be significantly affected by economic turndowns or political changes. Should a State not meet the future expenditure levels and in turn fail to be able to certify that a specific MOE test has been meet, any credit used on Federal-aid or other ISTEA projects during the Federal FY related to that MOE determination would immediately be withdrawn. In addition, any credit earned under the credit determination directly tied to the MOE determination would be lost. Both of these actions would require the immediate replacement of Federal funds with State funds on the affected Federal projects and could create a cash flow problem for the State.

These new options for determining MOE can only be used for Federal FY 1995 or subsequent Federal FYs. Once a State has selected the MOE alternate it wants to use, then it must continue to use this same MOE alternate in all future MOE determinations. No switching between MOE alternates will be allowed except as noted in the following paragraph for States that have had a previously approved Section 1044 credit.

We are giving a State a one-time chance to determine which MOE alternate it wants to use. For a State that has not previously had a Section 1044 credit approved, this one-time chance will be exercised with its initial application under Section 1044. For a State with a previously approved Section 1044 credit, it will be given one opportunity, whenever it chooses, to change from MOE Alternate 1 to either MOE Alternate 2 to 3.

This modification in the implementing guidance for MOE determinations will not affect the guidance for determining Section 1044 credit amounts. These credit determinations will continue to be done in accordance with the guidance in the June 22, 1992, memorandum.

We would appreciate your advising the States of the additional flexibility available for the MOE determination. Questions regarding this memorandum should be directed to Mr. Jim Overton of the Federal-Aid Program Branch at 202-366-4653.

For Thomas J. Ptak

Memorandum

U.S. Department of Transportation

Federal Highway Administration

Subject: INFORMATION: Section 1044 of the ISTEA, Credit for Non-Federal Share - Implementation Questions and Answers

Date: SEP 2 1992

From: Associate Administrator for Program Development

Reply to Attn of: HNG-12

To: Regional Federal Highway Administrators

Initial implementing guidance for Section 1044 was provided to you by a June 22 memorandum issued jointly by the FHWA, FTA, and NHTSA. The FHWA is serving as the lead agency in accepting a State's certification regarding determination of the credit and maintenance of effort (MOE) amounts.

One modification to this initial guidance is being implemented with this memorandum. The June 22 guidance did not allow the use of the soft match provision until FHWA acceptance of a State's credit and MOE certifications. Effective the date of this memorandum, Federal-aid projects may be conditionally authorized using the soft match provisions subject to a State providing appropriate credit and MOE certifications and their subsequent acceptance by the FHWA.

Several questions have been raised by the division offices and States concerning the credit and MOE determinations and application of the soft match provisions. These questions and our responses follow.

Determination of Amount of Credit

Question 1: Do toll authority expenditures for capital improvements on public highway facilities need to be in the same year as the revenues are generated?

Answer: Toll authority expenditures are based on when the actual expenditures are made regardless of when the revenue was raised.

Question 2: A toll authority receives grant funds from the State DOT or State legislature. Can these funds, when expended by the toll authority, be included in the credit calculation?

Answer: No. Grants are not considered to be revenues generated by the toll authority.

Question 3: Does the Federal FY have to be used for the credit calculation?

Answer: It is expected the Federal FY will normally be used for both the credit and MOE calculation. However, if a State can demonstrate to the FHWA division office that data by Federal FY is not readily available but is available by State FY or on a calendar year basis, then these alternate 12-month periods can be used in making

one or both of the calculations. For example, a State could use a calendar year in determining the credit amount, if that is the way toll authorities routinely keep their accounts, and then use the State's own June 30 FY in determining the MOE. If a State does use these alternate time periods, they must continue to use the same 12-month periods in future credit and MOE determinations. Notwithstanding this flexibility, the application year for use of the credit towards the non-Federal share of eligible Federal-aid projects must be the Federal FY.

Question 4: For FY 1992, when is the deadline for submitting the credit/MOE certifications?

Answer: The determination of credit earned for application beginning in FY 1992 could theoretically be figured any time prior to that point in time the credit lapses. Lapse for the FY 1992 determination would occur at the end of FY 1995. Of course, the State would have to satisfy the MOE determination for FY 1992 to earn the credit for the FY. In addition, for a State to be able to apply the credit in any given FY, they must have met the MOE test at that point in time.

Question 5: Since funds spent by toll authorities on their own facilities are counted in the credit calculation and since those funds can be borrowed funds, can initial construction of a toll road be counted as credit even though the road is not open to traffic yet?

Answer: If the borrowed funds used to pay for initial construction are to be repaid by revenues generated by the toll authority, then the actual expenditures of these borrowed funds for initial construction in a given fiscal year can count in the credit calculation for that fiscal year.

Question 6: Can funds spent on preliminary engineering or right-of-way for future projects be counted in the credit calculation?

Answer: Yes, if they relate to construction projects that are eligible to be counted for the credit purpose.

<u>MOE Determination</u>

Question 1: Are expenditures actual cash outlays or are expenditures when funds are encumbered (obligated) for a contract?

Answer: Expenditures are based on actual cash outlays.

Question 2: Do non-Federal transportation expenditures include only the normal Title 23 highway construction costs or does it include the cost of computer design equipment, vehicles (ambulances and fire trucks) purchased under the 402 program, traffic monitoring equipment, etc.?

Answer: The MOE determination is based on expenditures for highways and transit systems. If data is available, the State could include expenditures for 402 program activities, traffic monitoring and computer equipment, etc., related to highways in the MOE determination. If these types of expenditures are included in the MOE determination, for consistency they should be provided for all years used in the MOE determination.

Question 3: Why were expenditures on airports excluded from MOE?

Answer: Since the soft match provision is limited in application to projects eligible for funding under Title 23 or the ISTEA, it cannot be used for other DOT modal projects such as airports or maritime facilities. Accordingly, it was decided these other types of non-Title 23 or non-ISTEA projects would not be included in the MOE calculation.

Question 4: Does the Federal fiscal year have to be used for the MOE calculation?

Answer: Not necessarily (see Credit - Question 3).

Question 5: Is the MOE a "yes/no" decision or is use of soft match limited to the incremental amount of increase in the MOE.

Answer: The MOE is a determination of eligibility; either the State qualifies or does not. If the State qualifies, then it can use any or all of its credit amounts as soft match.

Question 6: Can funds spent on preliminary engineering and right-of-way for future projects be counted in the MOE calculation?

Answer: Yes, if they relate to construction projects that are eligible to be counted for MOE purposes.

Question 7: Do local government expenditures or those by toll authorities have to be included in the MOE calculation?

Answer: It is preferable that the MOE include local governmental and toll authority expenditures. However, we will accept a MOE calculation that does not. If a State excludes these types of expenditures in their initial calculation, then future MOE calculations by the State, for consistency, must also exclude these types of expenditures.

Question 8: If a toll authority receives grant funds from the State DOT or State legislature, can these funds, when expended by the authority, be included in the MOE calculation.

Answer: If the State is including toll authority expenditures in its MOE calculation (see Question 7 above), then that portion of a grant actually expended by a toll authority on construction can be included in the MOE.

Application

Question 1: If a State does not include local government expenditures in the MOE calculation, can the soft match credit be used on local government projects?

Answer: Regardless of which governmental units are included in the MOE, if a credit is approved for use, the soft match provision is available for all Title 23 and ISTEA projects at the discretion of the State and with whatever conditions the State wishes to place on local entities.

Question 2: For Federal-aid highway funds, is soft match limited to only the formula funds?

Answer: No. Soft match can be used in all Federal-aid programs under Title 23 or ISTEA.

Question 3: Can new projects be split funded with formula funds subject to obligation authority and other funds exempt from obligation authority?

Answer: Yes. The State has the option of applying the soft match provision to any or all of the funding sources eligible for soft match that are being used to finance the project.

Question 4: A State has an unused balance of credit at the end of FY 1992 that is carried forward into FY 1993. Is a new MOE determination needed before the State can use this carryover in FY 1993?

Answer: Yes. A new MOE determination (for the next 12-month period the State is using) will need to be certified by the State for application of the credit (either the carryover balance or the next year's credit determination) in Federal FY 1993. If this certification is not available, conditional authorization of projects using the soft match provisions may be approved subject to the State providing appropriate MOE and/or credit certification.

Question 5: Can a State which qualifies for soft match use the soft match credits on previously authorized projects?

Answer: No. However, use of conditional authorizations is allowed for work authorized on or after the date of this memorandum while a State is documenting its qualifying amounts.

Questions regarding this memorandum should be directed to Mr. Jerry Poston, Chief, Federal-Aid Program Branch, FTS 202-366-4652, or Mr. Jim Overton, FTS 202-366-4653, of his staff.

Anthony R. Kane

cc:
Ms. Derby (NRO-01)
Mr. McManus (TGM-1)
Mr. Fleischman (TGM-10)
Mr. Butler (NRO-10)

U.S. Department of Transportation
Federal Highway Administration

Memorandum

Subject: INFORMATION: Section 1044 of the 1991 ISTEA - Credit for Non-Federal Share

Date: June 22, 1992

From: See Below

Reply to Attn of: HNG-12

To: Regional Federal Highway Administrators
Regional Federal Transit Administrators
Regional National Highway Traffic Safety Administrators
Federal Lands Highway Program Administrator

Section 1044 permits a State to use certain toll revenue expenditures as a credit toward the non-Federal matching share of all programs authorized by Title 23 and the ISTEA. This is in essence a "soft match" provision that allows the Federal share to be increased up to 100 percent to the extent credits are available.

The purpose of this memorandum is to provide initial guidance for implementing this provision. The following discussion covers determination of the credit amount, determination of the maintenance of effort test, and overall application of the credit.

1. Determination of Amount of Credit

The amount of credit earned is based on revenues generated by the toll authority (i.e., toll receipts, concession sales, right-of-way leases or interest) including borrowed funds (i.e., bonds, loans) supported by this revenue stream that are used by that authority to build, improve or maintain highways, bridges or tunnels that serve interstate commerce. The following requirements apply:

- The toll facility generating the revenue must be open to public travel.
- The toll authority may be a public, quasi-public or private entity.
- The amount of credit is based on expenditures (outlays) by a toll authority for capital improvements to build, improve, or maintain public highway facilities that carry vehicles involved in interstate commerce (the degree does not matter). It cannot

include expenditures for items such as routine maintenance work (i.e., snow removal, mowing), debt service or costs of collecting tolls. Further, such expenditures must have been made for improvements paid for entirely without Federal funds. These improvements can be on facilities which have had prior Federal funding.

- The soft match opportunity begins with fiscal year (FY) 1992. The amount of soft match credit is based on the prior year's expenditures. A credit for any given FY can only be earned if a State's non-Federal transportation capital expenditures (as defined in under Item 2 below) in the prior FY equal or exceed the average level of such expenditures for the 3 FYs preceding that prior FY. For example, to earn a credit for use in FY 1992 a State must first determine if it has qualifying toll authority expenditures in FY 1991. Then a State must also demonstrate that its FY 1991 non-Federal transportation capital expenditures equal or exceed the average of such expenditures for FYs 1988, 1989 and 1990.

- The State will have 4 FYs to use the credit amount established for any FY, these being the FY for which the credit amount was established plus the following 3 FYs. For example, if a State establishes a credit for FY 1992 based on the FY 1991 toll authority expenditures, the credit is available for projects authorized in FYs 1992, 1993, 1994 and 1995. However, any portion of this credit not used by the end of FY 1995 lapses. Accordingly, the State must establish a special account to track appropriate credit amounts and their subsequent use by FY.

- For chartered multi-State toll entities, the amount of credit must be divided equally among all the charter States.

- The State will provide the FHWA a certification that:

  - The credit has been based on expenditures for improvements that met the above criteria.

  - Lists the qualifying toll facilities generating the revenue and the total expenditures being proposed for use as credits along with the total non-Federal transportation capital expenditures for each of the last 4 FYs.

2. <u>Maintenance of Effort (MOE) Determination</u>

To be able to use the credit, a State's non-Federal transportation capital expenditures in the prior FY must have been at or above the average level of such expenditures for the 3 FYs preceding the prior FY.

The following requirements apply:

- o The calculation of the non-Federal transportation capital expenditures must include expenditures to build, improve or maintain (but not routine maintenance) public highways, including toll facilities, and transit systems within the State. These would include expenditures on projects wholly funded by the State, plus the non-Federal shares of all federally funded highway and transit projects.

- o The MOE determination is based on data for the previous FY compared to the preceding 3-year average. For example, if a State wants to use this credit provision in FY 1992, it would determine the amount of its non-Federal capital transportation expenditures for FYs 1988, 1989, and 1990, and compare the average of those 3 FYs with the FY 1991 expenditures. To satisfy the MOE test, FY 1991 expenditures must equal or exceed the average of FYs 1988, 1989, and 1990.

- o The State will provide the FHWA a certification as to the total capital expenditures to demonstrate compliance with the MOE test.

- o In addition to the certification of amount of credit (under Item 1 above) and the MOE amounts, a State must also certify that it has on file adequate documentation to support these amounts. These records will be available for audit or inspection.

3. Application

- o The required certifications in Items 1 and 2 above are to be provided to the FHWA Division Office. The FHWA acceptance of a State's certifications must be accomplished prior to use of the soft match provision on any Federal-aid project. Until experience is gained in the operation of this new provision, the certifications shall be forwarded to FHWA Washington Headquarters for review prior to any field approval of a project with the increased Federal share. The FHWA Headquarters will notify FTA and NHTSA Headquarters when certifications are accepted.

- o A request to use the soft match provision on a specific Federal-aid project should be submitted to the appropriate Federal Agency, FHWA, FTA or NHTSA, administering the project.

- o The soft match provision is initiated at the time Federal funds are obligated and can only be used if the State has met the MOE test at that point in time. The State has the option of using amounts of credits to cover all or a portion of the non-Federal share of a project. The result is that the effective Federal share of an eligible project could be any value up to 100 percent.

- For eligible projects, whatever effective Federal share is established at the time of project authorization must be used throughout the life of the project. Subsequent overruns or underruns would be processed at this effective share provided a balance of credits are available.

- The State must establish a special account to track appropriate credits. The State may place into the special account the amount of credit that the FHWA has accepted under Item 1 above. When the State requests authorization of a project using the Section 1044 provisions, it shall request that all or a portion of the non-Federal share be credited from the special account. These projects will be processed and administered in accordance with normal procedures except the amount of funds authorized on the project and the Federal pro rata share will be increased. When the State submits a request to use credits from the special account, it will reduce the account in the same amount applied to the projects. The amount of non-Federal share credited will be deducted from the unobligated balance of Federal-aid funds available and charged to the State's obligation limitation.

Questions regarding determinations of credit and MOE or application on FHWA administered projects should be directed to Mr. Jerry Poston, HNG-12, (FTS 366-4652). Questions on application on FTA and NHTSA administered projects should be directed to Mr. Ed Fleischman, TGM-10, (FTS 366-1662) and Gary Butler, NRO-10, (FTS 366-2674) respectively.

Robert H. McManus
Associate Administrator for
Grant Management
Federal Transit Administration

Anthony R. Kane
Associate Administrator for
Program Development
Federal Highway Administration

Adele Derby
Associate Administrator for
Regional Operations
National Highway Traffic Safety
Administration

U.S. Department of Transportation

Federal Highway Administration

Memorandum

Subject: ACTION: Alternative Share for Transportation Enhancements

Date: April 11, 1995

From: Rodney E. Slater
Administrator

Reply to Attn of: HEP-32

To: Associate Administrators
Staff Office Directors
Regional Administrators
Federal Lands Highway Program Administrator
Director, Joint ITS Program Office

I am pleased to announce that under the innovative financing test and evaluation project, TE-045, a nationwide project has been established to allow use of an alternative Federal share for transportation enhancement projects. The purpose of this innovative financing project is to assess whether or not allowing greater flexibility in assembling resources to fund transportation enhancements will remove significant barriers to their advancement and to establish the effects, if any, on how Federal dollars might leverage additional funds.

Since the early days of the ISTEA implementation, we have heard that Federal-aid highway program requirements for matching funds on a project-by-project basis presented a barrier to a significant number of transportation enhancement projects. This message was conveyed at the ISTEA regional roundtables, in the work of FHWA's national performance review team, in several State proposals for the innovative financing test and evaluation project, in numerous pieces of correspondence, and in the program review on the implementation of transportation enhancements. To address this issue we have decided to establish a nationwide project, under the innovative financing initiative, to test and evaluate the advantages and disadvantages of providing additional flexibility by permitting States to receive credit for private cash donations, and in-kind contributions.

Under this innovative financing project, States are authorized to use private cash, in-kind contributions, and funds from other Federal agencies as resources on the enhancement project, and thus reduce the total cost incurred on the Federal-aid project. With this authorization, the Federal share, applied to the reduced project cost, could be up to 100 percent on individual projects if a State so chooses.

This new authority applies to all projects and project elements that qualify as transportation enhancement activities under the definition in 23 USC 101 and that are financed with Surface Transportation Program funds. This flexibility is available for all projects obligated on or after the date of this memorandum and continuing until the end of fiscal year 1997.

Our intent is to evaluate the effectiveness of this new approach so that we can recommend appropriate legislative language during the reauthorization process. As States begin using this new flexibility, we would appreciate feedback on the degree to which this approach addresses the matching fund problems associated with transportation enhancements, whether or not there are any lessons learned that would lead us to propose changes to matching requirements for the larger FHWA program, whether or not there are any unforeseen problems associated with this approach, and the extent to which this approach either increases or decreases States' ability in leveraging the Federal dollar. Of particular interest is the extent to which this funding flexibility has affected the obligation of funds in the transportation enhancement setaside.

In allowing the share for Federal-aid funds to increase up to 100 percent, it is not our intent to discourage the use of other resources on transportation enhancements. Indeed, one of the benefits associated with transportation enhancements lies in the variety of governmental and public-private partnerships being formed. At the heart of these partnerships lies mutual commitment. We therefore encourage States to continue to require that all undertakings supported with transportation enhancement funds include a non-FHWA commitment equivalent to at least 20 percent of the value of the transportation enhancement. (This might be less in States with large Federal land holdings operating under sliding scale matching rates). Also, to the extent that non-Federal dollars constitute at least 20% on an aggregate program basis, rather than on a project-by-project basis, a program level match may be an alternative for States to consider.

The project agreements for projects advanced under this flexibility should reference test and evaluation project TE-045 as the basis for the increased Federal share. They also should provide for a State evaluation and report on the results of these tests.

Contact persons for this effort are Mr. Jerry Poston, Chief of the Federal-Aid and Design Division (202) 366-0494, Mr. Max Inman, Chief of the Federal-aid Financial Management Division (202) 366-2853, and Mr. Fred Skaer, Chief of the Environmental Programs Branch (202) 366-2065.

U.S. Department of Transportation
Federal Highway Administration

Memorandum

Subject: **INFORMATION:** Donations to Federal-aid Projects Date: February 4, 1997

From: Director, Office of Finance and Budget
Washington, D.C. 20590

Reply to Attn. of: HFS-40

To: Regional Administrators

The purpose of this memorandum is to provide policy on the calculation of donation credits which may be applied toward the State's share of project costs in accordance with Title 23 United States Code (U.S.C.) 323.

Title 23 U.S.C. 323 allows States to credit the non-Federal share of project costs with the fair market value of land donated to and incorporated into a specific project. The National Highway System Designation Act of 1995 amended Title 23 U.S.C. 323 to allow donated funds, materials, and services to also be used as the State's matching share of project costs.

Donations are essentially treated the same as incurred costs. For example, the donated item must qualify as a participating cost meeting eligibility standards and be within the scope of the project. The common rule (49 CFR Part 18) requires a donation to be made during the period of the grant (between authorization and final voucher). Donations made prior to authorization should be treated as a cost incurred prior to authorization under 23 CFR 1.9(b).

When calculating the pro rata share of project costs, the donation should be treated the same as a cost incurred. The value of the donation is added to the total project cost and the appropriate pro rata calculation made. However, in the case of a large donation, the amount of Federal funds obligated cannot exceed the actual project costs.

In 1992 the Office of Right-of-Way (now the Office of Real Estate Services) issued the ***Right-of-Way Project Development Guide*** (PDG), which showed three methods (actual cost cash basis, project value basis, and participating ratio basis) of calculating right-of-way donations. The above policy modifies the PDG's Section 6 - Donations, Attachment 6-2 by deleting methods 1 and 3 from the examples for calculating donation credits. The Office of Real Estate Services will revise the manual accordingly.

If you have questions or need additional information, please contact Phyllis Jones at (202) 366-2854.

Bud Wright

Frederick G. Wright, Jr.

Attachment

Attachment

DONATION CREDITS

For example, where an 80-20 project has incurred cash costs of $1 million and the value of donations total $100,000, the project would have a total value of $1,100,000. To determine the Federal/State pro rata shares, apply the appropriate ratio to the total value of the project as follows:

Actual cash outlay for project costs incurred	$1,000,000
Value of donations [includes real property, funds, materials, and services]	+ 100,000
Total value of project	$1,100,000
Federal pro rata share of total value of project = 80% [80% of $1,100,000]	$ 880,000
State pro rata share of total value of project = 20% [20% of $1,100,000]	+ 220,000
Total value of project	$1,100,000
State pro rata share of total value of project	$ 220,000
Value of donations	- 100,000
Actual cash outlay by State for project	$ 120,000

If the value of the donation is $500,000, then the Federal share is limited to the amount of actual cash outlay for the project calculated as follows:

Actual cash outlay for project costs incurred	$1,000,000
Value of donations [includes real property, funds, materials, and services]	+ 500,000
Total value of project	$1,500,000
Federal pro rata share of total value of project = 80% [80% of $1,500,000]	$1,200,000
The Federal obligation amount is limited to the actual cash outlay	$1,000,000

UNIT 3: STATE INFRASTRUCTURE BANKS

PURPOSE:

The purpose of this unit is to provide participants with case study examples of State Infrastructure Banks (SIBs) including requirements and examples.

WHAT YOU WILL LEARN IN THIS UNIT:

1. State Infrastructure Bank examples.

2. State Infrastructure Bank requirements.

WHAT WILL HAPPEN IN THIS UNIT:

Participants will be presented State Infrastructure Bank (SIB) case study experiences and requirements.

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STATE INFRASTRUCTURE BANK (SIB) PILOT PROGRAM

- *Goal of SIB Pilot Program:* To understand how SIBs can leverage Federal dollars to increase transportation infrastructure investments as ISTEA reauthorization legislation moves forward
- *Definition:* A SIB is an infrastructure investment fund that can be created at the state or regional (multi-state) level to make loans and provide other forms of financial assistance to surface transportation projects
- SIBs give states more flexibility regarding project selection, acceleration, and financing structure enabling states to achieve economic development through transportation infrastructure– "pay as you grow"

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STATE INFRASTRUCTURE BANK (SIB) PILOT PROGRAM

- Section 350 (of the NHS Designation Act of 1995) enabled 10 Pilot States to test the use of SIBs as a means of increasing and improving both public and private investment in transpor tation
- Matching Requirements: 80% Federal; 20% non-Federal match (traditional matching ratios)
  - A maximum of 10% of most of FY '96 and FY '97 Federal apportionments
  - State, local and private funds; up to 20% of the total deposit (overmatch permitted)

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FINANCIAL ASSISTANCE AVAILABLE THROUGH SIBs

In addition to making loans, SIBs can enhance credit, serve as a capital reserves, subsidize interest rates, ensure letters of credit, finance purchase and lease agreements for transit projects, provide bond or other debt financing security, and provide other forms of assistance that leverage funds.

- **1st Generation (separate *highway and transit accounts)***
  - **Highway Account—Construction of Federal-aid highways as broadly defined under Title 23**
  - **Transit Account—Capital transit projects**
  - **Follow Federal procedures**
- **2nd Generation (repayment account funds)**
  - **Title 23 eligible transportation projects**
  - **Follow state procedures**

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SIB SELECTION PROCESS

- **Criteria for selecting states to participate in the pilot:**
  - **Readiness to implement a SIB**
  - **State-level enabling legislation and administrative authority**
  - **Capacity to capitalize with Federal and state funds**
  - **Projects ready to be assisted by the SIB**

  (Published in December 28, 1995, and February 21, 1995, Federal Register notices; and upcoming Federal Register notice soliciting new applications)
- **8 states designated on April 4, 1996 (AZ, FL, OH, OK, OR, SC, TX, VA)**
- **2 states designated on June 21, 1996 (CA, MO)**

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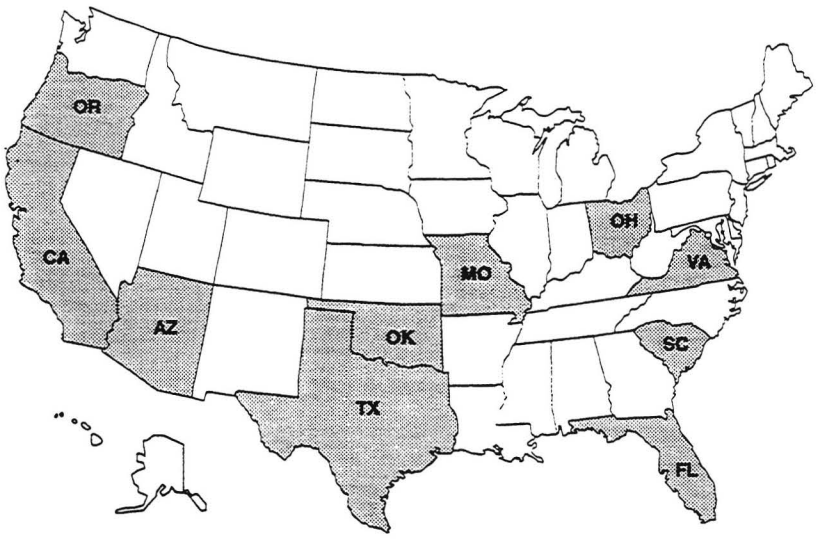
STATE INFRASTRUCTURE BANKS

As of October 31, 1996



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State Infrastructure Bank
Illustration of Disbursement of Eligible Highway Funds
FY 1996 and FY 1997

Designated SIB State	FY 1996 Funds Eligible for SIB Use*	FY 1996 Contribution to SIB – Not to Exceed 10%	FY 1996 Contributions – 15% Disbursement Amount (Avail. Before 10/1/96)	FY 1996 Contributions – 53% Disbursement Amount (Avail. After 10/1/96)	FY 1997 Funds Eligible for SIB Use*	FY 1997 Contribution to SIB – Not to Exceed 10%	FY 1997 Contributions – 15% Disbursement Amount (Avail. Before 10/1/96)	Total Disbursements Available Before and After Oct. 1, 1996
Arizona	202,285,258	20,228,526	3,034,279	10,721,119	227,570,915	22,757,092	3,413,564	17,168,961
California	1,239,694,531	123,969,453	18,595,418	65,703,810	1,394,656,347	139,465,635	20,919,845	105,219,073
Florida	604,899,552	60,489,955	9,073,493	32,059,676	680,511,996	68,051,200	10,207,680	51,340,849
Missouri	321,132,433	32,113,243	4,816,986	17,020,019	361,273,987	36,127,399	5,419,110	27,256,115
Ohio	519,895,625	51,989,563	7,798,434	27,554,468	584,882,578	58,488,258	8,773,239	44,126,142
Oklahoma	206,922,943	20,692,294	3,103,844	10,966,916	232,788,311	23,278,831	3,491,825	17,562,585
Oregon	198,079,245	19,807,925	2,971,189	10,496,200	222,839,151	22,283,915	3,342,587	16,811,976
So. Carolina	204,461,730	20,446,173	3,066,926	10,836,472	230,019,446	23,001,945	3,450,292	17,353,689
Texas	822,435,624	82,243,562	12,336,534	43,589,068	925,240,077	92,524,008	13,878,601	69,804,223
Virginia	329,790,253	32,979,025	4,946,854	17,478,883	371,014,035	37,101,403	5,565,211	27,990,948
Totals	4,649,597,194	464,959,719	69,743,958	246,428,651	5,230,796,843	523,079,684	78,461,953	394,634,562

* Total apportionments for Interstate Reimbursements, Interstate Maintenance, National Highway System, Bridge, Surface Transportation Program, Donor State Bonus, Hold Harmless and 90% Payments Adjustments, will count against the State's obligational ceiling. However, Minimum Allocations apportionments to the SIB will not count against the State's obligational ceiling.

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ADDITIONAL CAPITALIZATION FUNDS

- The House and Senate conferees determined that $150 million in "new money" will be available after 180 days to the 10 States currently in the pilot program in the pilot program
- Distribution of the $150 million will be administered by US DOT
- More than 10 states may now apply to participate in the SIB pilot program subject to the US DOT approval
- US DOT will select States to participate in the pilot program based on the State's ability to implement a SIB

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PRESIDENT'S FY 1997 BUDGET

- Additional capitalization funds will provide initial catalytic funding to accelerate more projects and reduce difficulties States face when redirecting funds already committed to projects through the ISTEA planning process
- Addition states will enable a broader range of innovative financing techniques to be tested through the SIB pilot program

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REPORT TO CONGRESS

- U.S. DOT Report to Congress on SIB Pilot Program—March 1, 1997
- Demonstrate projects have been accelerated by the SIB pilot program and have leveraged non-Federal public and private dollars
- Discuss Reauthorization issues relating to SIBs

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CURRENT STATUS

As of October 21, 1996

- States are in the process of finalizing their cooperative agreements
- Ohio, Oregon, Arizona, and Texas have completed their agreements
- Texas, Arizona, Virginia, Florida, South Carolina, Missouri, and Oklahoma have submitted agreements that are being reviewed by U.S. DOT
- The initial 10 states are in the process of working with localities and others to determine projects for SIB assistance (specific projects were cited in original applications, but are subject to change)
- The initial 10 states are setting up selection processes to determine projects, eligible borrowers, and terms of loans or credit assistance to be offered

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LOOKING FORWARD

As of October 21, 1996

- The majority of states have begun the capitalization process
- At least 5 states will initially have both highway and transit accounts: CA, MO, OH, OR, VA
- Most SIBs will initially function as revolving loan funds, but many will also provide additional forms of credit enhancement

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LOOKING FORWARD

As of October 21, 1996

- Ohio is likely to issue revenue-backed bonds based in the corpus of its loan fund (leveraging)
- September, Ohio provided a $10 million to a Butler County toll road to support a $100 million bond issue likely to take place in January 1997

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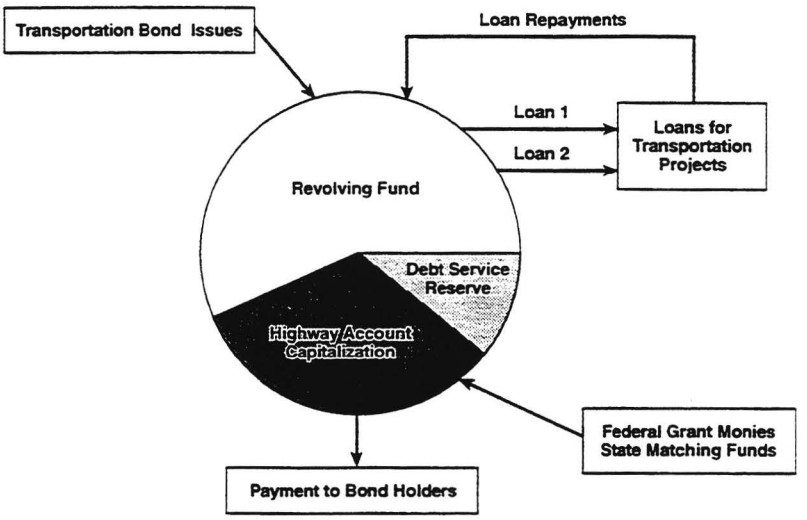
HYPOTHETICAL LEVERAGED STATE INFRASTRUCTURE BANK



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ODOT'S STATE INFRASTRUCTURE BANK

Making the Case for Infrastructure Banks

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WHY DOES OHIO SUPPORT A SIB?

