

# Annual Report on Funding Recommendations

## Fiscal Year 2000

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Report of the Secretary of Transportation  
to the United States Congress  
Pursuant to 49 U.S.C. 5309(o)(1)

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## Foreword

This report is prepared annually for submission to the United States Congress by the Secretary of Transportation. Title 49, United States Code, Section 5309(o)(1) requires the Secretary of Transportation to submit to the Committee on Transportation and Infrastructure of the House of Representatives, and the Committee on Banking, Housing, and Urban Affairs of the Senate, a report that includes a proposal on the allocation of amounts to be made available to finance grants and loans for capital projects for new fixed guideway systems and extensions to existing fixed guideway systems ("new starts") among applicants for those amounts. In addition to those committees, this report is also formally submitted to the Appropriations Committees of both the House and Senate. It is also provided to transit operators, metropolitan planning organizations (MPOs), State departments of transportation, and made generally available to the public at large.

This report is a companion document to the President's annual budget request to Congress. It details the Administration's recommendations for allocating new starts capital investment funding for Federal Fiscal Year 2000.

The report is organized into two sections: the main body of the report, which details the specific funding recommendations by project and provides background information on both the projects and the Federal Transit Administration (FTA) program and processes; and a series of appendices that provide more detailed information on the background, status and evaluation of each proposed project. Appendix B briefly describes each proposed project that is undergoing early development and alternatives analysis.

Upon request, this report will be made available in alternative formats. It is also available via the Internet at the [FTA site](#) on the World Wide Web.

# Introduction

This report provides the U.S. Department of Transportation's recommendations to Congress for allocation of funds to be made available under 49 U.S.C. §5309 for construction of new fixed guideway systems and extensions (major capital investments or "new starts") for Fiscal Year 2000. Section 5309(o)(1) requires an annual report to Congress "that includes a proposal on the allocation of amounts to be made available to finance grants and loans for capital projects for new fixed guideway systems and extensions to existing fixed guideway systems among applicants for those amounts."

The Annual Report on New Starts is a collateral document to the President's annual budget submission to Congress. It is meant to be a constructive element in the administration of the Federal transit assistance program, enriching the information exchange between the Executive and Legislative branches at the beginning of an appropriations cycle for the next Fiscal Year.

The President's budget for FY 2000 proposes that \$980.40 million be made available for the §5309 major capital investment program. After setting aside a percentage of these funds for oversight activities as specified in §5327, and for ferry capital projects in Alaska or Hawaii as required by §5309(m)(5)(A), \$962.725 million is available for project grants. This report recommends funding for 25 projects in FY 2000; of these, 14 have existing Federal funding commitments in the form of Full Funding Grant Agreements (FFGA), seven are expected to be ready to negotiate FFGAs by the end of FY 2000, and four are nearing the final stages of preliminary engineering.

# Transportation Equity Act for the 21st Century (TEA-21)

On June 9, 1998, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), Public Law 105-178, which reauthorizes Federal surface transportation programs through 2003, was enacted. For new starts, TEA-21 leaves prior Federal law and policy largely intact, including the basic project justification criteria and the multiple-measure method of project evaluation. However, a number of significant changes were introduced to the Federal Transit Administration's New Starts Program.

Among the provisions of TEA-21 affecting FTA's new starts program was language revising §5309(e) to codify many of the principles of FTA's New Starts Policy, which was published in the *Federal Register* on December 19, 1996 (61 FR 67093) and amended on November 12, 1997 (62 FR 60756). Aspects of the new starts policy which are now written as law, but which remain the same as past policy and practice, include the following:

- Proposed new starts projects must be based on the results of alternatives analysis and preliminary engineering.
- FTA must approve entry into preliminary engineering.
- FTA must find that proposed projects are "justified," based on a "comprehensive review" of several criteria (cost-effectiveness, operating efficiencies, mobility improvements, and environmental benefits) which remain unchanged; a variety of additional considerations that must be taken into account (including congestion relief, air quality, energy consumption, the mobility of transportation dependent persons, economic development, and transit supportive land use policies and patterns) are also unchanged.
- FTA must find that projects are supported by an acceptable degree of local financial commitment; the basis for making this finding (stable and dependable financing sources to construct, maintain, and operate the project) is not changed, and the considerations which are to be taken into account are also largely unchanged.
- Projects are to be funded using Full Funding Grant Agreements (FFGAs), which specify the project to be constructed and the maximum amount of Federal funds which will be made available for the project.
- The criteria do not apply to projects which require less than \$25 million in §5309 funds, or which are completely funded with flexible Title 23 (highway program) funds.
- FTA's recommendations to Congress regarding projects must be presented in an Annual Report produced in concert with the President's annual budget.

In addition to these, however, TEA-21 introduced a number of important changes to the way FTA manages and implements the new starts program. Among the most significant changes are the following:

- Integration of the Major Investment Study (MIS) concepts into the joint planning and environmental regulations issued by FTA and the Federal Highway Administration (FHWA) (23 CFR Part 450 and 23 CFR Part 771), elimination of the MIS as a separate requirement, and streamlining of the environmental process.
- A requirement for FTA to establish overall project ratings of "highly recommended," "recommended," or "not recommended."
- A requirement for FTA approval before a project can advance from preliminary engineering to final design (in addition to the existing requirement for approval to initiate preliminary engineering).
- A requirement for FTA to publish regulations on the manner in which proposed projects will be evaluated and rated.

Other important changes include:

- The addition of several statutory "considerations" to the project evaluation process, including the cost of sprawl, infrastructure cost savings due to compact land use, population density and current transit ridership in a corridor, and the technical capacity of the grantee to undertake the project.
- A provision expressly prohibiting FTA from considering the dollar value of mobility improvements.
- The elimination of the exemptions from the project evaluation process for proposed projects that require less than one-third of the project funding from 49 USC §5309 or are part of a State Improvement Plan for air quality. The exemption remains for projects requiring less than \$25 million in 49 USC §5309 funding. (Projects for which FFGAs are already in place are not subject to re-evaluation.)
- For evaluating local financial commitment, the consideration of local funding beyond the required non-Federal share has been incorporated into statute.
- A second annual report to Congress, in addition to the existing "report on funding levels and allocations of funds," is now required. This new "Supplemental Report on New Starts," due each August, will include updated ratings for projects that have completed the alternatives analysis and preliminary engineering stages of development since the date of the last *Annual Report on New Starts*.
- A provision limiting the amount of funds made available every year for proposed projects in alternatives analysis or preliminary engineering to 8 percent of total new starts funding for that year.
- A requirement for an annual review of FTA's project evaluation and rating process and procedures by the General Accounting Office.

# Implementation of TEA-21

The majority of the changes to the new starts program noted above will be implemented through the rulemaking process. Under 49 USC §5309(e)(5), as added by TEA-21, FTA is required to publish "regulations on the manner in which [FTA] will evaluate and rate" proposed new starts projects. This rule will define the summary project ratings of "recommended," "highly recommended," and "not recommended," as required by TEA-21, implement the revisions to the multiple measures for project justification, describe how FTA will use the summary ratings to approve entry into preliminary engineering and final design, and discuss the relationship of the project evaluation process to the planning and project development process.

The Notice of Proposed Rulemaking (NPRM) is expected to be issued in early 1999. Following publication in the *Federal Register*, the NPRM will be open to public comment for a period of 60 days. Public comments will be reviewed and incorporated as appropriate into the Final Rule, which should be published in early Spring.

Due to the fact that the Final Rule has not been published, the project evaluations and funding recommendations for FY 2000 are based on FTA's existing process, as published in the *Federal Register* on December 19, 1996 and amended on November 12, 1997 (61 FR 67093-106 & 62 FR 60756-58), modified slightly to account for the increased emphasis on land use by TEA-21 and the prohibition against placing a dollar value on mobility improvements.

# Principles for Allocation of Funds

The funding recommendations contained in this report are the result of an extensive project development and evaluation process. All of the projects recommended for funding have completed this process, have been found by FTA to be worthy of a Federal funding commitment based on a comprehensive review of project justification and local financial commitment, and have either been issued FFGAs already or are strong candidates for FFGAs in the coming year.

To be eligible for new starts funding, proposed projects must complete the appropriate steps in the planning and project development process, as described in §§5303-5306 and §5309, and receive a rating of "recommended" or higher in the most recent FTA evaluation.

## Planning and Project Development Process

To be eligible for FTA capital investment funds for a new start project, the proposed project must emerge from the metropolitan and/or Statewide planning process. Local officials must perform a corridor-level analysis of mode and alignment alternatives. This alternatives analysis will provide information on the benefits, costs, and impacts of alternative strategies, leading to the selection of a locally-preferred solution to the community's mobility needs. (The FTA/FHWA planning and environmental regulations (23 CFR Parts 450 and 771), which required a Major Investment Study (MIS) that fulfilled the requirement for alternatives analysis, are being revised in accordance with TEA-21.)

When the sponsoring agency for a new start project desires to initiate the preliminary engineering phase of project development, it must submit a request to the appropriate FTA regional office. The request must provide information on the metropolitan and/or Statewide plan that identifies the project, including the adoption of the project into the metropolitan transportation plan and the programming of the preliminary engineering study in the Transportation Improvement Plan (TIP). The request must also address the project justification and local financial commitment criteria outlined below. (This information is normally developed as part of an alternatives analysis.) FTA will then evaluate the proposed project as required by 49 USC §5309(e)(6) and determine whether or not to advance the project into preliminary engineering. FTA approval to initiate preliminary engineering is not a commitment to fund final design or construction.

During the preliminary engineering phase, local project sponsors refine the design of the proposal, taking into consideration all reasonable design alternatives. The process results in estimates of project costs, benefits and impacts in which there is a higher degree of confidence. In addition, NEPA requirements are completed (for new starts, this will normally entail the completion of an environmental impact statement), project management concepts are finalized, and any required local funding sources are put in place. Information on project justification and the degree of local financial commitment will be continually updated and reported as appropriate. As part of their preliminary engineering activities, localities are encouraged to consider policies and actions designed to enhance the benefits of the project and its financial feasibility.

Final design is the last phase of project development, and includes right-of-way acquisition, utility relocation, and the preparation of final construction plans (including construction management plans), detailed specifications, construction cost estimates, and bid documents. The final design stage cannot be initiated until environmental requirements have been satisfied, as evidenced by a Record of Decision (ROD) or a Finding of No Significant Impact (FONSI). Consistent with 49 USC §5309(e)(6), FTA will approve entry into final design based on the results of the project evaluation process.

## The Criteria

As proposed new start projects proceed through the stages of the planning and project development process, they are evaluated against the full range of criteria for project justification and local financial commitment contained in §5309(e). In both cases, FTA relies on a multiple measure approach to assign ratings; these ratings are updated throughout the preliminary engineering and final design processes, as information concerning costs, benefits, and impacts is refined. The results of these evaluations are used to make the required approvals for entry into preliminary engineering and final design, to execute an FFGA, and to make annual funding recommendations to Congress.

While TEA-21 made a number of significant changes to the new starts program, as noted earlier in this report, it left the statutory criteria for project justification and local financial commitment largely intact. Aside from the prohibition against establishing dollar values for mobility improvements, most of the changes to the criteria themselves involved additions to the "considerations" that FTA must take into account when evaluating project justification.

TEA-21 retains the following criteria for evaluating project justification:

- Mobility improvements
- Environmental benefits
- Operating efficiencies
- Cost effectiveness

Based on the emphasis placed on land use issues by both TEA-21 and the earlier Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), FTA has also established criteria for evaluating transit-supportive existing land use policies and future patterns. Consistent with §5309(e)(3)(H), FTA also includes a variety of "other factors" when evaluating project justification, including a) the degree to which the policies and programs (local transportation planning, programming and parking policies, etc.) are in place as assumed in the forecasts, b) project management capability, and c) additional factors relevant to local and national priorities and relevant to the success of the project.

Section 5309(e)(1)(C) requires that proposed projects also be supported by an acceptable degree of local financial commitment, including evidence of stable and dependable financing sources to construct, maintain and operate the system or extension. Again, TEA-21 retains the basic criteria and the statutory considerations. The only significant revision is that consideration of local funding beyond the required minimum, already an FTA consideration when rating projects, has been incorporated into statute. The criteria for evaluation of the local financial commitment to a proposed project are:

- The proposed share of total project costs from sources other than Section 5309, including Federal formula and flexible funds, the local match required by Federal law, and any additional capital funding ("overmatch");
- The strength of the proposed capital financing plan; and
- The ability of the sponsoring agency to fund operation and maintenance of the entire system as planned, including existing service, once the guideway project is built.

## The Evaluations

As noted above, FTA evaluates proposed new start projects against the full range of criteria for both project justification and local financial commitment, using a multiple measure method. Project evaluation is an ongoing process; as proposed new starts proceed through the project development process, information concerning costs, benefits, and impacts is refined, and the ratings updated to reflect new information. However, the ratings reported in this document are final for purposes of the President's budget request.

For each of the project justification criteria, the proposed new start is evaluated against both a no-build and a Transportation System Management (TSM) alternative (a package of low to moderate cost improvements designed to make more efficient use of an existing transportation system). For each proposed project, FTA assigns one of five descriptive ratings ("high," "medium-high," "medium," "low-medium," or "low") for each of the five criteria, with "other factors" considered as appropriate. The same is true for the three factors used to evaluate local financial commitment.

Perhaps the most significant change to the project evaluation process brought by TEA-21 is the requirement to establish summary ratings for each proposed project. Consistent with §5309(e)(6), summary ratings of "highly recommended," "recommended," or "not recommended" are assigned to each proposed project, based on the results of the review and evaluation of each of the criteria for project justification and local financial commitment. To assign these summary ratings, the individual ratings for each of the financial rating factors and project justification criteria are combined into overall "finance" and "justification" ratings, which in turn are combined to produce the summary ratings.

In evaluating the project justification criteria, FTA gives primary consideration to the measures for transit supportive land use, cost effectiveness, and mobility improvements to arrive at the combined "justification" rating. For local financial commitment, the measures for the proposed local share of capital costs and the strength of the capital and operating financing plans are the primary factors in determining the combined "finance" rating.

For a proposed project to be rated as "recommended," it must be rated at least "medium" in terms of both finance and justification. To be "highly recommended," a proposed project must be rated higher than "medium" for both finance and justification. Proposed projects not rated at least "medium" in both finance and justification will be rated as "not recommended."

These ratings are used both to approve entry into preliminary engineering and final design, as required under §5309(e)(6), and to recommend proposed projects for Federal funding commitments. A proposed project must receive a rating of at least "recommended" in order to be approved for any of these purposes.

The permanent approach FTA will use to assign these summary ratings will be detailed in the upcoming regulation on project evaluation required by TEA-21 and incorporated into 49 USC §5309(e)(5). In the absence of a Final Rule, however, FTA must still use the principles established by TEA-21 to evaluate proposed new starts, assign project ratings, and recommend funding for FY 2000. Therefore, the project ratings and funding recommendations contained in this report reflect an application of FTA's *existing* project evaluation process, as published in the Federal Register on December 19, 1996 and amended on November 12, 1997 (61 FR 67093-106 & 62 FR 60756-58). The only significant change is that, due to the TEA-21 provision, the *value* of travel time savings is no longer reported for mobility improvements; instead, travel time savings is reported in terms of hours.

The results of the project evaluation process for the FY 2000 recommendations are reported in Table 1. Ratings are established for proposed projects that are in preliminary engineering and final design only; projects undergoing alternatives analysis typically have not developed sufficient information for meaningful evaluation. Also not listed are projects for which FFGAs have already been issued, as the decision to commit to a project represents the final determination of project justification.

#### **Table 1: Summary of New Start Project Ratings for FY 2000 Budget**

Please note that three of the proposed projects listed in Table 1 are listed as "not rated." This is due to the fact that sufficient information was not available to FTA to fairly rate these projects. Because this report represents the first time project sponsors have been asked to submit data for evaluation under the TEA-21 criteria, FTA did not wish to unfairly penalize project sponsors who

were unable to develop the requested information in the timeframe needed for this report. In future reports, however, FTA may assign a rating of "not recommended" where sufficient information for project evaluation is not provided.

**Appendix A** provides a more detailed profile for each project for which an FFGA has been issued, as well as for projects in final design and preliminary engineering. Profiles for projects with FFGAs include a description, status, list of funding sources and map. Profiles for projects in final design and preliminary engineering include a description, status, list of funding sources, map, and a presentation of the project evaluation criteria and ratings. Each of these profiles includes a summary description which highlights the overall project ratings and presents key descriptive, cost and ridership data for each proposed new starts project compared to the no-build alternative.

**Appendix B** provides a brief description and status for other planning studies and projects which were authorized in Section 3030 of TEA-21, but which have not yet entered preliminary engineering.

It is important to note that a *rating* of "recommended" does not translate directly into a *funding* recommendation in any given fiscal year. Rather, the overall project ratings are intended by this proposed rule to reflect overall project merit. Proposed projects that are rated "recommended" or "highly recommended," *and* have been sufficiently developed for consideration of a Federal funding commitment, will be *eligible* for funding recommendations in the Administration's proposed budget.

As noted above, project evaluation is an ongoing process. The ratings contained in this report are based on project information available through November 1998. As proposed new starts proceed through the project development process, the estimates of costs, benefits, and impacts are refined. The FTA ratings and recommendations will be updated *annually* to reflect new information, changing conditions, and refined financing plans. It must be stressed, however, that the ratings reported in this document are *final* for purposes of the President's budget request to Congress, and that any subsequent changes in project ratings will not alter the Administration's project funding recommendations. Updated project information and ratings will be reviewed as part of the budget development process for the *next* fiscal year.

For informational purposes, FTA has also included a supplemental analysis of selected new starts criteria and measures. **Table 2** presents an analysis of the project evaluation data, factored by the annualized total capital cost, for the following criteria and measures: 1) mobility improvements (measures of the hours of annual travel time savings and the number of low-income households within one-half mile of transit stations); and 2) environmental benefits (measures of annual reduction in greenhouse gas emissions and annual reduction in regional energy consumption). Data are reported for the comparison of the new start to the no-build and TSM alternatives. Annualization of capital costs is based on a consistent set of assumptions on the useful life of specific cost components, annualization factors, and a 7 percent discount rate. Procedures on the annualization of capital costs are documented in FTA's *Technical Guidance on Section 5309 New Starts Criteria*.

## Principles for Funding Recommendations

As noted above, the project ratings established by TEA-21 are intended to reflect overall project merit; proposed projects that are rated as "recommended" or higher are *eligible* for Federal funding. Thus, a *rating* of "recommended" does not translate directly into a *funding* recommendation or commitment in any given year. To be recommended for funding in this report, proposed projects rated as "recommended" or "highly recommended" must also be sufficiently developed for consideration of a Federal funding commitment (FFGA).

The following general principles are also applied when determining annual funding allocations among proposed new starts:

- Any project recommended for new funding commitments should meet the project justification, finance, and process criteria established by §5309(e) and be consistent with Executive Order 12893, "Principles for Federal Infrastructure Investments," issued January 26, 1994.
- Existing FFGA commitments should be honored before any additional funding recommendations are made, to the extent that funds can be obligated for these projects in the coming fiscal year.

**Table 2: Supplemental Analysis of New Start Project Ratings**

- The FFGA defines the terms of the Federal commitment to a specific project, including funding. Upon completion of an FFGA, the Federal funding commitment has been fulfilled. Additional project funding will not be recommended. Any additional costs beyond the scope of the Federal commitment are the responsibility of the grantee.
- Funding for initial planning efforts such as alternatives analysis is provided through the §5303 Metropolitan Planning or §5307 Urbanized Area Formula Grants programs; §5309 funds should not be used for this purpose.
- Firm funding commitments, embodied in FFGAs, should not be made until the final design process has progressed to the point where costs, benefits, and impacts are accurately known.
- Funding should be provided to the most worthy projects to allow them to proceed through the process on a reasonable schedule, to the extent that funds can be obligated to such projects in the upcoming fiscal year. The results of the project evaluation process and resulting finance, justification, and overall ratings determine whether particular projects are "worthy."