Director Jerry Wray of Ohio has answered this way:

"Within the next five years, about one-third of Ohio's major new construction projects, amounting to over $100 million annually will be financed using the State Infrastructure Bank. By having this new funding sour ce, other funds will now be available for needed bridge rehab and replacements in our state."

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STATE INFRASTRUCTURE BANK

Ohio's Goals as a Pilot State:

- **Encourage public and private investment and leverage non-ODOT funds**
- **Develop multiple financing techniques to expand resources yet with prudent risk taking**
- **Impr ove efficiency of Transportation System**

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THE SIB MISSION STATEMENT

The State Infrastructure Bank shall be used as a method of funding multi-modal and intermodal transportation facilities and projects which produce revenue to amortize debt while contributing to the connectivity of Ohio's transportation system and furthering the goals of

ACCESS OHIO

such as corridor completion, economic development, competitiveness in a global economy and quality of life.

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MANAGING THE SIB

Organizational Method

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OTHER MANAGEMENT FUNCTIONS

- 12 District Offices - Review requests and provide referrals and recommendations
- Central Office Divisions - Review requests on a modal basis, provide referrals and recommend
- Other Agencies and Departments - ODOT to seek input and recommendations

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TYPES OF ASSISTANCE TO BE PROVIDED BY SIB

- Direct Loans and Loan Guarantees
- Letters of Credit
- Shadow Tolls and Leases
- Short-Term and Construction Financing
- Debt Service Cash Reserve

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INELIGIBLE TYPES OF FUNDING

ODOT will not consider the following:

- **Outright grants-in-aid with no payback**
- **Operating assistance or subsidies**
- **Working capital and/or start-up costs**

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GENERAL GUIDELINES FOR ELIGIBLE PROJECTS

The following items are to be completed prior to loan closing:

- **Environmental assessment and clearance must be complete to the extent required by fund source.**
- **Preliminary engineering and any required studies must be complete. Loan commitment contingent.**
- **Must have an identifiable revenue stream to support debt. Many sources are possible.**

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GENERAL GUIDELINES FOR PROJECTS

Additional Provisions

- Revenue payments must begin within 2 years of project completion (opening to traffic).
- Maximum amortization term is 20 years with a majority of loans being for less than 10 years. 20 year loans require a balloon payment after 10 years.
- Prepayment of loans are okay without penalty.
- Can allow an interest free period during construction.

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LOAN QUALITY AND RISK FACTORS

ODOT's Assessment of Risk

- Project rank under ODOT's formula
- Provisions for long-term maintenance and operation
- Reliability rating of the revenue stream for payback
- Pledge of secondary funding source if loan default
- Debt amortization schedule - shorter is better
- Debt service ratio as expressed in support dollars

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PROJECT SELECTION PROCESS

Rating System - Adopted February 1996

- **Bonus points to communities that provide significant (>40%) local funding**
- **Infrastructure bank loan can bridge the "gap" in time between construction of a project and when economic development kicks in revenue**

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BONUS POINTS FOR INNOVATIVENESS

Special Innovative Features include:

- **Project provides ODOT with equity position**
- **Profit sharing with ODOT from future revenues after debt is repaid**
- **Revenue pledges secured by land**
- **Granting of fiber optics rights to ODOT after finish**

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LEVERAGING PRIVATE FINANCIAL MARKETS

ODOT'S Loan Portfolio - The Basis for Leveraging

- **Initial Capitalization is loaned to projects in the first round**
- **First round loan payments provide cash to support bonds for capitalizing second round**
- **Second round loan payments provide cash to support bonds for capitalizing third round, etc.**

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FINANCIAL ADVISORY SOURCES

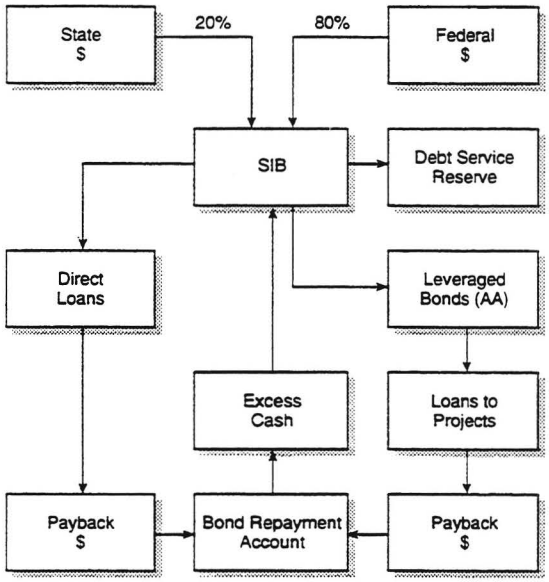
ODOT is seeking advise from a variety of sources:

- **Office of Budget and Management and others**
- **Metropolitan Planning Organizations - SIB funds include in Long-Range Plan and TIP**
- **Chief Legal Counsel prepares contractual and legal instruments with advise of A.G.**

Visual 03.65534

Innovative Finance and Statewide Financial Planning

OHIO SIB LEVERAGED BOND



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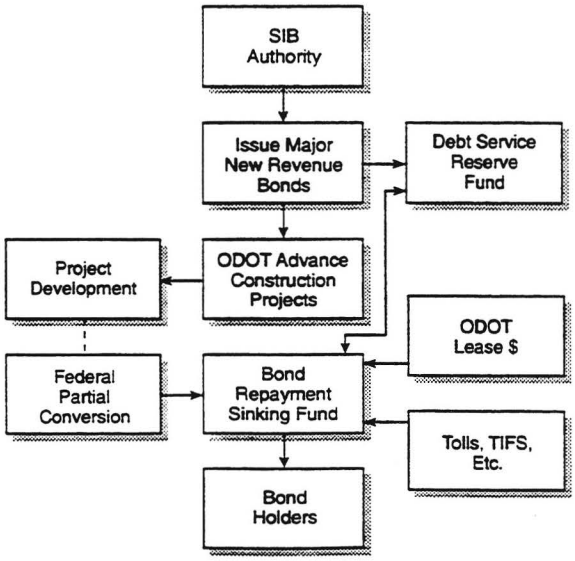
Innovative Finance and Statewide Financial Planning

OHIO SIB MAJOR NEW CONSTRUCTION BONDS



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State Infrastructure Bank

Pilot Program

SIB Update October 1996

The Pilot Program

Meeting today's transportation infrastructure needs requires new flexibility and multiple financing strategies. In response to these needs, the State Infrastructure Bank (SIB) Pilot Program was approved by Congress in the National Highway System Designation Act of 1995.

> "...[SIBs] will allow construction to begin sooner, creating new jobs and minimizing inflation in construction costs."
>
> Transportation Secretary Federico Peña

The initial legislation allowed U.S. DOT to approve ten state SIBs. Those state were Arizona, California, Florida, Missouri, Ohio, Oklahoma, Oregon, South Carolina, Texas and Virginia. Recent legislation, passed in September 1996, will allow U.S. DOT to approve SIBs for additional qualified states.

SIBs will offer a variety of forms of financial assistance, support different types of projects at various stages of project development, and test different ways of capitalizing and operating their SIBs.

On March 1, 1997, the Secretary of the U.S. Department of Transportation will report to Congress on the SIB Pilot Program. The program goal is to understand how SIBs can leverage Federal dollars to increase transportation infrastructure investments as ISTEA reauthorization legislation moves forward.

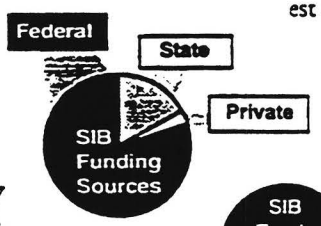
State Infrastructure Banks

By giving state and local officials new flexibility, SIBs will enable vital construction projects that would otherwise be delayed or financially infeasible to move off the drawing boards and into development.

Capitalizing the SIB

A SIB begins with an initial infusion of Federal and a matching non-Federal contribution. States can deposit up to 10 percent of most of their FY 1996 and FY 1997 Federal-aid highway apportionment into their SIBs highway account. States can also deposit up to 10 percent of Federal transit funds (sections 3, 9 and 18 funds) for FY 1996 and FY 1997 into their SIB transit accounts for capital projects.

Each state will match Federal capitalization funds with 20 percent of the total deposit (or at their usual matching ratio).

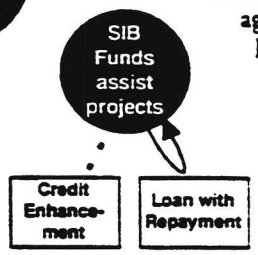


> A SIB, like a private bank, needs funds to get started and offers customers a range of loan and credit options to help finance transportation projects.

> **Goal of SIB Pilot Program**
> Leverage Federal Dollars to Increase Transportation Infrastructure Investment

Types of SIB Assistance

A SIB has myriad of financial support alternatives to assist a public or private project sponsor during all project stages. The spectrum of financial assistance a SIB may provide ranges from loans to credit enhancements. Other forms of assistance may include interest subsidies, letters of credit, capital reserves for bond financing, construction loans, and purchase and lease agreements for highway and transit projects.



An example of how SIB assistance might work is what Missouri plans to do. Funds will be held in the SIB to cover debt service reserve requirements as part of a future bond issuance for Highway 179. In this case, the funds are only used on an as needed basis.

Unlike traditional transportation funding, a SIB can provide assistance throughout all stages of transportation projects to a multitude of project sponsors. In addition, SIB assistance can be for any amount or percentage of the project, also unlike the traditional transportation funding which has fixed percent contributions.

The initial use of Federal funds may be from separate accounts for eligible Title 23 and transit capital projects. As the funds are repaid, the SIB can provide financial assistance to transportation projects following state procedures.

NEW

Recent Legislation

Congress passed legislation in September, 1996 that enables U.S. DOT to designate additional qualified states to participate in the SIB pilot program. Previously, the program was limited to ten states. Congress also approved an additional $150 million to be distributed to the initial ten SIBs and any additional states designated for the program for capitalization.

These funds cannot be distributed for 6 months, until additional states have been approved. The funds will be available to both highway and transit accounts of the SIB.

SIB Update

October 1996

NEW

Potential Projects as of October 1996

State	Toll Road	Non-Toll Road	Intermodal	Parking/ Rest Area	Bridge	Ride-Share	Total Projects
Arizona		2			1		3
California		1	1				2
Florida	1						1
Missouri		1		1			2
Ohio		2		1			3
Oklahoma	1	1					2
Oregon	2				1	1	4
South Carolina	1				1		2
Texas	1						1
Virginia	1		1	1			3
Total	7	7	2	3	3	1	23

States Planned Projects

As the states move from proposing projects to funding projects the number and type of projects may change. The table shows a recent estimation of the projects that are being considered for funding. These projects are only under consideration and the specifics around the amount, type of assistance and repayment source may still need to be determined. The table shows an interesting distribution of projects.

Administrative Details

Under the Pilot Program, SIBs are expected to evolve considerably as the states develop their cooperative agreements with U.S. DOT, broaden the types of assistance that they can provide, establish SIB administration, and identify projects that will receive SIB assistance.

The types of financial assistance that can be provided and to whom are determined by the enabling legislation each state has or expects to have in the near future. The lessons learned from applying diverse forms of assistance to a wide range of projects will be invaluable as the SIB Pilot Program progresses and ISTEA Reauthorization moves forward.

The Pilot Program will provide an opportunity to review how well a SIB could assist a variety of projects and increase transportation infrastructure investment.

Example Projects

All of the proposed projects are worth mentioning, but there are a few that stand out either because of the type of project or SIB assistance. The table, in the lower right corner, outlines how a SIB can provide assistance throughout all stages of a project from preconstruction and construction, to operation.

Credit Enhancement

Missouri is considering supporting the construction of Highway 179, in Jefferson City and Cole County. For this project, the SIB might provide either the county or city with debt service reserves for debt issuance. This means the SIB would hold funds as collateral for the bond issuance.

Low Interest Loans

Oklahoma proposes to provide low interest loans to local governments to improve safety at rail and grade crossings, a part of Title 23 construction. The local government might use a sales tax to repay the loan.

Construction Loans

In September, Ohio provided a $10 million preconstruction loan to the Butler County Transportation Improvement District for right-of way acquisition for a series of realignment, widening, and interchange projects for State Route 129. The loan would be repaid from toll-backed bonds issued at the start of construction. Ohio expects to have completed financing agreements for two additional projects in September.

SIB Financial Assistance can occur at all Project Stages*

Preconstruction	Construction	Operation
• Planning and cost estimation • Feasibility studies • Environmental and economic impact studies • Project design • Right-of-Way acquisition • Project engineering • Project bond issuance	• Project construction • Transit project purchase and lease agreements • Equipment and rolling stock acquisition • Additional bond issuance	• Project capital maintenance and equipment replacement • Transit project purchase and lease agreements •Amortization of capital costs

*Federal funds in a SIB may be used for highway construction as broadly defined in Title 23 or transit capital projects.

Even small amounts of assistance (e.g. 10%) can benefit projects. For example, SIBs can provide assistance in the early stages (higher risk) of a project development. This assistance boosts investor confidence resulting in lower financing costs frequently reducing user fees.

Potential SIB States Project

States are still in the process of determining their capitalization amounts and projects

State	Potential Projects	Description	Possible Types of Assistance	Likely Amount of Assistance (millions)	Repayment Source
Arizona	Price Freeway	Highway	Preconstruction Loan and Credit Enhancement	$2.6 M	State Highway Funds
	State Road 87 Bridge	Bridge	Construction Loan	*To be determined*	State Highway Funds
	116th Avenue Bridge	Bridge	Construction Loan	$6 M	Surcharge on raceway admission fees
California	Alameda Corridor	Road improvement	Credit Enhancement	*To be determined*	Cargo fees
	Foothill Corridor State Route 241	Toll-road	Construction Loan	$15 M	Proceeds from bond issuance
Florida	State Route 80	Interchange	Construction Loan	$7 M	Toll Revenues
Missouri	Highway 179	New road	Debt service reserves	$3 M	*To be determined*
			Preconstruction Loan	$1-1.5 M	Sales Tax
	Gateway Multimodal Center	Parking facility	Construction Loan	$7 M	Parking and concession fees
Ohio	State Road 129	Road improvement	Preconstruction loan	$10 M	Proceeds from bond issuance
	U.S. 250	Road Widening	Construction Loan	$4.5 M	Dedicated leisure tax
	Great Lakes Science Center	Parking facility	Loan, takeout loan	$7 M	Secured private debt
Oklahoma	At Grade Railroad Crossings	Road improvement	Construction Loan or credit enhancement	*To be determined*	City and county sales tax
	Creek Turnpike Extension	Toll-road	Preconstruction Loan	$4 M	*To be determined*
Oregon	Newberg-Dundee Bypass	Toll-road	Preconstruction loan	$2-2.5 M	Toll Revenues
	Tualatin Sherwood Expressway	Toll-road	Preconstruction loan	$2-2.5 M	Toll Revenues
	Van Lease Program	Van/Car pool	Permanent Loan	$0.5 M	Rider fees
South Carolina	Fantasy Harbor Bridge	Bridge and Crossing	Construction Loan	$11 M	Admission tax
	Mark Clark Expressway	Toll-road	Construction Loan	$8 M	Toll Revenues
Texas	State Highway 190 (from application)	Toll-road	Construction Loan	*To be determined*	Toll Revenues
Virginia	Interstate 895 Connector	Toll-road	Construction Loan	$15 M	Toll Revenues
	Washington Metro Parking Deck	Parking facility	Construction Loan	*To be determined*	Parking Fees
	Multimodal Transportation Center	Intermodal facility	Construction Loan	*To be determined*	*To be determined*

DRAFT October 1, 1996

Arizona SIB

Update September 1996

Overview Arizona's SIB plans to provide many types of financial assistance, including credit enhancements, interest rate subsidies and bond insurance. In the near future, the SIB will offer loans to transportation projects that would not have been initiated otherwise. These are projects that the state plans to undertake, but that would be delayed for years with traditional highway funding. Three projects likely to receive SIB assistance are two bridges in Maricopa County and the Price Freeway. Arizona SIB customers would include both the state DOT and local agencies.

Projects **Price Freeway**, Maricopa County. For this highway project, the SIB will assist different project phases with a variety of SIB assistance ranging from loans to credit enhancements. In the early phase, the SIB will provide a $2.6 million loan to Arizona DOT for project design which would be repaid with state highway dollars. As the project continues, the SIB also may provide a loan for the purchase of right-of-way and credit enhancement to reduce interest costs on $43 million in planned grant anticipation notes to finance construction.

State Road 87 Bridge, Maricopa County. To advance this project, the SIB would provide a loan to Arizona DOT; the amount has yet to be determined. In this case, as with Price Freeway, Arizona DOT would repay the loan with state highway funds.

116th Avenue Bridge, Gila River, Maricopa County. For this bridge, the SIB would assist Maricopa County, City of Avondale, and a private partner by providing a $6 million loan. The bridge provides additional access to the local raceway; a likely repayment source would be a surcharge on raceway admission fees.

SIB Framework & Management Arizona DOT will manage the day-to-day operations of the SIB and the Transportation Board will make policy and SIB assistance decisions. The state Treasurer will provide investment advice as needed. Arizona plans to maintain only a highway account at this time. Arizona has the legislative authority to establish the SIB and earlier this year sought legislation to broaden the SIB's authority. That legislation will be reintroduced in the January 1997 session. Arizona intends to use the SIB program along with grant anticipation notes (GANS) to accelerate high priority Federal-aid construction projects. With only traditional transportation finance these projects would have taken years to get underway.

Capitalization In October 1996, Arizona will capitalize its SIB with $14.4 million. Of that $14.4 million, $13.6 million will originate from Federal funds and the remaining $0.8 million will come from state highway transportation funds.

Note: States are still in the process of determining their capitalization amounts and projects.

DRAFT October 1, 1996

California SIB

Update September 1996

Overview California plans to initiate its SIB, the Transportation Finance Bank, in an unusual fashion. The SIB will issue stand by lines of credit to approved projects based on the state's commitment to provide future capital to fund the line of credit as needed. The stand by line of credit would work like this: the California SIB issues a line of credit to an approved project. The project then uses the line of credit to reduce interest costs, or hold as collateral for the bonds issued to finance the project. Only if the need arose would the line of credit actually turn into funding support from the SIB. Therefore, if the funds were needed, the SIB would draw the Federal funds into the account, at which point California must then identify a non-Federal matching contribution. California expects that if a need arises to pull funds into the SIB, it will occur at a much later date. So, they are issuing these stand by lines of credit based on future Federal apportionments. On the whole projects must be self supporting. That is, the project sponsor must be able to issue bonds or receive loans based on the project's future revenues. The stand by line of credit would only be drawn on if a project's revenues were not sufficient to pay debt service. The line of credit would be then repaid at a later date.

A slight chance exists that California will traditionally "cash capitalize" the SIB by placing both Federal and state funds into the account. If so, the Bank could provide other forms of financial assistance. At this time, however, California does not plan to "cash capitalize" the SIB.

Projects California plans to advertise the SIB program to inform project sponsors of these opportunities. Project sponsors must submit an application to the SIB in order to be considered for assistance. The projects described below have not yet submitted applications to the SIB, but are considered strong candidates.

Alameda Corridor, LA County. This is a project to widen and improve an existing artery and eliminate the rail grade crossing conflicts to better access the port. As part of a larger financing strategy, which includes a potential $400 million loan from the Federal Treasury, the SIB would provide a credit enhancement to Caltrans and a private consortium to support privately issued revenue bonds. The bonds will be repaid through cargo fees.

Foothill Corridor State Route 241, Orange County. For the Northern and Southern segments of this toll road, the SIB, if it "cash capitalizes," would provide a $15 million loan to Caltrans and a private consortium. The loan would be repaid with the proceeds of a bond issue.

Note: States are still in the process of determining their capitalization amounts and projects.

DRAFT October 1, 1996

California SIB

Update September 1996

SIB Framework & Management

The Bank will be run jointly under a cooperative agreement among Caltrans, the California Transportation Commission, and the California Economic Development Financing Authority (CEDFA). CEDFA will handle the administrative aspects, including the award and processing of applications; California Transportation Commission will cover the liabilities and guarantees; and Caltrans will confirm that the projects meet the planning requirements.

Capitalization

The Bank will have two accounts, highway and transit, each with $50 million available for stand by lines of credit. As the SIB will be not capitalized, the accounts will hold no actual funds initially.

Note: States are still in the process of determining their capitalization amounts and projects.

Florida SIB

Update September 1996

Overview The Florida SIB will focus on reducing bond repayment costs for projects planning to issue debt by providing interest rate subsidies. This practice supports projects during the early years when project revenues are often limited and may not be sufficient to cover the full cost of bond repayment. One project that may receive such assistance is the new interchange for State Route 80, an existing toll-road managed by the Turnpike District. Beyond the Turnpike District, other potential project sponsors include local governments, transportation agencies and bridge authorities. Each of these project sponsors could also receive interest cost subsidies or some other form of SIB assistance.

Projects State Route 80, Palm Beach County. For this new interchange, the SIB would provide a loan of $7 million to assist the Florida Department of Transportation Turnpike District with their debt payment on bonds issued to finance the project. To repay the SIB loan, the Turnpike District plans on using both toll revenues and state transportation funds. In the fall of 1996, the Turnpike District plans on acquiring the right-of-way and will begin construction in the fall of 1998.

SIB Framework & Management The Florida Department of Transportation (FDOT) will administer the SIB along with the state Treasurer acting on Florida DOT's behalf, managing the accounts. Under the current plans, the SIB will operate only a highway account. A transit account may be considered in the future, but there are no immediate plans for one. Florida has no restrictions on the financial tools the SIB may use or the type of project sponsors that may receive assistance. Toll-road projects for the Turnpike District will provide the most likely initial opportunity for SIB assistance.

Capitalization In October 1996, $25 million in Federal funds will be available to capitalize the SIB. To match those funds Florida has reserved $6 million in state funds.

Note: States are still in the process of determining their capitalization amounts and projects.

Missouri SIB

Update September 1996

Overview Projects proposed for the Missouri SIB involve a wide variety of SIB customers and will test a number of financial tools. Tools will include both debt service reserves and low interest loans, while potential SIB customers will range from cities to project consortiums. For one such project, Highway 179, the SIB will provide two different types of financial assistance, at the same time working with two local governments, Jefferson City and Cole County, while remaining consistent with state planning goals.

Projects **Highway 179**, Jefferson City and Cole County. For this new highway, the SIB could provide assistance in two ways. First, the SIB could provide debt service reserves for bonds issued by the county or city. This means keeping money in the SIB, $3 million in this case, to assist with bond repayment if local or county revenues were not sufficient. It works like a savings account—the project would not use the funds unless absolutely necessary. Second, the SIB could provide a $1-1.5 million loan to finance preliminary engineering. The loan may be structured as a low interest or deferred payment instrument. To repay the loan, the city or county is considering a $0.25 sales tax. Total construction cost is estimated at $20.8 million. Currently, the project has applied to become a Transportation Corporation, which is the first step to gain approval to issue tax-exempt bonds. A decision on the Transportation Corporation is expected by October 1996.

Gateway Multimodal Center, St. Louis. Early stages of this joint FTA-FHWA project are complete, but a parking facility remains to be constructed which would cost an estimated $40 million. The SIB could assist a portion of the project financing by providing a loan for $7 million. To repay the loan, parking and concession fees are being considered. Meetings this fall will address the issues.

SIB Framework & Management The Missouri SIB, managed by the Missouri Highway and Transportation Department (MHTD) and overseen by a board which includes senior officers of MHTD and the Transportation Commissioners, is a not-for-profit corporation. As needed, the SIB will consult the Missouri Department of Economic Development for occasional financial advisory services. Missouri plans to operate both transit and highway accounts. In the next six months, the state will focus on developing an application process and methods for project prioritization.

Capitalization In October 1996, $9 million in Federal funds will be available to capitalize the SIB. Presently, Missouri has drawn on only a portion of those funds. For the non-Federal match, Missouri will use state highway user fees including motor fuel taxes and license and registration fees.

Note: States are still in the process of determining their capitalization amounts and projects.

DRAFT October 1, 1996

OHIO SIB

Update September 1996

Overview Ohio's SIB has funds available at this moment to provide assistance to project sponsors. That is because the SIB was capitalized with $30 million in state funds. Shortly, the SIB will also draw on Federal funds, making a total of $40 million available for projects. With these funds, the SIB will assist local governments and private entities with construction loans. The planned loans range in value from $4 to $10 million, which will be repaid by a variety of sources, including proceeds from selling bonds, a hotel/motel tax, and a takeout with private loans.

Projects **State Road 129**, Butler County. For this project, which involves a series of road widenings, realignments, and an interchange, the SIB will provide a $10 million construction loan. The loan, to be made to the Butler Transportation Improvement District, would help purchase the right-of-way and begin construction on two bridges. When the Butler Transportation Improvement District issues $120 million in revenue bonds to support additional construction, the loan will be repaid along with the loan fee of 1.1%. This project is scheduled to begin in the middle of September 1996.

US 250, Erie County. To widen this road along a 4.6-mile stretch that connects to the Ohio Turnpike, the SIB would provide a $4.5 million construction loan. The loan, made to Erie county, would be repaid by a dedicated leisure tax (hotel/motel tax). The County is already collecting funds in preparation for the project. Construction on the first phase is scheduled to begin in January 1997.

Great Lakes Science Center Parking Facility, Cleveland. For this parking facility, the SIB would provide a $7.3 million construction loan to the Great Lakes Science Center, a non-profit organization. The Center would repay $4 million of the loan when a private senior debt is secured and the remainder of the original loan is converted into permanent financing subordinated to the private senior debt.

SIB Framework & Management The Ohio Department of Transportation (DOT) will manage the SIB, and the Transportation Review Advisory Council (TRAC) will review and approve SIB assistance requests. The state Treasurer will invest the available cash and the Economic Development Section of the DOT, Office of the Chief of Staff will perform the financial management. Ohio received legislative authority and $30 million in state funds to incorporate and leverage its SIB in July 1996. Ohio currently holds the capitalized highway and state funds in a single account. As specific projects are approved, and on as-needed basis, Ohio will maintain separate highway, intermodal, transit and other accounts.

Note: States are still in the process of determining their capitalization amounts and projects.

DRAFT October 1, 1996

OHIO SIB

Update September 1996

Capitalization Ohio has capitalized its SIB with $30 million from the state's general revenue fund. In the middle of September, Ohio will capitalize again with $10 million in Federal funds, which will make $40 million available this fall. By December 1996, Ohio will consider capitalizing with an additional $25 million in Federal funds. Once the SIB has been in operation with a proven record, Ohio will consider looking to the capital market to issue revenue bonds. This technique, leveraging, would considerably increase the amount of funds available to the SIB and to project sponsors. Leveraging is based on the amount of capitalized funds in the SIB and its projected revenue stream.

Note: States are still in the process of determining their capitalization amounts and projects.

Oklahoma SIB

Update September 1996

Overview The Oklahoma SIB will begin by providing loans to local cities and counties to improve safety at railroad and grade crossings. The crossings are covered under Title 23 highway construction, meaning that they meet the stipulations for Federal highway funding under the first round of SIB assistance. As the SIB works with local governments to determine the most appropriate assistance, local governments will be encouraged to take advantage of credit enhancements. The SIB has the authority to provide assistance to both the Department of Transportation and the Turnpike Authority.

Projects **At Grade Railroad Crossings**, state-wide initiative. Oklahoma has many of these projects within their transportation improvement plan. In the coming months, the state will identify which projects will be likely candidates for SIB assistance. Once the project is identified, Oklahoma will work with a city or county to determine the most appropriate type of SIB assistance (either a loan or credit enhancement). Repayment of the assistance, most likely will come from city or county sales taxes.

Creek Turnpike Extension, Tulsa. The SIB could assist this project by providing a loan to the Turnpike Authority to purchase the right-of-way. The loan, estimated at $4 million, would be contingent on finalizing environmental requirements that are expected to be completed in the next year.

SIB Framework & Management SIB oversight and policy decisions will be addressed by the Transportation Commission, an eight member board of directors. Each director, a citizen and in many cases a local business leader, represents a legislative district within Oklahoma. The day-to-day management will be handled through the Oklahoma Department of Transportation. At present, Oklahoma only plans to establish a highway account.

Capitalization In October 1996, Oklahoma could capitalize its SIB with $2.5 million in Federal funds. Because the emphasis of the SIB is on at grade railroad crossings, the non-Federal contribution will come from the state railroad maintenance fund which is funded by freight car taxes.

Note: States are still in the process of determining their capitalization amounts and projects.

DRAFT October 1, 1996

Oregon SIB

Update September 1996

Overview The Oregon SIB (Oregon Transportation Infrastructure Bank) will initially assist a number of projects using a variety of loans, including preconstruction, general and below market interest rate loans. In the future, Oregon will consider many other types of SIB assistance, a variety of project sponsors and even leveraging the SIB itself. Upcoming projects for the fall of 1996 include two toll-roads, a transit proposal and other projects such as a van pool. Oregon emphasized that the SIB will concentrate on providing assistance to cities, counties and special districts, although that will not preclude other project sponsors, such as Oregon Department of Transportation (DOT), from submitting proposals.

Projects **Newberg-Dundee Bypass**, Newberg. For this new six-to eleven-mile bypass, the SIB would provide a $2-2.5 million preconstruction loan to assist Oregon DOT during the early phase of the project, including preliminary engineering. Oregon DOT will dedicate toll receipts to repay the loan. The SIB may also assist the project during construction by providing a stand by line of credit, which would help to reduce the interest rate on bonds issued to finance construction. Construction costs are estimated at $82 million.