## Table 1a

### Summary of Fiscal Year (FY) 2000 New Starts Ratings

Phase and City (Project)	Total Capital Cost (millions)	Total Section 5309 Funding (millions)	Section 5309 Funds Share of Capital Costs	Overall Project Rating	Financial Rating	Project Justification Rating
<b>Final Design</b>						
<b>Dallas-Fort Worth (RAILTRAN Phase 2)</b>	\$153.20 (YOE) <u>(a)</u>	\$69.08	45%	<b>Recommended</b>	Medium- High	Medium
<b>Dallas (North Central LRT)</b>	\$517.20 (YOE)	\$333.00	64%	<b>Recommended</b>	High	Medium
<b>Fort Lauderdale, Florida (Tri- County Commuter Rail)</b>	\$422.00 (YOE)	\$130.80	31%	<b>Highly Recommended</b>	Medium- High	Medium- High
<b>Los Angeles (LOSSAN Rail Corridor Improvement)</b>	\$60.60 (YOE)	\$44.20	73%	<b>Not Recommended</b>	Low- Medium	Not Rated
<b>New Orleans (Canal Streetcar Spine)</b>	\$154.00 (YOE)	\$123.20	80%	<b>Not Recommended</b>	Low- Medium	Medium
<b>Northern New Jersey (Newark- Elizabeth Rail Link)</b>	\$150.00 (YOE)	\$112.50	75%	<b>Highly Recommended</b>	Medium- High	Medium- High
<b>San Diego (Mission Valley East)</b>	\$361.00 (YOE)	\$275.20	76%	<b>Highly Recommended</b>	High	Medium- High
<b>Tacoma-Seattle (Sounder) Commuter Rail</b>	\$401.00 (YOE)	\$100.00	25%	<b>Recommended</b>	High	Medium
<b>Preliminary Engineering</b>						
<b>Austin (Northwest/North Central Corridor)</b>	TBD	TBD	TBD	<b>Not Rated</b>	Not Rated	Not Rated
<b>Baltimore (MTA Double Tracking)</b>	\$150.00 (YOE)	\$120.00	80%	<b>Recommended</b>	Medium	Medium- High

<b>Project)</b>						
<b>Boston (Piers Transitway Phase 2)</b>	\$363.70 (1996)	\$291.00	80%	<b>Not Recommended</b>	Low	Medium
<b>Chicago (Central Kane Corridor)</b>	\$100.74 (YOE)	\$59.44	59%	<b>Recommended</b>	Medium-High	Medium
<b>Chicago (North Central Corridor)</b>	\$204.00 (YOE)	\$130.60	64%	<b>Not Recommended</b>	Medium-High	Low-Medium
<b>Chicago (Southwest Corridor)</b>	\$177.40 (YOE)	\$111.80	63%	<b>Highly Recommended</b>	Medium-High	Medium-High
<b>Cincinnati (I-71)</b>	\$675.80 (YOE)	\$337.90	50%	<b>Not Recommended</b>	Low-Medium	Low-Medium
<b>Cleveland (Euclid Corridor)</b>	\$327.00 (YOE)	\$262.00	80%	<b>Not Recommended</b>	Medium	Low-Medium
<b>Denver (Southeast Corridor)</b>	\$595.70 (YOE) (a)	\$476.56	80%	<b>Not Recommended</b>	Low-Medium	Medium-High
<b>Kansas City (Southtown LRT)</b>	\$247.70 (YOE) (a)	\$198.20	80%	<b>Not Recommended</b>	Low	Not Rated
<b>Las Vegas (Resort Corridor)</b>	\$500.30 (YOE)	\$225.14	45%	<b>Not Recommended</b>	Low-Medium	Medium-High
<b>Little Rock (Junction Bridge/River Rail)</b>	\$8.28 (YOE) (a)	\$6.62	80%	<b>Not Recommended</b>	Low-Medium	Not Rated
<b>Memphis (Medical Center Trolley Extension)</b>	\$35.90 (YOE)	\$24.30	80%	<b>Recommended</b>	Medium-High	Medium
<b>Miami (East/West Corridor)</b>	\$2,152.00 (YOE)	\$808.00	38%	<b>Not Recommended</b>	Low-Medium	Medium
<b>Miami (North 27th Avenue Corridor)</b>	\$579.20 (YOE) (b)	\$405.44	70%	<b>Not Recommended</b>	Low	Low-Medium
<b>Minneapolis (Hiawatha Avenue)</b>	\$446.00 (1997)	\$223.00	50%	<b>Recommended</b>	Medium-High	Medium
<b>New York City (LIRR East Side Access)</b>	\$4,289.40 (YOE)	TBD	TBD	<b>Not Recommended</b>	Low-Medium	Medium
<b>Norfolk (Virginia Beach Corridor)</b>	\$524.60 (YOE)	\$288.60	55%	<b>Not Recommended</b>	Low	Low-Medium
<b>Northern New Jersey (Hudson-</b>	\$989.30 (YOE)	\$622.30	63%	<b>Not Rated</b>	Not Rated	Not Rated

<b>Bergen MOS-2)</b>						
<b>Orange County (Irvine-Fullerton Corridor)</b>	\$1,916.50 (YOE)	\$959.10	50%	<b>Recommended</b>	Medium-High	Medium
<b>Orlando (I-4 Central Florida Light Rail)</b>	\$600.10 (YOE)	\$330.00	55%	<b>Highly Recommended</b>	Medium-High	Medium-High
<b>Phoenix (Central Phoenix/East Valley)</b>	\$390.00 (YOE)	\$195.00	50%	<b>Not Recommended</b>	Low-Medium	Medium
<b>Pittsburgh (MLK Busway Extension)</b>	\$62.80 (YOE)	\$8.60	14%	<b>Not Recommended</b>	Low-Medium	Low-Medium
<b>Pittsburgh (Stage 2 LRT)</b>	\$512.50 (YOE)	\$162.60	32%	<b>Not Recommended</b>	Low-Medium	Medium
<b>Portland (South/North Corridor)</b>	\$1,186.30 (YOE)	\$636.30	53%	<b>Not Recommended</b>	Low-Medium	Medium-High
<b>Raleigh, NC (Regional Transit Plan)</b>	\$284.00 (YOE)	\$110.76	39%	<b>Recommended</b>	Medium	Medium
<b>Salt Lake City (Downtown Connector - West/East Corridor)</b>	\$74.80 (YOE)	\$59.84	80%	<b>Not Recommended</b>	Low	Medium
<b>San Diego (Mid Coast Corridor)</b>	\$104.60 (YOE)	\$54.70	52%	<b>Highly Recommended</b>	High	Medium-High
<b>San Diego (Oceanside Escondido Corridor)</b>	\$213.70 (YOE)	\$124.00	58%	<b>Highly Recommended</b>	Medium-High	Medium-High
<b>San Francisco (Bayshore-Third Street LRT)</b>	\$445.70 (YOE)	\$0.00	0%	<b>Recommended</b>	Medium-High	Medium
<b>San Juan - Minillas Extension</b>	\$468.00 (YOE)	\$374.40	80%	<b>Not Rated</b>	Not Rated	Medium-High
<b>Seattle Link LRT (Northgate-Seatac)</b>	\$2,917.00 (YOE)	\$1,458.50	50%	<b>Highly Recommended</b>	High	Medium-High
<b>Tampa (Tampa Regional Rail)</b>	\$726.30 (YOE) (b)	\$363.15	50%	<b>Not Recommended</b>	Low-Medium	Medium
<b>Washington DC (Largo Extension)</b>	\$397.10 (YOE)	\$316.10	80%	<b>Recommended</b>	Medium	Medium-High

(a) Year of Expenditure total project costs and Section 5309 share were calculated by FTA by applying a standard formula to cost estimates supplied by the project sponsor.

(b) Year of Expenditure Section 5309 share calculated by FTA.

Table 1b

Summary of Fiscal Year (FY) 2000 New Starts Ratings

Phase and City (Project)	Overall Project Rating	Financial Rating	Financial Rating Criteria		Project Justification Rating	Project Justification Criteria				
			Capital Finance Rating	Operating Finance Rating		Mobility Improvement Rating	Environment Benefits Rating	Operating Efficiency Rating	Cost Effectiveness Rating	Land Use Rating
<b>Final Design</b>										
Dallas-Fort Worth (RAILTR AN Phase 2)	Recommended	Medium-High	Medium-High	Medium-High	Medium	Medium	High	Not Rated	Medium-High	Low-Medium
Dallas (North Central LRT)	Recommended	High	High	High	Medium	Medium-High	High	Medium	Low-Medium	Medium
Fort Lauderdale, FL (Tri-County Commuter Rail)	Highly Recommended	Medium-High	Medium-High	Medium	Medium-High	High	Low	High	High	Medium
Los Angeles (LOSSAN Rail Corridor Improvement)	Not Recommended	Low-Medium	Low	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Medium	Medium
New Orleans (Canal Streetcar Spine)	Not Recommended	Low-Medium	Low-Medium	Low-Medium	Medium	Not Rated	Medium	High	Medium-High	Low-Medium
Northern	Highly	Medi	Medi	Mediu	Medium	Medium	Medium	Mediu	High	Medi

<b>New Jersey (Newark-Elizabeth Rail Link)</b>	<b>Recommended</b>	<i>um-High</i>	um-High	m-High	<i>-High</i>			m		um-High
<b>San Diego (Mission Valley East)</b>	<b>Highly Recommended</b>	<i>High</i>	High	High	<i>Medium-High</i>	Medium-High	High	Medium	Medium-High	Medium-High
<b>Tacoma-Seattle (Sounder Commuter Rail)</b>	<b>Recommended</b>	<i>High</i>	High	High	<i>Medium</i>	Medium	Medium	Medium	Low	Medium-High
<b>Preliminary Engineering</b>										
<b>Austin (Northwest/North Central Corridor)</b>	<b>Not Rated</b>	<i>Not Rated</i>	Not Rated	Not Rated	<i>Not Rated</i>	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated
<b>Baltimore (MTA Double Tracking Project)</b>	<b>Recommended</b>	<i>Medium</i>	Medium	Medium	<i>Medium-High</i>	Medium	High	Medium	Medium-High	Low-Medium
<b>Boston (Piers Transitway Phase 2)</b>	<b>Not Recommended</b>	<i>Low</i>	Low	Low-Medium	<i>Medium</i>	Low-Medium	Medium	Medium	Low-Medium	High
<b>Chicago (Central Kane Corridor)</b>	<b>Recommended</b>	<i>Medium-High</i>	Medium	High	<i>Medium</i>	Medium-High	Medium	Medium	Medium	Low-Medium
<b>Chicago (North Central Corridor)</b>	<b>Not Recommended</b>	<i>Medium-High</i>	Medium	High	<i>Low-Medium</i>	Low-Medium	Medium	Medium	Medium	Low-Medium
<b>Chicago (Southwest Corridor)</b>	<b>Highly Recommended</b>	<i>Medium-High</i>	Medium	High	<i>Low-Medium</i>	Low-Medium	Medium	Medium	Medium	Low-Medium
<b>Cincinnati (I-71)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low-Medium	Low-Medium	<i>Low-Medium</i>	Low-Medium	Medium	Low	Medium	Low

<b>Cleveland (Euclid Corridor)</b>	<b>Not Recommended</b>	<i>Medium</i>	Medium	Medium	<i>Low-Medium</i>	Low	Medium	Medium	Low	Medium-High
<b>Denver (Southeast Corridor)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Medium	Low-Medium	<i>Medium-High</i>	High	High	Medium	Medium-High	Medium
<b>Kansas City (Southtown LRT)</b>	<b>Not Recommended</b>	<i>Low</i>	Low	Low	<i>Not Rated</i>	Not Rated	Not Rated	Not Rated	Medium	Medium
<b>Las Vegas (Resort Corridor)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low-Medium	Low-Medium	<i>Medium-High</i>	Medium-High	High	Medium	High	Medium
<b>Little Rock (Junction Bridge/River Rail)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low-Medium	Low-Medium	<i>Not Rated</i>	Not Rated	Not Rated	Not Rated	Not Rated	Medium
<b>Memphis (Medical Center Trolley Extension)</b>	<b>Recommended</b>	<i>Medium-High</i>	High	Medium-High	<i>Medium</i>	Low-Medium	Medium	Not Rated	High	Medium
<b>Miami (East/West Corridor)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low	Low	<i>Medium</i>	Medium	Medium	Medium	Low-Medium	Medium-High
<b>Miami (North 27th Avenue Corridor)</b>	<b>Not Recommended</b>	<i>Low</i>	Low	Low	<i>Low-Medium</i>	Low-Medium	High	Medium	Low-Medium	Medium
<b>Minneapolis (Hiawatha Avenue)</b>	<b>Recommended</b>	<i>Medium-High</i>	Medium-High	Medium	<i>Medium</i>	Low	Medium	Medium	Low-Medium	Medium
<b>New York City (LIRR East Side Access)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low	Medium-High	<i>Medium</i>	Low-Medium	Medium	Not Rated	Low	High
<b>Norfolk (Virginia Beach Corridor)</b>	<b>Not Recommended</b>	<i>Low</i>	Low	Low	<i>Low-Medium</i>	Low	Medium	High	Medium	Low-Medium

<b>Northern New Jersey (Hudson-Bergen MOS-2)</b>	<b>Not Rated</b>	<i>Not Rated</i>	Not Rated	Not Rated	<i>Not Rated</i>	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated
<b>Orange County (Irvine-Fullerton Corridor)</b>	<b>Recommended</b>	<i>Medium-High</i>	Medium-High	Medium-High	<i>Medium</i>	Medium-High	Medium	Medium	Medium	Medium
<b>Orlando (I-4 Central Florida Light Rail)</b>	<b>Highly Recommended</b>	<i>Medium-High</i>	High	Medium	<i>Medium-High</i>	Low	Medium	Medium	Medium-High	Medium-High
<b>Phoenix (Central Phoenix/East Valley)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low-Medium	Low-Medium	<i>Medium</i>	Low	Medium	Low	High	Medium
<b>Pittsburgh (MLK Busway Extension)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low-Medium	Medium-High	<i>Low-Medium</i>	Low	Not Rated	Medium	High	Medium
<b>Pittsburgh (Stage 2 LRT)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low	Medium-High	<i>Medium</i>	Medium-High	Medium	Not Rated	Medium-High	Low-Medium
<b>Portland (South/North Corridor)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low	Medium-High	<i>Medium-High</i>	Medium	Medium	Medium	Medium-High	Low-Medium
<b>Raleigh, NC (Regional Transit Plan)</b>	<b>Recommended</b>	<i>Medium</i>	Medium	Low-Medium	<i>Medium</i>	Low-Medium	Medium	High	Medium	Medium
<b>Salt Lake City (Downtown Connector-West/East Corridor)</b>	<b>Not Recommended</b>	<i>Low</i>	Low	Low	<i>Medium</i>	Low-Medium	High	Medium	Low-Medium	Low-Medium

<b>San Diego (Mid Coast Corridor)</b>	<b>Highly Recommended</b>	<i>High</i>	High	High	<i>Medium-High</i>	Medium-High	High	Medium	High	Medium
<b>San Diego (Oceanside Escondido Corridor)</b>	<b>Highly Recommended</b>	<i>Medium-High</i>	Medium-High	Medium	<i>Medium-High</i>	Medium-High	Medium	Medium	High	Medium
<b>San Francisco (Bayshore-Third Street LRT)</b>	<b>Recommended</b>	<i>Medium-High</i>	Medium-High	Medium-High	<i>Medium</i>	Medium	Medium	Medium	Low	High
<b>San Juan (Minillas Extension)</b>	<b>Not Rated</b>	<i>Not Rated</i>	Not Rated	Not Rated	<i>Medium-High</i>	Medium	High	Low	High	Medium-High
<b>Seattle Link LRT (Northgate-Seatac)</b>	<b>Highly Recommended</b>	<i>High</i>	High	High	<i>Medium-High</i>	Medium-High	High	Medium	Medium-High	High
<b>Tampa (Tampa Regional Rail)</b>	<b>Not Recommended</b>	<i>Low-Medium</i>	Low-Medium	Low	<i>Medium</i>	Medium-High	High	Medium	Medium	Low-Medium
<b>Washington DC (Largo Extension)</b>	<b>Recommended</b>	<i>Medium</i>	Medium	Medium-High	<i>Medium-High</i>	Medium	Medium	Medium	Medium-High	Medium-High

## Table 1c

### Summary of Fiscal Year (FY) 2000 New Starts Ratings

Phase and City (Project)	Financial Rating	Finance Rating Criteria		
		Section 5309 Funds as Share of Capital Costs	Capital Finance Rating	Operating Finance Rating
<b>Final Design</b>				
Dallas-Fort Worth (RAILTRAN Phase 2)	Medium-High	45%	Medium-High	Medium-High
Dallas (North Central LRT)	High	64%	High	High
Fort Lauderdale, FL (Tri-County Commuter Rail)	Medium-High	31%	Medium-High	Medium
Los Angeles (LOSSAN Rail Corridor Improvement)	Low-Medium	73%	Low	Not Rated
New Orleans (Canal Streetcar Spine)	Low-Medium	80%	Low-Medium	Low-Medium
Northern New Jersey (Newark-Elizabeth Rail Link)	Medium-High	75%	Medium-High	Medium-High
San Diego (Mission Valley East)	High	76%	High	High
Tacoma-Seattle (Sounder Commuter Rail)	High	25%	High	High
<b>Preliminary Engineering</b>				
Austin (Northwest/North Central Corridor)	Not Rated	TBD	Not Rated	Not Rated
Baltimore (MTA Double Tracking Project)	Medium	80%	Medium	Medium
Boston (Piers Transitway Phase 2)	Low	80%	Low	Low-Medium
Chicago (Central Kane Corridor)	Medium-High	59%	Medium	High
Chicago (North Central Corridor)	Medium-High	64%	Medium	High
Chicago (Southwest Corridor)	Medium-High	63%	Medium	High
Cincinnati (I-71)	Low-Medium	50%	Low-Medium	Low-Medium

<b>Cleveland (Euclid Corridor)</b>	<b>Medium</b>	80%	Medium	Medium
<b>Denver (Southeast Corridor)</b>	<b>Low-Medium</b>	80%	Medium	Low-Medium
<b>Kansas City (Southtown LRT)</b>	<b>Low</b>	80%	Low	Low
<b>Las Vegas (Resort Corridor)</b>	<b>Low-Medium</b>	45%	Low-Medium	Low-Medium
<b>Little Rock (Junction Bridge/River Rail)</b>	<b>Low-Medium</b>	80%	Low-Medium	Low-Medium
<b>Memphis (Medical Center Trolley Extension)</b>	<b>Medium-High</b>	80%	High	Medium-High
<b>Miami (East/West Corridor)</b>	<b>Low-Medium</b>	38%	Low	Low
<b>Miami (North 27th Avenue Corridor)</b>	<b>Low</b>	70%	Low	Low
<b>Minneapolis (Hiawatha Avenue)</b>	<b>Medium-High</b>	50%	Medium-High	Medium
<b>New York City (LIRR East Side Access)</b>	<b>Low-Medium</b>	TBD	Low	Medium-High
<b>Norfolk (Virginia Beach Corridor)</b>	<b>Low</b>	55%	Low	Low
<b>Northern New Jersey (Hudson-Bergen MOS-2)</b>	<b>Not Rated</b>	63%	Not Rated	Not Rated
<b>Orange County (Irvine-Fullerton Corridor)</b>	<b>Medium-High</b>	50%	Medium-High	Medium-High
<b>Orlando (I-4 Central Florida Light Rail)</b>	<b>Medium-High</b>	55%	High	Medium
<b>Phoenix (Central Phoenix/East Valley)</b>	<b>Low-Medium</b>	50%	Low-Medium	Low-Medium
<b>Pittsburgh (MLK Busway Extension)</b>	<b>Low-Medium</b>	14%	Low-Medium	Medium-High
<b>Pittsburgh (Stage 2 LRT)</b>	<b>Low-Medium</b>	32%	Low	Medium-High
<b>Portland (South/North Corridor)</b>	<b>Low-Medium</b>	53%	Low	Medium-High
<b>Raleigh, NC (Regional Transit Plan)</b>	<b>Medium</b>	39%	Medium	Low-Medium
<b>Salt Lake City (Downtown Connector-West/East Corridor)</b>	<b>Low</b>	80%	Low	Low

<b>San Diego (Mid Coast Corridor)</b>	<b>High</b>	52%	Medium-High	Medium
<b>San Diego (Oceanside Escondido Corridor)</b>	<b>Medium-High</b>	58%	Medium-High	Medium
<b>San Francisco (Bayshore-Third Street LRT)</b>	<b>Medium-High</b>	0%	Medium-High	Medium-High
<b>San Juan - Minillas Extension</b>	<b>Not Rated</b>	80%	Not Rated	Not Rated
<b>Seattle Link LRT (Northgate-Seatac)</b>	<b>High</b>	50%	High	High
<b>Tampa (Tampa Regional Rail)</b>	<b>Low-Medium</b>	50%	Low-Medium	Low
<b>Washington DC (Largo Extension)</b>	<b>Medium</b>	80%	Medium	Medium-High