Tualatin Sherwood Expressway, Tualatin. Similar to Newberg-Dundee Bypass, the SIB would provide a $2-2.5 million preconstruction loan to Oregon DOT to cover project costs in the early phases. Oregon DOT would repay the loan with toll receipts. Construction costs are also estimated at $74 million

Van Lease Program, Portland. This innovative project, still in preliminary stages, would assist individuals interested in leasing vehicles to form a van or carpool. For this project, the SIB would provide a loan of $500,000 to subsidize the lease agreements. The loan would be repaid by rider-fees collected by the individual leasing the vehicle. At the end of the lease, the individual, who held the lease and collected the rider-fees, would own the vehicle.

SIB Framework & Management Oregon DOT will manage the SIB with policy guidance from the Oregon Transportation Commission. The SIB will operate both highway and transit accounts and in the future will seek authorization from the state legislature to operate additional accounts. Oregon has the legislative authority to leverage the highway account, but currently has no do so. Oregon may also seek legislative authority to leverage its transit account.

Note: States are still in the process of determining their capitalization amounts and projects.

DRAFT October 1, 1996

Oregon SIB

Update September 1996

Capitalization Oregon plans to capitalize its SIB with $9 million in Federal funds and a $1 million match from the state highway funds. In October, Oregon may draw on additional federal funds, up to $7 million beyond the initial $9 million, which could make the Federal contribution $16 million.

Note: States are still in the process of determining their capitalization amounts and projects.

South Carolina SIB

Update September 1996

Overview The South Carolina SIB will initially provide loans to public and private entities and later evaluate providing other types of assistance on a case by case basis. In January 1997, the state assembly is expected to pass additional legislation that would broaden the types of financial assistance that the SIB may provide beyond loans to include credit enhancements, letters of credit, interest rate subsidies, debt service reserves, among others. Furthermore, the legislation would also enable the SIB to increase its total funds available by issuing bonds.

Projects Potential projects, ready for financing in the fall 1996, are described below.

Fantasy Harbor Bridge, Myrtle Beach. Financing agreements for this new bridge and crossing are expected to be arranged in November 1996. The anticipated project construction costs are $16 million. Potentially, the SIB could provide two loans: the first loan of $11 million, representing the state's contribution, would be repaid by an admission tax for the Fantasy Harbor entertainment complex; the second loan of $5 million would be made to the City of Myrtle Beach.

Mark Clark Expressway, Johns Island. This four lane limited access toll-road is the first phase of a two phase project to build the Sea Island Expressway. Phase one is expect to cost $100 million with the state's contribution at $8 million. The SIB could assist the project and cover the state contribution by providing a loan repaid by toll receipts. Construction could begin as early as the summer of 1997.

SIB Framework & Management The highway account will be managed by the state Treasurer under the direction of the DOT Commission, which is a seven-member board that presently oversees the DOT. Membership consists of a chair appointed by the governor and six other members appointed by the legislators representing the six congressional districts.

Capitalization Initial capitalization of the SIB will draw upon $2 million in Federal funds and $0.4 million in state funds from the state highway fund. Any additional capitalization required will occur on a project by project basis depending on each project's specific financial assistance needs. This means that the SIB will be capitalized by drawing on Federal and state funds as needed to support eligible projects.

Note: States are still in the process of determining their capitalization amounts and projects.

Texas SIB

Update September 1996

Overview The SIB will initially provide loans to the Texas Turnpike Authority for toll-road projects and may consider credit enhancements at a later date. Texas expects to pass legislation to broaden the SIB's authority and financing tools.

The two proposed pieces of broadening legislation would permit the SIB to leverage its funds and expand the types of eligible projects and financial assistance provided beyond toll-roads and loans, respectively. The legislation could be passed as early as December 1996 or as late as May 1997.

Texas could capitalize the SIB with the maximum Federal funds allowable. The SIB would then have $82 million in total, including the non-Federal portion, available to lend. At present, Texas has proposed making a significant loan to State Highway 190, the core project, and other projects are on the horizon.

Projects **State Highway 190, Dallas.** This semi-circumferential toll-road in the Dallas area will be constructed in several phases comprising the core, Western, Northern and Eastern segments. As proposed in the SIB application, the SIB may provide a loan to the Texas Turnpike Authority for the core project, which would be repaid through toll receipts. State Highway 190 has been a model project for the Texas Turnpike Authority taking advantage of many previously available innovating finance strategies. The Texas SIB hopes to make a decision on a loan before the state passes broadening legislation.

Texas is also evaluating other project opportunities, but many are still in preliminary stages and have not yet been formally considered for SIB assistance.

SIB Framework & Management Consistent with earlier plans, the day-to-day management of the SIB will be handled by the Texas Department of Transportation (TxDOT). Final approval for SIB assistance and SIB policy decisions will be made by the Texas Transportation Commission, comprised of a three-member commission appointed by the governor that also oversees TxDOT.

Capitalization Texas could capitalize the SIB with $82 million in October 1996. For the non-Federal contribution, Texas will use a portion of the dedicated revenue stream from motor and fuel taxes. At present, Texas has $17.4 million available for the non-Federal contribution.

Note: States are still in the process of determining their capitalization amounts and projects.

Virginia SIB

Update September 1996

Overview The Virginia SIB will offer a variety of loans, including low to zero interest loans and loans with low repayments in the early years during initial facility operations. These loans will be made available for a range of projects, including a Metro parking deck in Vienna and the Multimodal Transportation Center in Richmond. At the moment, Virginia is working to identify the Federal funds available within and beyond its six year improvement program to initially capitalize the SIB. Virginia currently has a Toll Facility Revolving Loan account. That account while similar to a SIB, is limited in the types of financing tools available as well as projects eligible for assistance.

Projects Virginia is considering a variety of projects. Each eligible project will receive a loan appropriate to its specific needs as determined by the Virginia DOT.

Interstate 895 Connector, Richmond Metropolitan Area. In total, this privately proposed toll-road project, has an estimated project cost that ranges from $225-$253 million. The proposal assumes that the SIB would provide a $15 million loan to a private consortium as part of the financing plan, which would be repaid through gross toll receipts.

Washington Metro Parking Deck, Vienna. Although the project is in a preliminary phase, it is anticipated that the SIB could provide a loan to a private operator as part of the financing which could be repaid through parking fees.

Multimodal Transportation Center, Downtown Richmond. For the renovation of this historic downtown train station as a multimodal facility, the SIB could provide a loan to a public agency or a private operator. The non-Federal portion for this project may entail a contribution from the participating private entities.

SIB Framework & Management Virginia has the authority to operate and administer the SIB with one exception; the existing legislation authorizes the loan of federal funds but prohibits loans of state funds to private entities. The SIB may consider segregating federal and state funds to accommodate this limitation. Virginia will initially establish a highway account and will establish a transit account depending on the availability of Federal Transit Administration funds that are not already committed.

Capitalization In October, Virginia has $27 million available in Federal funds to capitalize its SIB. In order to match these funds, Virginia would contribute $6.84 million in non-Federal funds.

Note: States are still in the process of determining their capitalization amounts and projects.

Revised Draft - 11/1

FHWA SIB Q&A's

HIGHWAY CAPITALIZATION

1. Q. How much highway funds can States deposit into their pilot SIB?

A. Subject to the disbursement constraint, pilot States can deposit a maximum of 10 percent of most of their FY 1996 and FY 1997 Title 23 Federal-aid highway apportionments (excluding CMAQ funds and ISTEA demonstration project funds).

2. Q. What categories of highway funds can States deposit into SIBs?

A. States can deposit into their SIB an amount not to exceed 10% of each of the following categories: NHS, STP, IM, Bridge, Interstate Reimbursement Segments, Hold Harmless, 90% Payments Adjustments, Donor State Bonus apportionments, and Minimum Allocation. (The State is held to the maximum 10% on Minimum Allocation). A State does not have to capitalize with every category, or use the maximum 10% of any one category.

3. Q. After eligible funds are placed in the SIB, do they lose their identity by category and can they be used on any project?

A. Funds contributed to the SIB for capitalization purposes--regardless of their source by funding category --can be used for any SIB-eligible purpose (on the first round of assistance: highway construction under title 23 or capital transit under title 49 following state procedures; on the second round of assistance: any title 23 purpose following state procedures).

4. Q. How do contributions to the SIB affect transfers of funds from one category to another?

A. Any of the eligible funding categories--including IM--can be used to capitalize the SIB. After the SIB is established and capitalized, it can assist any eligible highway construction project under title 23 from the highway account and any eligible capital transit project under title 49 from the transit account. Contributions to the SIB do not affect the amount of any transfers between funding categories allowed under current law.

5. Q. Can Section 1044 soft match credit be used for the state's match? Section 350(e)(1)

A. The SIB legislation requires that the State CONTRIBUTE from non-federal sources an amount equal to 25% of the federal contribution (which effectively equals 20% of the total deposit), subject to the sliding scale exception. (States only need match the Federal cash deposited into the SIB). This provision clearly contemplates that the match come from State or other non-federal sources and not from federal credits that are earned under section 1044 of

ISTEA. In addition, section 1044 allows the use of toll credits as a matching share only for ISTEA programs and title 23 programs. Since the NHS Designation Act was not codified in title 23 and is not part of ISTEA, *the State may not substitute section 1044 credits in lieu of its matching share*.

6. Q. Do SIB contributions from the various eligible funding categories (such as STP) have to be tracked separately?

A. No. Our intent is that Federal funds contributed to the SIB will be identified as simply as possible for budget and accounting purposes, regardless of the source of those funds.

Use of Surface Transportation Program Funds in Capitalizing the SIB

7. Q. Does the use of STP funds require approval of an MPO?

A. STP, Interstate Reimbursement Segments funds, or other ISTEA equity funds that are attributable to an urbanized area may be used to capitalize a SIB only upon MPO concurrence in writing with such a request. Other STP (Statewide) funds that are not attributable to an urbanized area do not require MPO approval. (350(b)(4).

8. Q. Can one particular subcategory of STP funds be used to capitalize the SIB.

A. The SIB enabling legislation permits States to capitalize the SIBs with up to 10 percent of the funds attributed to certain specific apportionment categories. Subcategories, except for urbanized area attributable funds, were not addressed by Congress. A State, could, for example capitalize a SIB with statewide STP funds or urbanized area attributable funds (provided MPO concurrence is obtained). Other STP subcategories (e.g. enhancement activities) are specifically defined in title 23 and capitalization of a SIB with enhancement funds does not fit within the title 23 definition of the subcategory. In addition, a State's capitalization of a SIB with a specific subcategory does not relieve a State from the requirements contained within the general apportionment category. For example, 10 percent of the STP funds available to a State shall only be available for transportation enhancement activities under section 133(d) of title 23. Congress did not provide relief or eliminate apportionment sub-requirements or amend title 23, therefore the simple capitalization of a SIB with apportioned funds from the STP program (e.g. Enhancements, Safety) or other funding category (e.g. Bridge Funds/off-system bridge requirement) does not relieve a State from the minimum funding requirements within a particular apportionment category.

Disbursements of Federal Funds

9. Q. What is meant by Section 350 (g)(1) "Federal disbursements shall be at a rate consistent with historic rates for the Federal-aid highway program and the Federal transit program, respectively"?

A. Congress inserted this provision for overall budgetary reasons ensuring that the SIB pilot program does not disburse cash (outlays) on an annual basis more quickly than the regular Federal-aid highway and transit programs. The disbursements provision in section 350(g)(1) must be implemented in conjunction with section 350(b), which allows participating States to contribute up to 10 percent of certain highway and transit funds toward the initial capitalization of pilot SIBs.

10. Q. How does FHWA plan to administer this disbursement provision?

A. Historic rates for the Federal-aid highway program are an average of cash reimbursements that Federal Highways makes to States on presentation of vouchers for projects. Federal-aid highway obligations are typically liquidated (in cash disbursements) over a period of several years. For Federal budget-scoring purposes, the following assumptions on average disbursements are made: 15% of a given year's obligated funds are disbursed that first year; 53% are disbursed the second year; 16% are disbursed the third year; and the remaining 16% are disbursed in years four through nine. Implementation of section 350(g)(1) requires that any deposits of Federal highway funds made under section 350(b)(2) be consistent with those disbursement assumptions. Therefore, ***planned*** contributions (up to the maximum 10%) of highway funds must be delayed so that ***actual*** cash deposits conform to the assumed disbursement rates. A participating State planning to contribute $10 million of its eligible FY 1996 Federal-aid funds in its pilot SIB, for example, may only deposit $1.5 million (15% of the planned amount) in FY 1996. It may deposit another $5.3 million in FY 1997, and the remaining $3.2 million after FY 1997.

11. Q. How can a State "reserve" its maximum 10% Federal contribution to the SIB (or less if it chooses), while portions of that amount are being disbursed over subsequent years?

A. A participating State might choose to identify planned contributions under section 350(b)(2) through the use of a new procedure "advance capitalization" (ACAP), which would be similar to advance construction (AC). By seeking ACAP approval for eligible Federal-aid funds to be deposited into its pilot SIB, the State effectively designates the base level of SIB funding against which implementation of section 350(g)(1) will be achieved. Without a base level of planned contributions, there would be no reliable method for determining whether actual deposits were in conformance with the assumed disbursement rates. A State planning to contribute $10 million of its eligible FY 1996 Federal-aid funds, for example, would deposit $1.5 million in FY 1996 and designate the remaining $8.5 million under ACAP for conversion (obligation / disbursement) in subsequent years.

12. Q. How can the deposit of SIB-eligible funds occur through the partial conversion of planned contributions previously designated under ACAP?

A. The deposit of SIB-eligible funds would occur through the partial conversion of planned contributions previously designated under ACAP. The only stipulation is that the conversion may only occur at rates that do not exceed the assumed Federal-aid disbursement rates. For example, a State which planned to contribute $10 million of its FY 1996 eligible Federal-aid funds and actually deposited $1.5 million of those funds in FY 1996 may deposit no more than another $5.3 million (53% of the initial $10 million) in FY 1997. It would accomplish this by partially converting in FY 1997 no more than $5.3 million of its $8.5 million designated under ACAP in FY 1996.

13. Q. Should SIB contributions be available for immediate and unlimited disbursement?

A. Highway account contributions under section 350(b) toward the initial capitalization of pilot SIBs should be considered obligations of designated Federal funds that are immediately available for cash disbursement without constraint. Once a participating State has obligated Federal highway funds for its pilot SIB, it should be able to immediately commit those funds and disburse them according to the requirements of the SIB. FHWA does not intend to restrain the disbursal of highway funds deposited in the SIB and committed for eligible activities.

Also, under current law, FHWA (the Secretary) must revise the distribution of Federal-aid obligation authority each year after August 1 to enable the States--to the extent possible--to obligate their Federally apportioned funds on projects ready to be advanced. Ensuring the efficient, equitable distribution of annual obligation authority probably requires that contributions (obligations) of Federal highway funds to SIBs not be made until such funds are ready to be utilized (disbursed).

Thus, in accounting for the use of Federal highway funds in the SIB pilot program, contributions to the SIB should be considered legal commitments (obligations) available for cash disbursements (outlays). Requests for payment should be submitted promptly after the obligation of SIB funds.

14. Q. Is the disbursement limitation spread out over the entire pilot program, or based on a state-by-state basis?

A. The disbursement limitation can be spread out over the entire pilot based on projects being moved more quickly. Each state must provide a draft capitalization plan which includes proposed assistance to projects.

15. Q. If a state used additional disbursements, would the state have to use additional obligational authority of its own?

A. Yes.

Funds that can be used to administer the SIB Program

16. Q. What funds can be used to administer the SIB Program?

A. Up to 2 percent of the Federal funds deposited can be used to administer a SIB.

17. Q. Is the state bound to any future guidance that may be developed after the SIB cooperative agreement is signed?

A. Yes. While U.S. DOT has endeavored throughout the SIB pilot, to implement Section 350 in such a way that places the fewest burdens on the States, Section 350 requires the Secretary to issue future guidance. The guidance will be base in large part on these "Questions and Answers". Any comments States would like to make on the "Questions and Answers" will be seriously taken into consideration before FHWA issues guidance.

CAPITALIZATION: State Match

18. Q. Will the SIBs have any matching requirements?

A. According to Section 350(e)(1), after obligation of Federal funds has been made, the State must match 25 percent of the Federal contribution (which effectively equals 20% of the total deposit). The non-Federal share can be reduced if the State has a lower non-Federal share for most of its other programs under Section 120(b) of Title 23 (sliding scale). States only need match the Federal cash deposited into the SIB.

The sum of Federal-aid funds in the SIB cannot be greater than 80% at any time (except if the State has a lower non-Federal share for most of its other programs under Section 120(b) of Title 23), but the sum of Federal funds can be less than 80%. Federal requirements apply to the non-Federal match in the case where the non-Federal match is deposited into a separate account from the Federal contribution.

ADDITIONAL FEDERAL CAPITALIZATION FUNDS:
Department of Transportation and Related Agencies Appropriations Act of 1997

19. Q. What provisions did the Fiscal Year 1997 Appropriations Act include regarding the SIB pilot program?

A. The 1997 Appropriations Act provided $150 million in seed money from the general fund for the capitalization of the initial 10 states and any additional SIBs. These additional funds will be outside of a state's obligation limit. Disbursement of the $150 million is likely to be subjected to historical Federal-aid outlay rate and is also likely to require a State's traditional non-Federal match.

In addition, the Secretary may now designate more than 10 states to participate in the pilot program.

20. Q. How will the additional seed funds be distributed among the 10 States?

A. A method for distributing the $150 is under review by the Secretary.

21. Q. If designated to participate in the pilot, when might the States expect to receive these additional funds?

A. According to the FY 1997 Appropriations Act, the $150 cannot be distributed for 180 days after enactment of the legislation, April 1997.

22. Q. How will the selection process be structured?

A Federal Register notice soliciting applications to the SIB pilot program was published in November 1996. The notice outlines criteria for the applications. Applications must be received simultaneously by the FHWA Division Administrator by close of business on December 20, 1996. A simultaneous copy must also be submitted to the Federal-aid Financial Management Division office at FHWA headquarters. If the SIB application contains a transit component, a simultaneous copy must also be submitted to the FTA Regional Administrator.

ASSISTANCE TO BE OFFERED BY THE SIB

23. Q. What types of assistance can the SIB offer?

A. According to Section 350 (L)(3), SIBs can offer the following forms of assistance:

- Loans and advances for projects with a repayment provision
- Enhance credit
- Serve as capital reserves for bond or debt instrument financing
- Subsidize interest rates
- Ensure letters of credit and credit instruments
- Finance purchase and lease agreements for transit projects
- Provide bond or other debt financing security
- Provide other forms of debt financing and methods of leveraging funds to be approved by the Department (see reference below to 350 (L)(3)(g))

(States and SIBs should carefully structure debt financing on State and local bonds that seek tax exempt status for such instruments so as not to cause the issuance to be federally guaranteed (either directly or indirectly) within the meaning of section 149(b)(2) of the Internal Revenue Code, and thus lose its tax exempt status under the IRS Code.)

24. Q. What are the other assistance forms of debt financing and methods of leveraging funds that are approved by the Department mentioned in Section 350 (L)(3)(g)?

A. Other forms of debt financing and methods of leveraging funds to be approved by the Department that relate to a project with respect to which such assistance is being provided include:

- Lease guarantees for highway and transit capital projects
- Certificates of Participation
- Letters of credit (direct pay or stand-by)
- Lines of credit
- Grant anticipation notes
- Stand-by guarantees
- Other forms of assistance aside from those listed above should be submitted to the Department in writing for aproval.

(States and SIBs should carefully structure debt financing on State and local bonds that seek tax exempt status for such instruments so as not to cause the issuance to be federally guaranteed (either directly or indirectly) within the meaning of section 149(b)(2) of the Internal Revenue Code, and thus lose its tax exempt status under the IRS Code.)

25. Q. Does Section 350 prohibits financial assistance from the SIB to take the form of a grant?

A. Section 350 states that "initial assistance" cannot be in the form of a grant. Therefore, the first use of the funds cannot be a grant. The law does not explicitly prohibit grants as the second use of the funds. The Congressional Conference Report on Section 350 states that "Federal funds

contributed to a SIB may not be used as a grant." Congress envisioned a self renewing source of transportation funding through the SIB program. States are discouraged from making grants from the SIB. The very concept of a SIB envisions a continuing replenishment of the SIB through repayment proceeds derived from SIB loans. The granting of repayment proceeds will diminish the capacity and effectiveness of the SIBs over time.

24. Q. What projects can receive the loans or other assistance?

A. When SIBs initially provide loans or other forms of assistance to public and private entities for Federal-aid-eligible highway and transit capital projects. Federal-aid highway funds can only be spent on highway construction (as defined in Title 23), and transit funds can only be spent on Title 49 transit capital projects following Federal procedures. When repayments are made to the SIB, the SIB can use these funds to assist Title 23 projects following State procedure.

25. Q. What are some of the tax issues that might be involved?

A. Section 122 of title 23 as amended (by section 311 of the NHS Designation Act) makes bond principal, interest, and issuance costs ELIGIBLE for reimbursement on any authorized Federal-aid project (i.e. the project cannot be a State project that complies with state procedures).

On issues of tax-exemption, FHWA will not advise States. State's bond counsel should review to ensure that any bond or other issuance does not run afoul of Treasury/IRS policy on direct or indirect federal guarantees affecting the tax exempt status of state and local bond issuances. States' bond counsel should advise on what constitutes an indirect federal guarantee under the IRS Code.

26 U.S.C. 149(b)(2)(A) provides that a bond is considered federally guaranteed if the payment of principal or interest in whole OR IN PART is guaranteed by the US or an agency thereof.

Section 149(b)(2)(C) provides that a bond is considered federally guaranteed if the payment of principal or interest IS INDIRECTLY guaranteed by the US or agency thereof. It is the wording of indirect guarantee that gives the most cause for concern in the context of section 122 of title 23.

There is no certainty that the F-aid program will be reauthorized the 5-8 times necessary to liquidate a 30 year bond. In this regard, in a private letter ruling by the IRS relating to the wastewater treatment program, the IRS stated that the mere availability of future anticipated grants from the federal government to pay principal and interest on State and local bonds did not trigger the guarantee provision in the IRS code.

This private letter ruling however relates only to the requester requesting the IRS ruling and is not binding on the IRS. States CANNOT cite to this opinion as precedent. Further, the IRS regulations (26 C.F.R. 1.149(b)-1) do not address indirect guarantee issue.

REPAYMENTS OF LOANS OR OTHER ASSISTANCE
Highway, Transit, and Repayment Accounts

26. Q. In what time frame can loans or other assistance be repaid? When repaid, how will the repayment accounts be segregated? At what point can those repaid funds act like State moneys?

A. Section 350(e)(4) indicates that the repayment of a loan or other assistance from an account of the bank shall be consistent with the repayment provisions of Section 129(a)(7) of Title 23.

Following the creation and maintaining of separate highway and transit accounts for capitalizing, interest earnings, and providing initial assistance to projects, another account or accounts should be created within the SIB to receive and to clearly distinguish repayments from projects initially assisted by the highway and transit accounts (repayment accounts could be segregated by mode or project or other repayments at the State's discretion).

Under a loan

- According to Section 350(e)(6) and Section 350(e)(7), repayments on the loan must commence not later than 5 years after the project has been completed, or in the case of a highway project, when the facility has opened to traffic (whichever is later). Repayments must be completed 30 years after the loan has been committed.

- As indicated in Section 350(e)(4), consistent with the repayment provisions of section 129(a)(7) of Title 23, a repayment account would receive project repayments which may then in turn be used for Title 23 projects or eligible Title 49 transit capital projects without Federal requirements applied. (For example, when funds from a particular Federal-aide highway category (such as Bridge funds) are loaned to a project under Section 129, the repayments can be directed to a revolving fund that does not limit their use to projects under other program categories).

Under a line of credit or other forms of assistance

- If the line of credit has not been drawn upon after the terms of the project project agreement have been exhausted, the amount of funds supporting the line of credit may be transferred into a repayment account. No Federal requirements will be attached to Title 23 or eligible Title 49 transit capital project activities advanced with funds in this repayment account(s). This transfer may occur only in cases where the SIB is capitalized (and federal funds have been obligated for that capitalization).

27. Q: Do Federal requirements apply to projects receiving initial SIB assistance?

A: Federal requirements do apply to projects that receive Afirst-generation@ assistance from the highway or transit accounts that are initially capitalized with Federal and non-Federal matching funds and interest earnings on both. Repayments of first-generation assistance to these Federal projects may be made

with any sources of funds--including Federal funds (future apportionments / allocations).
On the first set of loans SIBs may select consultants and contractors in accordance with State law as States may now when they make a Section 129(a)(7) loan to a private entity or a toll authority (all other Federal procedures apply). However, on the first set of loans made by SIBs to local governments, consultants and contractors must be selected in accordance with Federal law.

28. Q: How should repayments of initial assistance be accounted for?

A: The accounting for repayments is largely at the discretion of the SIB. The SIB may direct repayments of initial assistance from the capitalizing (highway and transit) accounts to a single repayment account. Or, it may continue to distinguish between funds initially provided from the highway account and funds initially provided from the transit account by establishing two separate repayment accounts. In either case, the repayment account(s) must be separate from the initial capitalizing (highway and transit) accounts, since Federal requirements (including non-Federal match and interest earnings) apply to projects receiving assistance from the capitalizing accounts.

29. Q: Are such repayments considered State funds? Do Federal requirements apply to subsequent generations of SIB assistance?

A: Repayments of initial SIB assistance provided from the capitalizing accounts are considered State funds. Federal requirements do not apply to Asecond-generation@ assistance provided to projects from the repayment account(s)--except as noted below.

30. Q: Can Federal funds be used to repay second-generation assistance?

A: A SIB cannot repay second-generation assistance with Federal funds (future apportionments / allocations) unless Federal eligibility on the project receiving such assistance has been preserved--much like the preservation of Federal reimbursement eligibility under advance construction. If the project receiving second-generation assistance from the SIB repayment account(s) does not meet Federal requirements, or cannot retroactively satisfy those requirements, then Federal funds cannot be used to help repay such assistance.

31. Q: Must Federal requirements apply to projects already underway that subsequently receive SIB assistance?

A: As with the regular Federal-aid program, any level of Federal participation at any project stage results in Federal requirements. If a project receives first-generation assistance from a SIB capitalizing account, or if repayments of second-generation

assistance involve Federal funds, then Federal requirements must be observed.

32. Q. Can a State use future repayments to match future Federal draw downs (partial conversions) of the ACAP?

A. Project repayment streams cannot be used to match future capitalization (section 350(f)).

Q. Do SIB funds loose their federal identity and are therefore "free of federal requirements" on their initial use?

A. No. On their initial use, SIB funds maintain their federal identity. However, States may follow State procedures when assisting a second generation projects (from repayment sources on the first set). The second set of projects assisted by the SIB must be title 23 eligible.

INVESTMENT INCOME GENERATED BY THE SIB

33. Q. What additional financing instruments may the Department approve to earn interest to on the investment income generated by funds contributed to an account of the bank besides United States Treasury securities? (Section 350(e)(3)(c))

A. Any investment instrument the State invests its own money in will be considered acceptable to the Department. If the State cannot demonstrate that it invests its own funds in a particular investment instrument, the State should apply to the Department in writing.

34. Q. Can interest earned (or investment earnings) from the Federal and State capitalizations be treated like State money?

A. Interest earned on capitalizing funds (including Federal and State match) cannot be treated like State funds, they must be credited to the capitalizing accounts.

35. Q. How should investment income be credited to the bank? (Section 350(e)(3))

A. The SIB must establish a separate highway and transit accounts for Federal funds (and required matching funds) which is not subject to any transfer to activities outside the SIB activities (such as a State's highway trust fund). Also, the transfer cannot apply to investment income earned on the Federal deposits, required matching funds, or the repayment of these deposits by a project developer.

36. Q. What will be the timing of auditing?

A. FHWA will accommodate different state fiscal years.

UNITED STATES NOT OBLIGATED

37. Q. Is the United States obligated to any third party as a result of commitments of a SIB? (Section 350(h))

No. The State shall indicate in all agreements with parties receiving financial assistance from the SIB that the United States is not obligated.

UNIT 4: FTA'S INNOVATIVE FINANCING HANDBOOK

PURPOSE:

The purpose of this unit is to describe the Federal Transit Administrartion's "Innovative Financing Handbook." It contains guidance on and examples of many of the innovative financing techniques that may be used by transit authorities to enhance the effectiveness of their infrastructure programs.

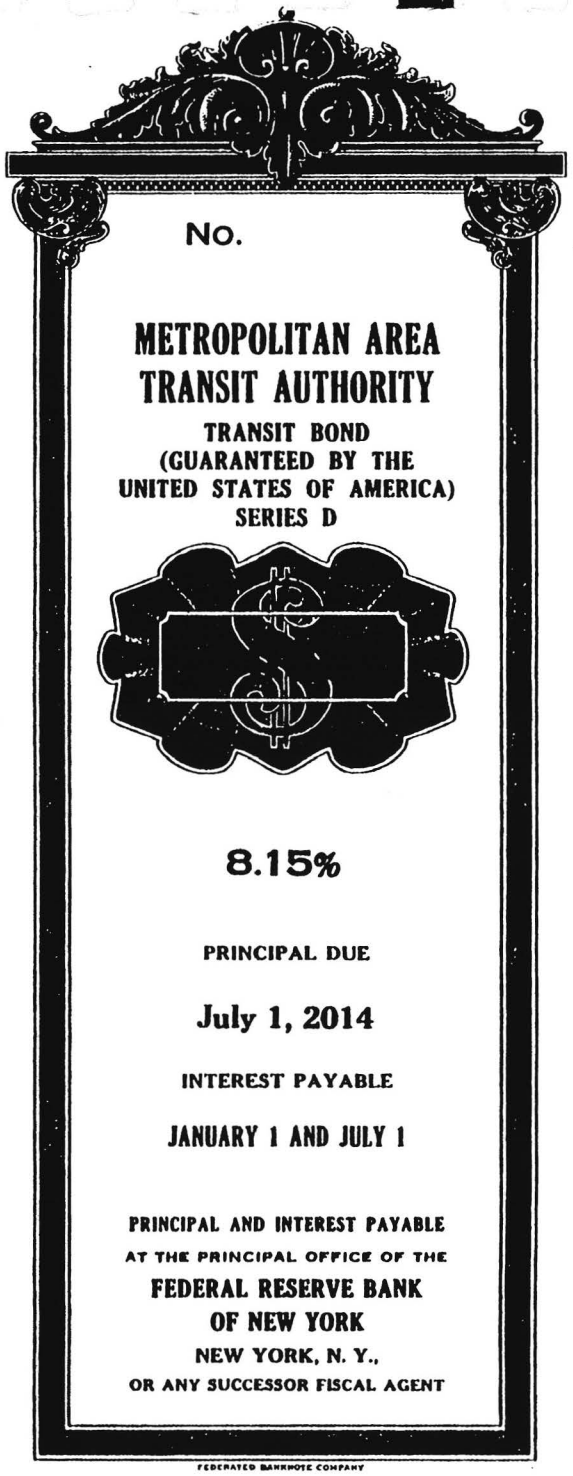
WHAT YOU WILL LEARN IN THIS UNIT:

1. The current status of FTA's innovative finance program.

2. Various innovative finance techniques that can be used to enhance public transit investment.

WHAT WILL HAPPEN IN THIS UNIT:

FTA's Innovative Financing Handbook will be presented.



INNOVATIVE FINANCING HANDBOOK

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL TRANSIT ADMINISTRATION

Dear Transit Colleague:

I am pleased to provide you with a copy of the enclosed publication, "Innovative Financing Handbook." It contains guidance on and examples of many of the innovative financing techniques that may be used by transit authorities to enhance the effectiveness of their infrastructure investment programs, and includes the FTA Innovative Financing Federal Register Notice (FRN) which was published on May 9, 1995. The publication is intended as a reference document that facilitates development of additional ideas and financial innovations. It is envisioned that transit operators who develop variations on these techniques, or additional innovations, would propose these to FTA for review and approval.

The publication begins with specific financing techniques which are described in greater detail than was included in the FRN. The last section of the report contains the text of the FRN as published, and a matrix of the sample techniques, compared with the various FTA funding sources that may be available for use in innovative financing. If you need additional copies of this publication, please contact your Regional Office.

Sincerely,

Gordon J. Linton
Administrator

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Federal Register Notice A-1

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INTRODUCTION

On May 9, 1995 FTA published in the Federal Register a notice on Innovative Financing. The notice describes a variety of innovative financing techniques that may be used by transit operators receiving Federal financial assistance. Transit agencies may use FTA grant funds, or assets acquired with Federal assistance, to enhance the effectiveness of their capital investment programs with these techniques. This publication is intended to provide FTA grantees with general guidelines on selected types of financial structures that they may propose in support of a wide variety of capital projects. The transaction types described have either already been used, with FTA's concurrence, or they have been proposed and are being recommended for use in the context of FTA grant programs. An example of a "tested" transaction is the use of Certificates of Participation (COP's) to facilitate a sale-leaseback of buses.

If, after discussions with Regional personnel, there are any questions remaining, please contact either Janette Sadik-Khan, Associate Administrator for Budget and Policy, on 202-366-4050, or Paul Marx, Economist, on 202-366-1675.

Repaying Bonds and Certificates of Participation

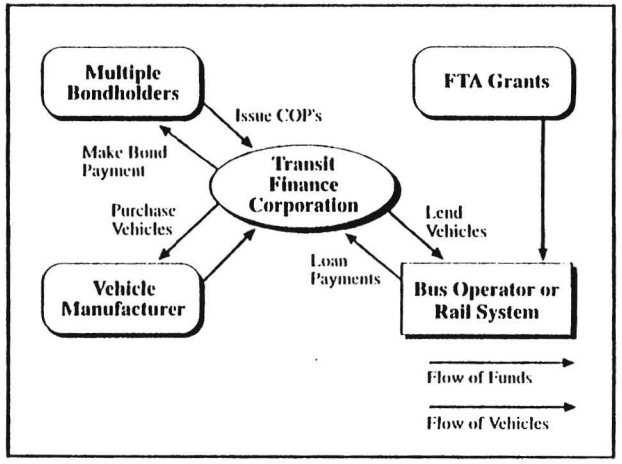
COP's are tax-exempt bonds, issued by State entities, that are usually secured with a specified revenue source such as an equipment or facilities lease. A purpose-formed State entity issues tax exempt bonds with maturities that match the lease term of assets that are purchased by the State entity with the proceeds from the bond issue. The State entity then leases the equipment to one or more transit systems. The resulting lease payments, most often made with a combination of formula grant funds and local matching share, are then "passed through" to the bondholders by the State entity. The combination of larger vehicle order size, COP's with varying maturities, and lease arrangements, reduce and stabilize current capital costs significantly.

Several examples are provided by the California Transit Finance Corporation (CTFC), which provided funding for the bus purchases of several California grantees, including the Los Angeles County Metropolitan Transportation Authority which replaced 333 diesel fuel buses with buses that operate on methanol. The CFTC issued COP's, secured by a lease on the buses that were purchased. Because the transaction involved 40 buses, the local gas utility provided a high-speed fueling facility with a favorable capital lease arrangement. The following diagram illustrates the transaction.

NOTE: FTA funds may not be used directly to generate interest income from arbitrage (i.e. making money from the difference between the Federal and local costs of borrowing). In the following structure, Federal funds are being used to make lease payments. The COP's are secured by the leases, not by the pledge or encumbrance of Federal funds.

"Certificates of Participation (COP's) are a type of leasing arrangement in which bonds are issued to finance the purchase of transit assets." (Federal Register, Vol. 60 No. 89, May 9, 1995)

Example Structure



This methanol powered bus was financed through COP's.

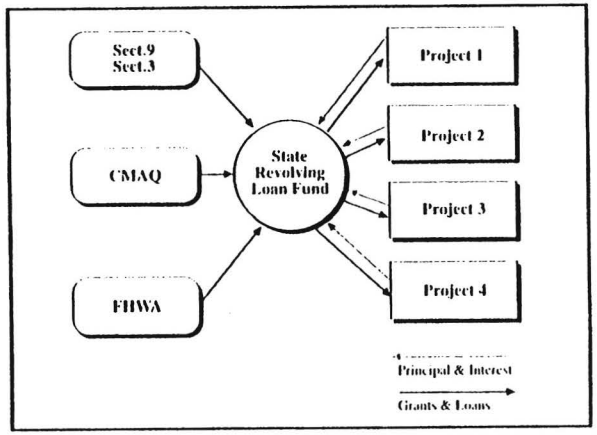
STATE REVOLVING LOAN FUND

States have the ability to use FTA grant funds to establish and operate Revolving Loan Funds in support of public and private non-profit transit operators. This mechanism allows the State, as recipient or by agreement with its sub-recipients, to aggregate Section 16, 18, or 9 funds, pool purchases of vehicles, and either lease or sell these to the transit operators, or make loans to transit operators for vehicle and facilities acquisitions. The revolving loan fund allows pooled vehicle purchases that may help reduce acquisition costs. It provides a mechanism for the State to make loans (with interest) or leases to transit operators who might not be able to arrange such transactions on their own. It also provides an ongoing source of local capital in support of the State's transit operators. The interest payments and lease payments returned to the State's revolving loan fund are considered to be "program income" in the context of the FTA grant program. These income streams are therefore not required to be returned to the U.S. Treasury, and may be used to make additional loans, leases, and grants to eligible transit grantees. The local grantees are able to use subsequent years' rural or urban grant funds to make loan or lease payments, including reasonable interest.

The Arkansas State DOT has requested authority and FTA funding to establish a State revolving loan fund, including Federal Highway Vanpool funds and local matching funds, to facilitate a State vehicle purchase and leasing program. Over $2.4 million in vehicle purchase activity may be supported with this fund over a 10-year period. This represents at least 125 vans for rural health and human services transportation service. The fund will reduce vehicle purchase costs by allowing more vehicles to be purchased at one time, and it will reduce transportation providers' capital costs by allowing them to lease these vehicles rather than purchasing them.

"Federal grant funds may be used to support State or local revolving loan funds established in accordance with appropriate State laws."

Example Revolving Loan Fund



The Arkansas Department of Transportation is initiating a revolving loan fund for transit.

Lease Payment

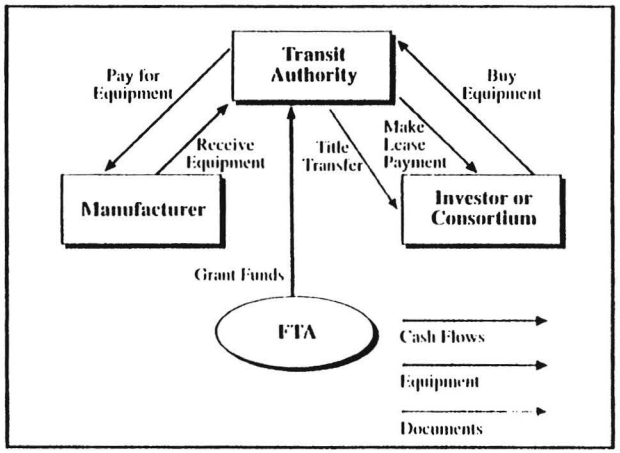
Most FTA capital funding can be used to repay the principal and imputed interest costs of a facilities or rolling stock lease. This capability also applies to the capital and interest costs of contracting for service, referred to as "Capital Cost of Contracting. [See FTA's circular C.7010.1 of December 5, 1986] While FTA currently must pre-approve the use of discretionary funds for lease payments, no such pre-approval is required for the use of formula funds. A modification is being considered to allow the use of discretionary funds on the same basis as formula funds.

Under a lease structure (provided the grantee demonstrated that a lease was more cost-effective than direct purchase) the equipment or facility could be purchased by a leasing company, and leased to the grantee. The grantee would make lease payments from a combination of Federal funds and local matching funds. The primary benefit of such a structure is that it allows the grantee to arrange its cash flow needs on a more level basis, even when an unusually large acquisition must be made. Secondary benefits include the ability to bank the local share, allowing it to earn interest pending its use for making lease payments, as well as the ability to reprogram some of the current formula grant funds to other projects.

The only restriction on the use of formula funds for lease payments is that imposed by the operating assistance cap, which applies to operating leases as much as to direct operating costs. This limitation would arise if the grantee acquired the use of vehicles through a lease that included the provision of maintenance and fuel. Such a lease would be defined as an operating lease, so at least part of the lease payments would be regarded as operating expense.

"FTA funds may be used to lease, rather than purchase, transit equipment and facilities . . . so long as leasing is more cost-effective than direct purchase."

Example Lease Structure



In transit, vehicles have often been acquired through a lease.

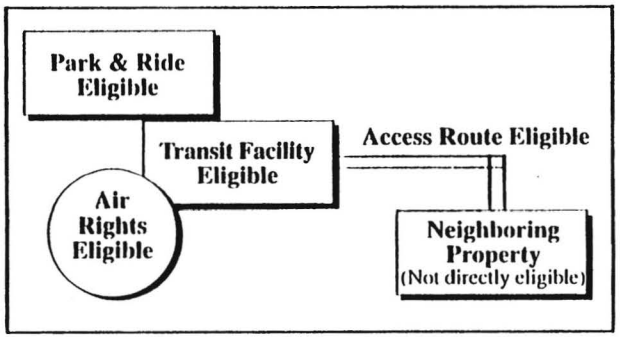
JOINT DEVELOPMENT OF TRANSIT ASSETS

There is a great deal of flexibility in FTA's treatment of Joint Development, particularly as this relates to transit supportive development in FTA's "Livable Communities Initiative." Grantees can lease air rights above a transit station, or transfer the FTA interest in one property to another, to allow the private development or other use of the property. FTA funds cannot generally be used to support development of property that is not directly adjacent to the transit facility. However, if property can be subdivided, the FTA interest can be vested wholly in one part while the other would be considered 100 percent local share, for purposes such as leasing or mortgaging, which allows the transit system to actively support land use changes that increase transit use and program income. Joint development proposals will be reviewed and approved by FTA on a case-by-case basis.

Santa Clara County Transit Authority requested regulatory flexibility to use excess land (a 17-acre park-and-ride lot) adjacent to a light rail station for a transit/housing joint development project. FTA capital funds would be used to make improvements to the part-and-ride lot and provide a bus transfer facility. This investment would attract a private developer to build the housing development, and would generate between $200,000 and $300,000 annually in lease revenues for the transit district. At current interest rates (about 7%), such a revenue stream has a net present value of between $2.2 and $3.3 million in the first 25 years of the project's life. This does not include fare revenues from increased transit system use.

"Capital Program funds can be used for a variety of joint development activities, so long as they are physically or functionally related to a transit project and they enhance the effectiveness of the transit project."

Examples of Eligible Joint Development Property



Joint development often involves the location of an office building over a transit station.

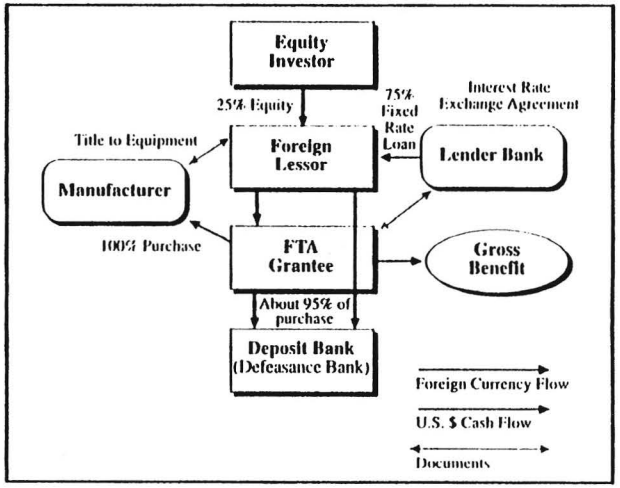
Cross Border Lease

On April 26, 1990, FTA issued Circular 7020.1 "Cross-Border Leasing Guidelines." This circular announced that U.S. transit operations would be able to participate in equipment leases by means of a sale-leaseback mechanism with a foreign lessee. This mechanism is similar to the Safe-Harbor Lease that was eliminated in the 1986 Tax Act. However, since the net benefit to the participants results from non-U.S. tax laws, it is allowable under U.S. laws. The basic form of this transaction is for the transit operator to purchase rollingstock, such as railcars, then simultaneously sell these to a non-U.S. investor who in turn leases them back to the transit system. The foreign lessee generates tax benefits in its country of origin through investment tax credits and depreciation. These benefits are shared with the U.S transit operator through reduced lease costs. Since 1990, cross-border lease transactions have generated net benefits for transit systems of between 1.5 percent and 4.5 percent of total transaction size. The most cost-effective cross-border leases have exceeded $50 million in transaction value, primarily because substantial transaction costs usually require a higher transaction value. However, a few transactions have been successfully concluded with equipment of somewhat lower value.

New Jersey Transit (NJT) reduced the cost of refurbishing its Arrow III commuter rail cars. In a cross-border transaction facilitated by Asea Brown Boveri (ABB) and its Netherlands banking subsidiary, NJT sold 233 refurbished Arrow III commuter cars to ABB, then leased them back for twelve years or more. A combination of debt provided by ABB and equity provided by NJT secured the transaction. NJT realized a net benefit from this transaction of $18.4 million.

"A cross border lease is a mechanism which permits investors in a foreign country to own assets in the United States, lease them to an American entity, and receive tax benefits under the laws of their own country

Example Cross-Border Lease Structure



Cross border leases often involve acquisition of rail rolling stock.

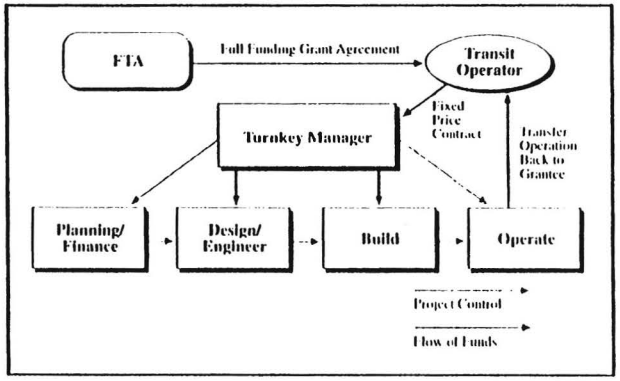
Super Turnkey & Private Financing

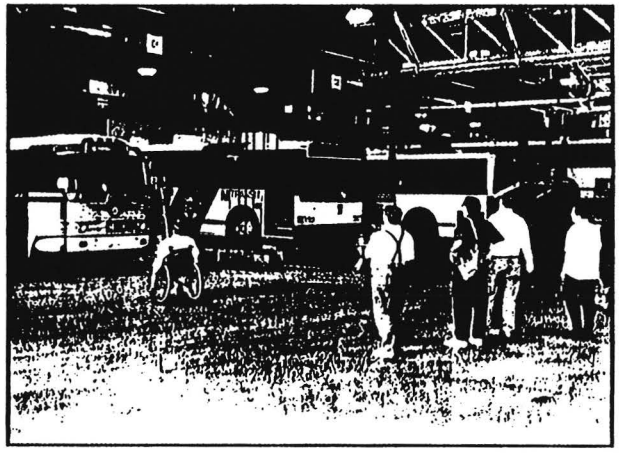
The "Super Turnkey" process (authorized in Section 3019 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) is one where the project engineers or project management consortium undertake to build, operate for a time, and transfer a facility to the purchasor. In such a situation, purchasing, deliveries, scheduling, and other critical aspects of the project are directed by the same entity – a Turnkey Manager. As a result, construction delays, start-up difficulties, disagreements about change orders and project timing are minimized, resulting in lower project costs and reduced litigation.

One modification to this "Build/Operate/Transfer" (BOT) process is where the consortium also arranges financing. This technique may be attractive for smaller grantees who may not have the credit history to minimize their borrowing costs. The Turnkey Manager may assist with project financing by accepting delayed compensation (e.g., postponement of progress payments), credit enhancements such as an insured line of credit, or even total project financing through the issuance of their (the consortium's) own bonds. While these financing methods have costs associated with them, they may allow a new transit project to proceed in a timely manner, thus generating time and project savings well in excess of the financing cost.

"Grantees can also consider use of vendor financing in procurements, such as super turnkey."

Example Super Turnkey Structure





A turnkey procurement may be used to acquire an entire system, or just a component such as this bus maintenance facility.

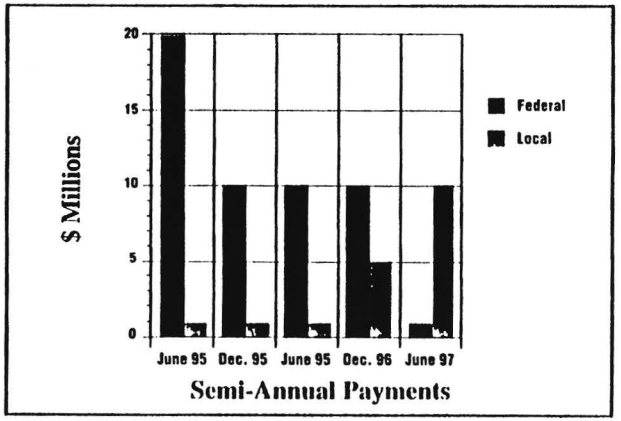
Delayed Local Match

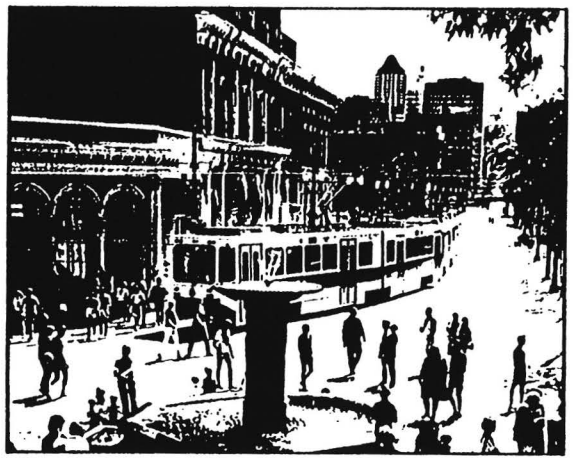
Transit systems may wish to delay the application of their local matching funding, particularly if they are trying to maximize the use of their locally available funds. This could occur because the funds are invested in a short-term security, for example, or otherwise encumbered. However, there may also be a situation where the grantee is seeking to arrange construction period financing or some other innovative financing mechanism which could be facilitated through an uneven expenditure of Federal and matching funds. In the example chart, the delayed local match would allow the grantee to earn $2.45 million on its local share, at current interest rates. Additional benefits could be generated through innovative project financing, or other means.

The FTA grants process generally is based on a level outflow for a specific project. For every 20 percent expended by the locality, 80 percent in Federal funds are expended. Little value can be added to such a cash stream through the assistance of private capital markets. However, if the Federal dollars are expended first, e.g., for 100 percent of the design, engineering, or environmental reviews, then the construction period can be financed with some private participation. In this instance local funds can be "banked", or pledged as additional security for construction period financing. This is all possible because there are no arbitrage concerns with the local funds as there might be with the Federal funds. The benefit of delayed local match is that it may help assure the smooth progress of a major transit infrastructure project without any increase in Federal outlays.

"FTA permits grantees to defer the payment of the local share of transit projects."

Delayed Local Match





Delayed local match may facilitate the financing of major capital projects, such as light rail.

Toll Revenue Credits

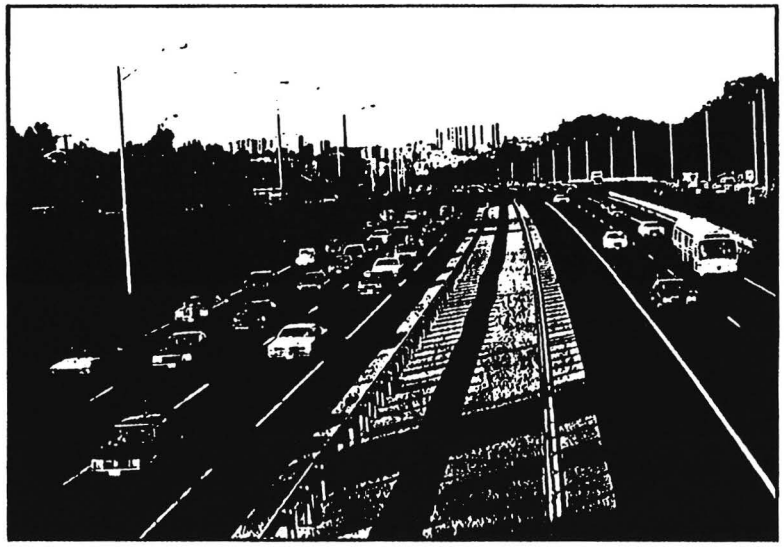
ISTEA provides that toll revenues on public roads and bridges expend ed for capital investment may count as local match (soft match) for Federal grant funds in a specific year. This capability allows the local matching share that would otherwise be required to match a transit grant, to be used for other projects.

This results from the recognition that different modes of transportation are interconnected. Capital expenditures to reduce congestion in a particular corridor benefit all modes in that corridor, be they automobiles, transit buses, or a rail system. Thus, if a community constructs a toll bridge, ISTEA allows the revenues from that toll bridge to be used as local match under the following specific circumstances:

- The toll revenues must be used for transportation capital investment, not operating expenses;
- The soft match in one year is counted as the amount of toll revenue used for transportation capital investment in that year. That is, there is no carryover.

Depending upon local conditions and requirements, a project's local (non-toll) match could be banked, or used as matching funds for a discretionary grant, or used to facilitate the early completion of other capital projects, etc.

While toll revenue credits are not directly facilitated in Federal Transit laws, the credits can readily be applied to transit capital investments.



The FTA Innovative Financing Initiative has shown two things. One, that the transit systems in our Nation have already made significant advances in financial innovation, and two, that the private sector — investors, developers, and the private capital markets — have an increasingly significant role to play in the continued and enhanced provision of public transportation. Only by providing an orderly and predictable transit program will we be able to keep the interest of private investors focused on public transit. This Federal Register Notice is intended to summarize and promote many of the innovations undertaken by transit systems nationwide, while providing a consistent framework for continued private investment in transit infrastructure.

Janette Sadik-Khan
Associate Administrator for
Budget and Policy

FEDERAL REGISTER NOTICE

DEPARTMENT OF TRANSPORTATION
Federal Transit Administration

Innovative Financing Initiative: Administrative Policies and Procedures Facilitating Use of Innovative Finance Techniques in Federally-Assisted Transit Projects

AGENCY: Federal Transit Administration, DOT
ACTION: Notice.
SUMMARY: This Notice describes innovative financing methods and asset management tools which may be used in connection with projects receiving assistance from the Federal Transit Administration (FTA) in order to facilitate financing, leverage Federal, State and local funds, and otherwise increase the effectiveness of transit capital projects.

FOR FURTHER INFORMATION CONTACT:
Janette Sadik-Khan, Associate Administrator for Budget and Policy, (202) 366-4050, or Paul Marx, (202) 366-1675, Room 9310, 400 7th Street, S.W., Washington, D.C. 20590.

SUPPLEMENTAL INFORMATION

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) encourages more efficient management and enhancement of our Nation's public transit infrastructure through the creation of public/private investment partnerships. In addition, Executive Order 12893, "Principles for Federal Infrastructure Investments," signed by the President on January 26, 1994, directs each executive department "to ensure efficient management of infrastructure . . ." and "to encourage private sector investment, which is a key objective of our efforts to promote innovative financing." Underlying this guidance is the notion that market-oriented financing and management techniques can be effective tools for meeting our Nation's needs for infrastructure investment. To further these directives, on September 12, 1994, FTA published a Notice regarding its Innovative Financing Initiative in the Federal Register (59 FR 46878) in which FTA requested information from its grantees about their use of innovative financing techniques in local transit projects.

This Notice combines in a single document current innovative financing methods and asset management tools and indicates, where appropriate, changes in administrative practice or policy guidance that may facilitate their use. Grantees and others in the transit community may find it useful to have in one publication a summary of the permissible financing and management techniques under FTA's grant programs. Grantees should, however, refer to the appropriate FTA regulations, circulars, reports, and publications that explain these techniques in greater detail, or contact their FTA Regional Office for further guidance and assistance.

The discussion below is divided into two broad categories, Innovative Finance Techniques and Asset Management Tools.

INNOVATIVE FINANCE TECHNIQUES

This section describes innovative financing techniques which may be used in connection with Federal transit assistance. In general, the techniques can be used with new projects financed with the FTA Urbanized Area Formula Program (49 U.S.C. 5307, formerly Section 9 of the Federal Transit Act, as amended) funds, as well as with Title 23, United States Code (e.g., Surface Transportation Program (STP) and Congestion Mitigation and Air Quality program (CMAQ)) funds transferred to be used for transit projects. In most cases, the techniques can also be used with funds from the Capital Program (49 U.S.C. 5309, formerly Section 3), as well as Nonurbanized Area Formula program (49 U.S.C. 5311, formerly Section 18), and Elderly and Persons with Disabilities Program (49 U.S.C. 5310, formerly Section 16) funds. Many of the procedures can also be used with respect to assets previously acquired with Federal transit assistance. For clarity, each technique is described separately. Grantees should take note that two or more techniques may be combined in the same project to generate additional savings or to further enhance private financing.

FTA generally supports use of innovative financing concepts that enhance the effectiveness of public transit investment by either generating increased investment or by reducing overall project costs. The following techniques and provisions of Federal transit laws are illustrative of the types of innovation that FTA will support. The list is not exclusive; grantees interested in pursuing techniques not listed here should contact their FTA Regional Office. FTA will evaluate proposals on a case-by-case basis, and where appropriate make further changes in administrative procedures, or if necessary, revise its rules and regulations to make such changes.

Leasing. FTA funds may be used to lease, rather than purchase, transit equipment and facilities. Urbanized Area Formula Program (49 U.S.C. 5307, formerly Section 9) funds may be used to cover the costs of new and pre-existing leases, so long as leasing is more cost effective than a direct purchase. FTA regulations at 49 C.F.R. Part 639 prescribe how leasing of transit equipment may be eligible. Moreover, FTA permits on a case-by-case basis, using slightly different criteria, such leasing under the Capital Program (49 U.S.C. 5309, formerly Section 3), Nonurbanized Area Formula Program (49 U.S.C. 5311, formerly Section 18), and Elderly and Persons with Disabilities Program (49 U.S.C. 5310, formerly Section 16).

Certificates of Participation (COPs). Certificates of Participation (COPs) are a type of leasing arrangement in which bonds are issued to finance the purchase of transit assets. Typically, the public transit agency (lessee) enters into a lease with a trustee or non-profit entity (lessor) for the assets it wishes to acquire. The lessor then transfers its rights to receive the lease payments made by the transit agency to the bond holders. The cash paid by the bond holders is used to purchase the assets that will be leased by the transit agency. The transit agency makes lease payments from local revenue sources and FTA grants. Title to the assets is held by the trustee for the security interest of the bond holders during the life of the transaction (usually 7 to 12 years). Use of this technique may allow transit agencies to use future reserves of local and federal revenues to accelerate equipment purchases. Although historically FTA recipients have engaged in COPs transactions solely for the purchase of vehicles, this technique may also be used to acquire facilities. Approximately six of these have taken place with federally funded equipment. Further guidance on the use of COPs can be found in FTA Report No. FTA-MA-90-7005-93-1 ("How to Evaluate Opportunities for Cross Border Leasing and COPs," November 1993).

Joint Development. Under 49 U.S.C. 5309(a)(5) and (f) and 49 U.S.C. 5309(a)(7) (formerly Sections 3(a)(1)(D) and 3(a)(1)(F)), Capital Program funds can be used for a variety of joint development activities, so

long as they are physically or functionally related to a transit project and they enhance the effectiveness of the transit project. Further, consistent with the additional flexibility in funding and decisionmaking afforded by ISTEA, FTA has recently interpreted the Capital Program (49 U.S.C. 5309) and the Federal Transit laws (49 U.S.C. 5301 et seq.) to allow such joint development projects under the Urbanized Area Formula Program (49 U.S.C. 5307, formerly Section 9), as well as the STP (23 U.S.C. 133) and the CMAQ Program (23 U.S.C. 149) when these funds are transferred to FTA for a transit project. Similarly, by this Notice, FTA is also alerting its grantees to the fact that assets previously acquired with FTA funds may be used for such joint development purposes. For example, land now used for station parking and no longer needed for transit purposes may be converted to use in a transit-related development project.

Certain cross-cutting Federal requirements will apply to the activities supported by Federal transit funds; however, such requirements would not apply to the commercial project itself, since Federal funds cannot be used for the construction of commercial revenue-producing facilities. FTA program funds may be used for the overall planning of a transit project, including the commercial revenue-producing facilities, so long as such commercial facilities are part of an overall transit-related project.

Use of Proceeds from Sale of Assets in Joint Development Projects. To facilitate joint development activities, FTA permits the sale of real property and property rights acquired with FTA assistance, in the following instances.

i. **Real property** that is no longer needed for transit purposes may be sold and the proceeds may then be used to purchase other real property for a transit-supportive development. If the real property is leased, the proceeds are considered program income and may be used for any transit purpose.

ii. **Air rights** over transit facilities constructed with Federal funds may be sold or leased to developers and the proceeds retained as program

income for future use in mass transit, rather than returned to the Treasury.

Cross Border Leases. A cross border lease is a mechanism which permits investors in a foreign country to own assets in the United States, lease them to an American entity, and receive tax benefits under the laws of their own country. FTA will permit the encumbrance of federally funded assets under a cross border lease so long as the grantee maintains continuing control and use of the asset in mass transit, and the benefits of the transaction outweigh the risks to the grantee. Grantees should provide FTA with the details of the transaction for review on a case-by-case basis. FTA's policy on Cross Border Leases is contained in FTA Circular 7020.1 ("Cross Border Leasing Guidelines"). Further guidance on cross border leases is available in FTA Report No. FTA-MA-90-7005-93-1, cited previously.