# Table 1d

## Summary of Fiscal Year (FY) 2000 New Starts Ratings

Phase and City (Project)	Project Justification Rating	Mobility Improvement Rating	Mobility Improvements				Environment Benefit Rating	Environmental Benefits					
			Annual Travel Time Savings (millions hours)		Low Income Households within ½ Mile	Annual Reduction in Greenhouse Gas Emissions (tons CO2)		Annual Reduction in Regional Energy Consumption (million BTU's)		EPA Classification			
			New Start Versus			New Start Versus		Ozone	Carbon Monoxide				
			No-Build	TS M		No-Build				TSM			
<b>Final Design</b>													
<b>Dallas-Fort Worth (RAILTRAN Phase 2)</b>	<b>Medium</b>	Medium	57.9	17.8	407	High	852	563	11,238	7,492	Serious Non-Attainment	Non-Attainment	
<b>Dallas (North Central LRT)</b>	<b>Medium</b>	Medium-High	18.3	41.9	1,525	High	18,068	22,162	122,760	203,870	Serious Non-Attainment	Non-Attainment	
<b>Fort Lauderdale, FL (Tri-County Commuter Rail)</b>	<b>Medium-High</b>	High	26.6	N/A	10,892	Low	-8,031	N/A	104	N/A	Attainment	Maintenance	
<b>Los Angeles (LOSSAN Rail Corridor Improvement)</b>	<b>Not Rated</b>	Not Rated	N/A	N/A	4,370	Not Rated	N/A	N/A	N/A	N/A	Extreme Non-Attainment	Serious Non-Attainment	
<b>New Orleans (Canal Streetcar Spine)</b>	<b>Medium</b>	Not Rated	N/A	N/A	8,522	Medium	1,750	636	20,595	2,270	Attainment	Maintenance	
<b>Northern New Jersey (Newark-Elizabeth Rail Link)</b>	<b>Medium-High</b>	Medium	0.3	N/A	3,645	Medium	2,740	N/A	22,090	N/A	Severe Non-Attainment	Moderate Non-Attainment	
<b>San Diego</b>	<b>Medium-</b>	Medium-	1.9	N/	1,049	High	11,6	N/A	151,15	N/A	Serious	Moderate	

<b>(Mission Valley East)</b>	<b>High</b>	High		A			59		5		Non-Attainment	Non-Attainment
<b>Tacoma-Seattle (Sounder Commuter Rail)</b>	<b>Medium</b>	Medium	N/A	1.2	630	Medium	N/A	710	N/A	9,310	Maintenance	Maintenance
<b>Preliminary Engineering</b>												
<b>Austin (Northwest/North Central Corridor)</b>	<b>Not Rated</b>	Not Rated	N/A	N/A	3,200	Not Rated	N/A	N/A	N/A	N/A	Attainment	Attainment
<b>Baltimore (MTA Double Tracking Project)</b>	<b>Medium-High</b>	Medium	0.3	N/A	7,315	High	8,170	N/A	9,095	N/A	Severe Non-Attainment	Attainment
<b>Boston (Piers Transitway Phase 2)</b>	<b>Medium</b>	Low-Medium	0.5	N/A	649	Medium	4,781	N/A	59,765	N/A	Serious Non-Attainment	N/A
<b>Chicago (Central Kane Corridor)</b>	<b>Medium</b>	Medium-High	0.3	0.7	1	Medium	14,390	10,624	188,315	138,867	Severe Non-Attainment	Attainment
<b>Chicago (North Central Corridor)</b>	<b>Low-Medium</b>	Low-Medium	0.3	0.1	1,516	Medium	9,433	4,166	123,963	54,964	Severe Non-Attainment	Attainment
<b>Chicago (Southwest Corridor)</b>	<b>Medium-High</b>	Medium-High	5.6	6.2	844	Medium	10,977	12,401	143,963	162,231	Severe Non-Attainment	Attainment
<b>Cincinnati (I-71)</b>	<b>Low-Medium</b>	Low-Medium	3.1	2.2	13,877	Medium	-12,777	3,536	-453,242	-250,044	Moderate Non-Attainment	Attainment
<b>Cleveland (Euclid Corridor)</b>	<b>Low-Medium</b>	Low	0.2	N/A	12,406	Medium	-717	N/A	-23,458	N/A	Maintenance	N/A
<b>Denver (Southeast Corridor)</b>	<b>Medium-High</b>	High	21.6	16.4	1,624	High	3,278	-4,083	17,363	-80,415	Non-Attainment	Serious Non-Attainment
<b>Kansas City (Southtown LRT)</b>	<b>Not Rated</b>	Not Rated	N/A	N/A	N/A	Not Rated	N/A	N/A	N/A	N/A	Maintenance	Maintenance
<b>Las Vegas (Resort Corridor)</b>	<b>Medium-High</b>	Medium-High	73.2	27.6	3,785	High	38,377	88,065	489,934	1,096,406	Attainment	Serious Non-Attainment

												nt
<b>Little Rock (Junction Bridge/River Rail)</b>	<b>Not Rated</b>	Not Rated	N/A	N/A	565	Not Rated	N/A	N/A	N/A	N/A	N/A	N/A
<b>Memphis (Medical Center Trolley Extension)</b>	<b>Medium</b>	Low-Medium	N/A	N/A	3,488	Medium	N/A	N/A	10,300	N/A	Maintenance	Maintenance
<b>Miami (East/West Corridor)</b>	<b>Medium</b>	Medium	10.1	N/A	849	Medium	2	N/A	3	N/A	Maintenance	Attainment
<b>Miami (North 27th Avenue Corridor)</b>	<b>Low-Medium</b>	Low-Medium	0.9	0.8	1,383	High	17,450	24,227	126,659	213,760	Maintenance	Attainment
<b>Minneapolis (Hiawatha Avenue)</b>	<b>Medium</b>	Low	0.8	0.4	3,351	Medium	8,312	6,284	93,297	64,690	Attainment	Moderate Non-Attainment
<b>New York City (LIRR East Side Access)</b>	<b>Medium</b>	Low-Medium	5.3	3.9	77,700	Medium	80,927	92,663	-1,320,000	-1,470,000	Severe Non-Attainment	Moderate Non-Attainment
<b>Norfolk (Virginia Beach Corridor)</b>	<b>Low-Medium</b>	Low	0.6	0.3	1,447	Medium	5,705	9,724	64,640	115,716	Attainment	Attainment
<b>Northern New Jersey (Hudson-Bergen MOS-2)</b>	<b>Not Rated</b>	Not Rated	0.3	N/A	N/A	Not Rated	N/A	N/A	N/A	N/A	Severe Non-Attainment	Moderate Non-Attainment
<b>Orange County (Irvine-Fullerton Corridor)</b>	<b>Medium</b>	Medium-High	23.0	5.4	20,141	Medium	9,516	6,277	111,831	57,209	Extreme Non-Attainment	Serious Non-Attainment
<b>Orlando (I-4 Central Florida Light Rail)</b>	<b>Medium-High</b>	Low	0.9	0.5	523	Medium	N/A	N/A	700,000	N/A	Attainment	Attainment
<b>Phoenix (Central Phoenix/East Valley)</b>	<b>Medium</b>	Low	15.6	1.0	4,734	Medium	50,473	31,560	-676,779	-455,037	Serious Non-Attainment	Serious Non-Attainment
<b>Pittsburgh (MLK Busway Extension)</b>	<b>Low-Medium</b>	Low	N/A	0.1	N/A	Not Rated	N/A	N/A	N/A	N/A	Moderate Non-Attainment	Not Classified
<b>Pittsburgh</b>	<b>Medium</b>	Medium-	2.7	1.3	650	Medium	921	1,09	9,395	13,662	Moderate	Not

<b>(Stage 2 LRT)</b>		High						6			Non-Attainment	Classified
<b>Portland (South/North Corridor)</b>	<b>Medium-High</b>	Medium	4.8	1.7	5,492	Medium	4,884	6,792	61,950	75,677	Attainment	Attainment
<b>Raleigh, NC (Regional Transit Plan)</b>	<b>Medium</b>	Low-Medium	N/A	1.3	1,325	Medium	N/A	N/A	N/A	N/A	Moderate Maintenance	Maintenance
<b>Salt Lake City (Downtown Connector-West/East Corridor)</b>	<b>Medium</b>	Low-Medium	0.5	-0.3	4,540	High	16,719	18,688	163,768	188,761	Maintenance	Non-Attainment
<b>San Diego (Mid Coast Corridor)</b>	<b>Medium-High</b>	Medium-High	1.1	N/A	258	High	13,425	N/A	175,016	N/A	Serious Non-Attainment	Moderate Non-Attainment
<b>San Diego (Oceanside Escondido Corridor)</b>	<b>Medium-High</b>	Medium-High	1.4	0.7	1,706	Medium	4,070	2,113	54,464	29,045	Serious Non-Attainment	Moderate Non-Attainment
<b>San Francisco (Bayshore-Third Street LRT)</b>	<b>Medium</b>	Medium	N/A	2.4	5,988	Medium	N/A	3,503	N/A	-16,661	Maintenance	Non-Attainment
<b>San Juan - Minillas Extension</b>	<b>Medium-High</b>	Medium	N/A	1.0	4,350	High	N/A	48,564	N/A	488,977	Attainment	Attainment
<b>Seattle Link LRT (Northgate-Seatac)</b>	<b>Medium-High</b>	Medium-High	N/A	21.1	11,081	High	N/A	57,178	N/A	526,176	Maintenance	Maintenance
<b>Tampa (Tampa Regional Rail)</b>	<b>Medium</b>	Medium-High	2.4	2.0	5,479	High	45,027	68,460	117,791	191,749	Attainment	Attainment
<b>Washington DC (Largo Extension)</b>	<b>Medium-High</b>	Medium	1.7	1.1	45	Medium	-2,740	N/A	19,499	N/A	Serious Non-Attainment	Moderate Non-Attainment

## Table 1d Continued

### Summary of Fiscal Year (FY) 2000 New Starts Ratings

Phase and City (Project)	Operating Efficiency Rating	Operating Efficiencies			Cost Effectiveness Rating	Cost Effectiveness		Land Use Rating
		System-wide Operating Cost per Passenger Mile				Incremental Cost per Incremental Passenger		
		No- Build	TSM	New Start		New Start vs. No- Build	New Start vs. TSM	
<b>Final Design</b>								
<b>Dallas-Fort Worth (RAILTRAN Phase 2)</b>	Not Rated	N/A	N/A	N/A	Medium-High	\$4.62	\$9.77	Low- Medium
<b>Dallas (North Central LRT)</b>	Medium	\$0.41	\$0.42	\$0.41	Low-Medium	\$16.94	\$13.49	Medium
<b>Fort Lauderdale, FL (Tri-County Commuter Rail)</b>	High	\$0.29	N/A	\$0.24	High	\$5.06	N/A	Medium
<b>Los Angeles (LOSSAN Rail Corridor Improvement)</b>	Not Rated	\$0.17	N/A	N/A	Medium	\$13.97	N/A	Medium
<b>New Orleans (Canal Streetcar Spine)</b>	High	\$0.76	\$0.71	\$0.59	Medium-High	\$8.33	\$7.47	Low- Medium
<b>Northern New Jersey (Newark- Elizabeth Rail Link)</b>	Medium	\$0.47	N/A	\$0.46	High	\$5.70	N/A	Medium- High
<b>San Diego (Mission Valley East)</b>	Medium	\$0.19	N/A	\$0.19	Medium-High	\$8.87	N/A	Medium- High
<b>Tacoma-Seattle (Sounder Commuter Rail)</b>	Medium	N/A	\$0.44	\$0.43	Low	N/A	\$27.89	Medium- High
<b>Preliminary Engineering</b>								
<b>Austin (Northwest/North Central Corridor)</b>	Not Rated	N/A	N/A	N/A	Not Rated	\$7.30	\$12.90	Not Rated

<b>Baltimore (MTA Double Tracking Project)</b>	Medium	\$0.60	N/A	\$0.59	Medium-High	\$8.68	N/A	Low-Medium
<b>Boston (Piers Transitway Phase 2)</b>	Medium	\$0.63	N/A	\$0.58	Low-Medium	\$15.57	N/A	Low-Medium
<b>Chicago (Central Kane Corridor)</b>	Medium	\$0.23	\$0.23	\$0.22	Medium	\$9.45	\$12.13	Low-Medium
<b>Chicago (North Central Corridor)</b>	Medium	\$0.23	\$0.23	\$0.23	Medium	\$8.93	\$11.41	Low-Medium
<b>Chicago (Southwest Corridor)</b>	Medium	\$0.22	\$0.22	\$0.23	High	\$5.93	\$5.81	Low-Medium
<b>Cincinnati (NE/I-71)</b>	Low	\$0.51	\$0.53	\$0.54	Medium	\$8.43	\$11.72	Low
<b>Cleveland (Euclid Corridor)</b>	Medium	\$0.63	N/A	\$0.63	Low	\$48.33	N/A	Medium-High
<b>Denver (Southeast Corridor)</b>	Medium	\$0.38	\$0.39	\$0.38	Medium-High	\$12.18	\$6.88	Medium
<b>Kansas City (Southtown LRT)</b>	Not Rated	N/A	N/A	N/A	Medium	\$14.18	\$14.69	Medium
<b>Las Vegas (Resort Corridor)</b>	Medium	\$0.22	\$0.36	\$0.32	High	\$4.81	\$2.54	Medium
<b>Little Rock (Junction Bridge/River Rail)</b>	Not Rated	N/A	N/A	N/A	Not Rated	N/A	N/A	Medium
<b>Memphis (Medical Center Trolley Extension)</b>	Not Rated	N/A	N/A	\$1.06	High	\$2.90	N/A	Medium
<b>Miami (East/West Corridor)</b>	Medium	\$0.35	N/A	\$0.36	Low-Medium	\$18.10	N/A	Medium-High
<b>Miami (North 27th Avenue Corridor)</b>	Medium	\$0.41	\$0.41	\$0.39	Low-Medium	\$13.30	\$17.90	Medium
<b>Minneapolis (Hiawatha Avenue)</b>	Medium	\$0.34	\$0.35	\$0.35	Low-Medium	\$17.23	\$18.57	Medium
<b>New York City (LIRR East Side Access)</b>	Not Rated	N/A	N/A	N/A	Low	\$47.10	\$44.80	High
<b>Norfolk (Virginia Beach Corridor)</b>	High	\$0.68	\$0.78	\$0.51	Medium	\$12.03	\$11.59	Low-Medium
<b>Northern New Jersey (Hudson-Bergen MOS-2)</b>	Not Rated	N/A	N/A	N/A	Not Rated	N/A	N/A	Not Rated

<b>Orange County (Irvine-Fullerton Corridor)</b>	Medium	\$0.51	\$0.35	\$0.36	Medium	\$6.99	\$14.65	Medium
<b>Orlando (I-4 Central Florida Light Rail)</b>	Medium	\$0.41	\$0.42	\$0.42	Medium-High	\$9.26	\$9.72	Medium-High
<b>Phoenix (Central Phoenix/East Valley)</b>	Low	\$0.30	\$0.39	\$0.42	Medium-High	\$9.26	\$9.72	Medium-High
<b>Pittsburgh (MLK Busway Extension)</b>	Medium	\$2.08	\$2.08	\$2.07	High	\$4.00	N/A	Medium
<b>Pittsburgh (Stage 2 LRT)</b>	Not Rated	N/A	N/A	N/A	Medium-High	\$10.50	\$7.00	Low-Medium
<b>Portland (South/North Corridor)</b>	Medium	\$0.42	\$0.46	\$0.43	Medium-High	\$8.25	\$10.18	High
<b>Raleigh, NC (Regional Transit Plan)</b>	High	\$	\$	\$		\$	\$	
<b>Salt Lake City (Downtown Connector-West/East Corridor)</b>	Medium	\$0.26	\$0.26	\$0.26	Low-Medium	\$9.95	\$16.81	Low-Medium
<b>San Diego (Mid Coast Corridor)</b>	Medium	\$0.22	N/A	\$0.22	High	\$3.58	N/A	Medium
<b>San Diego (Oceanside Escondido Corridor)</b>	Medium	\$0.10	\$0.10	\$0.10	High	\$3.77	\$5.36	Medium
<b>San Francisco (Bayshore-Third Street LRT)</b>	Medium	N/A	\$0.55	\$0.55	Low	N/A	\$34.82	High
<b>San Juan (Minillas Extension)</b>	Low	N/A	\$0.17	\$0.23	High	N/A	\$6.99	Medium-High
<b>Seattle Link LRT (Northgate-Seatac)</b>	Medium	N/A	\$0.46	\$0.44	Medium-High	N/A	\$10.39	High
<b>Tampa (Tampa Regional Rail)</b>	Medium	\$0.62	\$0.65	\$0.64	Medium	\$13.64	\$12.90	Low-Medium
<b>Washington DC (Largo Extension)</b>	Medium	\$0.36	N/A	\$0.36	Medium-High	\$7.87	N/A	Medium-High

## Table 2: Supplemental Analysis of FY 2000 New Start Project Ratings

N/A = Not Available TSM = Transportation System Management Alternative BTU = British Thermal Units Data in ( ) represents an increase in emissions/energy consumption. The Section 5309 New Starts criteria, as presented in Tables 1 and 2, are discussed on pages 2-3 of this Report. Additional documentation is provided in FTA's Technical Guidance on Section 5309 New Starts Criteria. Capital costs are reported in escalated, year-of-expenditure (YOE) dollars. Capital costs are annualized based on a consistent set of assumptions on the useful life of specific cost components.

Phase and City (Project)	Overall Project Rating	Annualized Project Capital Cost		Mobility Improvements				Environmental Benefits			
				Annual Hours of Travel Time Savings Per Annualized Project Cost		Low Income Households Within 1/2-Mile Per Annualized Project Cost (HH per \$Million)		Annual Reduction in Greenhouse Gas Emissions Per Annualized Project Cost (Millions)		Annual Reduction in Regional Energy Consumption Per Annualized Project Cost (Millions)	
		New Start vs.		New Start vs.		New Start vs.		New Start vs.		New Start vs.	
		No-Build	TSM	No-Build	TSM	No-Build	TSM	No-Build	TSM	No-Build	TSM
<b>Final Design</b>											
Dallas-Fort Worth (RAILTRAN Phase 2)	<i>Recommended</i>	9.80	8.00	5.908	0	0	0	87	70	1,147	937
Dallas (North Central LRT)	<i>Recommended</i>	29.30	24.50	0.608	1.657	52	62	617	905	4,190	8,321
Fort Lauderdale, FL (Tri-County Commuter Rail)	<i>Highly Recommended</i>	19.68	N/A	1.352	N/A	553	N/A	-408	N/A	5	N/A
Los Angeles (LOSSAN Rail Corridor Improvement)	<i>Not Recommended</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Orleans (Canal Streetcar Spine)	<i>Not Recommended</i>	8.04	7.63	0.025	0.026	1,060	1,117	218	N/A	2,562	298
Northern New Jersey (Newark-Elizabeth Rail Link)	<i>Highly Recommended</i>	8.70	N/A	0.034	N/A	419	N/A	119	N/A	958	N/A
San Diego (Mission Valley East)	<i>Highly Recommended</i>	23.06	N/A	0.082	N/A	45	N/A	1,340	N/A	17,374	N/A

Tacoma-Seattle (Sounder Commuter Rail)	<i>Recommended</i>	N/A	20.55	N/A	0.058	N/A	31	N/A	35	N/A	444
<b>Preliminary Engineering</b>											
Austin (Northwest/North Central Corridor)	<i>Not Rated</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Baltimore (MTA Double Tracking Project)	<i>Recommended</i>	10.54	N/A	0.025	N/A	694	N/A	775	N/A	1	N/A
Boston (Piers Transitway Phase 2)	<i>Not Recommended</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chicago (Central Kane Corridor)	<i>Recommended</i>	6.8	0.75	0.070	1.875	0	0	2,122	33,200	27,775	433,959
Chicago (North Central Corridor)	<i>Not Recommended</i>	13.81	10.89	0.007	0.000	110	139	683	383	8,976	5,047
Chicago (Southwest Corridor)	<i>Highly Recommended</i>	11.94	11.56	0.377	0.398	71	73	919	1,073	12,056	14,034
Cincinnati (I-71)	<i>Not Recommended</i>	110.10	95.90	0.028	0.023	1	0	-116	37	-4,117	-2,607
Cleveland (Euclid Corridor)	<i>Not Recommended</i>	28.8	N/A	0.014	N/A	2	N/A	-25	N/A	-814	N/A
Denver (Southeast Corridor)	<i>Not Recommended</i>	38.60	13.50	0.560	1.214	0	120	85	-302	450	-5,957
Kansas City (Southtown LRT)	<i>Not Recommended</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Las Vegas (Resort Corridor)	<i>Not Recommended</i>	88.80	41.60	0.824	0.663	43	91	432	2,117	5,517	26,356
Little Rock (Junction Bridge/River Rail)	<i>Not Recommended</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Memphis (Medical Center Trolley Extension)	<i>Recommended</i>	N/A	N/A	N/A	N/A	1,453	N/A	N/A	N/A	N/A	N/A
Miami (East/West Corridor)	<i>Not Recommended</i>	106.39	N/A	0.095	N/A	8	N/A	0	N/A	0	N/A
Miami (North 27th Avenue Corridor)	<i>Not Recommended</i>	38.22	36.41	0.024	0.022	36	38	N/A	N/A	3,314	5,871
Minneapolis (Hiawatha Avenue)	<i>Recommended</i>	35.90	33.60	0.022	0.012	93	100	N/A	187	2,599	1,925
New York City (LIRR East Side Access)	<i>Not Recommended</i>	246.50	201.10	0.021	0.020	0	0	23	48	262	575
Norfolk (Virginia Beach Corridor)	<i>Not Recommended</i>	39.10	36.90	0.015	0.009	0	0	N/A	N/A	10,762	28,806

Northern New Jersey (Hudson-Bergen MOS-2)	<i>Not Rated</i>	8.70	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A
Orange County (Irvine-Fullerton Corridor)	<i>Recommended</i>	120.10	102.80	0.192	0.053	172	201	79	0	931	557
Orlando (I-4 Central Florida Light Rail)	<i>Highly Recommended</i>	47.84	44.90	0.019	0.011	45	48	N/A	N/A	14,632	N/A
Phoenix (Central Phoenix/East Valley)	<i>Not Recommended</i>	N/A	13.20	N/A	N/A	N/A	323	N/A	2,391	N/A	N/A
Pittsburgh (MLK Busway Extension)	<i>Not Recommended</i>	28.10	14.30	N/A	N/A	N/A	N/A	N/A	N/A	334	955
Pittsburgh (Stage 2 LRT)	<i>Not Recommended</i>	N/A	N/A	0.096	0.091	23	N/A	N/A	N/A	N/A	N/A
Portland (South/North Corridor)	<i>Not Recommended</i>	88.80	N/A	0.054	N/A	62	N/A	55	515	698	5,733
Raleigh, NC (Regional Transit Plan)	<i>Recommended</i>	21.70	17.20	0.002	0.075	61	0	N/A	N/A	N/A	N/A
Salt Lake City (Downtown Connector-West/East Corridor)	<i>Not Recommended</i>	28.60	23.40	0.017	0.013	0	209	585	799	5,726	8,067
San Diego (Mid Coast Corridor)	<i>Highly Recommended</i>	7.01	N/A	0.150	N/A	37	N/A	1,915	N/A	24,967	N/A
San Diego (Oceanside Escondido Corridor)	<i>Highly Recommended</i>	16.18	14.73	0.087	0.048	105	0	252	143	3,366	1,972
San Francisco (Bayshore-Third Street LRT)	<i>Recommended</i>	N/A	22.49	N/A	0.107	N/A	266	N/A	N/A	N/A	N/A
San Juan - Minillas Extension	<i>Not Rated</i>	N/A	33.82	N/A	0.030	N/A	129	N/A	1,436	N/A	14,458
Seattle Link LRT (Northgate-Seatac)	<i>Highly Recommended</i>	N/A	157.86	N/A	0.134	N/A	57	N/A	362	N/A	3,333
Tampa (Tampa Regional Rail)	<i>Not Recommended</i>	28.00	22.70	0.085	0.089	0	241	1,608	3,016	4,207	8,447
Washington DC (Largo Extension)	<i>Recommended</i>	28.77	N/A	0.059	N/A	2	N/A	-95	N/A	678	N/A

## Table 3: FY 2000 New Starts Funding Recommendations

**Table 3: Fiscal Year 2000 Funding for New Start Projects  
(Millions of Dollars)**

Note: Totals may add due to rounding.

City/Project	Overall Project Rating	Fiscal Year 1998 and Prior Year Earmarks		Fiscal Year 1999 Earmarks	Fiscal Year 2000 Recommended Funding	Remaining FFGA Funding	Total Recommended Funding
		Obligated	Unobligated				
<b>Existing Full Funding Grant Agreements</b>							
Atlanta - North Line Extension	FFGA	\$208.15	\$0.00	\$51.72	\$45.14	FFGA Complete	\$305.01
Boston - Piers Transitway Phase 1	FFGA	\$142.20	\$46.10	\$53.58	\$53.96	\$34.89	\$330.73
Denver - Southwest LRT	FFGA	\$25.76	\$0.00	\$39.70	\$35.00	\$19.54	\$120.00
Houston - Regional Bus Plan	FFGA	\$287.02	\$91.24	\$59.23	\$62.52	FFGA Complete	499.99
Los Angeles - MOS-3 Segments of Metro Rail	FFGA	\$547.62	\$23.91	\$37.72	\$50.00	\$757.24	\$1,416.49
Maryland - MARC Extensions - Point of Rocks to Frederick	FFGA	\$120.89	\$0.00	\$16.91	\$0.70	FFGA Complete	\$138.51 (1)
Northern New Jersey - Hudson-Bergen LRT	FFGA	\$158.82	\$0.00	\$69.48	\$99.00	\$276.78	\$604.08
Portland - Westside LRT	FFGA	\$593.48	\$0.00	\$69.48	\$99.00	\$276.78	\$604.08

Sacramento - South Corridor LRT	FFGA	\$30.15	\$0.00	\$23.31	\$25.00	\$34.72	\$113.18 (1)
Salt Lake City - South LRT	FFGA	\$136.59	\$0.00	\$69.48	\$37.93	FFGA Complete	\$243.99 (1)
San Francisco - BART to Airport	FFGA	\$113.73	\$0.00	\$39.70	\$84.00	\$512.57	\$750.00
San Jose - Tasman LRT	FFGA	\$124.08	\$0.00	\$26.80	\$31.87	FFGA Complete	\$182.75
San Juan - Tren Urbano	FFGA	\$33.38	\$0.00	\$19.85	\$82.00	\$177.14	\$312.37 (1)
St. Louis - St. Clair County, Illinois LRT	FFGA	\$78.09	\$0.00	\$34.74	\$50.00	\$89.58	\$252.41 (1)
<b>Subtotal</b>		<b>\$2,599.95</b>	<b>\$161.25</b>	<b>\$567.74</b>	<b>\$668.18</b>	<b>\$1,902.47</b>	<b>\$5,899.58</b>

**Proposed Full Funding Grant Agreements**

Dallas - North Central LRT Extension	Recommended	\$16.36	\$10.96	\$15.88	\$70.00		
Fort Lauderdale - Tri-Rail Commuter Rail Upgrade	Highly Recommended	\$51.29	\$0.00	\$3.97	\$20.00		
Memphis - Medical Center Extension	Recommended	\$5.75	\$0.00	\$2.18	\$15.11		
Newark Rail Link (MOS-1)	Highly Recommended	\$11.95	\$0.00	\$5.96	\$12.00		
Orlando - I-4 Central Florida LRT Project	Highly Recommended	\$24.59	\$9.10	\$17.37	\$44.00		
Salt Lake City - Downtown	Not Recommended	\$0.00	\$0.00	\$4.96	\$20.00		

Connector							
San Diego - Mission Valley East LRT Extension	Highly Recommended	\$0.00	\$1.00	\$1.49	\$35.00		
<b>Subtotal</b>		<b>\$109.94</b>	<b>\$21.06</b>	<b>\$51.81</b>	<b>\$216.11</b>		
<b>Other Projects in Final Design</b>							
Dallas - Fort Worth - RAILTRAN Phase 2	Recommended	\$11.39	\$23.11	\$11.91	\$0.00		
Los Angeles - LOSSAN Rail Corridor Improvement Project	Not Recommended	\$19.89	\$0.00	\$0.00	\$0.00		
New Orleans - Canal Streetcar Spine	Not Recommended	\$18.44	\$13.93	\$21.84	\$0.00		
Tacoma-Seattle (Sounder) Commuter Rail	Recommended	\$5.83	\$8.97	\$40.69	\$0.00		
<b>Subtotal</b>		<b>\$55.54</b>	<b>\$46.01</b>	<b>\$74.44</b>	<b>\$0.00</b>		
<b>Preliminary Engineering</b>							
Baltimore - Central Corridor LRT Double Track	Recommended	\$0.00	\$0.00	\$0.99	\$8.00		
Minneapolis - Hiawatha Corridor Transitway	Recommended	\$1.50	\$10.46	\$16.87	\$8.00		
Raleigh-Durham - Research Triangle Regional Rail	Recommended	\$1.29	\$12.66	\$9.93	\$8.00		

Seattle-Sound Move - Link LRT	Highly Recommended	\$0.00	\$11.95	\$4.96	\$8.00		
<b>Available for Other Projects</b>							
Austin - Northwest/North Central Corridor	Not Rated	\$0.00	\$1.00	\$0.99			
Boston - Piers Transitway Phase 2	Not Recommended	\$0.00	\$0.00	\$0.00			
Chicago - Central Kane Corridor	Recommended	\$1.00	\$0.00	\$1.99			
Chicago - North Central Corridor	Not Recommended	\$1.00	\$0.00	\$1.99			
Chicago - Southwest Corridor	Highly Recommended	\$1.00	\$0.00	\$1.99			
Cincinnati - NE/I-71	Not Recommended	\$6.50	\$0.50	\$1.79			
Cleveland - Euclid Corridor	Not Recommended	\$6.52	\$0.00	\$1.99			
Denver - Southeast Corridor	Not Recommended	\$0.00	\$0.00	\$0.50			
Kansas City - Southtown LRT	Not Recommended	\$4.02	\$0.00	\$0.00			
Las Vegas - Resort Corridor	Not Recommended	\$0.00	\$4.98	\$3.97			
Little Rock - Junction Bridge/River Rail	Not Recommended	\$0.18	\$1.81	\$0.99			
Miami - East/West	Not Recommended	\$0.00	\$6.47	\$2.98			

Corridor	ded						
Miami - North 27th Avenue Corridor	Not Recommended	\$2.97	\$5.97	\$2.98			
New York City - LIRR East Side Access	Not Recommended	\$0.00	\$19.94	\$23.82			
Northern New Jersey - Hudson-Bergen MOS-2	Not Rated	\$0.00	\$0.00	\$0.00			
Norfolk - Virginia Beach Corridor	Not Recommended	\$0.00	\$1.99	\$7.94			
Orange County - Irvine-Fullerton Corridor	Recommended	\$4.97	\$0.00	\$2.48			
Phoenix - Central Phoenix/East Valley	Not Recommended	\$0.00	\$3.99	\$4.96			
Pittsburgh - Martin Luther King, Jr. E. Busway Extension	Not Recommended	\$0.00	\$0.00	\$0.00			
Portland - South/North Corridor	Not Recommended	\$5.96	\$0.00	\$0.00			
San Diego - Mid Coast Corridor	Highly Recommended	\$1.45	\$2.99	\$1.99			
San Diego - Oceanside Escondido Corridor	Highly Recommended	\$0.00	\$2.99	\$2.98			

San Francisco-Bayshore - Third Street LRT	Recommended	\$0.00	\$0.00	\$0.00			
San Juan - Minillas Extension	Not Rated	\$0.00	\$0.00	\$0.00			
Tampa - Tampa Regional Rail	Not Recommended	\$3.97	\$0.00	\$0.99			
Washington DC - Largo Extension	Recommended	\$0.00	\$0.00	\$0.99			
<b>Subtotal</b>		<b>\$42.32</b>	<b>\$87.70</b>	<b>\$105.01</b>	<b>\$78.43</b>		
<b>Total</b>		<b>\$2,807.75</b>	<b>\$316.02</b>	<b>\$799.01</b>	<b>\$962.72</b>	<b>\$1,902.47</b>	<b>\$5,899.58</b>
Additional Fiscal Year 1999 Earmarks				\$97.02			
Ferry Capital Projects (AK or HI) (Section 5309(m)(5)(A))					\$10.32		
Oversight Activities				\$6.77	\$7.35		
<b>Grand Total</b>		<b>\$2,807.75</b>	<b>\$316.02</b>	<b>\$902.80</b>	<b>\$980.40</b>	<b>\$1,902.47</b>	<b>\$5,899.58</b>

(1) Totals include prior year funding not included in FFGA. See Text.

# New Starts Allocations and Recommendations

The President's budget for FY 2000 proposes that \$980.40 million be made available for new starts under §5309. This represents the full amount of guaranteed funds authorized by TEA-21. After subtracting amounts for FTA oversight activities as authorized by §5327, and for other purposes specified by §5309(m)(5)(A), a total of \$962.725 million remains available for projects. Of this amount, a total of \$668.18 million will be allocated among the 14 projects with existing Federal commitments, according to the amounts specified in Attachment 6 of their respective FFGAs. An additional \$216.11 million will be allocated among seven projects that are expected to be ready to negotiate funding commitments by the end of FY 2000. As authorized under §5309(m)(2), the remaining \$78.43 million will be made available for preliminary engineering activities; of this, a total of \$32.00 million is recommended for four specific projects, with the remaining \$46.43 million available to other project sponsors. Complete descriptions of these projects can be found in [Appendix A](#).

[Table 3](#) summarizes the recommendations for FY 2000 funding and overall funding commitments. For each project, the first column indicates the overall project rating, as described earlier in this report. The second column shows the amount of FY 1998 and prior year funds that have been obligated by each project, and the third column shows any unobligated amounts. The fourth column shows the amount of funds available as a result of the FY 1999 DOT Appropriations Act (adjusted for the oversight takedown). The fifth column shows the FY 2000 funding recommendations contained in the President's budget request, and the sixth indicates the maximum amount of outyear funding remaining for those projects under FFGAs. Finally, the last column sums the first five columns and shows the total amount to be made available over the life of the project from Federal transit major capital investment funds.

Please note that a *rating* of "recommended" does not translate directly into a *funding* recommendation; rather, it is an indication of overall project merit. Note also that project evaluation is an ongoing process, and ratings may change as project development continues and new information becomes available. Finally, no rating is shown for projects with existing FFGAs, as the Federal commitment had been made before TEA-21 established the requirement for overall ratings.

## **A Word About Full Funding Grant Agreements**

Section 5309(e)(7) specifies the Full Funding Grant Agreement (FFGA) as the means by which new starts projects are to be funded. The FFGA is also the principal means used by FTA to manage the new starts caseload. FTA also has the discretion to use an FFGA in awarding Federal assistance for other major capital projects.

The FFGA defines the project, including cost and schedule; commits to a maximum level of Federal financial assistance (subject to appropriation); establishes the terms and conditions of Federal financial participation; covers the period of time for completion of the project; and helps to manage the project in accordance with Federal law. The FFGA assures the grantee of predictable Federal financial support for the project (subject to appropriation) while placing a ceiling on the amount of that Federal support.

### Table 3: FY 2000 New Starts Funding Recommendations

An FFGA also limits the exposure of FTA and the Federal government to cost overruns that may result if project design, engineering and/or planning is not adequately performed at the local level. FTA is primarily a financial assistance agency; it is not directly involved in the design and construction of new starts projects. While FTA is responsible for ensuring that planning projections are based on realistic assumptions and that design and construction follow

acceptable industry procedures, it is the responsibility of project sponsors to ensure that proper planning, design and engineering have been performed.

Additional information and guidance on developing FFGAs is contained in [FTA Circular C 5200.1](#), Full Funding Grant Agreements Guidance, dated July 2, 1993, and the FTA Rule on Project Management Oversight (49 CFR Part 633).

# Existing Federal Funding Commitments

Fourteen projects have existing FFGAs that commit FTA to provide specified levels of major capital investment funding. These projects will require a total of \$668.18 million in FY 2000. The status of these projects and the individual funding recommendations for FY 2000 are described below. For eight of these projects, the funding recommendation represents the amount specified in Attachment 6 of the FFGA for FY 2000. The recommendations for the remaining six are based on the total remaining Federal funding commitment for the project. Because Federal funding commitments were in place for these projects prior to TEA-21, they have not been assigned summary ratings as described in §5309(e)(6). All of these projects have been authorized by TEA-21.

## Atlanta/North Line Extension

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is constructing a 1.9-mile, 2-station extension of the North Line from the Dunwoody station to North Springs. When completed, this extension will serve the rapidly-growing area north of Atlanta, which includes Perimeter Center and north Fulton County, and will connect this area with the rest of the region by providing better transit service for both commuters and inner-city residents traveling to expanding job opportunities.

The total cost (Federal and non-Federal) of this project has increased from \$381.30 million to an estimated \$463.18 million since the FFGA was issued for this project in 1994. The increase is due primarily to the need to address anticipated service level increases, station parking enhancements, and impacts to the project right-of-way from the proposed widening of the adjacent GA 400 freeway. It now includes the purchase of 56 rail cars, twice the number included in the original plan to which FTA committed. Section 3030(d)(2) of TEA-21 authorizes an amendment to the FFGA to incorporate these changes. However, as noted earlier in this report and specified in the FFGA, any additional costs beyond the scope of the Federal commitment are the responsibility of the grantee.

On December 20, 1994, FTA issued an FFGA committing a total of \$305.01 million in new starts funding to this project. Of this commitment, a total of \$208.15 million has been appropriated through FY 1998. The FY 1999 appropriation provided an additional \$51.72 million, leaving \$45.14 million required to fulfill the terms of the FFGA. Attachment 6 of the FFGA for this project specifies that \$37.10 million be provided in FY 2000, which would leave \$8.04 million remaining. Because such a small amount would remain, it is recommended that the entire \$45.14 million be provided in FY 2000 to complete the Federal funding commitment to this project.

## Boston/South Boston Piers Transitway Phase 1

The Massachusetts Bay Transportation Authority (MBTA) is developing an underground transitway to connect the existing transit system with the South Boston Piers area. The Piers area, which is connected to the central business district (CBD) by three local bridges, is slated for significant future development. A 1.5-mile tunnel, to be constructed in two phases, will extend from the existing Boylston Station to the World Trade Center; five underground stations will provide connections to the MBTA's Red, Orange, and Green Lines. Dual-mode trackless trolleys will operate in the transitway tunnel and on surface routes in the eastern end of the Piers area.

Phase 1 of this project consists of a 1-mile, three-station bus tunnel between South Station and the World Trade Center, with an intermediate stop at Fan Pier. Part of the construction is being coordinated with the Central Artery highway project. South Station serves the existing MBTA Red Line, as well as Amtrak and commuter rail and bus service. The total estimated cost of Phase I is

\$413.40 million, though this does not include recently calculated cost increases. Any escalation of the total project cost is the responsibility of local project sponsors. Phase II would extend the transitway to Boylston Station on the Green Line and the Chinatown Station on the Orange Line.

Section 3035(j) of ISTEA directed FTA to enter into an FFGA for this project. On November 5, 1994, an FFGA was issued for Phase 1, committing a total of \$330.73 million in §5309 new starts funding. Through FY 1998, a total of \$188.30 million has been provided for this project. The FY 1999 appropriation provided an additional \$53.58 million. This leaves \$88.85 million required to complete the Federal commitment to this project. It is recommended that funds in the amount of \$53.96 million be provided in FY 2000, in accordance with Attachment 6 of the FFGA for this project. The remaining \$34.89 million would be provided in future years. Phase 1 is now expected to open for revenue service in December 2002.

## Denver/Southwest LRT

The Regional Transit District (RTD) in Denver is constructing an 8.7-mile light rail extension between Denver and Littleton. The line extends from the I-25/Broadway station on the existing Central Corridor line south to Mineral Avenue in Littleton, running parallel to Santa Fe Drive over an exclusive, grade-separated right-of-way. This extension is expected to serve 8,400 daily passengers when it opens for revenue service in July 2000, with an estimated 22,000 daily riders by 2015.

FTA issued an FFGA for this project on May 9, 1996, which will provide a total of \$120.00 million in §5309 new starts funding. Through FY 1998, a total of \$25.76 million has been provided to this project, with an additional \$39.70 million appropriated in FY 1999. This leaves \$54.54 million required to complete the Federal funding commitment. As specified in Attachment 6 of the FFGA for this project, it is recommended that \$35.00 million be provided to this project in FY 2000; the remaining \$19.54 million would be provided in future years.

## Houston/Regional Bus Plan

Houston Metro's \$1 billion Regional Bus Plan consists of a package of improvements to its existing bus system. The package includes service expansions in most of the region, new and extended HOV (High-Occupancy Vehicle, or "carpool") facilities and ramps, new buses, several transit centers and park-and-ride lots, and supporting facilities. This collection of projects was selected as the locally-preferred alternative over a proposed rail project in 1992.

An FFGA was issued on December 30, 1994, to provide a total of \$500.00 million in §5309 new starts funds for the Regional Bus project. A total of \$378.26 million has been provided through FY 1998, of which \$287.02 million has been obligated. The FY 1999 appropriation provided an additional \$59.23 million. The FY 2000 budget recommends \$62.52 million for this project, which includes the \$52.77 million specified in Attachment 6 of the FFGA, plus an additional \$9.75 million needed to complete the Federal commitment to this project in FY 2000. All projects under the Regional Bus Plan are expected to be completed by December 2004.

## Los Angeles/North Hollywood

The Metro Rail Red Line Project in Los Angeles is being planned, programmed and constructed in phases, through a series of "Minimum Operable Segments" (MOSs). The first of these segments (MOS-1), a 4.4-mile, 5-station segment, opened for revenue service in January 1993. A 2.1-mile, three-station segment of MOS-2 opened along Wilshire Boulevard in July 1996; an additional 4.6-mile, 5-station segment of MOS-2 is currently under construction, and the Federal funding commitment has been fulfilled. On May 14, 1993, an FFGA was issued to the Los Angeles County Metropolitan Transportation Authority (LACMTA) for the third construction phase, MOS-3.