Capital Cost of Contracting. FTA permits grantees to count a portion of the costs of a contract with a private operator for transit service operations as a capital cost eligible for FTA capital program funding. This policy is described in more detail in FTA Circular 7010.1 ("Capital Cost of Contracting"). This policy generally applies to contracting for providing transit services where the use of facilities and equipment is provided as a part of a transit service contract.

Innovative Procurement Approaches. FTA encourages grantees to use a wide variety of innovative procurement techniques. These can include multi-year rolling stock procurements, forming consortia to facilitate efficiencies of scale in rolling stock procurements, or using design-build ("turnkey") as a method of infrastructure project delivery. Grantees can also consider use of vendor-financing in procurements, such as "super-turnkey," in which the contract calls for borrowing by the design-build contractor, with the costs, including interest, paid off over time using Federal grant funds. Further information on this form of procurement is available in FTA Report No. FTA-MA-08-7001-92-1, "Turnkey Procurement: Opportunities and Issues."

State Transit Finance Support. FTA encourages States and local governments to develop the capability to provide support for transit finance initiatives. Where State law permits, FTA capital funds can be used to support transit-related State finance entities, such as transportation banks. Such finance entities could provide a range of financing options, including cross border leases, certificates of participation, joint procurements, and the like, that may not otherwise be available to the smaller transit agencies. While FTA capital program funds can be used to cover the initial capitalization, they cannot be used to cover the ongoing operating costs of such a program.

Revolving Loan Funds. By this Notice, FTA announces that Federal grant funds may be used to support State or local revolving loan funds established in accordance with appropriate State laws. These funds would be available to provide direct loans for transit projects, or to acquire equipment and facilities and lease them to providers of public transportation in their States. Payments to retire the loans or service the leases, including accrued interest, would be used to fund other transit projects. Such a revolving loan fund could be used in combination with pooled procurements, State or locally issued bonds, joint development, and other techniques to generate income for transit investment or to reduce the overall cost of transit capital investment. As with the State Transit Finance entities, FTA funds can be used to cover the initial capitalization, but they cannot be used to cover the ongoing operating costs of such a program.

Deferred Local Match. FTA permits grantees to defer the payment of the local share of transit projects. Under this policy, grantees may, with prior approval from FTA, draw down 100 percent of the first 80 percent of project cost of former Section 3 (49 U.S.C. 5309), 8 (49 U.S.C. 5303), 9 (49 U.S.C. 5307), 16 (49 U.S.C. 5310), 18 (49 U.S.C. 5311) and 26 (49 U.S.C. 5320) projects, covering the local share of the costs at the end of the project. See, "Policy Statement on Local Share Issues," 57 FR 30880, July 10, 1992.

ASSET MANAGEMENT TOOLS

Transfer of Federal Interest. In order to facilitate the implementation of certain innovative financing transactions involving the lease or encumbrance of an asset, FTA will permit the concentration of the Federal interest in a portion of assets acquired with Federal funds, leaving the remaining portion unencumbered by any Federal interest. For example, where a fleet of 100 vehicles is acquired with Federal funds with a local share of 20 percent, the Federal interest may be concentrated in 80 of those vehicles, leaving the remaining 20—the local share—of the vehicles without any Federal interest. Moreover, this separation of Federal and local interests allows the grantee to explore other financing techniques, such as using the local share for COPs or cross border leases to leverage additional funds, or using short-term lending, or debt subordination, where arbitrage issues could be involved. For example, the portion of a fleet or facility without Federal interest could be mortgaged, and the proceeds used to earn interest or act as credit enhancement on a bond issue supporting a major investment, thus generating savings for the transit authority.

Like Kind Exchange. FTA permits the transfer of the remaining Federal interest in an asset to be transferred to a new asset in order to facilitate the early replacement of such assets. For example, under the FTA Like Kind Exchange policy (described in more detail in 57 F.R. 39328, August 28, 1992), buses which have reached only one-half their expected useful life may be sold and the proceeds may be used to pay part of the cost of like-kind replacement vehicles, so long as the remaining Federal interest in the vehicles which are sold is applied to the new vehicles. In such cases, the proceeds of the sale of the vehicles does not have to be returned to the Federal government.

Incidental Non-Transit Use. FTA-funded facilities may also used for limited non-transit purposes. For example, FTA funds may be used for acquisition of a Compressed Natural Gas fueling facility which will be used both by the transit operator's vehicles as well as other public vehicles. In such a case, FTA will participate in the capital costs of the facility proportionate to the needs for transit operations, including any designed-in reserve capacity necessary to assure reliable transit service. However, non-transit use should be incidental, i.e., not detract from or interfere with the mass transit use of the facility. FTA will determine what use is incidental on a case-by-case basis. It should be noted that 49 CFR Parts 604 and 605 prohibit the use of FTA-funded facilities for charter and schoolbus purposes.

Transfer of Federally-Assisted Assets. 49 U.S.C. 5334(g) allows existing, federally supported assets to be transferred for another public use when they are no longer required for transit purposes. For example, if a bus garage is no longer needed for transit purposes, it may be transferred to local municipal ownership for use in support of general public services. This new provision may also have application in support of innovative financing techniques, for example, by permitting transfer of ownership of assets acquired with Federal funds to local public use in return for other local support for transit. These transfers are subject to very specific statutory conditions and must be approved in advance in writing by FTA.

Coordinated Urban and Rural Services. Assets acquired with FTA funds may be used for any purpose which is eligible for FTA funding. Thus, assets acquired with Urbanized Formula Program funds (49 U.S.C. 5307, formerly Section 9) or Capital Program (49 U.S.C. 5309, formerly Section 3) funds may be used in a rural setting together with assets acquired under the Nonurbanized Area Formula Program (49 U.S.C. 5311, formerly Section 18), as part of a coordinated rural/urban system. Likewise, assets acquired for service in non-urbanized areas can be used in urbanized areas as part of such a coordinated rural/urban system.

Corridor Preservation/Advance Right of Way Acquisition. In limited circumstances, FTA program funds can be used to acquire and preserve existing transportation corridors and rights of way for future use in transit fixed guideway projects, or existing corridors and rights of way acquired with local funds can be used as local match for FTA grants. Indeed, should there be an increase in the market value of an existing corridor or right of way acquired

with local funds only before the use of that property for a transit project, the property would be accepted as local match for an FTA grant at its increased value. Acquisitions of existing corridors and rights of way with FTA funds are subject to two important constraints: (1) the FTA/Federal Highway Administration (FHWA) requirement for completion of a Major Investment Study before a major investment project can be programmed for construction funding; and (2) the prohibition on advance land acquisition that would prejudice the ultimate decisions on mode and alignment for any transportation project prior to completion of the National Environmental Policy Act (NEPA) studies for that project.

The preceding are examples only. FTA welcomes all ideas and projects that have the potential to leverage existing or planned infrastructure investment, or that will help to reduce public transportation costs over time. Grantees interested in pursuing these and other options should refer to the appropriate FTA regulations or publications referenced in this Notice or contact their FTA regional office to discuss their plans in more detail.

FTA will continue to make full use of its regulatory and statutory flexibility in fostering innovative financing proposals for transit. However, in all cases, projects must comply with all other statutory and regulatory requirements such as the NEPA, Civil Rights Acts, Americans with Disabilities Act, the Clean Air Act, and the Administrative Procedures Act.

ISSUED ON: MAY 9 1995

Gordon J. Linton
Administrator

MATRIX OF FTA GRANT PROGRAMS AND INNOVATIVE FINANCING TECHNIQUES[1]

This table assumes the technique applies to the eligible purpose of the project. i.e., bond repayment with Section 18 would mean repay bonds used to buy rural vans.

Financial Technique	Sect. 3[1]	Sect 9	Sect 16	Sect 18	Sect[2] 11(b) & 20	Sect 26[3]	CMAQ STP
Repay bonds & Certificates of Participation	YES	YES	YES	YES	NO	YES	YES
State Revolving Loan Fund	YES	YES	YES	YES	NO	YES	YES
Lease Payment	YES[4]	YES	YES[4]	YES[4]	NO	YES	YES[4]
Joint Development	YES	YES	YES	YES	NO	YES	YES
Cross-Border Lease	YES	YES	YES	YES	NO	YES	YES
Super Turnkey	YES	YES	NO	YES	NO	YES	YES
Delayed Local Match	YES	YES	YES	YES	NO	YES	YES
Toll Revenue Credit	YES	YES	YES	YES	NO	YES	YES

1 This assumes use of Section 3 funds for the activity, or use of Section 3 funded property for the activity. The capabilities apply equally to CMAQ funds, in the clean air context.
2 Sections 11(b), 20 and 26 are primarily training, research and development, not involving capital expenditures. However, it is conceivable that bonds or other debt could be issued in support of these activities.
3 There is no prohibition against the use of these funds, but their use is unlikely, unless FTA chose to initiate very innovative technology demonstration projects
4 But only if pre-approved, at this point. FTA is considering whether to extend leasing authority to Section 3, 16, 18 and CMAQ programs on a more routine basis.

NOTE: The Federal Transit Act (as amended) has been codified as Chapter 53 of Title 49 in the United States Code. Therefore, throughout the text, where a reference appears to a section of the Federal Transit Act, it is recodified as follows:

- Section 3 is recodified at 49 U.S.C. 5309.
- Section 9 is recodified at 49 U.S.C. 5307.
- Section 11(b) is recodified at 49 U.S.C. 5317.
- Section 16 is recodified at 49 U.S.C. 5310.
- Section 18 is recodified at 49 U.S.C. 5311.
- Section 20 is recodified at 49 U.S.C. 5322
- Section 26 is recodified at 49 U.S.C. 5320.

UNIT 5: STATEWIDE AND METROPOLITAN PLANNING REQUIREMENTS

PURPOSE OF THIS UNIT:

This unit describes the financial planning process that serves as the framework for the statewide and metropolitan financial planning requirements.

WHAT YOU WILL LEARN:

1. The need for financial planning.

2. The responsibility of the state and MPO in the development of financially constrained STIPs, TIPs, and long-range transportation.

3. The characteristics of and experience with financial planning.

4. The context for financial planning in the statewide and metropolitan transportation planning process.

WHAT WILL HAPPEN IN THIS UNIT:

You will be provided with a general overview of the financial planning process based on current practice and legal requirements. The information presented will assist in the development of a context for the role of financial planning and programming in your organization.

1. THE NEED FOR GUIDANCE IN FINANCIAL PLANNING

A. Introduction

The decision to construct a transportation facility, purchase transit equipment, provide new service, or maintain existing facilities and services represents a major financial commitment for society, especially when out-year operating, maintenance, and capital replacement costs are considered. In addition, rising costs, ever-increasing demand for funds, and the desire to promote greater financial responsibility have led U.S. DOT to place new emphasis on sound financial analysis and planning.

Financial planning is essentially the determination and balancing of all relevant sources of anticipated revenue and expenses over a set period of time with provisions for use of debt to finance certain expenses and for assignment of revenue to service such debt.

B. Problems From Inadequate Financial Planning

Serious problems can result when financial planning is not adequately performed.

1. Some "new start" cities have been forced to reduce overall service levels in order to afford putting new lines into service.

2. New highway capacities can put pressure on budgets available to maintain these roads.

3. Metropolitan Long Range Plans and TIPs become meaningless "wish lists" that do not realistically reflect the difficult choices that need to be made to effectively manage financial resources.

4. Unanticipated revenue shortfalls can occur as a result of inaccu-

rate cost estimating or revenue forecasting.

C. Benefits of Financial Planning

An improvement in the quality of financial planning and programming can ensure efficient and effective use of scarce funds before funds are actually committed.

1. Project cost and revenue streams can be managed to reduce overall financing costs.

2. Lending markets and other project sponsors will be more willing to provide project financing.

3. Services will not be interrupted due to lack of financial resources.

4. The transportation system will be adequately maintained before service expansion is undertaken.

5. Realistic Long Range Plans and TIPs will be developed that contain projects that reflect the product of regional planning.

2. CHARACTERISTICS OF FINANCIAL PLANNING

A. Activities Comprising Financial Planning

Three types of activities are undertaken in financial planning:

1. Assessment of *financial condition* (i.e., overall financial health);

2. Assessment of *financial capability* (i.e., estimation of cost and revenue streams and analysis of future cash flow);

3. Preparation of a *financial plan* (including identification, analy-

sis, and evaluation of alternative sources of funds).

B. Financial Condition

An assessment of *financial condition* considers factors that may affect the ability of a state or region to operate, maintain, and make needed investments in the existing transportation system.

1. Principal among these factors are the economic vitality of the state or region; debt management history of the funding entities; and historical financial burden of transportation expenditures.

2. The analysis of economic vitality examines historical trends and forecasts of economic indicators tied to the pledged sources of revenue and to the various transportation expenditures.

3. Other components of the financial condition analysis include a review of transportation debt management practices, analysis of financial burden of transportation when compared to non-transportation expenditures, and the direction of local transportation policy issues.

C. Financial Capability

An assessment for *financial capability* addresses the stability and reliability or robustness of the revenue base and its ability to meet specific requirements.

1. In order to evaluate financial capability, out-year projections of costs (i.e., operating, capital, and maintenance) and revenues (i.e., public and private) are developed, along with other indicators of the financial capability of various transportation agencies and their funding partners

2. The assessment of financial capability provides information for

answering the following questions:

- What are the capital, operating, and maintenance costs of providing transportation services, facilities, and equipment over the useful life of these facilities and equipment?

- What revenues and other sources of funds will be pledged to the transportation system?

- What roles and responsibilities will state and local government and private concerns have in carrying out the proposed transportation program, including making new capital investments while operating, maintaining, and recapitalizing the base transportation system?

D. Financial Plan Preparation

A financial plan describes sources and uses of funds; financing approaches; and steps required to secure financing for the proposed improvement program.

1. Financing alternatives for meeting capital and operating requirements for transportation investments are developed based on the cash flow analysis and the identification, analysis and evaluation of new revenue sources.

2. Each alternative should identify the specific source and use of funds (including annual debt service) in future years.

3. The typical financing alternatives are: (1) pay-as-you-go; (2) debt financing; and (3) private sector financing. Usually a combination of these are used.

4. Innovative financing options should be explored.

3. THE CONTEXT FOR FINANCIAL PLANNING

A. Statewide and Metropolitan Planning

Figure 5.1 highlights the relationships between statewide and metropolitan transportation planning. It reflects the use of management systems to define needs, use of public involvement, coordination of statewide STIPs with metropolitan area TIPs, and use of statewide long-range plans to define basic policies and/or programs.

B. State Transportation Improvement Program (STIP)

The STIP is the result of the statewide and regional planning and selection process. It must include all federally funded Title 23, transportation projects for a three-year project. The STIP is a summary list of the selected transportation projects throughout the state. It is reviewed by the Federal Highway Administration and the Federal Transit Administration to assure the following:

1. It identifies all proposed highway and transit projects in the state, funded under Title 23 USC and the Federal Transit Act, including Federal Lands projects;

2. It is consistent with the long-range, statewide transportation plan;

3. It is consistent with the metropolitan transportation programs (TIPs) approved by the MPOs;

4. In nonattainment areas, it includes projects that conform with the State Implementation Plan (SIP) for air quality (also required by the federal government);

5. It is consistent with expected available funding;

ISTEA Planning Process

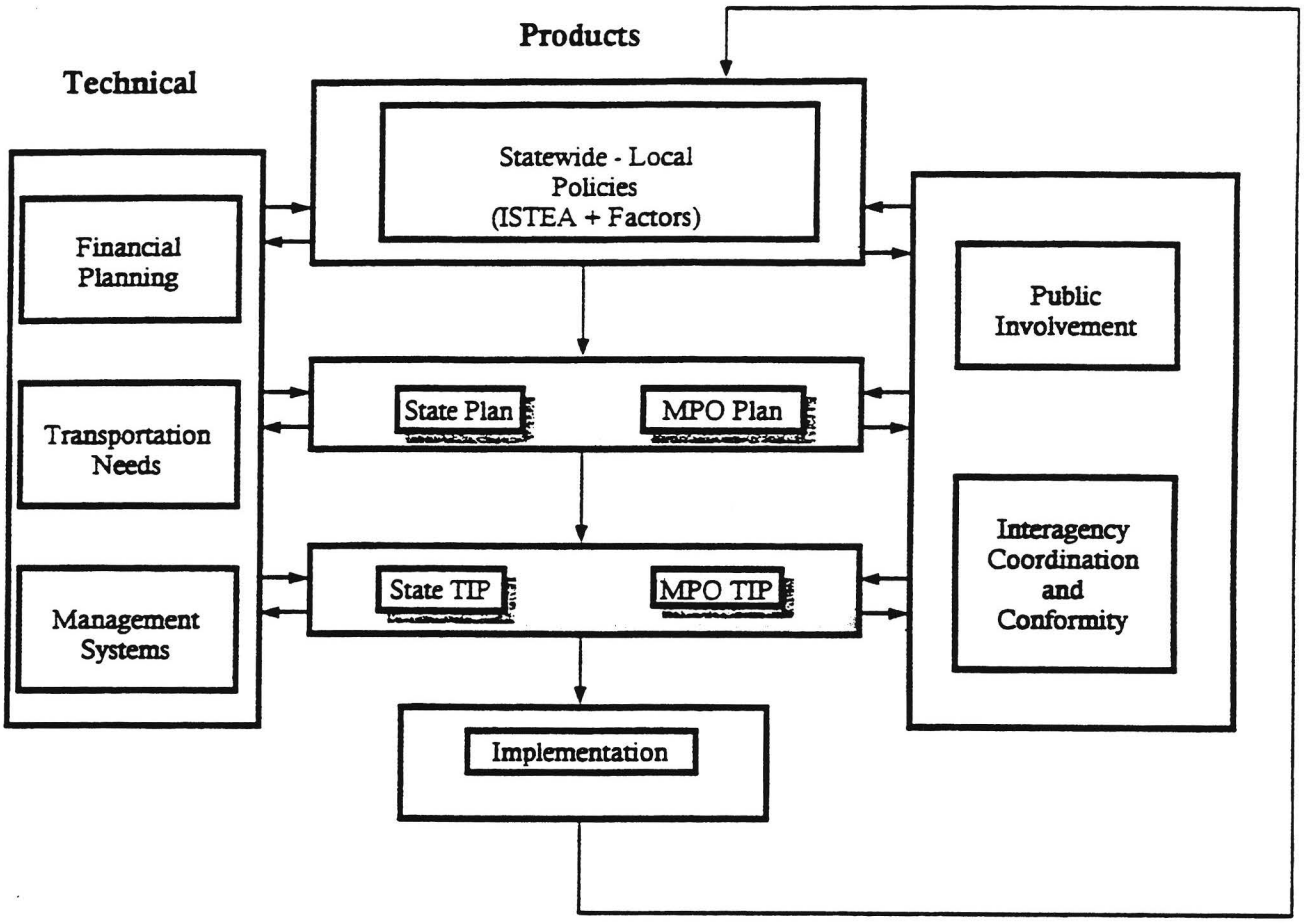


FIGURE 5.1

6. It identifies project selection priorities developed with appropriate consultation and/or coordination with local jurisdictions, metropolitan planning organizations, and federal land agencies.

C. Metropolitan Transportation Planning

Figure 5.2 presents an overview of the financial planning process in the context of metropolitan transportation planning. This process consists of several interrelated steps leading to the preparation of a TIP financial plan and a financial plan for the Metropolitan Transportation Plan. A key input to the financial planning process includes estimates of capital and operating grants which are normally determined externally to the financial planning process.

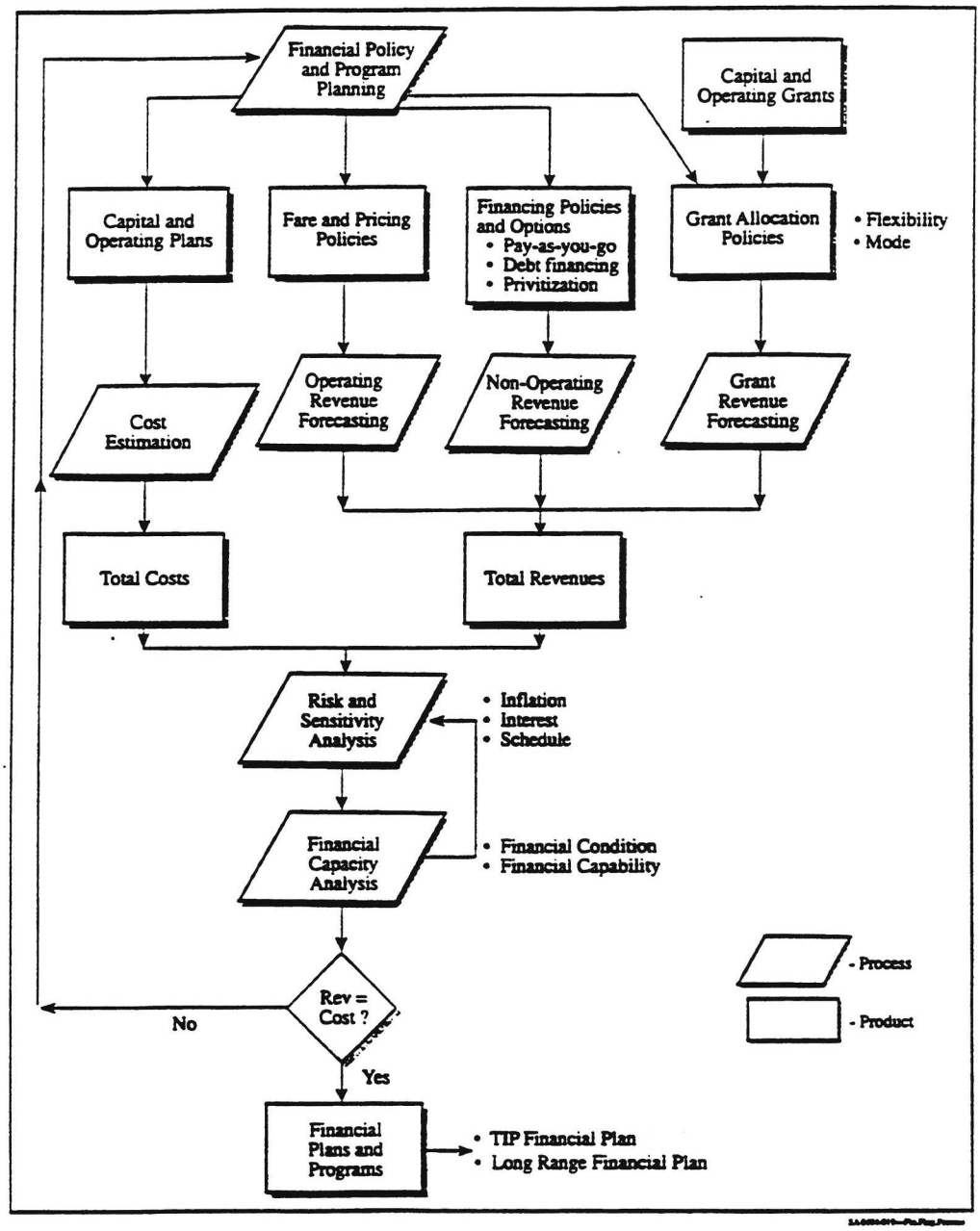
As shown in Figure 5.2, at the heart of this process is regional financial policy and program planning.

Financial policy and program planning is a continuous process leading to the development of:

- Transportation Capital and Operating Plans;
- Transportation Fare and Pricing Policies;
- Transportation Financing Policies and Options including: Pay-as-you-go; Debt Financing and/or Innovative Financing;
- Grant Allocation Policies.

Following the adoption of these various financing and program planning policies, several technical forecasts are conducted to develop estimates of Total Transportation Costs and Total Trans-

FIGURE 5.2
Financial Planning Process



portation Revenues over the programming period. In the case of a Metropolitan Transportation Plan, the programming period may be 20 years, while for a Transportation Improvement Program, the programming period may be 3 to 5 years.

Cost and Revenues can be further analyzed through the conduct of risk and sensitivity analyses which examine the impact of alternative assumptions concerning such factors as inflation, interest rates, and project schedules. Financial capacity of the region to implement the financial plan. If revenues are insufficient to cover costs, it is necessary to then reexamine underlying plans and policies to either modify the capital and operating program or identify new sources of revenue. If cost and revenues are in balance, then financial plans and programs can be prepared.

D. Transportation Improvement Program (TIP)

The specific sequential, or parallel steps involved in developing the financial plan for the TIP are (Figure 5.3):

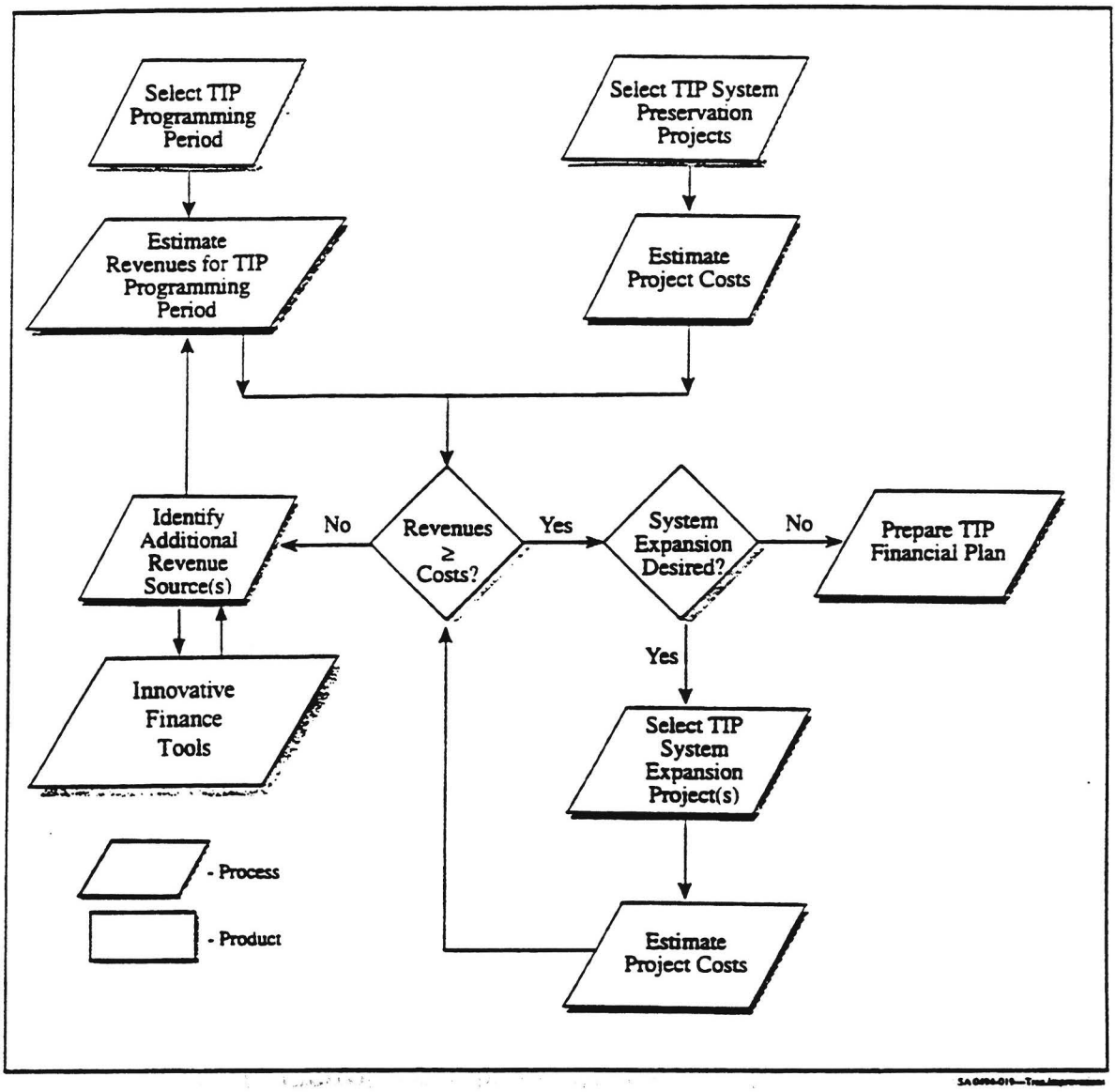
1. Select TIP Programming Period -this must be a minimum of 3 years, however some metropolitan areas adept a 5-year programming period.

2. Select TIP System Preservation Projects -Priority is first given to projects that will maintain the existing transportation system over the useful life of these assets.

3. Estimate Revenues for TIP Programming Period -These include funds that can reasonably be expected to be available to the region over the programming period including dedicated revenues.

4. Estimate Project Costs -Determine project costs of construction, operation, and capital purchases for the TIP programming pe-

FIGURE 5.3
Financial Planning Process
for TIP



riod.

5. Determine whether total revenues are equal to or greater than total project costs -It is expected that revenues and costs be in balance -if this is not the case, it is necessary to identify strategies to bring these values into balance.

6. Identify Additional Revenue Sources -Because system preservation is a first priority, it is necessary to identify additional revenue to cover these costs at this state before system expansion projects are considered.

7. Determine Whether System Expansion is Desired -Once revenues and costs for system preservation are in balance, then system expansion projects may be considered. If such projects are desired, then these projects are selected and a cost estimate is prepared. The revenue and cost balances are examined and this process is repeated until a final list of projects is determined such that revenues and costs are in balance.