MOS-3 was defined under ISTEA (Section 3034) to include three segments: the *North Hollywood* segment, a 6.3-mile, three-station subway extension of the Hollywood branch of MOS-2 to North Hollywood through the Santa Monica mountains; the *Mid-City* segment, a 2.3-mile, two-station western extension of the Wilshire Boulevard branch; and an undefined segment of the *Eastside* project, to the east from the existing Red Line terminus at Union Station. LACMTA later defined this eastern segment as a 3.7-mile, four-station extension under the Los Angeles River to First and Lorena in East Los Angeles. On December 28, 1994, the FFGA for MOS-3 was amended to include this definition of the eastern segment, bringing the total commitment of Federal new starts funds for MOS-3 to \$1,416.49 million. On June 9, 1997, FTA and LACMTA negotiated a revised FFGA covering the North Hollywood segment (Phase 1-A) of MOS-3, which is proceeding as scheduled.

In January 1997, FTA requested that the MTA submit a recovery plan to demonstrate its ability to complete MOS-2 and MOS-3. On January 14, 1998, the LACMTA Board of Directors voted to suspend and demobilize construction on all rail projects other than MOS-2 and MOS-3 North Hollywood Extension. The MTA submitted a recovery plan to FTA on May 15, 1998, which was approved by FTA on July 2, 1998.

In 1998, the MTA undertook a Regional Transportation Alternatives Analysis (RTAA) to analyze and evaluate feasible alternatives for the Eastside and Mid-City corridors. The RTAA addressed system investment priorities, allocation of resources to operate existing transit services at a reliable standard, assessment and management of financial risk, countywide bus service expansion, and a process for finalizing corridor investments. On November 9, 1998, the LACMTA Board reviewed the RTAA and directed staff to reprogram resources previously allocated to the Eastside and Mid-City Extensions to the implementation of RTAA recommendations, including the LACMTA Accelerated Bus Procurement Plan. The MTA plans to conduct further study of transit investment options in the Eastside and Mid-City corridors.

To date, a total of \$571.53 million in FY 1998 and prior year funds has been committed to the MOS-3 project, under the existing FFGA. An additional \$37.72 million was provided in the FY 1999 appropriation, leaving \$807.24 million remaining to complete the Federal commitment to MOS-3. It is recommended that \$50.00 million be provided to the North Hollywood project in FY 2000, as specified in Attachment 6 of the FFGA.

## Maryland/MARC Extension to Frederick & System Improvements

The Mass Transit Administration of Maryland (MTA) is extending the Maryland Commuter Rail (MARC) system from Point of Rocks to Frederick, Maryland. This extension will provide service from suburban Montgomery and Frederick counties to Baltimore, Maryland and Washington, D.C. The project involves track, signal, and station and yard improvements along an existing freight line. In addition, MTA is embarking on a major procurement of additional commuter rail coaches and locomotives needed to meet anticipated systemwide demand on the MARC system and provide service on this extension. Manufacturing of the coaches is underway, and delivery has begun. The locomotive procurement is being undertaken jointly with Amtrak; delivery is expected to begin by 2000. Protracted negotiations with CSXT over right-of-way purchase terms have resulted in project delays; MTA now expects to begin MARC service on the Frederick extension by 2001.

Section 3030(g)(2) of TEA-21 authorizes an amendment to the FFGA for this project to include capacity and efficiency improvements through construction of a Penn-Camden Connection, maintenance and storage facilities and other capacity-related improvements, and the Silver Spring Intermodal Center.

An FFGA was issued on June 19, 1995, committing a total of \$105.25 million to complete the project. This does not include \$33.26 million in FY 1994 and prior year funding appropriated

before the FFGA, which brings total Federal funding for this project to \$138.51 million. Through FY 1998, a total of \$120.89 million has been appropriated for this project. The FY 1999 appropriation provided an additional \$16.91 million, leaving \$703,308 needed to fulfill the FFGA. It is recommended that these remaining funds be provided in FY 2000 to complete the current FFGA.

## Northern New Jersey/Hudson-Bergen Waterfront LRT

The New Jersey Transit Corporation (NJ Transit) is constructing a 9.6-mile, 16-station light rail line along the Hudson River Waterfront in Hudson County, from the Hoboken Terminal to 34th Street in Bayonne and Westside Avenue in Jersey City. This line is intended as the first minimum operable segment (MOS) of a larger 21-mile, 30-station line extending from the Vince Lombardi park-and-ride lot in Bergen County to Bayonne, passing through Port Imperial in Weehauken, Hoboken, and Jersey City. The core of the completed system will serve the high-density commercial centers in Jersey City and Hoboken, and provide connections with NJ Transit commuter rail service, PATH trains to Newark and Manhattan, and the Port Imperial ferry from Weehauken to Manhattan. The initial operating segment is being constructed under a turnkey contract to design, build, operate, and maintain the system, which was awarded in October 1996. Construction began on the MOS in December 1996.

This project is a major component of the Urban Core program of interrelated projects defined in ISTEA and TEA-21, designed to enhance mobility significantly in the Northeastern New Jersey area. These projects were specifically exempt from the FTA New Starts evaluation criteria by ISTEA, and again by TEA-21.

The Department issued an FFGA on October 15, 1996 that commits \$604.09 million in §5309 new starts funding for the MOS. Through FY 1998, a total of \$158.83 million has been appropriated for this project. The FY 1999 appropriation provided an additional \$69.48 million, leaving \$375.78 million needed to complete the Federal commitment to MOS-1. It is recommended that \$99.00 million be provided in FY 2000, in accordance with Attachment 6 of the FFGA for this project. The remaining \$276.78 million needed to complete the Federal funding commitment would be provided in future years. This project is scheduled to open for revenue service in July 2000.

## Portland/Westside LRT to Hillsboro

On September 12, 1998 the Tri-County Metropolitan Transportation District (Tri-Met) in Portland, Oregon officially opened the 17.7-mile extension of the MAX light rail system between downtown Portland and downtown Hillsboro. This line includes 20 new stations and nine park-and-ride lots. The route includes a 3-mile twin-tube tunnel under the West Hills, essentially paralleling the Sunset Highway. Service is provided by 42 low-floor light rail vehicles, the first to be placed in service in the United States.

The original FFGA for this project was issued in September 1992, for a segment to S.W. 185th Avenue in Washington County, and was amended in December 1994 to include the remaining segment to Hillsboro. Consistent with Congressional authorization, it was amended again on November 1, 1996 to commit a total of \$630.06 million in §5309 new starts funding to the entire "Westside-Hillsboro" project. Of this, \$593.48 million has been provided in FY 1998 and prior years. The FY 1999 appropriation provided an additional \$25.53 million, leaving \$11.06 million required to complete the Federal commitment to this project. It is recommended that this final funding increment be provided in FY 2000.

## Sacramento/South Corridor LRT

The Sacramento Regional Transit District (RT) is developing an 11.3-mile light rail project in the South Sacramento Corridor. The system will follow existing Union Pacific right-of-way from downtown Sacramento to Calvine/Auberry. To maximize the use of available State and local capital funds, RT will implement this project in several phases. The first phase, a 6.3-mile minimum operable segment (MOS), would operate between downtown Sacramento and Meadowview Road. Population and employment in this corridor are expected to grow at rates faster than the regional average, resulting in severe congestion on the two major highways in the corridor. Final design activities commenced on July 1, 1997, and construction is expected to begin in late 1999. The project is projected to open for revenue service by September 2003.

On June 20, 1997, an FFGA was issued for the 6.3-mile MOS, committing a total of \$111.20 million in Federal new starts funding. This does not include \$1.98 million in prior year funds that were obligated before the FFGA was issued, which brings the total amount of §5309 new starts funding to \$113.18 million. A total of \$30.15 million in FY 1998 and prior year funding has been allocated to this project, and an additional \$23.31 million was appropriated in FY 1999. It is recommended that \$25.00 million be provided in FY 2000, as specified in Attachment 6 of the FFGA for this project, with the remaining \$34.72 million to be provided in future years.

## Salt Lake City/South LRT

The Utah Transit Authority (UTA) is constructing a 15-mile light rail transit (LRT) line from downtown Salt Lake City to the southern suburbs. The system will operate on city streets downtown (2 miles) and then follow a lightly-used railroad alignment owned by UTA to the suburban community of Sandy (13 miles). This project is one component of the Interstate 15 corridor improvement initiative, which includes reconstruction of a parallel segment of I-15. Construction is underway, with an estimated completion date of December 2000.

Salt Lake City has been selected as the site for the 2002 Winter Olympic and Paralympic Games. This project will connect major hotels and local residential areas with the Olympic venues for figure skating, medal rounds for ice hockey, and the International Broadcast Center, and will connect with bus service to venues for speed skating, curling, and the Nordic alpine events.

On August 2, 1995, FTA issued an FFGA for this project that commits a total of \$237.39 million in Federal new starts funding. This does not include \$6.60 million in prior year funds that were provided before the FFGA was issued, which brings the total amount of §5309 new starts funding to \$243.99 million. A total of \$136.58 million has been appropriated in FY 1998 and prior years. The FY 1999 appropriation provided an additional \$69.48 million for this project, leaving \$37.93 million needed to complete the Federal commitment. Attachment 6 of the FFGA specifies that \$37.41 million be provided in FY 2000, which would leave \$521,300 remaining. Because such a small amount would remain, it is recommended that the entire \$37.93 million be provided in FY 2000 to complete the Federal funding commitment. This project will be operational in December 2000, well before the opening of the 2002 Winter Olympics.

## San Francisco/BART Airport Extension ("BART-SFO")

Bay Area Rapid Transit (BART) in San Francisco and the San Mateo County Transit District (SamTrans) are implementing an 8.2-mile, 4-station extension of the BART rapid transit system to serve San Francisco International Airport. The project consists of a 7.4-mile mainline extension from the existing BART station at Colma, through Colma, south San Francisco, and San Bruno, terminating at the Millbrae Avenue BART/CalTrain Station. An additional 0.8-mile spur from the main line north of Millbrae will take BART trains directly into the airport, to a station adjoining the new International Terminal.

The San Francisco International Airport is a major partner in this project. All structures and facilities to be constructed on airport property, and installation of related equipment, are being

funded, designed and constructed by the airport for BART. This project is also participating in the FTA Turnkey Demonstration program to determine if the design/build approach will reduce implementation time and cost. On July 24, 1997, the first contract was awarded for site preparation and utility relocation associated with this project. Bids for the main contract for construction of the line, trackwork and related systems were opened on November 25, 1997.

On June 30, 1997, FTA entered into an FFGA for the BART-SFO extension, committing a total of \$750.00 million in Federal new starts funds to the project. Through FY 1998, a total of \$113.72 million has been allocated to this project. An additional \$39.70 million was provided in FY 1999, leaving \$596.57 million of the total commitment remaining. In accordance with Attachment 6 of the FFGA for this project, it is recommended that \$84.00 million be provided in the FY 2000 budget to keep this project progressing on schedule. The remaining \$512.57 million would be provided in future years. This extension is expected to open for service by September 30, 2001, as specified by the terms and conditions of the FFGA.

## San Jose/Tasman LRT West Extension

The Santa Clara County Transit District (SCCTD) is planning a 12.4-mile light rail system from northeast San Jose to downtown Mountain View, connecting with both the Guadalupe LRT in northern Santa Clara County and the Caltrain commuter rail system. The project is proceeding in two phases: the Phase 1 West Extension will connect the northern terminus of the Guadalupe Light Rail System in Santa Clara with the Caltrain Commuter Rail station in downtown Mountain View, a distance of 7.6 miles; the future Phase 2 East Extension will complete the remaining 4.8 miles.

An FFGA was issued for Phase 1 of this project on July 2, 1996, providing a total of \$182.75 million in §5309 new starts funding. A total of \$124.08 million was provided in FY 1998 and prior years, and an additional \$26.80 million was provided in FY 1999. This leaves \$31.87 million needed to complete the Federal commitment to this project. Attachment 6 of the FFGA for this project specifies that \$20.00 million be provided in FY 2000, which would leave \$11.87 million remaining. Because such a small amount would remain, it is recommended that the entire \$31.87 million needed to complete the Federal commitment be provided in FY 2000.

## San Juan/Tren Urbano

The Puerto Rico Department of Transportation and Public Works (DTPW) is constructing a 10.7-mile, 16-station rapid rail line between Bayamon Centro and the Sagrado Corazon area of Santurce in the San Juan metropolitan area. The system consists of a double-track line operating over at-grade and elevated rights-of-way with a short below-grade segment, and a maintenance facility. When complete, this system is expected to carry 113,300 riders per day by 2010.

This project has been selected as one of FTA's turnkey demonstration projects, which incorporates contracts to design, build, operate, and maintain the system. This type of procurement is expected to expedite the implementation of the project and develop the institutional capability needed to operate the system. During 1996 and 1997, seven contracts were awarded under the turnkey procurement.

On March 13, 1996, FTA entered into an FFGA committing \$307.41 million in §5309 new starts funds to this project, out of a total project cost of \$1,250.00 million. This did not include \$4.96 million in Federal new starts funding provided prior to FY 1996, which brings total Federal new starts funding for this project to \$312.37 million. A total of \$33.38 million has been allocated to the Tren Urbano project in FY 1998 and prior year funds, and an additional \$19.85 million was appropriated in FY 1999. This leaves \$259.14 million needed to complete the FFGA. In accordance with Attachment 6 of the FFGA, it is recommended that \$82.00 million be provided to this project in FY 2000, with the remaining \$177.14 million to be provided in future years. The

Puerto Rico Highway and Transportation Authority (PRHTA) now estimates that total project costs have increased from \$1,250.00 million to \$1,550.00 million, reflecting locally-approved enhancements which will be funded from local sources.

## St. Louis/St. Clair County LRT

The Bi-State Development Agency (Bi-State) is developing a 26-mile extension of the Metrolink light rail line from downtown East St. Louis, Illinois to the Mid America Airport in St. Clair County. A 17.4-mile Minimum Operable Segment (MOS) will extend from the current Metrolink terminal in downtown East St. Louis to Belleville Area College. This segment consists of eight stations, seven park-and-ride lots, 20 new light rail vehicles, and a new maintenance facility in East St. Louis. The route makes extensive use of abandoned railroad rights-of-way. Right-of-way and real estate acquisition is proceeding as scheduled, and revenue service is scheduled to begin in May 2001.

On October 17, 1996, FTA and Bi-State entered into an FFGA that commits a total of \$243.93 million in §5309 new starts funding to complete the 17.4-mile MOS. This does not include \$8.49 million in Federal new starts funding provided prior to FY 1996, which brings total Federal funding for this project to \$252.41 million under the new starts program. Bi-State has proposed that the FFGA be amended to include the Mid America Airport segment, as contemplated in the FFGA. Through FY 1998, a total of \$78.09 million has been appropriated for this project. The FY 1999 appropriation provided an additional \$34.74 million, leaving \$139.58 million needed to fulfill the Federal funding commitment. It is recommended that \$50.00 million be provided to this project in FY 2000, as specified in Attachment 6 of the FFGA, with the remaining \$89.58 million to be provided in future years.

# Proposed New Federal Funding Commitments

In addition to the funding recommendations for existing Federal commitments discussed above, seven proposed projects are expected to be ready to negotiate FFGAs by the end of FY 2000. In anticipation of these new commitments, FTA recommends that a total of \$216.11 million be allocated among these projects in FY 2000. Six of these projects have been rated as "recommended" or "highly recommended" under the criteria and processes specified by TEA-21. The commitment to the seventh project, the Salt Lake City/East-West LRT (Downtown Segment), is based on the need to provide adequate transportation for the 2002 Winter Olympic and Paralympic Games. The funding recommendations described below are based on the anticipated funding needs of each project in FY 2000.

## Dallas/North Central LRT Extension

Dallas Area Rapid Transit (DART) plans to build an extension of its existing light rail system, which opened in phases from June 1996 to May 1997, north to the City of Plano. The 12.5-mile extension would connect with the existing system at the Park Lane Station, adding nine new stations. DART estimates that approximately 17,000 riders will use this extension by 2020. The total cost of this project is estimated at \$517.20 million. This project has received a "high" financial rating and is rated "medium" for justification, resulting in an overall project rating of "recommended."

This extension is nearing the completion of the final design phase of project development. It is included in the regionally adopted Metropolitan Transportation Plan and Transportation Improvement Program, which are in conformance with the State Implementation Plan for Air Quality. DART began contracting for construction and purchasing vehicles and necessary right-of-way in May 1998.

The North Central Extension is authorized for final design and construction by Section 3030(a)(20) of TEA-21. A total of \$43.2 million in §5309 new starts funds has been appropriated for this project through FY 1999.

FTA anticipates that this project will be ready to negotiate an FFGA by the end of FY 2000. The total amount of the Federal commitment will be determined at that time. In preparation for this expected commitment, it is recommended that \$70.00 million be provided to this project in FY 2000.

## Ft. Lauderdale/Tri-Rail Commuter Rail Upgrade

The Tri-County Commuter Rail Authority (Tri-Rail) is proposing a number of system improvements to the 71.7-mile regional transportation system it operates between Palm Beach, Broward and Dade Counties in South Florida. This area has a population of over four million, nearly one-third of the total population of Florida. The planned improvements include construction of a second mainline track, rehabilitation of the signal system, station and parking improvements, acquisition of new rolling stock, improvements to the Hialeah maintenance yard facility and construction of a new, northern layover facility. The proposed double-tracking is intended to allow for 15 minute headways during peak commuter hours, as opposed to the current one-hour headways. Tri-Rail estimates that these improvements will serve an average of 68,348 daily riders by 2015. This project is rated medium-high for both finance and justification, giving it an overall rating of "highly recommended."

To date, 9.6 miles of the Double Track Corridor Improvement Project have been completed, including a station at Miami International Airport, which will be the cornerstone of the future Miami Intermodal Center. An additional 7.0 miles are scheduled to be completed in early 2000.

The Tri-Rail Commuter Rail Upgrade (described as the Ft. Lauderdale-West Palm Beach-Miami Tri-County Commuter Rail) is authorized for final design and construction by Section 3030(a)(27) of TEA-21. Congress appropriated a total of \$51.29 million in §5309 new starts funding for this project through FY 1998, and an additional \$3.97 million was provided in FY 1999.

FTA anticipates that Tri-Rail will be ready to negotiate an FFGA for this project by the end of FY 2000. The total amount of the Federal commitment will be determined at that time. In preparation for this expected commitment, it is recommended that \$20.00 million be provided to this project in FY 2000.

## Memphis/Medical Center Extension

The Memphis Area Transit Authority (MATA), in cooperation with the City of Memphis, is proposing to build a 2.5-mile extension to its light rail system, from the current terminus at the Main Street Mall in the central business district to a new transit center near Cleveland and Claybrook Streets on the east (Medical Center). The proposed project would operate on-street in mixed traffic and would connect with the Main Street Trolley. Sixteen stops would be located along the route. The line will be designed to accommodate light rail vehicles but vintage rail cars would be used until a proposed regional LRT line is implemented and a fleet of modern LRT vehicles is acquired. This project is proposed to be the last segment of the downtown rail circulation system as well as the first segment of a regional light rail line. MATA estimates that this project will serve 4,200 riders daily by 2020.

This project is included in the City of Memphis' Capital Improvement Program, the Memphis MPO Transportation Improvement Program, and the State Transportation Improvement Program. A Major Investment Study/Environmental Assessment was completed in May 1997. FTA approved entry into preliminary engineering in March 1998.

The total capital cost of the project is estimated at \$35.90 million. MATA estimates that the daily ridership of the proposed project would be 2,100 when it opens in 2002, and would increase to 4,200 by 2020. This project has received a medium-high financial rating and is rated medium for justification, resulting in an overall project rating of "recommended."

The Memphis Corridor was authorized for final design and construction by Section 3030(a)(43) of TEA-21. A total of \$5.75 million in §5309 new starts funds has been appropriated for this project through FY 1998, and an additional \$2.18 million was provided in FY 1999.

FTA anticipates that MATA will be ready to negotiate an FFGA for this project by the end of FY 2000. The total amount of the Federal commitment will be determined at that time. In preparation for this expected commitment, it is recommended that \$15.11 million be provided to this project in FY 2000.

## Newark/Newark Rail Link

The New Jersey Transit Corporation (NJ Transit) is planning an 8.8-mile, 16-station light rail system linking the cities of Newark and Elizabeth, New Jersey. The project will be advanced in three stages. The first Minimum Operable Segment (MOS) is a one-mile, five-station extension of the existing 4.3-mile Newark City Subway light rail line, running from Broad Street Station in Newark to Newark Penn Station. The second stage is a planned one-mile segment from Newark Penn Station to Camp Street in downtown Newark, and the third is the planned remaining 7-mile segment to Elizabeth, which includes a station serving Newark International Airport.

The total capital cost of the MOS is estimated at \$150.00 million, including associated stations, vehicles and a vehicle maintenance facility. The capital cost of the entire 8.8-mile project is estimated to be \$694.00 million (\$1995). NJ Transit projects that the entire line will carry 24,900 riders per day in 2015.

The Draft Environmental Impact Statement (DEIS) for all three stages of the full build alternative was completed in January 1997. The Final Environmental Impact Statement (FEIS), which addressed only the MOS, was completed in October 1998. The Federal Transit Administration signed a Record of Decision (ROD) for the MOS in November 1998. Environmental work on the other segments of the Newark-Elizabeth Rail Link awaits completion of an additional planning study.

Section 3030(a)(57) of TEA-21 authorized the New Jersey Urban Core Project, which consists of eight separate elements, including the Newark-Elizabeth Rail Link, for final design and construction. Through FY 1999, Congress has appropriated \$17.91 million in Section 5309 funds for the New Jersey Urban Core Newark-Elizabeth Rail Link Project.

The Urban Core project, including the Newark Rail Link, was exempt from evaluation under the statutory project justification criteria by Section 3031(c) of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). This exemption continues under TEA-21. However, NJ Transit has provided data to FTA for evaluation, which provides a basis for supporting a Federal commitment and a funding recommendation for FY 2000. The Newark Rail Link MOS has received a rating of medium-high for both justification and finance, earning an overall rating of "highly recommended."

NJ Transit is expected to be ready to negotiate an FFGA for the Newark Rail Link MOS by the end of FY 2000. The total amount of the Federal commitment will be determined at that time. In preparation for this expected commitment, it is recommended that \$12.00 million be provided to this project in FY 2000.

## Orlando/I-4 Central Florida LRT Project

The Central Florida Regional Transportation Authority (LYNX) in Orlando is proposing to construct a 16.3-mile, 20-station light rail system in the Interstate 4 (I-4) corridor between the Loch Haven/Princeton area in the north to the Central Florida Parkway in the south. LYNX plans to implement the system in two phases. The first Minimum Operable Segment (MOS) is a 14.6-mile line along I-4 and a CSX railroad line, between downtown Orlando and a station to be located near the interchange between I-4 and the Central Florida Parkway. This line will connect the CBD and the International Drive tourist area, both of which are major trip generators. The total capital costs for the MOS are estimated at \$600.10 million, with estimated daily ridership totaling 103,700 passengers in 2020. In addition to the light rail system, LYNX proposes to expand local bus and feeder bus service in the corridor.

The Central Florida LRT project was included in a Major Investment Study for the I-4 corridor, which was completed by the Florida Department of Transportation (FDOT) in the Fall of 1995. In December 1995, the Orlando and Volusia County MPOs adopted the I-4 MIS design concept and scope improvements as part of the Year 2020 Long Range Transportation Plans.

LYNX and FDOT have completed preliminary engineering for the Central Florida LRT MOS. The Final Environmental Impact Statement (FEIS) has been signed and is awaiting a Record of Decision (ROD) and FTA approval to enter final design. The MOS has been rated medium-high for both project justification and local financial commitment, earning an overall rating of "highly recommended."

Section 3030(a)(60) of TEA-21 authorizes the Orlando-I-4 Central Light Rail System for final design and construction. Through FY 1999, Congress has appropriated \$51.06 million in new starts funds for this project.

FTA anticipates that LYNX will be ready to negotiate an FFGA for the MOS for this project by the end of FY 2000. The total amount of the Federal commitment will be determined at that time. In preparation for this expected commitment, it is recommended that \$44.00 million be provided to this project in FY 2000.

## Salt Lake City/Downtown Connector

The Utah Transit Authority (UTA) is planning a 10.9-mile, 15-station light rail system from the Salt Lake International Airport (SLIA) through downtown Salt Lake City to the University of Utah. This "West-East LRT" system will connect with the North-South LRT line in the downtown area. Initially, UTA plans to construct a segment of approximately one mile to connect the North-South line (now under construction) and several downtown destinations, including the planned Salt Lake City Gateway Intermodal Center and related development in the Gateway District of the CBD. In addition to serving local transportation needs, this *Downtown Connector* will provide transportation service needed for the 2002 Winter Olympic and Paralympic Games. The total capital cost for the Downtown Connector is estimated at \$74.80 million, with daily ridership estimated at 2,500 passengers.

The Wasatch Front Regional Council (WFRC) completed a Major Investment Study and Draft Environmental Impact Statement for the West-East LRT in July 1997. FTA approved entry into preliminary engineering in January 1998. The Final Environmental Impact Statement was published in December 1998; a Record of Decision for the entire West-East LRT project is expected in early 1999.

Section 3030(a)(72) of TEA-21 authorizes the Salt Lake City – Light Rail (Airport to the University of Utah) for final design and construction. Congress appropriated \$4.96 million in §5309 new starts funds for this project in FY 1999.

The entire 10.9-mile proposed system has been rated as "medium" for project justification and "low" for finance, resulting in an overall rating of "not recommended." No data for the Downtown Connector alone was available to FTA, however. While projects rated "not recommended" in a given year are generally not eligible for a Federal funding commitment, the fact that the Downtown Connector will provide needed transportation for the 2002 Winter Olympics (all Olympic ticketholders will be expected to travel to venues and events by transit) represents a compelling argument for Federal support. For this reason, FTA intends to negotiate an FFGA with UTA for construction of the *Downtown Connector* segment of the West-East LRT, in support of the 2002 Winter Olympic and Paralympic Games. In anticipation of this commitment, \$20.00 million in §5309 new starts funding is recommended for FY 2000.

## San Diego/Mission Valley East LRT Extension

The Metropolitan Transit Development Board (MTDB) is planning a 5.9-mile light rail extension from east of Interstate 15 to the City of La Mesa, where it would connect to the existing East LRT Line (now referred to as the Orange Line) near Baltimore Drive. The Mission Valley East line will serve four new and two existing stations, and would include elevated, at-grade, and tunnel portions. The project includes two park and ride lots and a new access road between Waring Road and the Grantville Station. The total project capital cost is \$361 million. The system is expected to serve approximately 10,800 daily riders in the corridor by 2015.

The Major Investment Study/Draft Environmental Impact Statement (DEIS) was completed in May 1997. The Locally Preferred Alternative was selected by the Metropolitan Transit Development Board in October 1997 with concurrence from the San Diego Association of

Governments (SANDAG). FTA approved entry into preliminary engineering in March 1998, and preliminary engineering was completed in July 1998. This abbreviated schedule was made possible by the extensive public involvement and detailed analyses undertaken during the planning stages, streamlining much of the work that would traditionally be undertaken during preliminary engineering and preparation of the Final Environmental Impact Statement (FEIS). The FEIS is complete, the Record of Decision (ROD) was issued in August 1998, and approval to enter Final Design was granted by FTA in October 1998.

This project was authorized for final design and construction by Section 3030(a)(76) of TEA-21. Through FY 1998, Congress has appropriated \$1.00 million in §5309 new starts funds for this project, and an additional \$1.49 million was provided in FY 1999. Based on the results of the project evaluation process required under §5309(e), this project has been rated high in terms of finance and medium-high for justification, resulting in an overall project rating of "highly recommended."

FTA anticipates that MTDB will be ready to negotiate an FFGA for the Mission Valley East project by the end of FY 2000. The total amount of the Federal commitment will be determined at that time. In preparation for this expected commitment, it is recommended that \$35.00 million be provided for this project in FY 2000.

# Funding for Preliminary Engineering

TEA-21 established a new provision limiting the amount of §5309 funds that can be used for purposes other than final design and construction to 8 percent of total annual new starts funds. For FY 2000, this amounts to \$78.43 million that can be used for planning and preliminary engineering purposes.

The Administration's FY 2000 budget recommends specific allocations for four proposed projects, totaling \$32.00 million. Based on current information, these projects are among the strongest candidates in the new starts pipeline, based on the project ratings and degree of development. Sponsors of other projects are eligible to apply for the remaining \$46.43 million for preliminary engineering purposes. (While alternatives analysis is technically eligible for these funds under TEA-21, these activities are more appropriately funded under the §5303 Metropolitan Planning or §5307 Urbanized Area Formula Grants programs.)

## Baltimore/Central Corridor LRT Double Track

The Maryland Mass Transit Administration plans to construct 9.4 miles of track to upgrade designated areas of the Baltimore Central Light Rail Line (CLRL) that are currently single track. The CLRL is 29 miles long and operates from Hunt Valley in the north to Cromwell/Glen Burnie in the south, serving Baltimore City and Baltimore and Anne Arundel Counties, with extensions providing direct service to the Amtrak Penn Station and the Baltimore-Washington International Airport. The existing system was funded entirely with local resources.

The proposed project will double-track eight sections of the CLRL between Timonium and Cromwell Station/Glen Burnie, for a total of 9.4 miles. Although no new stations are required, the addition of a second track will require construction of second station platforms at four stations where side boarding platforms are now in use. Other elements included in the project are bridges and crossings, a bi-directional signal system with traffic signal preemption on Howard Street, and catenary and other equipment and systems. The double tracking will be constructed almost entirely in existing right-of-way. MTA estimates the total cost of the double-tracking and related improvements at \$150.00 million. MTA estimates that this project will increase ridership by 6,750 new riders daily by 2020.

The original Central Corridor Light Rail Line began operations as single track in 1992-1993. MTA completed a study examining the feasibility, environmental impacts and benefits of double tracking eight sections. The double track project was adopted by the Baltimore Metropolitan Council and included in its financially constrained long range plan in 1993.

The preliminary engineering and environmental phase for the Southern segment, Cromwell Station to Hamburg Street, is expected to be completed by Spring 1999, and a Record of Decision (ROD) could be issued by Summer 1999. For the Northern segment, North Avenue to Timonium, preliminary engineering should be completed in late 1999 or early 2000, with a ROD by Spring 2000.

Section 3030(a)(42) of TEA-21 authorizes the "Maryland – Light Rail Double Track" for final design and construction. Congress allocated \$992,550 for this project in the FY 1999 appropriations.

The CLRL double track project has been rated medium for finance and medium-high for justification, based on FTA's evaluation under §5309(e). This results in an overall project rating of "recommended." These ratings are based on data for the entire 29-mile system, including the proposed upgrades. In order to further the development of this project, FTA recommends that \$8.00 million be provided in FY 2000.

## Minneapolis/Hiwatha Corridor Transitway

Metro Transit of Minneapolis-St. Paul and the Metropolitan Council, in cooperation with the Minnesota Department of Transportation (MnDOT) and Hennepin County, are proposing to design and construct a 12.2-mile light rail line linking downtown Minneapolis, the Minneapolis-St. Paul (MSP) International Airport, and the Mall of America in Bloomington. This system is the transit component of a multimodal transportation plan for the Hiawatha Avenue/Trunk Highway 55 Corridor, which also includes highway reconstruction activities.

The estimated capital cost for the 12.2-mile Hiawatha Avenue LRT, including 18 proposed stations, totals \$446.00 million (\$1997). The project is expected to serve an average of 24,800 weekday riders by the year 2020, with 19,300 daily riders projected in the opening year.

A Final Environmental Impact Statement (FEIS), including a Record of Decision (ROD) for the Hiawatha Avenue Corridor, was completed in February 1985. The preferred alternative documented in the 1985 FEIS included the reconstruction of the roadway to a four-lane, divided at-grade arterial, with an LRT line adjacent to the roadway and extending north to the Minneapolis CBD and south to the Minneapolis-St. Paul International Airport. MetroTransit is currently completing a re-evaluation of the 1985 FEIS, scheduled to be completed in early 1999. The FEIS re-evaluation will include updated cost and ridership estimates, a final route alignment in the downtown Minneapolis portion of the project, and alignment options at the airport as well as options for service south to Bloomington. The Hiawatha Avenue LRT is included in the region's 1997-2000 Transportation Improvement Program.

Section 3030(a)(91) of TEA-21 authorized the "Twin Cities – Transitway Corridors" for final design and construction. Through FY 1998, Congress appropriated a total of \$11.96 million in §5309 new starts funds for the "Twin Cities Transitways" project, which includes the Hiawatha Avenue Corridor. An additional \$16.87 million was provided in FY 1999, bringing the total amount of §5309 new starts funds appropriated for this project to \$28.83 million.

The Hiawatha Corridor Transitway project has been rated medium for project justification and medium-high for finance, based on FTA's evaluation under §5309(e). This results in an overall project rating of "recommended." In order to further the development of this project, FTA recommends that \$8.00 million be provided in FY 2000.

## Raleigh-Durham/Research Triangle Regional Rail

The Triangle Transit Authority (TTA) in Raleigh, North Carolina is planning a regional commuter rail system that will link the three counties – Wake, Durham, and Orange – in the Triangle Region of North Carolina. TTA plans to implement this system in three phases. Phase I is a 35-mile, 16-station line between the cities of Raleigh and Durham, which will follow existing North Carolina Railroad and CSX rail corridors to connect Duke University, downtown Durham, Research Triangle Park, RDU Airport, Morrisville, Cary, North Carolina State University, downtown Raleigh, and North Raleigh. TTA proposes to use diesel multiple unit (DMU) rail vehicles to provide service on this corridor. Projected ridership for Phase I is estimated at 14,000 riders a day by the year 2020. The capital cost estimate for Phase I totals \$284.00 million; this includes final design activities, acquisition of right-of-way and rail vehicles, station construction, park and ride lots, and construction of storage and maintenance facilities.

The Regional Rail system emerged from the local planning process as the result of TTA's Triangle Fixed Guideway Study, which was completed in 1995. The Authority's Board of Trustees has adopted the study's recommendations to put into place a regional rail system, and resolutions of support have been received from all major units of local government, chambers of commerce, universities, and major employers in the Triangle. The two metropolitan planning organizations within whose jurisdiction the rail service will operate have incorporated the study

recommendations into their fiscally constrained long-range plans. Phase I of the regional rail project is included in the two local 1998-2004 TIPs and the STIP. FTA approved Phase I for entry into preliminary engineering in January 1998, and TTA initiated the preparation of an Environmental Impact Statement. Negotiations with the railroads for access and station location planning are underway. TTA expects to complete preliminary engineering and obtain a Record of Decision on the EIS by January 2000.

Section 3030(a)(68) of TEA-21 authorized the "Raleigh-Durham Regional Transit Plan" for final design and construction. Through FY 1999, Congress has appropriated \$23.88 million in §5309 new starts funds for this project.

Phase I of the Research Triangle Regional Rail project has been rated medium for both project justification and finance, based on FTA's evaluation under §5309(e). This results in an overall project rating of "recommended." In order to further the development of this project, FTA recommends that \$8.00 million be provided in FY 2000.

## Seattle/Link LRT

The Central Puget Sound Regional Transit Authority (Sound Transit) is planning a 23-mile Central *Link* light rail transit (LRT) project running north to south from Northgate, through downtown Seattle, Southeast Seattle and the cities of Tukwila and SeaTac. At least 21 stations are planned, with six additional stations along the corridor under consideration. The system would connect with and operate through the existing 1.6-mile Downtown Seattle Transit Tunnel. Sound Transit estimates a total of 155,000 daily riders, including 57,000 new riders, on the system in 2020. Capital costs for the entire project are \$2.9 billion; Sound Transit plans to seek §5309 new starts funding for 50 percent of the capital costs. Sound Transit may consider breaking the system into minimum operable segments as a means to implement the project.

The *Link* LRT system is one element of Sound Transit's voter-approved ten year, \$3.914 billion *Sound Move* regional transit plan, which also includes a 2-mile light rail line in downtown Tacoma; an 82-mile commuter rail system operating between Lakewood and Everett (the *Sounder*); 20 new regional express bus routes; 14 High Occupancy Vehicle (HOV) direct access ramps (providing access to over 100 miles of existing HOV lanes); 14 new park and ride lots and 9 transit centers; and other service improvements.

The RTA Board adopted the *Sound Move* regional transit plan in May 1996. Voters approved \$3.914 billion in local funding for implementation of the plan in November 1996. A Major Investment Study of *Sound Move's* services was completed in March 1997. *Sound Move* is included in the Puget Sound Regional Council's (the area's MPO) Transportation Plan and Regional Transportation Improvement Program (TIP). FTA approved initiation of preliminary engineering on the *Link* LRT in July 1997.

The Seattle Sound Move Corridor, of which *Link* is one element, was authorized for final design and construction by Section 3030(a)(85) of TEA-21. Through FY 1998, Congress has appropriated \$20.92 million in §5309 new starts funds for *Sound Move*, of which Sound Transit has allocated \$11.95 million to this project. An additional \$4.96 million was appropriated for the *Link* LRT in FY 1999.

The *Link* LRT has been rated high for finance and medium-high for project justification, based on FTA's evaluation under §5309(e). This results in an overall project rating of "highly recommended." These ratings are based on data submitted by Sound Transit for the entire 23-mile planned system; while segmentation of the \$2.9 billion project is under consideration, no segment-level data has been submitted to FTA. In order to further the development of this project, FTA recommends that \$8.00 million be provided in FY 2000.

## Other Projects in Preliminary Engineering

After accounting for the \$32.00 million specifically recommended for the projects described above, a total of \$46.43 million remains from the \$78.43 million requested for preliminary engineering in FY 2000. These funds will be made available to other project sponsors for preliminary engineering activities. Funds will be allocated based on FTA's review of funding applications submitted by project sponsors, and the results of evaluations under the project justification criteria and local financial commitment factors described earlier in this report. A complete list of all proposed projects currently in preliminary engineering can be found in [Table 3](#). Proposed projects currently undergoing alternatives analysis but which are approved to enter preliminary engineering by the end of FY 2000 will also be eligible for these funds. FTA will inform Congress as projects are approved for entry into preliminary engineering.

# Conclusion

The proposed new starts funding level of \$980.40 million is based on the guaranteed funding level authorized by TEA-21 for FY 2000, and accounts for the following factors:

- The scheduled funding levels for the 14 projects with existing FFGAs (with additional amounts to complete the Federal commitment, where appropriate);
- The anticipated funding needs of the seven projects that are expected to be ready to negotiate FFGAs by the end of FY 2000;
- The TEA-21 provision authorizing eight percent of total new starts funding for activities other than final design and construction;
- The TEA-21 authorization for ferry projects in Alaska or Hawaii; and
- Project oversight activities within FTA.

Specifically, we recommend the following allocations of \$5309 new starts funding in FY 2000 for projects with existing Federal funding commitments:

- \$45.14 million for the MARTA North Line Extension in Atlanta, based on the amount scheduled in the FFGA and the remaining funds needed to complete the Federal commitment to this project;
- \$53.96 million for Phase 1 of the South Boston Piers Transitway, based on the funding schedule specified in Attachment 6 of the FFGA for this project;
- \$35.00 million for the Southwest LRT in Denver, based on the funding schedule specified in Attachment 6 of the FFGA for this project;
- \$62.52 million for the Houston Regional Bus Plan, based on the funding schedule specified in Attachment 6 of the FFGA for this project and the remaining funds required to complete the Federal commitment in FY 2000;
- \$50.00 million for the North Hollywood Red Line Extension in Los Angeles, based on the funding schedule specified in Attachment 6 of the MOS-3 FFGA;
- \$703,308 to complete the Federal commitment to the MARC commuter rail extension from Point of Rocks to Frederick, Maryland;
- \$99.00 million for the Hudson-Bergen light rail project in New Jersey, based on the funding schedule specified in Attachment 6 of the FFGA for this project;
- \$11.06 million to complete the Federal commitment to the Westside LRT in Portland;
- \$25.00 million for the South Corridor light rail project in Sacramento, based on the funding schedule specified in Attachment 6 of the FFGA for this project;
- \$37.93 million for the South LRT project in Salt Lake City, based on the amount scheduled in the FFGA and the remaining funds needed to complete the Federal commitment to this project;
- \$84.00 million for the extension of San Francisco's BART rail system to San Francisco International Airport, as specified in Attachment 6 of the FFGA for this project;
- \$31.87 million for the Tasman LRT West Extension in San Jose, based on the funding schedule specified in Attachment 6 of the FFGA for this project and the remaining funds required to complete the Federal commitment in FY 2000;
- \$82.00 million for the Tren Urbano rapid-rail project in San Juan, Puerto Rico, as specified in Attachment 6 of the FFGA for this project; and

- \$50.00 million for the St. Clair County light rail project in St. Louis, based on the funding schedule specified in Attachment 6 of the FFGA for this project.

In addition, we also recommend that funding be provided to seven projects in anticipation of Federal commitments expected to be made by the end of FY 2000, as follows:

- \$70.00 million for the North Central LRT Extension in Dallas;
- \$20.00 million for upgrades to the Tri-Rail Commuter Rail system in Ft. Lauderdale;
- \$15.11 million for the Medical Center Extension of the Memphis light rail system;
- \$12.00 million for the Newark Rail Link in Newark, New Jersey;
- \$44.00 million for the I-4 Central Light Rail System in Orlando;
- \$20.00 million for the Downtown Segment of the East-West LRT in Salt Lake City, in support of the 2002 Winter Olympic and Paralympic Games; and
- \$35.00 million for the Mission Valley East light rail extension in San Diego.