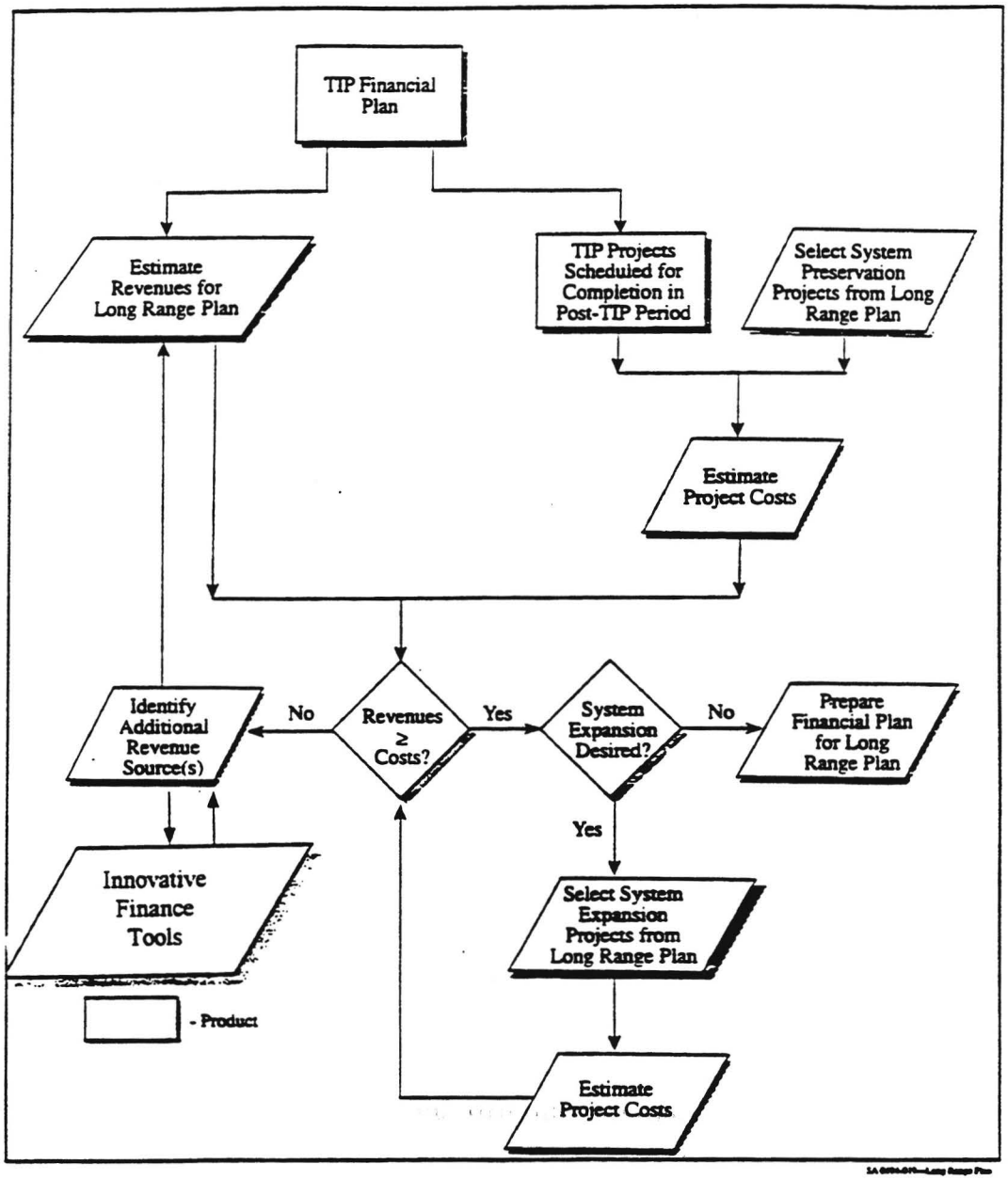
8. Prepare TIP Financial Plan -A financial plan describing costs and revenues is developed and adopted by the region.

E. Metropolitan Transportation Plan

The financial plan element of the Metropolitan Transportation Plan builds upon elements contained in the TIP financial plan. The sequential or parallel steps, involved in developing the financial plan for the Metropolitan Transportation Plan are: (Figure 5.4):

1. Review TIP Financial Plan -The TIP financial plan can be considered as a sub-element of the long-range financial plan. The TIP Financial Plan provides a basis for estimating revenue sources and projects costs for Metropolitan Planning. In addi-

FIGURE 5.4
Financial Planning Process
for Long Range Plan



tion, the TIP financial plan will provide estimates of funding commitments made for the post-TIP period. These include projects that will be completed during the post-TIP period, but have been started during the TIP programming period.

2. Estimate Revenues for Long-Range Plan -Based on the TIP financial plan, develop an estimate of future revenues from sources contained in the TIP to the end of the long-range planning horizon.

3. TIP Projects Scheduled for Completion in Post-TIP Period -Identify costs of project commitments made in the TIP for the post-TIP period.

4. Select System Preservation Projects -Similar to the TIP, initial emphasis in the Metropolitan Transportation Plan is on projects designed to preserve the current transportation system.

5. Estimate Project Costs -Determine project costs for system preservation projects in the Metropolitan Transportation Plan. In addition, it will also be necessary to re-examine project cost estimates previously prepared for TIP projects scheduled for implementation in the post-TIP period to ensure that they reflect any anticipated project scope changes or cost increases.

6. Balance Revenue and Costs -Similar to the TIP progress, it is necessary to determine the balance between costs and revenue. Before system expansion projects can be contemplated, it is necessary to ensure that funding is available for system maintenance and preservation.

7. System Expansion -Once revenues and costs for system preservation have been balanced, then system expansion projects can be examined.

8. Prepare Financial Plan -Revenues and costs for both system preservation and system expansion projects are balanced and a financial plan is prepared for the Metropolitan Transportation Plan.

4. STATEWIDE PLANNING AND PROGRAMMING REQUIREMENTS

Each state must carry out a statewide transportation planning process which is continuing, comprehensive and intermodal, which facilitates the efficient, economic movement of people and goods in all areas of the state, including metropolitan areas. The process must consider data collection and analysis, consideration of 23 factors in conducting the planning process and coordination with participating agencies. The statewide transportation plan must consider a range of passengers, freight and modal transportation options. Plans must include development of a STIP and the planning process shall be carried out in coordination with the metropolitan transportation planning process.

A. Requirements for Statewide Transportation Plan shall:

- Cover all areas of the state
- Be intermodal
- Cover at least 20 years
- Contain bicycle, pedestrian walkways and trails elements appropriately interconnected with other modes
- Be coordinated with the metropolitan transportation plans
- Summarize or contain information on financial resources needed to carry out the plan

B. Requirements for Statewide Transportation Program (STIP):

- Cover all areas of the state, although a partial STIP is acceptable.
- In a metropolitan planning area TIPs shall be developed in cooperation with the MPO.
- Include TIPs without modification once approved by the MPO and the Governor and after conformity findings are made.
- State shall notify the appropriate agencies when a TIP including projects under its jurisdiction are included in STIP.
- Title 23 and Federal Transit Act fund recipients will share information as projects in the STIP are implemented.
- Priority transportation projects for first 3 years are at least grouped by year.
- TIP priorities dictate STIP priorities for metro areas.
- Cover a period of not less than 3 years (additional years are only informational).
- Contain projects consistent with the statewide plan.
- In nonattainment and maintenance areas, projects must be from conforming programs.
- Be financially constrained by year.
- Include sufficient financial information to demonstrate which projects are to be implemented using current revenues and

which projects are to be implemented using proposed revenue sources while the system as a whole is being adequately operated and maintained.

- In nonattainment and maintenance areas, during the first 2 years projects limited to those for which funds are available or committed.

- Strategies for ensuring availability of proposed funding sources shall be identified.

- Contain all capital and non-capital transportation projects or identified phases proposed for funding under the Federal Transit Act and/or Title 23, excluding:

  - Safety projects under Section 402.

  - ITS planning grants under ISTEA 6055 (b).

  - Transit planning grants under FTA Section 8 or 26.

  - Metropolitan planning projects under 23 U.S.C. 104 (f).

  - State planning and research projects under 23 U.S.C. 307(c)(1) (except under NHS, STP and MA funding that the State and an MPO agree should be in the TIP and consequently in the STIP).

  - Emergency relief projects (except substantial functional, location, or capacity changes).

- Contain regionally significant transportation projects requiring FHWA or FTA action regardless of funding.

- For information, include regionally significant transportation

projects funded with Federal funds other than those administered by FHWA or FTA.

- Include, for information purposes, if appropriate and cited in any TIPs, regionally significant projects, to be funded with non-Federal funds.

- Include for each project the following:

  - Sufficient descriptive material to identify the project or phase

  - Estimated total cost

  - Amount of Federal funds proposed to be obligated during each program year

  - Identification of responsible agency (ies).

- Projects in a given program year may be grouped.

- Projects may be moved among the first 3 years of the STIP subject to the project selection requirements.

- STIP may be amended under procedure agreed to by the co-operating parties.

C. Statewide Project Selection must consider:

- Only projects included in STIP are eligible.

- In metropolitan planning areas, the projects shall be selected in accordance with the project selection portion of the metropolitan planning regulations.

- Outside metropolitan planning areas:

  - NHS, bridge and interstate maintenance projects will be selected by the state in consultation with affected local officials.

  - Other FHWA funded projects selected by state in cooperation with affected local officials.

- The projects in the first year of an approved STIP shall constitute an agreed to list of projects for scheduling and implementation.

- FTA funded projects shall be selected by states in cooperation with the appropriate affected local officials and transit operators.

- Project selection procedures need to be followed to advance a project from the outyears of a STIP.

- Expedited selection procedures which provide for the advancement of projects from the second or third year of a STIP may be used if approved by all parties.

5. METROPOLITAN PLANNING AND PROGRAMMING REQUIREMENTS

Each metropolitan area transportation planning process must include the development of a Long-Range Transportation Plan addressing at least a 20-year planning horizon by December 18, 1994. The adopted plan must include a financial plan for meeting revenue shortfalls through strategies for developing new or increased revenues, and:

- demonstrate the consistency of proposed transportation investments with already available and projected sources of rev-

enue;

- 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;

- in nonattainment and maintenance areas, address the specific financial strategies required to ensure implementation of projects and programs to reach air quality compliance.

The development of strategies to meet revenue shortfalls over a 20-year time period is difficult to forecast concretely in detail. However, the intent is to make the Long-Range Plan more "realistic" by constraining them to revenues reasonably available to a metropolitan area and state. The MPOs and the states will need to work cooperatively to identify revenues available to the area including forecasts of federal, state, local, and private revenues.

A TIP must be updated at least every two years and approved by the MPO and the governor. The development of the TIP must be conducted by the MPO in cooperation with the state and public transit operator(s) in the metropolitan region and cover a period of not less than three years. The TIP may cover a longer time period if it identifies priorities and financial information for the additional years.

The state and the transit operator(s) must provide the MPOs with estimates of available federal and state funds which the MPOs shall use in developing financial plans.

The TIP must be financially constrained by year and contain a financial plan that:

- demonstrates which projects can be implemented using current revenue sources and which projects are to be implemented using proposed revenue sources (while the existing transportation system is being adequately operated and maintained);

- indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan and, in the case of new funding sources, identifies strategies for ensuring their availability;

- recommends any innovative financing techniques to finance needed projects and programs, including value capture, tolls, and congestion pricing.

In developing financial analysis, the MPO shall take into account all projects and strategies funded under Title 23, U.S.C., and the Federal Transit Act, other federal funds, local sources, state assistance, and private participation.

In nonattainment and maintenance areas, projects included in the first two years of the current TIP shall be limited to those for which funds are available or committed.

6. FUNDING CATEGORIES IN FINANCIAL PLANNING

All Funding Sources Fall into Three Categories:

A. Available Funds

Funds derived from an existing source of funds dedicated to or historically used for transportation purposes which the financial plan shows to be available to fund projects.

B. Reasonably Available

Any new funding sources that do not currently exist or require some steps (legal, executive, legislative, etc.) before a jurisdiction, agency, or private party can commit such revenues to transportation projects. A specific plan of action that describes the steps that will be taken to ensure that the funds will be available within the time frame shown on the financial plan must be provided.

C. Not Reasonably Available

1. When past efforts to enact new revenue sources have generally not been successful;

2. the extent of current support by public, elected officials, business community and/or special interests indicates passage of a pending funding measure is doubtful; and

3. no specific plan of action for securing the funding source and/or other information that demonstrates a strong likelihood that funding secured will be available.

7. THE MPO RESPONSIBILITIES IN THE DEVELOPMENT OF LONG-RANGE TRANSPORTATION PLAN

The Metropolitan Planning Organization is to ensure the Financially Constrained Long-Range Plan is in fact "financially constrained."

A. The MPO is an "arena in which all regional players involved in the allocation of transportation funds determine what funds are reasonably available and the transportation projects to receive those funds over a 20-year timeframe. The MPO must work with transit agencies, State DOTs, local governments and public officials, the general public, and other interested parties to de-

velop a financially constrained Long-Range Transportation Plan.

B. The financially constrained Long-Range Plan is the product of cooperation, consultation, and coordination by all of the region's players. It is the responsibility of the MPO to ensure that the fiscally constrained Long-Range Transportation Plan:

- Includes a financial plan that demonstrates the consistency of proposed transportation investments with already available and projected sources of revenues. This financial plan shall compare the estimated revenue from existing and proposed funding sources that can be reasonably 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 (minimum : 20 years);

- Identifies sources of local, state, and federal revenue;

- Proposes new sources of revenue for identified shortfalls and includes strategies for ensuring their availability for proposed investments;

- Ensures that all cost and revenue projections shall be based on the data reflecting the existing situation and historical trends and the existing and proposed revenues shall cover all forecasted capital, operating, and maintenance costs;

- For non-attainment and maintenance areas under the Clean Air Act Amendments, shall address the specific financial strategies required to ensure the implementation of projects and programs to reach air quality compliance; and

- Meets any other criteria in the Metropolitan and Statewide

Planning Regulations.

8. THE MPO RESPONSIBILITIES IN THE DEVELOPMENT OF THE TIP

The Metropolitan Planning Organization is responsible for the allocation of financial resources in the Transportation Improvement Program (TIP).

A. The TIP is a three year (minimum) program for funding a subset of projects from the financially constrained Long-Range Transportation Plan that should be developed by the MPO in cooperation with the states and transit operators.

B. The Transportation Improvement Program must:

- Be financially constrained by year and include a financial plan that demonstrates which projects can be implemented using current revenue sources and which projects are to be implemented with proposed revenue sources (while the existing transportation system is being adequately operated and maintained);

- Include only projects for which construction and operating funds may reasonably be expected to be available. In the case of new funding sources, strategies for ensuring their availability shall be identified;

- The MPO must consider all projects and strategies funded under title 23 U.S.C. and the Federal Transit Act, other federal funds, local sources, state assistance, and private participation. The amount of funding assumed for future years

from federal sources should not exceed currently authorized amounts;

- In nonattainment and maintenance areas, projects included in the first two years of the current TIP shall be limited to those for which are available or committed. The TIP shall also give priority to eligible Transportation Control Measures (TCMs) identified in the approved SIP in accordance with U.S. EPA conformity regulation and shall provide for their timely implementation;

- Assure that operations and maintenance of the existing system receives priority in the allocation of financial resources;

- Show the amount of federal funds proposed to be obligated in each program year, the proposed sources of federal and non-federal funds, and shall show an estimated cost for each project; and

- Meet any other criteria in the Metropolitan and Statewide Planning Regulations.

9. THE MPO RESPONSIBILITIES IN THE DEVELOPMENT OF MAJOR INVESTMENT STUDIES

A. Major Metropolitan Investment

A major metropolitan investment is a high-type highway or transit improvement of substantial cost that is expected to have a significant effect on capacity, traffic flow, level of service, or mode share at the transportation corridor or subarea scale.

Consultation among the MPO, State Department of Transportation, transit operator, the FHWA and the FTA should be a deciding factor in the size and scope of the Major Investment Study. All

Major Investment Studies should be shown on the MPO's Unified Planning Work Program (UPWP).

B. Financial Plan for the Major Investment

The MIS process ends when a design concept and scope is adopted as part of the fiscally constrained Long-Range Transportation Plan. All financial resources necessary to build and operate the facility must be identified.

The Metropolitan Planning Organization should be a part of the MIS process because of the size, scope, and cost of these regionally significant projects.

There are two options the MPO can take with Major Capital Investments:

1. The MPO makes an "assumption" in its long-range plans prior to completion of the MIS. This establishes an envelop of funding reserved for whatever project emerges from the MIS. As long as all of the alternatives studied in the MIS fit within the cost envelop, there is no need for financial analysis in the MIS. If one or more of the alternative cost estimates exceed the envelop, then the MIS should look at ways to fill the shortfall (i.e., new funding, deferral of other planned projects) so that the plan remains fiscally constrained.

2. The plan makes no assumption for the corridor (the proposed improvement is shown for study), meaning that no funding envelope exists. In this case, the MIS would need a financial element to develop a funding strategy for whatever project emerges from the study. Without a funding strategy; the project cannot be adopted as part of the plan and cannot advance beyond MIS stage.

10. PROGRAMMING CHARACTERISTICS

Programming is the matching of proposed projects with available funds to accomplish long-and short-term goals. Activities to complete a project may be scheduled over several years such as PE, ROW, etc. The programmer is a catalyst and referee. Programming is a dynamic process as project schedules shift, priorities change, funds can become restricted. The programming process includes:

1. Project initiation and definitions.

2. Analysis and prioritization.

3. Financial analysis.

4. Program drafting.

5. Program approvals.

6. Scheduling.

7. Monitoring and modifications.

The characteristics of good programming is a clear and definable process that is open and responsive. The process must be plan-and performance-based and have the ability to respond to uncertainty. A key characteristic is accountability.

11. SUMMARY AND CONCLUSIONS

- Financial planning has emerged as a significant component of transportation planning practice as a result of several key legislative and policy actions.

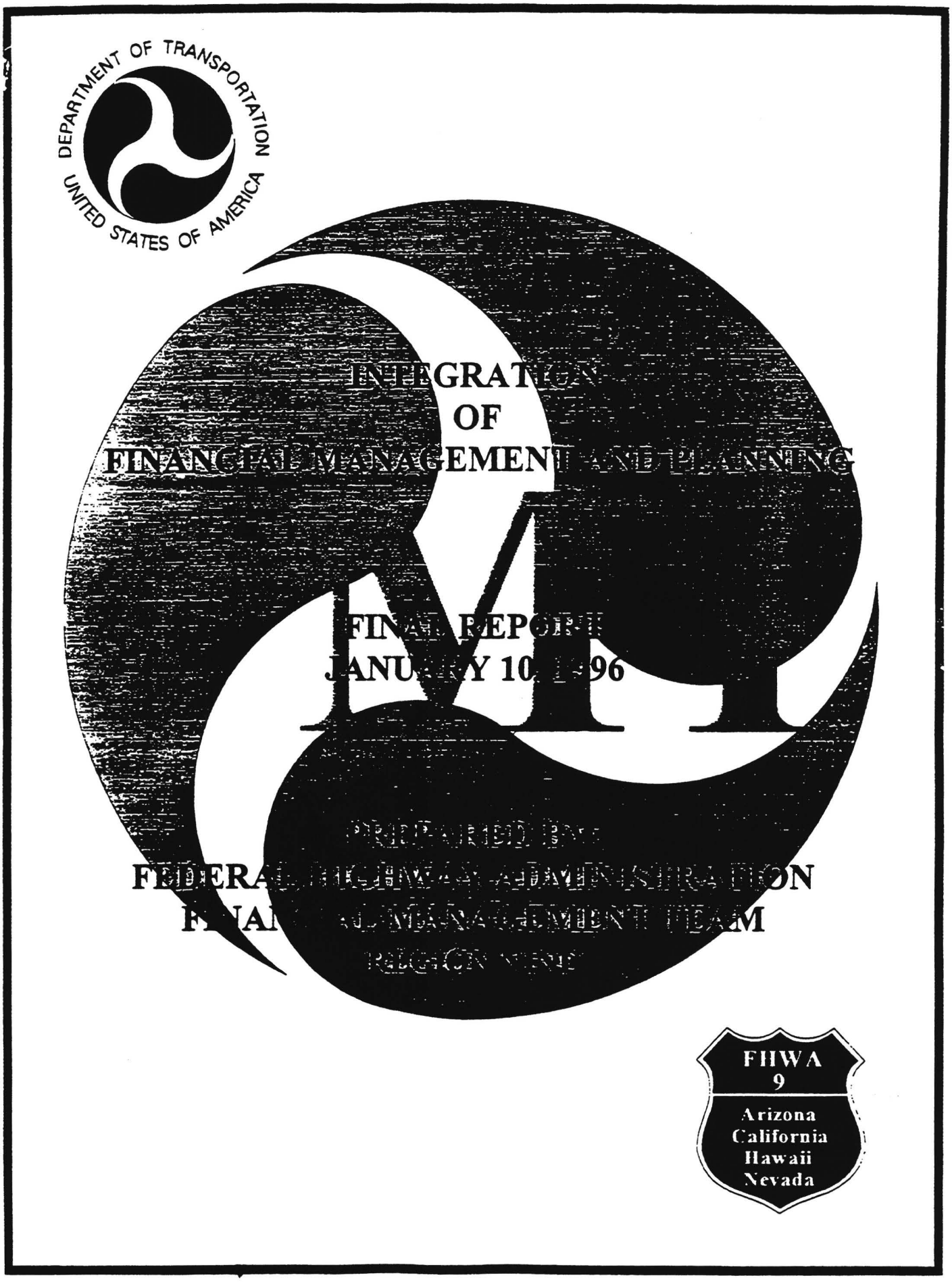
- The proper conduct of the financial planning process will avoid a number of barriers to effective planning and programming.

- The activities comprising the financial planning process include an assessment of financial condition, financial capability, and financial plan preparation.

- Financial planning is a critical element of the STIP, TIP, and Metropolitan Transportation Plan.

- The elements comprising the financial planning process include cost estimating, revenue forecasting, risk assessment, capacity assessment, plan preparation, and plan implementation.

- Financial planning will help define needs which can be addressed by innovative financing approaches.


DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA
INTEGRATION
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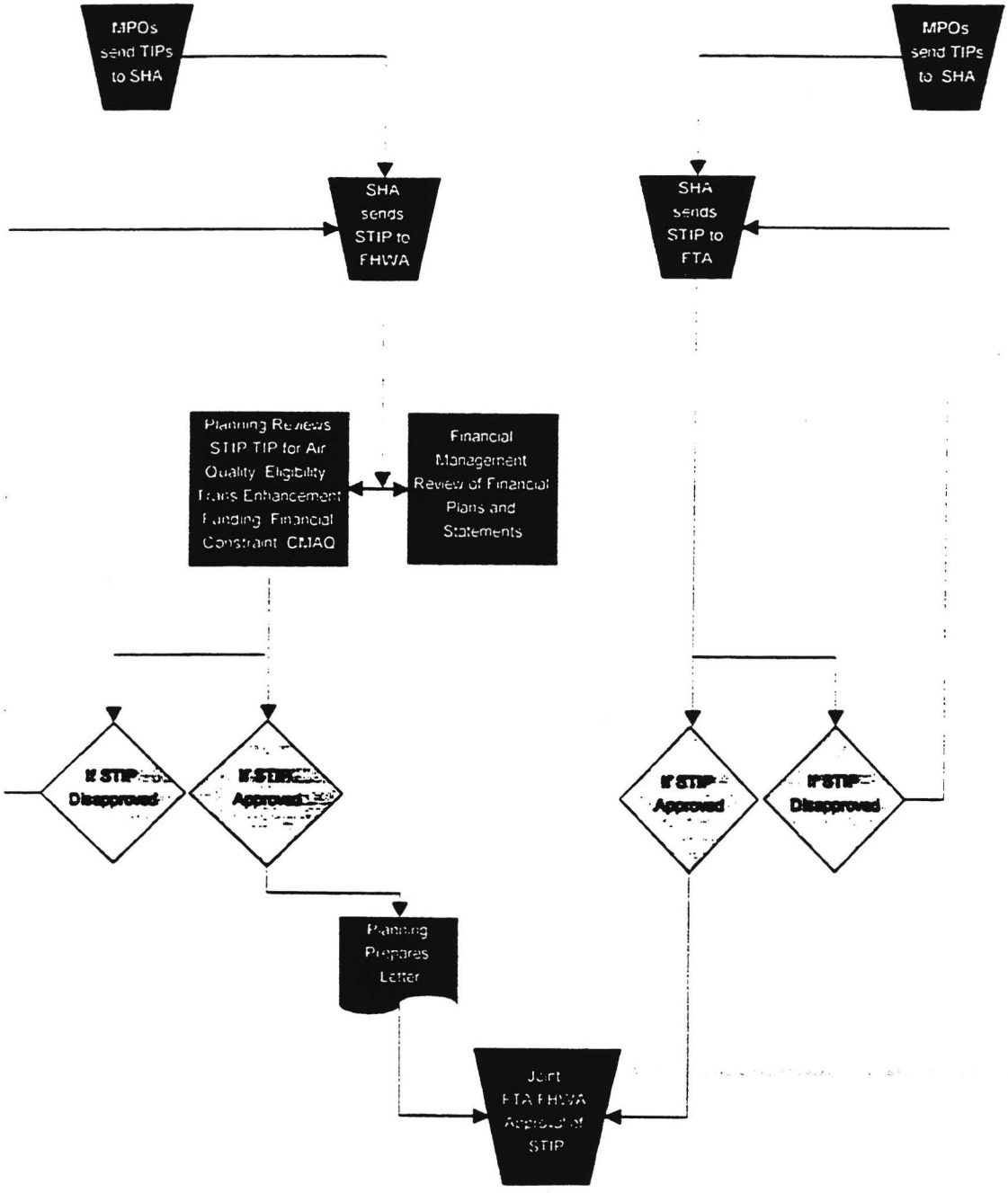
FINANCIAL MANAGEMENT AND PLANNING
FINAL REPORT
JANUARY 10, 1996
PREPARED BY:
FEDERAL HIGHWAY ADMINISTRATION
FINANCIAL MANAGEMENT TEAM
REGION NINE
FHWA
9
Arizona
California
Hawaii
Nevada

PROPOSED STIP/TIP APPROVAL PROCESS
DIVISION OFFICE PROCEDURES



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

ATTACHMENT 3

FHWA 9 Arizona California Hawaii Nevada

FINANCIAL CONSTRAINT REVIEW GUIDE AND DOCUMENTATION WORKSHEET STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM XXXXXX DEPARTMENT OF TRANSPORTATION

Introduction: The Statewide Transportation Improvement Program (STIP) must contain all transportation projects for which an approval by FHWA is required, whether or not the projects are to be financed with Federal funds [23 USC or Federal Transit Act (FTA) funds]. For informational purposes, the STIP should also include all Regionally significant transportation projects proposed to be financed with Federal funds, other than 23 USC or FTA funds. Other Regionally significant projects must also be included, irrespective of funding sources. Metropolitan TIPs must be approved by the MPOs and Governor, and incorporated into the STIPs, without change. Financial plans are required for metropolitan areas.

Initial documentation needed to evaluate the fiscal constraint requirement: Total funds (by category) included in Federal Highway authorizations; Transit authorizations; Financial plans from all jurisdictions; Obligation limitation data.

(1) For each classification of funds, compare programmed totals to amounts authorized or appropriated. Are variances significant? If so, refer questionable items to Division Administrator's delegated representative.

(2) Does the STIP include unobligated apportionments from prior years in the Federal funds target amounts? (Carry-over balances are not permissible)

(3) How do financial plans demonstrate that the (S)TIP is financially constrained? [Financial Plans should summarize revenues and expenditures]

(4) How do financial plans demonstrate that each category of funds is "reasonably available?"

(5) Do financial plans demonstrate how proposed projects can be implemented, giving appropriate consideration to the continued **operation** and **maintenance** needs of the existing transportation system? How?

(6) In reviewing the financial analysis, what specific strategies are indicated for generating revenues?

Do strategies represent reasonable expectations, considering historic and other projections?

(7) Do the indicated strategies relate to traditional revenue sources, or do strategies involve innovative funding methods?

If innovative financing strategies are involved, has the method been approved by FHWA? If not, how does plan address the need for FHWA review and approval?

(8) Are suballocations of STP or Section 9 (FTA Act) funds to individual jurisdictions or modes within the metropolitan area made on a predetermined percentage or formula basis? (generally not permitted)

If so, has it been clearly demonstrated that the distributions reflect considerations required to be addressed as part of the planning process?

(9) Examine the STIP for the inclusion of Advance Construction (AC) projects. How does the STIP address any AC projects during both the year of authorization and the year(s) of conversion? [Applicable projects should appear in the year of AC project authorization and in the conversion year(s)].

How is the related non-Federal segment of the AC project treated in each year?

(10) Are the State and Transit Operators providing the MPOs with the financial information necessary to develop the financial plans?

(11) Additional Comments

Date STIP Received: _____

Date Comments Released: _____

Reviewed By: _____

UNIT 6: DEVELOPING ESTIMATES OF FINANCIAL RESOURCES

PURPOSE:

The purpose of this unit is to present various techniques and approaches to the development of revenue forecasts. Selected case studies will be presented.

WHAT YOU WILL LEARN IN THIS UNIT:

1. Various revenue forecasting approaches.

2. Basic concepts associated with debt financing and the characteristics of bonds.

3. Applications of revenue forecasting techniques at the State level through case studies.

WHAT WILL HAPPEN IN THIS UNIT:

The instructor will describe various approaches to forecasting revenue and example applications.

1. IDENTIFY FUNDING SOURCES

A. Overview

In preparation for financial forecasting, all sources of existing and potential funding should be listed. All historical data relating to funds from each source should be compiled. These data, in combination with measures of economic activity, are used to prepare estimates of transportation revenues

B. Funding Sources

Existing and potential funding sources can be broken into five categories:

1. Grants from federal, state, and local governments.

2. Transit fare revenues.

3. Dedicated taxes and user fees.

4. Revenues from the sale or lease of property, the operation of concessions, and renting of advertising in transportation facilities.

5. Benefit sharing revenues.

C. Transportation Financial Activity

Table 6.1 provides estimates of transportation revenues collected by users by level of government from 1982 to 1992. These estimates do not include property tax and special assessment which local governments may rely on for funding transportation. The data are presented in absolute value as well as inflation adjusted dollars.