Finally, as authorized by §5309(m)(2), we recommend that a total of \$78.43 million be provided for preliminary engineering activities. The following allocations are recommended:

- \$8.00 million for the Central Corridor LRT double-track project in Baltimore;
- \$8.00 million for the Hiawatha Corridor Transitway in Minneapolis;
- \$8.00 million for the Research Triangle Regional Rail project in the Raleigh-Durham area of North Carolina;
- \$8.00 million for the Link LRT in Seattle; and
- \$46.43 million to be made available to other project sponsors for preliminary engineering activities.

These amounts, plus \$10.32 million for ferry capital projects as specified by §5309(m)(5)(A), and \$7.35 million for FTA oversight activities as provided under §5327(c), equal the total FY 2000 funding request of \$980.40 million for the §5309 new starts program, which is the guaranteed amount of funding authorized by TEA-21.

# Background

The New Start project profiles presented in this Appendix provide background information supporting the Department of Transportation's New Start funding recommendations for FY 2000. The Department's funding recommendations are being provided to the Congress pursuant to 49 U.S.C. 5309(o)(1) (formerly Section 3(j) of the Federal Transit Act). The funding recommendations are based in part on the decision criteria defined in 49 U.S.C. 5309(e) (formerly Section 3(i)(1) of the Federal Transit Act).

Under 49 U.S.C. 5309(e), discretionary capital grants and loans for the construction of a new fixed guideway system or the extension of an existing system may be made only if the Secretary determines that the proposed project is:

- (A) based on the results of an alternatives analysis and preliminary engineering;
- (B) justified based on a comprehensive review of its mobility improvements, environmental benefits, cost effectiveness, and operating efficiencies; and
- (C) supported by an acceptable degree of local financial commitment, including evidence of stable and dependable funding sources to construct, maintain, and operate the system or extension.

The 49 U.S.C. 5309(e) criteria provide a basis for selecting, from among the eligible projects, those which are the most worthy of Federal funds. To this end, the New Start project profiles describe the fixed guideway projects that are most advanced, and evaluate them in terms of the 5309(e) criteria.

The Transportation Equity Act for the 21st Century (TEA-21) leaves prior Federal law and policy largely intact, including the new starts criteria and the multiple-measure method of project evaluation. Perhaps the most significant change to the project evaluation process introduced by TEA-21 is the requirement to establish summary ratings for each proposed project. Consistent with Section 5309(e)(6), summary ratings of "highly recommended," "recommended," or "not recommended" are assigned to each proposed project, based on the results of the review and evaluation of each of the criteria for project justification and local financial commitment.

This Annual Report on New Starts includes profiles for each proposed project or study undergoing Final Design and Preliminary Engineering. In addition, profiles have been prepared for projects that are under construction if additional funds are needed in FY 1999 to fulfill Full Funding Grant Agreements.

In general, the profiles for projects in Final Design and Preliminary Engineering include five sections. These include:

- (1) **Description:** The description section briefly describes a project's physical characteristics and presents the latest estimates of cost and ridership. Unless otherwise noted, cost estimates are expressed in escalated (year of construction) dollars. This section includes a summary description of key project elements. *This section also includes the summary rating of "highly recommended," "recommended," or "not recommended" assigned to the proposed project, as well as the overall rating for project justification and local financial commitment.*
- (2) **Status:** This section identifies where the project is in the major investment planning and project development process. It indicates, for example, whether alternatives analysis (or a major investment study) and preliminary engineering have been completed. If not, it indicates when current studies are expected to be completed. This section also cites relevant statutory requirements.

- (3) **Evaluation:** This section presents an evaluation of the project's merit based on the criteria cited in 49 U.S.C. 5309(e), and updated in *Federal Register Notices* on December 19, 1996 and November 12, 1997 (documented in Appendix C). Ratings and data are reported for the following criteria: mobility improvements; environmental benefits, operating efficiencies, cost effectiveness. This section also includes FTA's rating of the project in terms of transit-supportive existing land use and future patterns.
- (4) **Local Financial Commitment:** This section reports the proposed non-Section 5309 share of total project capital costs, and provides FTA's ratings of the following: the stability and reliability of the capital financing plan; and, the stability and reliability of the operating financing plan.
- (5) **Other Factors (Optional):** Other rating factors which may be useful in identifying the most meritorious projects are described in this section. This optional section highlights projects where local officials have demonstrated community support for transit by means of commitments to supportive land use, economic development, and transportation policies.

The profiles for projects covered by Full Funding Grant Agreements include the description and status sections only, since a decision to fund the project has already been reached.

## How the Ratings were Developed

As part of the normal system planning and project development process, local agencies develop the information that FTA uses to assess projects in terms of project evaluation and local financial commitment. The specific information used for these evaluations is outlined below.

## Project Evaluation and Ratings

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) greatly broadened the criteria to evaluate new start projects. The Section 5309 New Starts criteria were updated in *Federal Register Notices* on December 19, 1996 and November 12, 1997. TEA-21 leaves prior Federal law and policy largely intact, including the new starts criteria and the multiple-measure method of project evaluation. This year's evaluations and ratings address the full range of New Starts criteria, including: mobility improvements; environmental benefits, operating efficiencies, cost effectiveness, transit-supportive existing land use and future patterns, local financial commitment, and other factors.

In September 1997, the Federal Transit Administration's Office of Planning and the Office of Budget and Policy released the *Technical Guidance on Section 5309 New Starts Criteria*. In October 1998, FTA issued an *Addendum to the Technical Guidance* to further support local agencies in the completion of the criteria. In addition, these offices have offered national workshops throughout 1997 and 1998 to offer technical assistance.

As noted above, FTA evaluates proposed new start projects against the full range of criteria for both project justification and local financial commitment, using a multiple-measure method. In reporting project profiles for this FY 2000 report, some local agencies were not able to report all of the new starts criteria at this time. In some cases, previous planning analyses may not have included estimation of data for the proposed New Start, the No-Build, and the TSM alternative which are required as inputs to calculate measures of mobility improvements, environmental benefits, operating efficiencies, and cost effectiveness. Each of these cases is discussed in the specific project profiles, and an N/A is reported to indicate that data are not available at this time.

For each of the project justification criteria (mobility improvements; environmental benefits, operating efficiencies, cost effectiveness, land use), the proposed project is evaluated against both a No-Build and TSM alternative. For each proposed project, FTA assigns a rating of "high," "medium-high," "medium," "low-medium," or "low" for each of the five criteria, with "other factors" considered as appropriate. Similar ratings are assigned for the three factors used to evaluate

local financial commitment, including the non-Section 5309 share, the capital financing plan, and the operating financing plan. Consistent with Section 5309(e)(6), summary ratings of "highly recommended," "recommended," or "not recommended" are assigned to each proposed project, based on the results of the review and evaluation of each of the criteria for project justification and local financial commitment. To assign these summary ratings, the individual ratings for each of the project justification criteria and financial rating factors are combined into overall "project justification" and "finance" ratings, which in turn are combined to produce the summary rating for the project.

In evaluating the project justification criteria, FTA gives primary consideration to the measures of transit supportive land use, cost effectiveness, and mobility improvements to arrive at the combined "project justification" rating. For local financial commitment, the measures of the proposed non-Section 5309 share of capital costs and the strength of the capital and operating financing plans are the primary factors in determining the combined "finance" rating.

For a proposed project to be rated as "*recommended*," it must be rated at least "medium" in terms of both project justification and finance. To be "*highly recommended*," a proposed project must be rated higher than "medium" for both project justification and finance. Proposed projects not rated at least "medium" in both project justification and finance will be rated as "*not recommended*."

**It is important to note that project evaluation is an ongoing process. The project ratings contained in this report are based on project information available through November 1998. As proposed new starts proceed through the project development process, the estimates of costs, benefits, and impacts are refined. The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

U.S. Department of Transportation regulations currently under development will specify FTA's approach to project evaluation and assignment of summary ratings. In the absence of a Final Rule, however, FTA must still use the principles established by TEA-21 to evaluate proposed new starts and assign project ratings for FY 2000. Therefore, the project ratings contained in this report reflect an application of FTA's *existing* project evaluation process, as published in the *Federal Register* on December 19, 1996 and amended on November 12, 1997 (61 FR 67093-106 and 62 FT 60756-58), and modified to account for the changes made by TEA-21.

## Section 5309 New Starts Criteria

A brief description of the Section 5309 New Starts criteria applied in project evaluation follows.

### Mobility Improvements

The first measure, "Annual Travel Time Savings," is defined as the projected aggregate travel time savings in the forecast year anticipated from the New Start compared to both the No-Build and TSM alternatives. The measure is expressed as the annual hours of projected travel time savings for the study area.

The second measure reflects the *Absolute Number of Low-Income Households Located Within ½ Mile of "Boarding Points" Associated with the New Investment or System*. "Low income" is defined as the number of households below the poverty level. This measure is reported for stations or stops directly related to the proposed fixed guideway project or system.

### Environmental Benefits

The first measure is the *Change in Criteria Pollutant Emissions and Greenhouse Gas Emissions in the Forecast Year*, comparing the New Start to the No-Build and TSM alternatives. The

measure will be expressed as the change in the number of tons of emissions for carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOC) or hydrocarbons (HC), particulate matter (PM10), and carbon dioxide (CO2).

Energy consumption is measured as the *Net Change in the Forecast Year in the Regional Consumption of British Thermal Units (BTU)*, comparing the New Start to the no-build and TSM alternatives.

The third measure includes the *Current Regional Designation by the Environmental Protection Agency (EPA) for National Ambient Air Quality Standards*.

## Operating Efficiencies

The sole measure for this criterion reports the *Change in Operating Cost per Passenger-Mile in the Forecast Year*, comparing the New Start to the No-Build and TSM alternatives. This measure, expressed in terms of absolute dollar value, is to address the impact on operating efficiencies for the entire regional transit system.

## Cost Effectiveness

The previously applied "cost per new rider" index has been replaced by a revised measure, the *Incremental Change in Total Capital and Operating Cost per Incremental Passenger in the Forecast Year*. The index is based on the annualized total (including Federal and local) capital investment and operating cost divided by the forecast change in annual transit system ridership, comparing the New Start to the No-Build and TSM alternatives. The new cost-per-incremental rider measure has been revised from the previously applied index in that it no longer subtracts the value of travel time savings from annualized incremental costs (travel time savings are now reported separately under mobility improvements).

## Transit Supportive Existing Land Use and Future Patterns

Assessment of land use is a new criteria and measure, introduced in the spirit of ISTEA and consistent with FTA initiatives to encourage transit supportive land use and development. The measure, expressed in terms of a combined rating of "high," "medium/high," "medium," "low/medium," or "low," addresses the degree to which existing development patterns and local land use policies are likely to foster transit supportive land use. The combined rating considers each of the following factors: existing land use; containment of sprawl; transit-supportive corridor policies; supportive zoning regulations; tools to implement land use policies; and, performance of land use policies. The FY 2000 evaluations were supported by reviews conducted by FTA's contractors: Booz-Allen & Hamilton, Inc., and Cambridge Systematics, Inc.

## Local Financial Commitment

FTA's evaluation of the local financial commitment to a proposed project focuses on the proposed non-Section 5309 share of project costs, the strength of the proposed capital financing plan, and the stability and reliability of the operating financing plan. The FY 2000 evaluations were supported by reviews conducted by FTA's contractors: Booz-Allen & Hamilton, Inc., KPMG Peat Marwick, Inc., and the Volpe National Transportation Systems Center.

Non-Section 5309 share refers to the percentage of capital costs to be met with non-Federal funding, particularly non-Section 5309 New Starts funding, and includes both the local match required by Federal law and any capital "overmatch." Overmatch is accounted for in the rating process because it reduces the required Federal commitment, thus leveraging limited Federal funds, and because it indicates a strong local commitment to the project. Previous non-Federal funding support for other significant fixed guideway systems implemented in the area is also

considered. The use of flexible funds and innovative financing techniques is noted, where appropriate.

The evaluation of each project's proposed capital financing plan takes two principal forms. First, the plan is reviewed to determine the stability and reliability of each proposed source of local match. This includes a review of inter-governmental grants, tax sources, and debt obligations. Each revenue source is reviewed for availability within the project timetable. Second, the financing plan is evaluated to determine if adequate provisions have been made to cover unanticipated cost overruns. The strength of the capital finance plan is rated "high," "medium/high," "medium," "low/medium," or "low." The indicators used to assign these ratings are further explained in Table A-1.

The third component of the financial rating is an assessment of the ability of the local transit agency to fund operation of the system as planned once the guideway project is built. This rating focuses on the operating revenue base and its ability to expand to meet the incremental operating costs associated with a new fixed guideway investment and any other new services and facilities. The strength of the operating finance plan is rated "high," "medium/high," "medium," "low/medium," or "low." The indicators used to assign these ratings are further explained in Table A-2.

### Other Factors (Optional)

This criterion has traditionally been included as an option to provide an opportunity to identify any additional factors which may be relevant to local and national priorities and relevant to the success of the project. These may include a variety of factors including: the degree to which local policies and institutions are in place (local planning, programming, parking policies; project management experience and capabilities; and, other local initiatives such as public-private partnerships, etc.). These additional factors may provide FTA with an added assessment of the likelihood of the feasibility of a successful transit investment, measured against regional considerations.

**TABLE A-1**

Financial Ratings: Capital Financing Commitments

<b>Final Design</b>	<b>High</b>	<p><i>FTA considers the applicant to be in sound financial condition based upon the reviews outlined in FTA's Financial Capacity Circular.</i></p> <p>The applicant has committed or dedicated sufficient funds to cover the entire non-Federal share of the overall undertaking, including provision for contingent cost overruns.</p>
	<b>Medium</b>	<p><i>FTA considers the applicant to be in reasonably sound financial condition, with some room for improvement.</i></p> <p>The applicant has committed or dedicated a significant portion of funding to cover the non-Federal share of project costs, but must assume some local funding which either does not yet exist or exists but is not yet committed to the project.</p>
	<b>Low</b>	<p><i>FTA does not consider the applicant to be in reasonably sound</i></p>

		<p><i>financial condition.</i></p> <p>The applicant has not yet committed or dedicated sufficient funds to cover the entire non-Federal share of the overall undertaking, including provision for contingent cost overruns. For example, "low" rating would be given where significant events such as the renewal of expiring authorizing legislation, satisfactory resolution of conditions imposed by funding entities, the passage of new legislation, or a referendum still must occur to put adequate local funding in place.</p>
<b>Preliminary Engineering</b>	<b>High</b>	<p><i>FTA considers the applicant to be in sound financial condition based upon the reviews outlined in FTA's Financial Capacity Circular.</i></p> <p>The applicant has committed or dedicated sufficient funds to cover all or nearly all of the non-Federal share of the overall undertaking, including provision for contingent cost overruns.</p>
	<b>Medium</b>	<p><i>FTA considers the applicant to be in reasonably sound financial condition based upon the reviews outlined in FTA's Financial Capacity Circular.</i></p> <p>The applicant has adopted a realistic capital finance plan that adequately covers projected non-Federal capital costs. The plan may be vulnerable to economic downturns and other funding uncertainties, but these vulnerabilities can probably be managed without significant disruptions to capital programs and/or operations.</p>
	<b>Low</b>	<p><i>FTA does not consider the applicant to be in reasonably sound financial condition based upon the reviews outlined in FTA's Financial Capacity Circular.</i></p> <p>The applicant has not adopted a capital finance plan, or FTA considers the adopted finance plan to be inadequate or infeasible. The plan may be so vulnerable to economic downturns and other funding uncertainties that implementation of the project would put capital programs and operations at significant risk.</p>

**TABLE A-2**

Financial Ratings: Stable and Reliable Operating Revenue

<b>Final Design</b>	<b>High</b>	Dedicated transit funding sources are in place, or there has been a clear pattern of general appropriations from State or local governments, which regularly provide a balanced budget for the
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		<p>existing system.</p> <p>Existing transit facilities have been well maintained and replaced through continuing reinvestment in the system.</p> <p>Financial projections show that the applicant currently has the financial capacity to operate and maintain the locally preferred alternative, supporting feeder systems, other programmed projects, and other elements of its transit system, under reasonably conservative assumptions.</p>
	<b>Medium</b>	<p>The applicant demonstrates that funding for operating an expanded transit system is reasonably secure, existing facilities are adequately maintained, and financial projections indicate adequate financial capacity to operate an expanded transit system.</p>
	<b>Low</b>	<p>Sources of local transit funding have not kept pace with costs. Financial conditions have led to a pattern of service level cuts to reduce operating costs.</p> <p>The applicant has a history of deferring capital replacement and/or routine maintenance.</p> <p>Financial projections show that the applicant does not currently have the financial capacity to operate the proposed project, supporting feeder system, other programmed projects, and other elements of its transit system under reasonably conservative assumptions.</p>
<b>Preliminary Engineering</b>	<b>High</b>	<p>Ample dedicated funding sources are in place, or there has been a clear pattern of general appropriations from State or local governments, which regularly provide a balanced budget for the existing system.</p> <p>Existing transit facilities have been well maintained and improved through continuing reinvestment in the system.</p> <p>Financial projections show that the applicant currently has ample financial capacity to operate and maintain the locally preferred alternative, supporting feeder systems, other programmed projects, and other elements of its transit system under reasonably conservative assumptions.</p>
	<b>Medium</b>	<p>Dedicated transit funding sources are in place, or there has been a clear pattern of general appropriations from State or local governments, which regularly provide a balanced budget for the existing system.</p>

		<p>Existing transit facilities have been adequately maintained and replaced through continuing reinvestment in the system. The applicant's funding plan demonstrates an ability to continue with an adequate maintenance and replacement program.</p> <p>The applicant has adopted a realistic financial plan which, once implemented, would provide adequate financial capacity to operate and maintain the locally preferred alternative, supporting feeder systems, other programmed projects and other elements of its transit system under reasonably conservative assumptions.</p>
	<b>Low</b>	<p>Sources of local transit funding have not kept pace with costs. Financial conditions have led to a pattern of service level cuts to reduce operating costs.</p> <p>The applicant has a history of deferring capital replacement and/or routine maintenance. Or, implementation of the project would create deficiencies in the applicant's ability to provide timely maintenance and capital replacement.</p> <p>The applicant has not yet adopted a finance plan, or has adopted a plan that is unrealistic or inadequate. For example, a "low" rating would be given where the region has demonstrated an unwillingness to adopt new funding sources with the required level of financial capacity, or where the operating plan is dependent upon unreasonable passenger revenue projections. A "low" rating would also be appropriate where financial projections show that, even if the adopted plan is fully implemented, the applicant would still not have the financial capacity to operate the proposed project, other programmed projects, and other elements of its transit system under reasonably conservative assumptions.</p>

**TABLE A-3**

Land Use Assessment Ratings

1. Existing Land Use

<b>Preliminary Engineering/Final Design</b>	<b>High</b>	Current levels of population in the corridor are sufficient to support a major transit investment.
	<b>Medium</b>	Current levels of population and employment in the corridor are only marginally supportive of a major transit investment.  Projected levels of growth must be realized.
	<b>Low</b>	Current and projected levels of population and employment are not sufficient to support a major transit investment.

Ratings are based on the following assessment:

- Existing land use mix
- Share of jobs located in Central Business District and employment centers served by project, and employment density within corridor
- Existing high transit trip generators along project corridor
- Existing pedestrian friendly development
- Existing station area parking supply and policies

## 2. Containment of Sprawl

<b>Preliminary Engineering/Final Design</b>	<b>High</b>	Adopted and enforceable urban containment and growth management policies are in place.
	<b>Medium</b>	Significant progress has been made toward implementing urban containment and growth management policies.
	<b>Low</b>	Limited consideration has been given to implementing urban containment and growth management policies.

Ratings are based on the following assessment:

- Planned density and market trends for suburban and urban development
- Growth management policies

## 3. Transit Supportive Corridor Policies

<b>Preliminary Engineering/Final Design</b>	<b>High</b>	A detailed corridor plan and related policies which encourage and facilitate transit supportive development have been adapted in the proposed major transit investment corridor.
	<b>Medium</b>	Significant progress has been made toward completing a corridor plan and implementing related policies which encourage and facilitate transit supportive development in the proposed major transit investment corridor.
	<b>Low</b>	Limited progress, to date, toward preparing and adopting a corridor plan and implementing related policies which encourage and facilitate transit supportive development in the proposed major transit investment corridor.

Ratings are based on the following assessment:

- Policies encouraging transit friendly and transit oriented development
- Process for development of corridor and station area plans
- Promotion of mixed land use and high density land use

- Promotion of pedestrian friendly design
- Parking Management

#### 4. Supportive Zoning Regulations Near Transit Stations

<b>Final Design</b>	<b>High</b>	Detailed station area plans and related local zoning and land use regulations have been adopted.
	<b>Medium</b>	Significant progress is being made toward preparing and adopting station area plans and related zoning.
	<b>Low</b>	No more than initial efforts have begun to prepare station area plans and related zoning.
<b>Preliminary Engineering</b>	<b>High</b>	Significant progress is being made toward preparing and adopting station area plans and related zoning.
	<b>Medium</b>	Initial efforts have begun to prepare station area plans and related zoning.
	<b>Low</b>	Limited consideration has been given to preparing station area plans and related zoning.