1. State government are the greatest sources of transportation rev-

TABLE 6.1

Summary of Government Transportation Finances by Level of Government: 1982-1992 (In Millions of Dollars)

Current Dollars

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Growth Rate
Revenues												
Federal	10.008	12.507	16.351	18.388	18.769	18.847	20.109	22.237	21.532	25.995	25.794	9.93%
State	18.935	19.806	22.320	24.355	25.917	28.501	30.850	32.529	34.629	35.585	39.097	7.52%
Local	7.228	7.716	8.243	9.294	10.112	11.058	11.862	12.813	13.740	14.832	15.306	7.79%
TOTAL S & L	26.163	27.522	30.563	33.649	36.028	39.559	42.712	45.342	48.369	51.417	54.402	7.60%
TOTAL	36.171	40.029	46.914	52.038	54.798	58.407	62.821	67.579	69.901	77.411	80.196	8.29%
Expenditures From Own Funds												
Federal	23.630	23.578	26.920	27.955	28.748	27.708	28.020	28.634	30.095	31.966	34.753	3.93%
State & Local	36.766	39.519	41.966	46.583	52.506	57.637	61.928	65.372	69.979	75.673	78.544	7.89%
TOTAL	60.396	63.098	68.886	74.539	81.253	85.345	89.948	94.006	100.074	107.630	113.297	6.49%
Expenditures After Transfers												
Federal	9.786	8.799	10.363	9.501	10.094	9.659	9.541	9.924	10.584	11.776	13.388	3.18%
State	23.112	24.407	27.143	31.600	34.704	36.348	38.685	40.572	42.342	44.938	46.467	7.23%
Local	27.499	29.892	31.380	33.437	36.433	39.338	41.723	43.511	47.148	50.922	53.441	6.87%
TOTAL S & L	50.611	54.299	58.523	65.038	71.137	75.686	80.408	84.082	89.490	95.860	99.908	7.04%
TOTAL	60.396	63.098	68.886	74.539	81.231	85.345	89.948	94.006	100.074	107.630	113.297	6.49%

Constant 1982 Dollars

Revenues												
Federal	10.008	11.971	15.167	16.529	16.580	16.416	17.071	18.135	16.896	19.620	18.676	6.44%
State	18.935	18.993	20.397	21.305	21.965	23.285	24.166	24.472	24.993	25.613	26.752	3.52%
Local	7.228	7.399	7.533	8.130	8.570	9.035	9.292	9.639	9.916	10.383	10.473	3.78%
TOTAL S & L	26.163	26.392	27.931	29.434	30.534	32.320	33.457	34.111	34.909	35.996	37.225	3.59%
TOTAL	36.171	38.363	43.098	45.963	47.115	48.736	50.526	52.246	51.805	55.616	55.901	4.45%
Expenditures From Own Funds												
Federal	23.630	22.568	24.970	25.128	25.395	24.134	23.787	23.352	23.615	24.127	25.162	0.63%
State & Local	36.766	37.896	38.352	40.748	44.499	47.090	48.509	49.180	50.506	52.978	53.744	3.87%
TOTAL	60.396	60.464	63.322	65.876	69.894	71.223	72.297	72.532	74.121	77.105	78.906	2.71%
Expenditures After Transfers												
Federal	9.786	8.422	9.613	8.540	8.916	8.413	8.099	8.093	8.305	8.888	9.693	-0.09%
State	23.112	23.404	24.805	27.642	29.412	29.697	30.303	30.522	30.560	31.460	31.795	3.24%
Local	27.499	28.664	28.678	29.249	30.877	32.139	32.682	32.733	34.028	35.650	36.567	2.89%
TOTAL S & L	50.611	52.068	53.483	56.891	60.289	61.836	62.985	63.255	64.588	67.110	68.362	3.05%
TOTAL	60.396	60.490	63.095	65.431	69.206	70.249	71.084	71.349	72.893	75.998	78.056	2.60%

Note: Different deflators for different levels of government are used. As a result, totals in constant dollars will not agree.

enue followed by the federal and then local governments.

2. As a proportion of total transportation revenues, State transportation revenues have declined from 1982 to 1992 as federal transportation has increased.

3. Local revenue has remained flat as a percentage of total revenue spent.

Table 6.2 indicates transportation revenue by level of governmental revenue raising instrument. Again it is presented in absolute levels as well as constant 1982 dollars. Subsequently, Table 6.3 refines the data by mode.

1. At the federal level, the Highway Trust Fund collected the greatest revenue at about $16.6 billion in 1992. However, in constant dollars, the Highway Trust Fund compound annual growth rate is the lowest of all federal transportation sources.

2. Motor fuel tax is the greatest source of state revenues.

3. At the local level, transit changes contribute the most revenue, while motor fuel taxes are the fastest revenue source.

4. Highways collected the greatest revenue of all modes, although its compound annual growth was the lowest.

5. States funded the largest share of the federal-aid system, while local governments supported transit and parking.

6. Motor fuel taxes from states were the greatest source of highway revenue while the fastest growing source was the local fuel tax.

Revenue sources will depend on the individual state and reflect specific legislative initiatives and sharing provisions with local

TABLE 6.2

Transportation Revenues by Level of Government and Revenue Raising Instruments: 1982-1992 (In Millions of Dollars)

Constant 1982 Dollars

Level of Govt and Instrument	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Growth Rate	Average 1982-1992
Federal													
Fed Hwy Trust Fund	7.822	8.476	10.698	11.602	11.753	11.086	11.584	12.343	10.556	11.551	11.999	4.37%	10.861
Hwy Tr Fnd Transit	N/A	497	1.229	1.276	1.233	1.379	1.410	1.418	1.551	2.377	1.315	11.42%	1.244
Fed AP/AWY Trst Fund	1.711	2.582	2.825	3.234	3.149	3.432	3.465	3.812	3.880	4.684	4.285	9.61%	3.369
Tot Fed Water Receipts	474	416	415	416	446	512	605	555	900	1.000	1.067	8.45%	619
Pipline Safety Fund	N/A	N/A	N/A	N/A	N/A	8	7	8	8	8	10	5.27%	8
SUBTOTAL	10.008	11.971	15.167	16.529	16.580	16.416	17.071	18.135	16.896	19.620	18.676	6.44%	16.097
State													
Motor Fuel Taxes	10.437	10.350	11.328	11.679	11.939	12.831	13.470	13.563	13.987	14.449	15.224	3.85%	12.660
Motor Veh Lic Tax	5.564	5.546	5.806	6.163	6.508	6.788	6.955	7.035	7.108	7.093	7.294	2.74%	6.533
Motor Veh Op Lic Tax	487	484	518	537	589	595	599	597	597	606	694	3.60%	573
Airport Charges	222	225	241	262	259	289	315	405	402	432	445	7.20%	318
Reg & Toll Hwy Charges	1.431	1.469	1.538	1.606	1.651	1.704	1.793	1.831	1.869	1.979	2.055	3.69%	1.721
Water Transp. Charges	299	272	288	293	275	272	275	259	256	268	269	-1.03%	275
Transit Charges	495	646	678	765	744	806	758	781	775	786	770	4.51%	728
SUBTOTAL	18.935	18.993	20.397	21.305	21.965	23.285	24.166	24.472	24.993	25.613	26.752	3.52%	22.807
Local													
Motor Fuel Taxes	125	143	146	250	265	366	452	461	479	474	475	14.29%	331
Motor Veh Lic Taxes	409	425	439	454	481	505	506	520	555	549	567	3.31%	492
Motor Veh Op Lic Tacx	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1	1	1	4.17%	1
Airport Charges	2.073	2.206	2.268	2.465	2.668	2.820	2.904	3.127	3.332	3.571	3.571	5.59%	2.819
Reg & Toll Hwy Charges	657	677	720	806	822	902	1.034	1.125	1.125	1.181	1.194	6.16%	931
Parking Charges	399	435	481	502	536	556	577	599	617	647	664	5.23%	546
Water Transp. Charges	672	674	693	706	768	793	832	806	818	807	843	2.29%	765
Transit Charges	2.893	2.840	2.787	2.947	3.030	3.091	2.976	3.000	2.989	3.154	3.159	0.88%	2.988
SUBTOTAL	7.228	7.399	7.533	8.130	8.570	9.035	9.292	9.639	9.916	10.383	10.473	3.78%	8.873
TOTAL	36.171	38.363	43.098	45.963	47.115	48.736	50.528	52.246	51.805	55.616	55.901	4.45%	47.776

TABLE 6.2

Transportation Revenues by Level of Government and Revenue Raising Instruments: 1982-1992 (In Millions of Dollars)

Current Dollars

Level of Govt. and Instrument	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Growth Rate	Average 1982-1992
Federal													
Fed Hwy Trust Fund	7,822	8,856	11,533	12,908	13,304	12,727	13,645	15,134	13,453	15,303	16,572	7.80%	12,842
Hwy Tr Fnd Transit	N/A	519	1,325	1,420	1,395	1,583	1,661	1,738	1,977	3,149	1,816	14.93%	1,508
Fed AP/AWY Trst Fund	1,711	2,698	3,045	3,598	3,565	3,940	4,081	4,674	4,945	6,206	5,918	13.21%	4,035
Tot Fed Water Receipts	474	434	448	463	505	588	713	681	1,147	1,325	1,474	12.01%	750
Pipline Safety Fund	N/A	N/A	N/A	N/A	N/A	9	9	10	10	11	14	9.24%	11
SUBTOTAL	10,008	12,507	16,351	18,388	18,769	18,847	20,109	22,237	21,532	25,995	25,794	9.93%	19,140
State													
Motor Fuel Taxes	10,437	10,793	12,396	13,352	14,087	15,705	17,196	18,029	19,379	20,639	22,250	7.86%	15,842
Motor Veh Lic Tax	5,564	5,784	6,354	7,045	7,679	8,309	8,879	9,351	9,848	10,131	10,660	6.72%	8,146
Motor Veh Op Lic Tax	487	505	567	614	695	728	765	794	827	865	1,014	7.61%	715
Airport Charges	222	235	263	299	306	354	402	538	556	618	650	11.35%	404
Reg & Toll Hwy Charges	1,431	1,532	1,683	1,835	1,948	2,085	2,289	2,434	2,590	2,826	3,004	7.70%	2,151
Water Transp. Charges	299	284	315	335	324	333	351	344	355	382	393	2.79%	338
Transit Charges	495	673	742	875	878	986	968	1,039	1,074	1,123	1,126	8.56%	907
SUBTOTAL	18,935	19,806	22,320	24,355	25,917	28,501	30,850	32,529	34,629	36,585	39,097	7.52%	28,502
Local													
Motor Fuel Taxes	125	149	160	286	313	448	577	613	664	677	694	18.70%	428
Motor Veh Lic Taxes	409	443	480	518	568	618	646	692	769	784	828	7.30%	614
Motor Veh Op Lic Tacx	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1	2	2	7.72%	1
Airport Charges	2,073	2,300	2,482	2,818	3,148	3,452	3,707	4,156	4,617	5,101	5,219	9.67%	3,552
Reg & Toll Hwy Charges	657	706	788	921	970	1,104	1,320	1,495	1,559	1,687	1,744	10.27%	1,177
Parking Charges	399	453	526	574	632	681	737	796	854	924	970	9.29%	686
Water Transp. Charges	672	702	758	807	906	971	1,063	1,072	1,133	1,152	1,231	6.24%	952
Transit Charges	2,893	2,962	3,050	3,369	3,575	3,784	3,799	3,987	4,142	4,506	4,616	4.78%	3,698
SUBTOTAL	7,228	7,716	8,243	9,294	10,112	11,058	11,862	12,813	13,740	14,832	15,306	7.79%	11,109
TOTAL	36,171	40,029	46,914	52,038	54,798	58,407	62,821	67,579	69,901	77,411	80,196	8.29%	58,751

TABLE 6.3

Transportation Revenues by Mode and Revenue Raising Instruments: 1982-1992 (In Millions of Dollars)

Constant 1982 Dollars

Mode and Instrument	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Growth Rate
Highway												
State Fuel Tax	10.437	10.350	11.328	11.679	11.939	12.831	13.470	13.563	13.987	14.449	15.224	3.85%
State MV Lic. Tax	5.564	5.546	5.806	6.163	6.508	6.788	6.955	7.035	7.108	7.093	7.294	2.74%
State MV Op. Lic. Tax	487	484	518	537	589	595	599	597	597	606	694	3.60%
State Reg/Toll Hwy Ch	1.431	1.469	1.538	1.606	1.651	1.704	1.793	1.831	1.869	1.979	2.055	3.69%
Local Fuel Tax	125	143	146	250	265	366	452	461	479	474	475	14.29%
Local MV Lic. Tax	409	425	439	454	481	505	506	520	555	549	567	3.31%
Local MV Op Lic. Tax	N/A	N/A	N/A	N/A	N/A	1	1	1	1	1	1	3.94%
Local Reg/Toll Hwy Ch	657	677	720	806	822	902	1.034	1.125	1.125	1.181	1.194	6.16%
Fed Hwy Trst Fnd	7.822	8.476	10.698	11.602	11.753	11.086	11.584	12.343	10.556	11.551	11.999	4.37%
HIGHWAY TOTAL	26.932	27.570	31.194	33.096	34.008	34.779	36.404	37.477	36.277	37.881	39.503	3.90%
Airport												
State Charges	222	225	241	262	259	289	315	405	402	432	445	7.20%
Local Charges	2.073	2.206	2.268	2.465	2.668	2.820	2.904	3.127	3.332	3.571	3.571	5.59%
Fed AP/AWY Trst Fnd	1.711	2.582	2.825	3.234	3.149	3.432	3.465	3.812	3.880	4.684	4.285	9.61%
AIR TOTAL	4.007	5.013	5.333	5.961	6.077	6.542	6.683	7.344	7.614	8.688	8.301	7.56%
Transit												
State Charges	495	646	678	765	744	806	758	781	775	786	770	4.51%
Local Charges	2.893	2.840	2.787	2.947	3.030	3.091	2.976	3.000	2.989	3.154	3.159	0.88%
Hwy Trst Fnd	N/A	497	1.229	1.276	1.233	1.379	1.410	1.418	1.551	2.377	1.315	11.42%
TRANSIT TOTAL	3.388	3.983	4.694	4.989	5.007	5.276	5.144	5.199	5.316	6.318	5.244	4.46%
Water												
State Charges	299	272	288	293	275	272	275	259	256	268	269	-1.03%
Local Charges	672	674	693	706	768	793	832	806	818	807	843	2.29%
Fed. Water Receipts	474	416	415	416	446	512	605	555	900	1.000	1.067	8.45%
WATER TOTAL	1.445	1.362	1.396	1.415	1.488	1.577	1.712	1.620	1.974	2.074	2.179	4.19%
Parking												
Local Charges	399	435	481	502	536	556	577	599	617	647	664	5.23%
Pipeline												
Pipelines Sfty Fnd	N/A	N/A	N/A	N/A	N/A	8	7	8	8	8	10	5.27%
TOTAL	36.171	38.363	43.098	45.963	47.115	48.737	50.528	52.246	51.805	55.616	55.901	4.45%

TABLE 6.3

Transportation Revenues by Mode and Revenue Raising Instruments: 1982-1992 (In Millions of Dollars)

Current Dollars

Mode and Instrument	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Growth Rate
Highway												
State Fuel Tax	10.437	10.793	12.396	13.352	14.087	15.705	17.196	18.029	19.379	20.639	22.250	7.86%
State MV Lic. Tax	5.564	5.784	6.354	7.045	7.679	8.309	8.879	9.351	9.848	10.131	10.660	6.72%
State MV Op. Lic. Tax	487	505	567	614	695	728	765	794	827	865	1.014	7.61%
State Reg/Toll Hwy Charges	1.431	1.532	1.683	1.835	1.948	2.085	2.289	2.434	2.590	2.826	3.004	7.70%
Local Fuel Tax	125	149	160	286	313	448	577	613	664	677	694	18.70%
Local MV Lic. Tax	409	443	480	518	568	618	646	692	769	784	828	7.30%
Local MV Op Lic. Tax	N/A	N/A	N/A	N/A	N/A	1	1	1	1	2	2	7.69%
Local Reg/Toll Hwy Charges	657	706	788	921	970	1.104	1.320	1.495	1.559	1.687	1.744	10.27%
Fed Hwy Trst Fnd	7.822	8.856	11.533	12.908	13.304	12.727	13.645	15.134	13.453	15.303	16.572	7.80%
HIGHWAY TOTAL	26.932	28.768	33.961	37.479	39.564	41.727	45.320	48.544	49.090	52.914	56.768	7.74%
Airport												
State Charges	222	235	263	299	306	354	402	538	556	618	650	11.35%
Local Charges	2.073	2.300	2.482	2.818	3.148	3.452	3.707	4.156	4.617	5.101	5.219	9.67%
Fed AP/AWY Trst Fnd	1.711	2.698	3.045	3.598	3.565	3.940	4.081	4.674	4.945	6.206	5.918	13.21%
AIR TOTAL	4.007	5.233	5.790	6.715	7.019	7.746	8.190	9.369	10.119	11.924	11.787	11.39%
Transit												
State Charges	495	673	742	875	878	986	968	1.039	1.074	1.123	1.126	8.56%
Local Charges	2.893	2.962	3.050	3.369	3.575	3.784	3.799	3.987	4.142	4.506	4.616	4.78%
Hwy Trst Fnd	N/A	519	1.325	1.420	1.395	1.583	1.661	1.738	1.977	3.149	1.816	14.93%
TRANSIT TOTAL	3.388	4.154	5.117	5.664	5.848	6.353	6.428	6.764	7.193	8.778	7.558	8.35%
Water												
State Charges	299	284	315	335	324	333	351	344	355	382	393	2.79%
Local Charges	672	702	758	807	906	971	1.063	1.072	1.133	1.152	1.231	6.24%
Fed. Water Receipts	474	434	448	463	505	588	713	681	1.147	1.325	1.474	12.01%
WATER TOTAL	1.445	1.421	1.520	1.605	1.734	1.891	2.127	2.097	2.635	2.860	3.099	7.93%
Parking												
Local Charges	399	453	526	574	632	681	737	796	854	924	970	9.29%
Pipeline												
Pipelines Sfty Fnd	N/A	N/A	N/A	N/A	N/A	9	9	10	10	11	14	9.23%
TOTAL	36.171	40.029	46.914	52.038	54.798	58.408	62.810	67.579	69.901	77.411	80.196	8.29%

government.

2. FORECASTING APPROACHES

A. Grants from Federal, State, and Local Governments

Where Long-Range Plan and TIP periods extend beyond the current authorization period for federal program funds or other governmental sources, a trend extrapolation approach can be used to estimate future funding. This trend can be based on the historical annual average plus an inflation component to account for growth in revenues.

B. Transit Fare Revenue Forecasting

1. Overview

Fare revenue forecasting is the process used to determine the expected amount of revenue that will be collected from transit users. Transit fare revenues are a function of the fare structure, fare levels, and ridership. Fare policy determines fare structure and levels. Travel demand forecasting projects ridership.

C. Taxes and User Fees

1. Overview

Revenue from such sources as motor fuel taxes, vehicle registration fees, tolls and sales taxes can be forecasted using a variety of approaches. The following discussion provides a review of basic approaches to estimate total revenues from these sources, including key variables and forecasting methodologies.

2. Key Variables

Motor fuel tax revenue is a function of fuel consumption per vehicle class and the tax rate. Fuel consumption is affected by two key variables: vehicle miles of travel by resident and nonresident population and the fleet's average fuel efficiency (miles per gallon).

Motor vehicle registration fees is a function of the number of vehicle registration and the fee rate. The vehicle weight and vehicle miles of travel are occasionally used as factors to set weight-distance tax. Scrappage and replacement rates for existing fleet may also be used.

Sales tax is a function of the tax and taxable sales.

Toll is a function of traffic volumes, traffic mix, proposed toll rates, and structure of tolls.

3. Forecasting Methodologies

Motor fuel tax revenue methodologies vary depending on the region's needs and resources available.

1. *Trend Analysis* is used for short-term forecasts, the simplest approach would be to directly extrapolate past trends of fuel consumption, provided sufficient historic data are available. In addition, insignificant changes in fuel efficiency and driving habits (VMT/capita) over the short run must be assumed.

2. *Accounting Identity* the approach, whereas , the vehicle fleet is disaggregated into various vehicle classes (i.e, cars, trucks, etc.) and fuel efficiency estimates for each vehicle class along with estimates of annual vehicle miles of travel for each class, which are used to determine total fuel consumption. Revenue estimates are then developed by applying tax rates to estimates of

total fuel consumption.

3. *Regression Model* is the approach to be developed to estimate total regional fuel consumption from a number of variables including vehicle miles of travel and average fleet fuel efficiency. The resulting estimates of total fuel consumption can be used to determine total revenues.

Motor vehicle registration fees -several alternative approaches can be used depending on data availability and resources available.

1. *Trend Analysis* is used for short-term forecasts, the agency may extrapolate past trends in vehicle registrations. The underlying assumption here is that the past trend will continue in the future and there will be no major structural changes.

2. *Accounting Identity*, the approach, whereas, total vehicle registration is the sum of existing vehicle registrations minus the registrations of those vehicles scrapped or moved out of the area.

3. *Regression Model* the approach, whereas, new registrations are affected by increases in the driving age population and by economic conditions affecting new vehicle purchases.

Sales Tax -forecasting inflation adjusted sales permits treating inflation separate from quantity effects.

1. *Trend Analysis* is the method for short-term forecasts, the historical trend in sales tax growth can be used to determine future revenues.

2. *Accounting Identity* the method in which historic sales subject to sales tax for various retail categories (i.e, building materials, general merchandise, food stores, restaurants, etc.) are used to project future sales by category. The sales tax rate is then

applied to the total taxable sales to determine total revenues.

3. *Regression Analysis* can be used to predict future inflation adjusted sales as a function of several variables including population, employment, and income.

Tolls are forecasts prior to construction of toll facilities and are based on a two-step process: (1) projecting traffic volumes as if the facility were free from tolls and (2) testing the effects of alternative toll facility proposals on the toll-free traffic projections.

Forecasting revenues for existing toll facilities under stable condition the techniques of simple linear regression may be more appropriate.

D. Use of Property and Property Rights

1. Overview

Models of this source of revenue are dependent on the contract written to lease or sell the property involved. As such, it is not necessary to build a detailed revenue forecasting model. Rather, estimates of revenue streams can be developed from negotiating the one-time cash income or income stream for the project.

2. Key Variables

The revenue potential of such approaches is greatest in private sector projects with revenue-producing capacity. The more valuable the location, the more the developer is willing to pay for the right to develop it.

E. Benefit Sharing Strategies

1. Overview

Once the level of benefits or impacts has been established, a special formula is developed to allocate assessments, fees, or contribution levels among property owners. Development of such a formula requires the following types of considerations:

- The total amount of revenue required based on capital financing requirements, operating deficits, debt service, etc.
- The basis for the assessment/fee/contribution rate (e.g., per square foot of new space, per $ value of assessed property value, per $ income from projected rent or retail sales, or per person trip generated).
- The temporal nature of the assessment or fee (i.e., one-time or annual, plus length of time if the latter).
- The treatment of existing, new and future development.
- Differentiation in the rate based on relative degree of benefit or impact.

2. Key Variables

Development impact fees are a function of the fee, size, timing, traffic impact, type of new development, and economic conditions affecting new starts.

Special assessment revenues are essentially equal to the cost of the service they are intended to support. Assessments vary by two factors: (1) the total number of square feet in the area, and (2) the magnitude of the cost of the service.

F. REVENUE FORECAST EXAMPLES

The examples provides examples of how revenue forecasting has been approached by State Department of Transportation. Specific assumptions will be presented. The purposes of these exercises are to assist in determining the adequacy of existing revenues to cover future programs; provide consistency in the basic assumptions about funding levels; and ensure uniformity in assumptions among the states MPO's in conducting financially constrained plans.

3. THE ECONOMICS OF PUBLIC FINANCE

A. Features of Fixed Income Securities

While most planners are well aware of government grants for project financing, bond financing is also an important method of paying for large infrastructure projects.

1. A fixed income security is a debt instrument in which a borrower agrees to pay a lender a level amount of current income, as defined by the issue's *coupon* or interest rate, for a specific period of time.

2. A fixed income security has a stated time to *mature* during which the borrower has promised to meet the required conditions of the debt. For example, a bond's maturity is the date on which the debt will cease to exist and the borrower will pay the *principal* or face amount to the lender and the debt will cease to exist. Generally speaking, the longer the maturity of a bond, the higher the coupon or interest rate paid to a lender.

3. A *call feature* allows the borrower the right to retire the debt before scheduled maturity. This permits the borrower to refinance the debt at more favorable terms, such as when interest rates decline, but provides the lender with the problem of finding

another investment with a similar return. Because of this feature, callable bonds carry a higher yield than non-callable bonds.

4. Fixed income securities, such as bonds, are traded in a secondary market or national exchanges. Broadly speaking, bond prices on these secondary markets increase when interest rates fall and decrease when interest rates rise. This is because bonds issued during periods of high interest rates pay a higher *coupon rate* than bonds issued during periods of low interest rates. This makes bonds with *high coupon rates* more valuable when general interest rates have fallen.

5. Reliance on debt varies among states, depending on needs, philosophies, policies, and laws concerning the use of debt. Debt can be issues by state government, state department of transportation, toll authorities, cities and counties, state and local authorities, and special districts.

B. Debt Instruments: What Is a Municipal Bond?

A *municipal bond* is a long-term debt obligation (a maturity of 13 months or more) issued by a state, city, county, town, or special purpose district (such as a Transit District).

1. Interest earned on U.S. Treasury and corporate bonds are taxed by the federal government in the same manner as personal income. Municipal bonds, however, are unique in that the interest received from them is exempt from federal income tax. States that have income tax laws in effect typically exempt their own local bonds but tax the interest earnings on out-of-state bonds as well as any capital gains on the trading of all municipal securities.

2. Generally, the longer an obligation is outstanding, the higher

the rate of interest the investors receive to compensate them for the risks they face as time goes by. The rate of interest for a given investment as a function of the maturity of the investment is called a *yield curve.*

3. Types of bonds:

   General obligation bonds are securities backed by the "full faith and credit" of the municipality. As such, they are the most secure credit ratings of all municipal bonds. An *ad valorem tax* on the assessed value of real estate is the most common base supporting the debt in cities or towns.

   Revenue bonds are securities payable from specific sources of revenues, other than property taxes, and are not backed by the "full faith and credit" of the issuer. Most revenue bonds rely on some user fee such as toll revenue, gasoline tax, etc. Tax increment bonds may be paid by increases in property tax revenue in a specified area. Excise tax bonds are paid by sales tax bonds. (See attachments for specific examples).

   Lease obligations or Certificates of Participation (COPs) "lease-purchase" financings are structured to take advantage of a government's general credit rating without the pledge of a specific tax. Usually such transactions offer the certificate holder a security interest in the property being financed or purchased. In most cases, facilities financed through lease-purchase are essential to the operation of the government. As a result, the investor has the added security against default in lease payments. These are sometimes used to avoid voter approval referenda.

C. Tax-exempt Market Trends

1. The tax-exempt bond market has grown over the past decade to become a major component of the domestic securities industry. New issue long-term municipal financing has grown at significant rates over the past decade, from $83 billion in 1983 to over $232 billion in 1992.

2. Transportation financing has dramatically increased throughout the 1980s from just over $4.8 billion in 1982 to the tax-exempt market seeing over $25.9 billion of debt issued for transportation in 1992.

3. Highway bond financing increased from $1.1 billion in new funds and $1.3 billion in refinancing to $6.4 billion and $3.1 billion respectively in 1992. When local bonds are included, the total issuance of bonds for highways and bridges equaled $12.4 billion in 1992.

4. From the end of the 1970s to the present, the volume of new revenue bonds surpassed that of general obligation bonds by a margin of almost 2:1. Revenue bonds do not rely solely on property tax collections to service debt.

4. MUNICIPAL BOND CREDIT ANALYSIS

A. General Obligation Bonds

The creditworthiness of *general obligation bonds* is dependent upon the willingness of residents to bear the taxes needed to repay the debt. The credit quality of the bond is important in determining the interest rate to be paid. The steps to the analysis are:

1. Economic base

Population trends -a stable pattern of growth is best;

- Wealth and income trends -per capita income and per household income should be rising; and

- Economic diversity - it is preferable to have the broadest possible diversity with regard to employment. Recession-resistant industries are preferred.

2. Financial analysis

- Net debt ratio = $\frac{\text{Total General Obligation Debt}}{\text{Market Value of Real Estate in the Community}}$

- Less than 5% is excellent; over 9% is bad;

- Per Capita Debt -Meaningful in comparison with other municipalities;

- Debt Service/Operation Budget - less than 10% is good; over 17% is poor.

3. Fiscal soundness of the issuer

- Trend of Assessed Valuation of Real Estate - steady increase is desirable;

- Tax collection -delinquency rate in excess of 5% is bad;

- Analyze the sources of the issuer's cash flow;

- Analyze unfunded pension liabilities to determine if the pensions are financially sound; and

- Check the accounting system of the issuer to determine whether accepted standards are followed.

B. Revenue Bonds

The creditworthiness of *revenue bonds* is conducted using a number of measures including the following:

1. Economic vitality of the project

- Will the demographics support it even in bad times?
- Is the project necessary?
- Have customers demonstrated a willingness to pay the price of the project?
- Has a feasibility study been performed?

2 . Financial Analysis

$$\text{Debt service coverage} = \frac{\text{Funds Available to Pay Debt Service}}{\text{Debt Service}}$$

Should be at least 1.5X

C. Other Information

1. A **legal opinion** is one of the most important documents to review for all proposed debt issues. It must be prepared by recognized attorneys who specialize in public finance. It states whether the issuer is legally able to issue bonds and if all legal requirements have been met. It should state safeguards and remedies provided to debt holders in case of default, and it should define the taxing powers the issuer has to support the

debt.

2. In addition to areas of analysis described above, certain **red flags, or negative trends,** suggest increase credit risks.

General Obligation Bonds

- Declining property values and increasing tax delinquency rates.
- Rising tax burden relative to other regions.
- Rising tax per capita.
- Decrease in number and value of new building permits.
- General fund revenues consistently below budget.
- Increasing deficits.
- Budget expenditures increasing faster than inflation.
- Rising unfunded pension liabilities.
- Rising trend of general obligation debt/value of real estate.
- Declining economic trends, especially in employment and income.

Revenue Bonds

- Decreasing interest coverage ratios.
- Use of reserve funds to service debt.

- Use of outside appropriations to meet budgets.
- Chronic lateness in supplying audited financial statements.
- Cost overruns and construction delays.
- Frequent use of fee increases.
- Deferral of maintenance.
- Excessive project management turnover.

5. SUMMARY AND CONCLUSION

This unit presents an overview of various revenue forecasting approaches and basic concepts associated with debt financing including the characteristics of bonds. In addition, several case examples of state revenue forecasting practice have been presented.

UNIT 7: ESTIMATING THE COSTS OF TRANSPORTATION PLANS

PURPOSE:

The purpose of this unit is to present various costing methods for estimating capital and operating costs.

WHAT YOU WILL LEARN IN THIS UNIT:

1. Basic principles of costing.
2. Capital cost estimating approaches and uncertainties.
3. System level cost estimating examples.
4. Life-cycle costing and Value Engineering.

WHAT WILL HAPPEN IN THIS UNIT:

Several methods used to prepare highway capital and operating costs will be presented. A discussion will be presented on costing issues appropriate for a financially constrained plan.

1. BACKGROUND

A. Highway Expenditures

1. Total Disbursements for Highways -All Levels of Government 1972-1992 (Source: **Highway Statistics**):

	1972	1992
Receipts Placed in Reserve	5.2%	3.9%
Capital Outlay		
State Highways	38.5%	30.9%
Local Highways	10.4%	12.9%
Not Classified	1.2%	0.3%
Subtotal	50.1%	44.1%
Maintenance and Traffic Service		
State Highways	9.3%	10.0%
Local Highways	12.7%	16.0%
Not Classified	0.2%	0.1%
Subtotal	22.2%	26.1%
Admn and Research	6.5%	8.8%
Law Enforcement and Safety	6.8%	8.1%
Interest on Debt	3.9%	4.1%
Bond Retirements	5.3%	4.9%
Total	100.0%	100.0%

2. BASIC PRINCIPLES

A. Cost Planning and Budgeting

1. Capital Improvement Planning Process

Capital planning is the process used to define the requirements and timing of facility development and replacement. Among other things, the capital planning process enables management to determine its capital requirements and consider optimal means for obtaining capital.

Historically, much of the planning activities undertaken as part of metropolitan transportation planning can be considered a capital improvement planning process. This metropolitan transportation planning process has consisted of the following steps:

Identifying potential capital improvements;

Estimating project costs;

Evaluating project benefits; and

Prioritizing projects.

2. Project Cost Components

Project costs consist of initial costs, capital costs, and the additional operating and maintenance (O&M) costs specifically associated with the project.

1. The initial costs include the cost of project planning and design such as preliminary engineering and feasibility or planning studies.

2. Capital costs include the costs of acquiring land for improvement, constructing the highway or transit project, installing signals and other traffic control equipment, and the costs of purchasing, shipping, and testing the buses or rapid transit cars.

3. The O&M costs include the incremental costs of the system operations and maintenance that result from the improvement. Examples include additional toll operators hired for a new toll road; new bus mechanics hired to maintain additional buses; or any additional fuel, electricity, lubrication, insurance, parts, rental property, or contracted services that the improvements require.

3. Capital Cost and O&M Cost Interrelationships

The proposed capital program can have a significant impact on O&M costs. Certain types of capital expenditures can be justified on reducing —or slowing the growth of— O&M costs. Conversely, deferral of some capital expenditures can have a serious impact on O&M costs.

3. OVERVIEW OF CAPITAL COST ESTIMATING

A. Introduction

1. Normally, MPOs are provided cost estimates prepared by staff of implementing agencies such as state DOTs and operators of public transit in the region. The staff of Metropolitan Planning Organizations do not typically prepare detailed cost estimates for projects. These cost estimates are developed using a variety of techniques and vary in detail and accuracy depending upon the level of planning. For example, cost estimates for long-range planning at a systems level for a project are not as detailed as an engineer's estimate for the same project at the programming level.

2. State and MPO staff may desire to prepare systems-level cost estimates for long-range planning purposes and this discussion is designed to provide an example of a systems-level costing ap-

is designed to provide an example of a systems-level costing approach which can be used for long-range planning.

B. Description of System Level Costing

1. System-level cost estimation is a practice that uses local project cost experience to provide the basis for cost estimates for candidate costs. It is considered "system-level" because it is primarily valuable in considering alternative actions at the system level of analysis. It is primarily useful for long-range planning efforts, in which financially constrained systems plans are required but information is not sufficient to estimate detailed quantities and unit costs.

2. In system-level cost estimating, the basic unit of cost estimation for highway projects is miles of roadway constructed, reconstructed or resurfaced, rather than the cubic feet of fill or tons of asphalt required. The basic units for intersection work are the number of intersections improved, lane miles of highway added, rather than the number of signal heads and wiring required.

4. EXAMPLE OF SYSTEM-LEVEL HIGHWAY COST ESTIMATING

A. Overview of System-Level Cost Estimating Approach

The cost estimating process described below is derived from that provided by the New York State DOT in January 1992 for use in long-range systems planning by MPOs throughout the state. The approach bases cost estimates on calculations related to three categories of improvements:

Linear construction or widening (excluding intersection and approach work).

Intersection and approach work.

Bridge structures.

1. The cost of the linear highway work is estimated using the following values:

   Number of lane-miles to be reconstructed, counting a median as a lane but not counting shoulders as a lane.

   Number of lane-miles to be added to the existing highway.

   Number of lane-miles to be resurfaced.

   Right-of-way required, estimated by the number of square feet required and cost per square foot of the taking.

   Regional unit costs for resurfacing and reconstruction per lane-mile. (Unit costs for adding lanes and building on new alignment are estimated based on the reconstruction unit cost.)

2. The following parameters are used to estimate the cost of work within 500 feet of an intersection:

   The number of signalized intersections improved as part of the project.

   The total number of existing approach lane-miles (including turn lanes) to be reconstructed.

   The number of approach lane-miles (including turn-lanes) to be resurfaced.

   The total number of approach lane-miles (including turn lanes) to be added.

Right-of-way required, estimated by number of square feet required and cost per square foot of the taking.

Regional unit costs for resurfacing and reconstruction per lane-mile. (Unit costs for adding lanes and building on new alignment are estimated based on the reconstruction unit cost.)

3. The costs of bridge construction and reconstruction as part of the project are estimated based on the following parameters

   The number of structures being constructed or rehabilitated.

   The square feet of existing structures being removed.

   The square feet of structures being constructed.

   The square feet of structures being rehabilitated.

   Right-of-way required, estimated by the number of square feet required, cost per square foot for the taking, and cost of structures required.

   Regional unit costs for structure removal, construction, and rehabilitation.

   The type of feature crossed (highway, railroad, or stream/river).

4. The project cost estimates are only as good as the information used. A key set of values is the set of unit costs for construction and reconstruction, resurfacing, and rehabilitation. For system-level cost estimates to have credibility, these unit costs must be derived from local experience and represent work similar to that expected in the proposed project.

B. Example Application

B. Example Application

1. Construction of a New Highway

Project proposal is for a four-lane highway on 3 miles of new alignment. The new alignment has few unique features; it is generally rolling countryside with no known environmental issues. The project will require construction of two at-grade intersections with turn lanes at the bypass terminal.

Using default values for unit costs, Figure 7.1 shows the resulting calculations.

5. OPERATING AND MAINTENANCE COST ESTIMATING

A. Background

Costs associated with operating and maintaining transportation systems generally include expenditures that are consumed within a single calendar or fiscal year. These expenses include labor, materials, and supplies (e.g., fuel) that are essential to operating the system.

B. Selecting an Approach

In some cases, selecting the most appropriate methodology for estimating O&M costs will be influenced by the time horizon and the operating scenario for which the projections are to be made.

1. The time horizon will influence the level of detail that will be possible in projecting O&M costs. For short time horizons (1 to 3 years), a high level of precision is possible because operating

FIGURE 7.1
Construction of a New Highway

Project: New bypass road

	Amount	Unit Cost	Total Cost
Linear Construction or Widening			
Existing lane miles to be reconstructed		$550	$0
Lane miles to be added		$688	$0
Lane miles of construction on new align.	3.2	$825	$2,640
Right of way required (sq ft x 100)	342.4	$0.329	$113
Total (in thousands of dollars)			$2,753
Intersection and Approach Work			
Number of signal. inters. improved	2	$55	$110
Approach lane-miles reconstructed		$550	$0
Approach lane-miles resurfaced	0.76	$175	$133
Approach lane-miles added	0.38	$688	$261
Approach lanes built on new align.	0.95	$825	$784
Right of way required (sq ft x 100)	80.0	$1.645	$132
Total (in thousands of dollars)			$1,420
Bridge Structure Work			
Utilities and Stream Protection (per bridge)		$75	$0
Sq. feet of structures removed (x 1000)		$20	$0
Sq. feet of structures constructed (x 1000)		$110	$0
Square feet of structures rehab'd.		$70	$0
Right of way required (sq ft x 100)		$1.645	$0
Total (in thousands of dollars)			$0
SUBTOTAL (thousands of dollars)			$4,173
Added to construction cost for engineering:			10.00%
Added to construction cost for maint. & proft. of traffic:			5.00%
Added to construction cost for contingencies and inspection:			10.00%
GRAND TOTAL (thousands of dollars)			$5,155 *

Default Unit Costs Used:

Reconstruction per lane mile:	$550,000	asphalt
	$1,285,000	concrete
Widening per lane mile:	1.25	x reconstruction cost
New construction per lane mile:	1.5	x reconstruction cost
Freeway costs:	1.25	x arterial unit costs
Resurfacing per lane mile:	$175,000	asphalt
Cost per intersection:	$55,000	for signal work
Cost per bridge:	$75,000	for utilities and stream protection
Cost per sq. ft. of structure removal	$20	for highway bridges
	$25	for railroad bridges
Cost per sq. ft for bridge rehab	$70	
Cost per sq ft. for new bridge cons	$110	

*Right-of-way costs not included in contingency

plans, capital improvements, labor contracts, and supply costs are likely to be well-established. As the time horizon for projections grows longer, many cost factors will be uncertain and detailed projections could be inaccurate.

2. Expectations with respect to future operations will probably be the most important factor in projecting future O&M costs. Possible future operating scenarios would include continuation of the status-quo, deferring maintenance, and implementation of capital projects. It is possible to project O&M costs for a stable system using simple techniques and still provide reasonably accurate estimates. If the system is changing over the course of the time horizon for cost projections, more detailed estimating models may be appropriate.

6. COST ESTIMATING ISSUES

In preparing cost estimates for a statewide or metropolitan transportation plan, there are many issues that must be considered. These include:

- How to provide consistency in cost estimates when they are derived from different sources (agencies)?
- How to protect against "low ball estimates?"
- How should inflation be treated in the cost estimates?
- What is the impact of inflation on funding an improvement program?
- How can risks be reflected in the cost estimates?
- Which cost items are associated with the highest uncertainty?

What are the characteristics of a good cost estimate?

7. LIFE CYCLE COSTING AND VALUE ENGINEERING

A. Background

The NHS amended Title 23 to require states to conduct an analysis of the life-cycle costs of each usable project request on the NHS with a cost of $25,000,000 or more. Also, states are required to carry out a value engineering analysis for all projects on the NHS with an estimated cost of $25,000,000 or more.

B. Life-Cycle Cost Analysis

An analysis of life-cycle costs means a process for evaluating the total economic worth of a usable project segment by analyzing initial costs and discounted future costs, such as maintenance, reconstruction, rehabilitation, restoring and resurfacing costs, over the life of the project segment.

C. Value Engineering

Value Engineering refers to a systematic process of review and analysis of a project during its design phase by a multidisciplined team of persons not involved in the project in order to provide suggestions for reducing the total costs of the project and providing a project of equal or better quality.

UNIT 8: FUNDING ELIGIBILITY

PURPOSE:

The purpose of this unit is to describe various funding eligibility requirements, including ISTEA categorical programs, intermodal freight, bicycle and pedestrian programs available to finance transportation improvements. .

WHAT YOU WILL LEARN IN THIS UNIT:

1. ISTEA funding program descriptions.

2. Intermodal freight transportation eligibility.

3. Bicycle and pedestrian programs.

WHAT WILL HAPPEN IN THIS UNIT:

The instructor will present material describing various revenue sources currently used to finance transportation.

1. ISTEA FUNDING PROGRAM DESCRIPTIONS

The following section outlines the key features of various Federal-Aid Highway Programs, including:

- Eligible Expenditures
- Method of Apportionment
- ISTEA Authorization
- Federal Matching Share
- Transferability
- Flexibility

A. ISTEA Federal-Aid Highway Programs

The federal share is somewhat higher for the following programs in states where much of the land is owned by the Federal Government (Title 23, U.S.C. 120).

1. Interstate Maintenance Program (IM)

Eligible Expenditures:

Resurfacing, restoring, and rehabilitating routes of the interstate highway system. Activities authorized include the reconstruction of bridges, interchanges, and over-crossings along existing interstate routes, including acquisition of right-of-way where necessary, but shall not include the construction of new travel lanes other than high-occupancy vehicle lanes or auxiliary lanes (such as truck-climbing lanes).

Method of Apportionment:

Funds are apportioned to states on the basis of interstate system lane miles (55%) and interstate system vehicle miles of travel (45%).

ISTEA Authorization: $ 17.0 billion

Federal Share: 90%

Transferability:

A state may unconditionally transfer up to 20% of its funds to the NHS or to the Surface Transportation Program (STP). Additional amounts may be transferred if the state certifies that part of the funds are in excess of state need and the Secretary of Transportation accepts such certification.

2. National Highway System (NHS)

Eligible Expenditures:

The NHS focuses federal resources on projects that are the most important to interstate travel and national defense, roads that connect with other modes of transportation, and roads essential for international commerce. A wide variety of project types may be implemented using NHS, including capital construction and planning and management-related activities.

Method of Apportionment:

Percent share of funds apportioned for NHS, IM, STP, and Bridge Replacement and Rehabilitation (BRR) must equal the percent share of apportioned funds for FY 1987-91 for Interstate 4R, Primary, Secondary, Urban, BRR, and Interstate Construction 1/2% minimum.

ISTEA Authorization: $ 21.0 billion

Federal Share: 80%

Transferability:

A state may choose to transfer 50% of the NHS funds to the STP; if the Secretary approves, up to 100% may be transferred.

Flexibility:

Construction of and operational improvements for a federal-aid highway not on the NHS and construction of a transit project eligible for assistance under the Federal Transit Act are eligible projects for NHS funding provided:

- such a project is in the same corridor as, or in close proximity to a fully access-controlled highway designated to the NHS;
- the project will improve the level of service on the fully access-controlled highway and improve regional travel; and
- the project is more cost-effective than an improvement to the access-controlled highway that has benefits comparable to the benefits that will be achieved by the construction of, or improvements to, the highway on the NHS.

3. Surface Transportation Program (STP)

Eligible Expenditures:

STP is a block grant type program that may be used by states and localities for any roads (including NHS) that are not functionally classified as local or rural minor collectors. Bridge, carpool/vanpool, and safety improvement projects paid for with STP funds are not restricted to federal-aid roads but may be any public road.

Once the funds are distributed to the states, each state must set

aside 10% for safety construction activities and 10% for transportation enhancements, which encompass a broad range of environmental-related activities.

Method of Apportionment:

Basically the same as for NHS.

ISTEA Authorization: $ 23.9 billion

Federal Share: 80%

Transferability:

None.

Flexibility:

Transit capital projects are also eligible under this program.

4. Congestion Mitigation and Air Quality Program (CMAQ)

Eligible Expenditures:

CMAQ directs funds toward transportation projects in Clean Air Act non-attainment areas for ozone and carbon monoxide. Projects must contribute to meeting attainment of national ambient air quality standards.

Method of Apportionment:

Funds are apportioned to states in a ratio that the weighted nonattainment area population of each state bears to the total weighted nonattainment by all states. If a state has none of these nonattain-

ment areas, the 1/2% minimum allocation guaranteed to each state may be used as if it were STP funds.

ISTEA Authorization: $ 6.0 billion

Federal Share: 80%

Transferability:

None.

Flexibility:

In general, the capital cost of transit system expansions/improvements that are projected to increase ridership are eligible under the CMAQ program.

5. Bridge Replacement and Rehabilitation Program

Eligible Expenditures:

Replacement and rehabilitation projects for any public bridge.

Method of Apportionment:

Relative share of the total cost of deficient bridges.

ISTEA Authorization: $ 16.1 billion

Federal Share: 80%

Transferability:

Up to 40% of apportionment may be transferred to NHS or STP.

B. Federal Transit Administration (FTA) Funding Programs

1. Section 3 Discretionary and Formula

Eligible Expenditures:

Provides capital assistance to eligible transit projects in three categories: (1) construction of new fixed-guideway systems or extensions of existing systems called "new starts," (2) modernization of existing fixed guideway systems called "Rail Modernization," and (3) major bus-related construction projects or equipment acquisition called "Bus Capital."

Method of Apportionment:

Rail modernization funds are distributed to urbanized areas with fixed-guideway systems in operation for at least 7 years on a formula basis. New Start and Bus Capital funds are distributed by discretion of the FTA or may have amounts "earmarked" by Congress.

ISTEA Authorization: $12.4 billion -authorizing legislation designates 40% of the funds for New Starts, 40% for Rail Modernization, and 20% for Bus Capital

Federal Share: 80%

2. Section 9 Formula Capital and Operating

Eligible Expenditures:

A formula grant program that makes funds available on the basis of a formula to all urbanized areas to finance transit capital and operating expenses. For operations, or capital projects by decision,

up to a specific amount called the "operating cap" may be used. Any amounts in excess of the operating cap may be used only for capital projects.

Method of Apportionment:

Six formulas, based on urbanized area population and mode of transit service, are used.

ISTEA Authorization: $16.1 billion

Federal Share: 80% capital/50% operating

Transferability:

In a designated Transportation Management Area (TMA), funds that cannot be used for payment of operating expenses under this section also shall be available for highway projects if the MPO approves and if all needs related to the American's with Disabilities Act are met.

3. Section 18

Eligible Expenditures:

Transit capital and operating expenses for services in rural areas.

Method of Apportionment:

5.5% of total funds available for Sections 9 and 18. Formula is non-urbanized area population in each state.

ISTEA Authorization: $0.937 billion

Federal Share: 80% capital/50% operating

Transferability: None.

4. Section 16b(2)

Eligible Expenditures:

Transit capital equipment for private non-profit corporations and associations providing mass transportation services for the elderly and disabled or public bodies coordinating such service or providing service where no non-profit service is available.

Method of Apportionment:

Fixed minimum for each state and formula based on population of elderly and disabled individuals.

ISTEA Authorization: $0.41 billion

Federal Share: 80% capital

Transferability: None.

2. INTERMODAL FREIGHT TRANSPORTATION

Freight movement is an explicit part of ISTEA which supports development of a National Intermodal Transportation System. Additionally, the NHS legislation calls for a list and description of intermodal connections to major ports, airports, international border crossings, and public transportation facilities. The eligibility of intermodal freight projects are evaluated (see attachment) for the following programs.

3. BICYCLE AND PEDESTRIAN PROGRAMS

Federal-aid highway funding for bicycles and pedestrians have increased substantially under ISTEA. Most of the funding has been derived from the transportation enhancement activities of the Surface Transportation Program (see attachment).

UNIT 9: WORKSHOP PROBLEM

PURPOSE:

The purpose of this unit is to provide participants with an opportunity to apply the information presented to complete a workshop problem.

WHAT YOU WILL LEARN IN THIS UNIT:

1. Provide opportunity to apply skills and knowledge in workshop problem.

2. Check for learning and understanding.

WHAT WILL HAPPEN IN THIS UNIT:

Participants will complete a workshop problem.

1. INTRODUCTION

Good News! Word has just been received that the governor wants to support the economic development of Middle Valley, in the State of Confusion, by investing additional federal-aid and state funds to accelerate the transportation program in the region. As a programmer, you will be asked to work with your state/local colleagues to define a 3-year financially constrained program for the region. The more projects you can get programmed and the quicker you can implement these projects, the more attractive your long awaited promotion will look. You are not beyond using innovative financing techniques.

A. Middle Valley Metropolitan Area Description

Middle Valley has an urbanized area population of about 350,000 persons (Figure 9.1). The central city is called Middle Valley which has a population of 85,000 persons and is the county seat of Parsons County. The other two counties in the metropolitan area are Batten and Park Counties. Park County, located to the north of Middle Valley, is experiencing considerable growth, primarily due to its accessibility to the central city and the growing employment base in the area surrounding it. Batten County, located to the south of Middle Valley, has experienced a declining population base over the last 5 years as a result of defense industry related restructuring.

Two primary highways service the region: State Route 77 and Route 54 (which is a toll facility). The airport is located about 6 miles north of downtown Middle Valley. The airport area has experienced considerable growth in employment over the last decade as a result of the rise in intercity travel by air and an increase in airport related industries.

The Middle Valley Transit System is the regional mass transit operator in the Middle Valley urbanized area. It is a regional agency with governing board members from the three counties in the urbanized area.

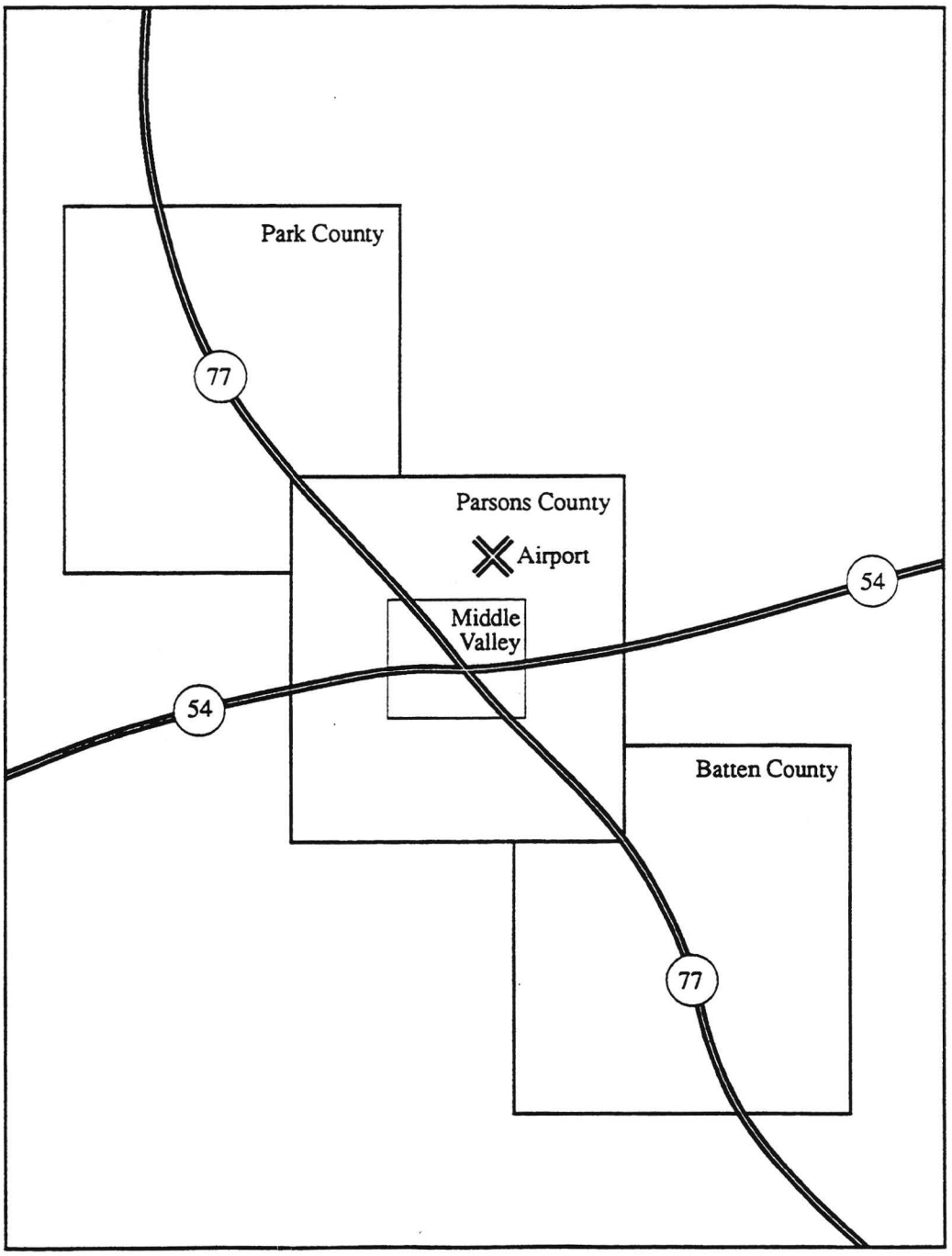


Figure 9.1. Central Area Metropolitan Region

B. Projects to be Programmed

The specific projects to be programmed are:

1. SR 77 North — Southern Section (Parsons County) — add lanes, reconstruct — $27 million.

2. SR 77 North — Northern Section (Parsons County) — add lanes, reconstruct — $15 million.

3. SR 77 South — Northern Section (Batten County) — rehabilitate — $3.75 million.

4. Widening the airport access road from two to four lanes from Route 54 to the Airport at a total estimated cost of $15,750,000.

5. Constructing a 4-lane arterial on a new alignment to provide access from State Route 77 to the BC Industrial Park and a rapidly developing residential area in Batten County. This project is designed to stimulate economic development and has a total estimated cost of $5,000,000.

6. Purchasing a total of 8 new regular route transit buses over the next 3 years. Each regular route bus is estimated to cost $250,000.

7. Expand centralized traffic signal system in Middle Valley at a total cost of $3,000,000.

8. SR 77 — Southern Section (Batten County) — rehabilitate — $27 million. This project is currently due for letting in 2001 using federal-aid. If the project is fully state funded, then it will cost $24 million.

9. $1.0 million utility work required for upgrade of traffic signal system (Project 7) that is to be done by utility company. The utility company has expressed a willingness to pay back a $1.0 million (Section 129) loan with $500,000 in 1998 and $600,000 in 1999 with funds provided by a rate increase.

Table 9.1. Sumary of Project Costs

Project No.	Cost ($mil)	80% of Cost	20% of Cost
1 SR 77 N (Southern)	$27.00	$21.60	$5.40
2 SR 77 N (Northern)	$15.00	$12.00	$3.00
3 SR 77 South	$3.75	$3.00	$0.75
4 Widen Airport Access	$15.75	$12.60	$3.15
5 New 4-lane Arterial	$5.00	$4.00	$1.00
6 Transit Buses	$2.00	$1.60	$0.40
7 Signal System	$3.00	$2.40	$0.60
8 SR 77 South	$24.00	$19.20	$4.80
9 Utility Work	$1.00	$0.80	$0.20
TOTAL	**$96.50**	**$77.20**	**$19.30**

C. Funding Allocations

Funding for the various projects to be programmed will be derived from a combination of Federal, State, and local sources. The Middle Valley Transit System (MVTS) will provide the match for any Section 9 capital grants.

Table 9.2. Funding Allocations

FY	STP	State	Section 9 Capital	MVTS	Total
1997	$20.75	$21.25	$0.40	$0.10	$42.50
1998	$15.00	$6.75	$0.40	$0.10	$22.25
1999	$24.25	$0.00	$0.40	$0.10	$24.75
TOTAL	**$60.00**	**$28.00**	**$1.20**	**$0.30**	**$89.50**

D. Innovative Finance Initiatives

More good news. Some additional revenue sources are being discussed. Anxious to program all projects within 3 years some innovative concepts have been proposed.

1. The railroad's real estate/development subsidiary has agreed to cost participate in order to accelerate the construction of the Batten County Industrial Park project(5). The railroad is willing to:

   a. donate $250,000 in land cost for roadway ROW.

   b. provide material and supplies with a value of $200,000 for the construction of the road.

   c. donate $500,000 in labor constructing the road. Only the labor costs are valued at 2.5 times the prevailing wage rate in the local highway construction industry and the railroad company has never constructed a roadway.

   d. have its communication subsidiary donate $100,000 in cash.

   In addition, suggestions are being made that programming of projects may be accelerated from:

   a. $6.00 million in toll credits available from using tolls to add an additional lane to the Route 54 toll road. No federal-aid has been used for Route 54 construction and a "maintenance of effort agreement" is being negotiated.

   b. A scheduled toll increase will go into effect immediately and is forecasted to generate excess toll revenue of $.5 million per year after debt service, rate of return on private investment, operation and maintenance. It is expected this revenue stream will continue and in fact may increase as traffic continues to grow. The Toll Authority is required to use any toll revenues in excess of amounts required for debt service, rate of return on private investment, and operations and maintenance for any purpose for which funds may be obligated by a State under Title 23 U.S.C. Figure 9.2 provides an estimate of the amount of a loan that could be supported by these excess revenues at a 6% interest rate and various loan terms.

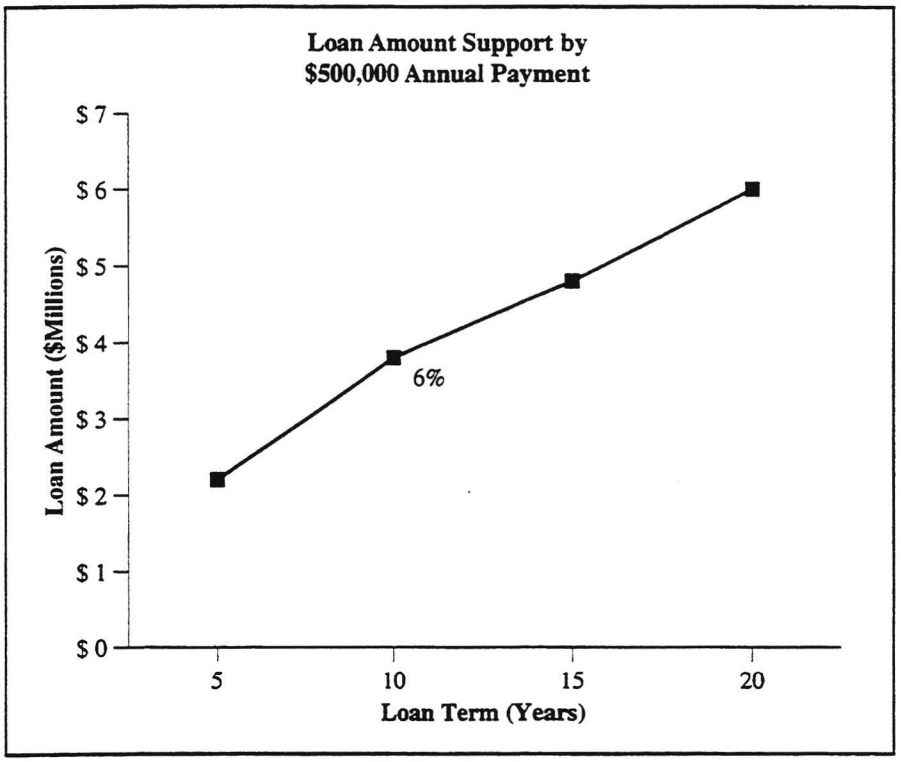

Loan Amount Support by
$500,000 Annual Payment
$ 7
$ 6
$ 5
$ 4
$ 3
$ 2
$ 1
$ 0
Loan Amount ($Millions)
6%
5
10
15
20
Loan Term (Years)

Figure 9.2.

E. Participant Exercise

Given the information provided, along with your knowledge of innovative finance, design a three year financially constrained program for these projects. Priority is to be given to implementing projects 1, 4, and 5.

Year 1

Project	Project Cost ($mil)	STP	State	Sec. 9	MVTS	Third Party Donation	Toll Credit	Other	Total
1. SR-77 North-Southern	27.00								
2. SR-77 North-Northern	15.00								
3. SR-77 South	3.75								
4. Widen Airport Access Road	15.75								
5. New 4-lane Road	5.00								
6. Purchase Buses	2.00								
7. Centralized Signal System	3.00								
8. SR-77 South	24.00								
9. Utility Work	1.00								
TOTAL		**20.75**	**21.25**	**0.40**	**0.10**				

Year 2

Project	Project Cost ($mil)	STP	State	Sec. 9	MVTS	Third Party Donation	Toll Credit	Other	Total
1. SR-77 North-Southern	27.00								
2. SR-77 North-Northern	15.00								
3. SR-77 South	3.75								
4. Widen Airport Access Road	15.75								
5. New 4-lane Road	5.00								
6. Purchase Buses	2.00								
7. Centralized Signal System	3.00								
8. SR-77 South	24.00								
9. Utility Work	1.00								
TOTAL		**15.00**	**6.75**	**0.40**	**0.10**	**0.00**			

Year 3

Project	Project Cost ($mil)	STP	State	Sec. 9	MVTS	Third Party Donation	Toll Credit	Other	Total
1. SR-77 North-Southern	27.00								
2. SR-77 North-Northern	15.00								
3. SR-77 South	3.75								
4. Widen Airport Access Road	15.75								
5. New 4-lane Road	5.00								
6. Purchase Buses	2.00								
7. Centralized Signal System	3.00								
8. SR-77 South	24.00								
9. Utility Work	1.00								
TOTAL		24.25	0.00	0.40	0.10				

NOTES