Ratings are based on the following assessment:

- Zoning ordinances, that support increased development density in transit station areas (including recent accomplishments and initiatives to amend existing ordinances)
- Zoning ordinances that enhance the transit-oriented character of station area development
- Zoning allowances for reduced parking and traffic mitigation

#### 5. Tools to Implement Land Use Policies

<b>Final Design</b>	<b>High</b>	Infrastructure and other local investments are being made in station areas which implement the local land use policies and which leverage the Federal investment in the proposed major transit investment corridor.
	<b>Medium</b>	Local capital improvement programs and development initiatives have been adopted to implement local land use policies and which leverage the Federal investment in the proposed major transit corridor.
	<b>Low</b>	No more than initial efforts to prepare local capital improvement programs and development initiatives which support station area

		plans have begun.
<b>Preliminary Engineering</b>	<b>High</b>	Local capital improvement programs and development initiatives have been adopted to implement local land use policies and which leverage the Federal investment in the proposed major transit corridor.
	<b>Medium</b>	Efforts to prepare local capital improvement programs and development initiatives that support station area plans have begun.
	<b>Low</b>	Limited consideration has been given to local capital improvement programs and development initiatives that support station area plans.

Ratings are based on the following assessment:

- Tools and actions to promote transit-oriented development
- Organizational participation in the development and planning process
- Process for public and private sector involvement and corridor and station area planning
- Level of jurisdictional endorsement for corridor and station area plans

## 6. Performance of Land Use Policies

<b>Final Design</b>	<b>High</b>	Significant amount of transit supportive housing and employment development is occurring in the corridor.
	<b>Medium</b>	Moderate amount of transit supportive housing and employment development is occurring in the corridor.
	<b>Low</b>	Limited number of proposals for transit supportive housing and employment development in the corridor are being received, or, have recently begun to be developed.
<b>Preliminary Engineering</b>	<b>High</b>	Moderate amount of transit supportive housing and employment development is occurring in the corridor.
	<b>Medium</b>	Proposals for transit supportive housing and employment development in the corridor are being received.
	<b>Low</b>	Limited progress, to date, toward achieving transit supportive development in the corridor.

Ratings are based on the following assessment:

- Demonstrated cases of developments affected by transit-oriented policies
- Joint development organizations, transportation management associations, tax increment financing and improvement districts, tax abatement programs, or downtown associations
- Short-range and long-term development targets for the corridor
- Station area development proposals and any joint development proposals received

**Projects with Full Funding Grant Agreements**

# Atlanta, Georgia/North Line Extension

## North Line Extension

Atlanta, Georgia

(November 1998)

<b>Description</b>	<p>The Metropolitan Atlanta Rapid Transit Authority (MARTA) is constructing a 1.9-mile, two-station extension of the North Line from just north of the Dunwoody Station to North Springs. The extension will connect with the North Line segment from Buckhead to Dunwoody, which opened for service in June 1996. The extension will serve the rapidly growing area north of Atlanta, including Perimeter Center and north Fulton County. The 1.9 mile extension is now estimated to cost \$463.18 million (escalated dollars) and includes 56 rail vehicles. The original total estimated cost for this extension as reflected in the FFGA was \$381.3 million and included the purchase of 28 rail vehicles. Due to changed conditions, recent scope enhancements (outside the FFGA), and 28 additional rail cars, the total project cost is currently estimated at \$463.18 million. However, the Federal commitment (\$305.01 million) remains the same. Daily ridership on the rail extension in the year 2005 is estimated at 33,000 riders, including 11,000 new riders.</p>
<b>Status</b>	<p>In December 1994, MARTA and FTA entered into a Full Funding Grant Agreement (FFGA) in the amount of \$305.01 million in Section 5309 New Start funds for the extension from Dunwoody through North Springs. TEA-21 Section 3030(a)(3) authorizes the Atlanta North Line Extension for final design and construction. Through FY 1999, a total of \$259.87 million in Section 5309 New Start funds has been allocated to this project (\$231.5 million in Congressional appropriations and \$28.37 million in prior year deobligated funds).</p> <p>The expanded scope requirements are due to the need to address expected increases in estimated service levels, station parking enhancements, and rights of way impacts stemming from the proposed widening of the adjacent GA 400 freeway. Section 3030 (d) (2) of TEA-21 authorizes FTA funding for project scope changes, including the purchase of the 28 additional rapid rail cars from amounts authorized by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.</p>

Reported in \$YOE		
Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b> \$5309 New Starts (FFGA commitment)	\$305.01	<b>\$259.87 million appropriated through FY 1999</b>
<b>Local:</b> Regional Sales Tax	\$76.30	N/A
Additional Local Balance	\$81.87	N/A
<b>TOTAL</b>	<b>\$463.18</b>	

**Note:** Totals may not add due to rounding.  
 Source of the additional \$81.87 million to be determined. Section 3030 (d) (2) of TEA-21 authorizes FTA funding for project scope changes.

**[North Line Extension Map (PDF)]**

# Boston, Massachusetts/South Boston Piers Transitway - Phase I

## South Boston Piers Transitway - Phase I

### Boston, Massachusetts

(November 1998)

<p><b>Description</b></p>	<p>The Massachusetts Bay Transportation Authority (MBTA) is developing an underground transitway connecting the MBTA's existing transit system with the South Boston Piers area. The Piers area, which is connected to Boston's central business district by three local bridges, is undergoing significant development. Dual mode trackless trolleys will operate in the transitway and on limited surface routes in the eastern end of the Piers area. Phase I of the project, a one-mile tunnel connector between South Station and the World Trade Center, is now currently estimated to cost \$513.4 million (in escalated dollars) accordingly to a recently developed recovery plan. The need for a recovery plan was caused by significant cost growth and delays in the project implementation schedule. The revised cost reflects an increase of \$100 million over the original project cost, which will be paid for with funds outside of the FFGA. South Station serves the MBTA Red Line and local bus, commuter rail, intercity bus, and Amtrak. Daily ridership for the Transitway in 2010 is estimated to range from 22,000 trips in the lower-growth scenario to 34,100 trips in the high-growth scenario. Phase II would extend the Transitway to the Chinatown Station on the Orange Line and the Boylston Station on the Green Line.</p>
<p><b>Status</b></p>	<p>The MBTA completed alternatives analysis and selected a locally preferred alternative in February 1993. The final EIS was published in December 1993. The final design and construction activities are underway. In November 1994, the FTA signed a Full Funding Grant Agreement (FFGA) with the MBTA for \$330.73 million in Section 5309 new starts funds. The agreement covers final design and construction of Phase I. FTA is reviewing a project recovery plan developed by the MBTA. The project is estimated to open for revenue service in December 2002.</p> <p>Through FY 1999, Congress has appropriated \$241.9 million in Section 5309 new starts funds for the South Boston Piers Transitway.</p>

Reported in \$YOE

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Start FFGA Amount</b>	\$330.73	\$241.90 million appropriated through FY 1999
<b>Federal: Section 5307</b>	\$82.68	N/A
<b>State: Bond Funds</b>	\$100.00	N/A
<b>Total:</b>	<b>\$513.41</b>	for Phase I

**[South Boston Piers Transitway Phase 1 Map (PDF)]**

# Denver, Colorado/Southwest LRT

## Southwest Corridor LRT

Denver, Colorado

(November 2000)

<b>Description</b>	<p>The Regional Transportation District (RTD) is implementing an 8.7-mile light rail transit (LRT) extension from the I-25/Broadway interchange in Denver parallel to Santa Fe Drive to Mineral Avenue in Littleton. The LRT will operate over an exclusive, grade-separated right-of-way and connect with the existing 5.3-mile Central Corridor light rail line, which was constructed entirely with local funds and opened in October 1994.</p> <p>The capital cost for the project is \$176.32 million (escalated dollars). This estimate includes local costs already incurred by RTD for right-of way acquisition, a portion of an existing LRT maintenance and storage facility, transit improvements along the Southwest corridor, and preliminary engineering, as well as new costs for final design, construction, and the acquisition of rolling stock. The project is estimated to carry 8,400 passengers per day in the year 2000 (opening year) and 22,000 passengers per day in 2015.</p>
<b>Status</b>	<p>FTA issued the Final Environmental Impact Statement (FEIS) in February 1996 and signed the Record of Decision in March 1996. RTD and FTA entered into a Full Funding Grant Agreement (FFGA) in May 1996, committing \$120 million in Section 5309 New Starts funding.</p> <p>TEA-21 Section 3030(a)(24) authorizes the Denver Southwest LRT for final design and construction. Through FY 1999, Congress has appropriated \$64.12 million in Section 5309 New Start funds. An additional \$1.34 million was provided in FY 1997 from reprogrammed funds for a total of \$65.46 million made available to the project.</p> <p>Construction is underway and is scheduled to be completed in July 2000.</p>

## Southwest Corridor Summary Description

Reported in (\$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Start (FFGA Amount)	\$120.00	\$65.46 million appropriated through FY 1999
Section 5307	\$18.88	\$18.00 million in Flexible Funds
<b>Local:</b>		
RTD Sales and Use Tax and in-kind contributions	\$37.44	N/A
<b>Total:</b>	<b>\$176.32</b>	

**Note:** Totals may not add due to rounding.

**[Southwest Corridor Map \(PDF\)](#)**

# Houston, Texas/Regional Bus Plan

## Regional Bus Plan

Houston, Texas

(November 1998)

### Description

Houston Metro's Regional Bus Plan (RBP) is a package of improvements to its bus system. The \$625 million project includes new and extended high occupancy vehicle (HOV) facilities and ramps, several transit centers and park & ride lots, bus acquisitions, bus service expansion, and supporting facilities.

### Status

In December 1994, FTA and Houston Metro signed a Full Funding Grant Agreement (FFGA) for \$500 million (80 percent) in Section 5309 new starts funds and 20 percent in local resources. TEA-21 Section 3030(a)(30) authorizes the Houston Regional Bus Plan—Phase I for final design and construction. Through FY 1999, Houston Metro has received \$437.48 million in Section 5309 New Starts funds for the project. Houston is currently in the construction phase of the Regional Bus Plan. All projects are now expected to be completed by December 2004.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts FFGA Amount	\$500.00	\$437.48 million appropriated through FY 1999
Local: Houston Metro	\$125.00	N/A
<b>Total:</b>	<b>\$625.00</b>	

**Note:** Totals may not add due to rounding.

**[Houston Regional Bus Plan Map \(PDF\)](#)**

# Los Angeles, California/MOS-3 Extensions of Metro Rail

## MOS-3 Extensions of Metro Rail

Los Angeles, California

(November 1998)

### Description

The Metro Rail Red Line Project in Los Angeles is being planned, programmed and constructed in phases through a series of "minimum operable segments" (MOSs). The 4.4-mile, 5-station segment called MOS-1 opened for revenue service in January 1993. A 2.1-mile, three-station segment of MOS-2 opened along Wilshire Boulevard in July 1996. An additional 4.6-mile, 5-station segment in MOS-2 is currently under construction.

ISTEA Section 3034 authorized three extensions to the Metro Rail Red Line:

1. The *North Hollywood Extension* is 6.3 miles in length with three stations, all in subway. It extends the Hollywood branch of MOS-2 generally to the north through the Santa Monica mountains into North Hollywood in the San Fernando Valley. The estimated cost is \$1.31 billion (escalated dollars). Ridership for this extension is estimated to be 26,000 daily boardings in 2010.
2. The *Eastside Extension* is 3.7 miles in length with four stations, originally designed as subway. It would extend MOS-1 from Union Station into neighborhoods east of downtown. The estimated cost was \$1.05 billion (escalated dollars). Ridership for this extension was estimated at 12,000 daily boardings by 2010.
3. The *Mid-City Extension* would extend the Wilshire Boulevard branch generally to the west beyond the current MOS-2 terminus at Western Avenue. It would add 2.3 miles, originally designed as subway, and two stations to the system. The estimated cost was \$683 million (escalated dollars). Ridership for this extension was estimated at 13,000 daily boardings in 2010.

### Status

LACMTA and FTA signed an FFGA for MOS-3 in May 1993 which provided \$1.23 billion in Section 5309 New Start funds for the three extensions of MOS-3. Subsequently, the FFGA was amended on December 28, 1994 to provide an additional \$186.49 million for a total commitment of \$1,416.49 million in Section 5309 New Start funding. A restated FFGA for the North Hollywood extension (Phase I-A) of MOS-3 was signed on June 9, 1997.

In January 1997, FTA requested that the MTA submit a Recovery Plan to demonstrate its ability to complete MOS-2 and MOS-3, while maintaining and operating the existing bus system. On January 14, 1998, the LACMTA Board of Directors voted to suspend and demobilize rail construction on all rail projects other than the MOS-2 and MOS-3 North Hollywood Extension. The MTA subsequently submitted a Recovery Plan to FTA on May 15, 1998; FTA approved the Plan on July 2, 1998.

In 1998, the MTA undertook a Regional Transit Alternatives Analysis (RTAA) to analyze and evaluate feasible alternatives for the Eastside and Mid-City corridors. The RTAA addressed

system investment priorities, allocation of resources to operate existing transit services at a reliable standard, assessment and management of financial risk, countywide bus service expansion, and a process for finalizing corridor investments. On November 9, 1998, the LACMTA Board reviewed the RTAA and directed staff to reprogram state and local resources previously allocated to the Eastside and Mid-City Extensions to the implementation of RTAA recommendations, including the LACMTA Accelerated Bus Procurement Plan. The MTA plans to conduct further studies of transit investment options in the Eastside and Mid-City corridors.

Through 1999, Congress has appropriated \$609.24 million in New Start funds for MOS-3. LACMTA plans to fund \$519 million of MOS-3 with Federal flexible funds such as STP and CMAQ. TEA-21 Section 3030(a)(38) authorizes the Los Angeles MOS-3 for final design and construction.

### **Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts North Hollywood	\$681.04	\$609.24 million appropriated through FY 1999
Eastside/Mid-City	\$735.45	N/A
Flexible Funds	\$519.00	N/A
<b>Local:</b>		
Local Funds	\$1,200.40	N/A
<b>Total:</b>	<b>\$3,135.90</b>	

**Note:** Totals may not add due to rounding.

**[MOS-3 Extensions of Metro Rail Map (PDF)]**

# Maryland/MARC Frederick Extension and Rolling Stock Procurement

## MARC Frederick Extension and Rolling Stock Procurement

### Maryland

(November 1998)

#### Description

The Mass Transit Administration of Maryland (MTA) is extending the Maryland Commuter Rail (MARC) system to provide service from Point of Rocks to Frederick, Maryland. The MARC system presently consists of two lines between Washington, D.C. and Baltimore, Maryland, (one of which extends into north of Baltimore and Perryville, Maryland) and a third line between Washington, D.C. and Brunswick, Maryland, with extended service into Martinsburg, West Virginia. The Frederick extension will involve track, signal, and station/yard improvements on an existing freight line. In addition to the extension, MTA is embarking on a major procurement of additional commuter rail coaches and locomotives for MARC to meet anticipated system-wide demand. The estimated cost of the project covered by the Full Funding Grant Agreement is \$131.6 million. Ridership forecast for 2015 is 1,600 daily passengers on the Frederick Extension.

#### Status

In June 1995, MARC was awarded an FFGA for \$105.25 million in Section 5309 New Start funds. TEA-21 Section 3030(a)(41) authorizes MARC Commuter Rail Improvements for final design and construction. Through FY 1999, \$137.80 million has been appropriated to this project. An additional \$33.26 million not covered by the FFGA was appropriated by Congress for MARC commuter rail improvements in prior years.

An Environmental Assessment for the Frederick Extension was completed, which resulted in a Finding of No Significant Impact. Two station sites have been selected and Final Design is underway. The FFGA commits \$38.7 million in Section 5309 New Start Funds for the Frederick Extension (out of the total FFGA amount of \$105.25 million). MTA expects to begin MARC commuter rail service on this extension by 2001. This represents a significant delay caused by protracted negotiations between MARC and CSXT, the owner of most of the right-of-way for the extension.

In December 1994, the MTA began steps to purchase up to 50 bi-level commuter rail cars and six electric locomotives for systemwide capacity improvements throughout the MARC Commuter Rail System. Final design of the coaches is completed and manufacturing is underway. Delivery has begun, but no cars have been accepted. MTA has also completed bridge clearance work near Union Station in Washington, D.C., to accommodate the bi-level cars. The clearance work was not part of the FFGA. The procurement of the locomotives is being accomplished as a joint procurement with Amtrak.

TEA-21 Section 3030(g)(2) expands the scope of MARC extensions to include capacity and efficiency improvements through construction of a Penn-Camden Connection, MARC maintenance and storage facilities, and other capacity related improvements, and the Silver Spring Intermodal Center.

### **Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts FFGA Amount</b>	\$105.25	\$137.80 million appropriated through FY 1999
<b>Local:</b>	\$26.31	N/A
<b>Total:</b>	<b>\$131.56</b>	

**[[MARC Frederick Extension and Rolling Stock Procurement Map \(PDF\)](#)]**

# Northern New Jersey/Hudson-Bergen Waterfront Light Rail Transit System Minimal Operating Segment-1 (MOS-1)

## Hudson-Bergen Waterfront Light Rail Transit System Minimal Operating Segment-1 (MOS-1)

(A New Jersey Urban Core Project)

**Northern New Jersey**

(November 1998)

### **Description**

The New Jersey Transit Corporation (NJ Transit) is constructing a 9.6 mile, initial Minimal Operating Segment (MOS-1) of a light rail transit (LRT) line along the Hudson River waterfront in Hudson County. MOS-1 will connect the Hoboken Terminal to 34<sup>th</sup> Street Bayonne and Westside Avenue in Jersey City. MOS-1 is expected to cost \$992.14 million (escalated dollars) and to carry 31,300 riders per day.

The proposed full rail system is an approximately 21-mile long, 30-station, at-grade LRT line from the Vince Lombardi Park-and-Ride lot in Bergen County to Bayonne. The system will pass through Port Imperial in Weehauken, Hoboken and Jersey City. The outer ends will provide 8,800 park-and-ride spaces. The core of the system will serve the high density commercial and residential centers in Jersey City and Hoboken and connect to ferries, PATH, and NJ Transit commuter rail lines. The full 21-mile system is expected to cost \$2.0 billion (escalated dollars) and to carry 94,500 riders per day.

### **Status**

In February 1993, NJ Transit initially selected, as its locally preferred alternative, a 26-station at-grade LRT line from the Vince Lombardi Park-and-Ride lot through Hoboken and Jersey City to Route 440 in Southwest Jersey City. A Final Environmental Impact Statement (FEIS) for the full project was completed in the summer of 1996. In October 1996, the Federal Transit Administration (FTA) issued a Record of Decision (ROD) for the full project. In that same month, FTA signed a Full Funding Grant Agreement committing \$604.09 million of Section 5309 New Start funds to support the 9.6-mile MOS-1. In January 1997, the Governor of New Jersey, in conjunction with the mayor and the City Council of Hoboken, agreed to alter the alignment in Hoboken to the west side of the city. An Environmental Assessment (EA) was completed on the impacts resulting from this proposed change and submitted to the FTA in August 1998. Public review of the EA is expected to be completed in February 1999. The shift from the East Side Alignment to the West Side Alignment in Hoboken raises the number of stations for the full project from 26 to 30 stations.

The Hudson-Bergen LRT project is one of eight elements eligible for funding as part of the New Jersey Urban Core Project. Through FY 1999, Congress has appropriated \$228.31 million in Section 5309 New Starts funds to the Hudson-Bergen MOS-1.

NJ Transit is using a turnkey procurement to implement the project. A design/build/operate/maintain contract was signed in October 1996, and notice to proceed was given to the contractor in November 1996. Project construction began in December 1996. The revenue operation date is scheduled for July 2000.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts (FFGA Amount)</b>	\$604.09	\$228.31 million appropriated through FY 1999
<b>Federal: Section 5307 Formula Funds</b>	\$281.65	
<b>State:</b>	\$106.40	
<b>Total:</b>	<b>\$992.14</b>	

**Note:** Totals may not add due to rounding.

**[Hudson - Bergen Waterfront LRT System Map (PDF)]**

# Portland, Oregon/Westside-Hillsboro Corridor

## Westside-Hillsboro Corridor

Portland, Oregon

(November 1998)

### Description

On September 12, 1998, the Tri-County Metropolitan Transportation District of Oregon's (Tri-Met) successfully opened the Westside-Hillsboro Light Rail Project, which extended the existing MAX system from the terminus in downtown Portland west to downtown Hillsboro. The route includes a three-mile twin tube tunnel under Portland's West Hills. The project is 17.7 miles long with 20 stations, nine park and ride lots, and parking spaces for approximately 3,800 automobiles. The project cost \$963.52 million and includes 42 low-floor light rail vehicles, the first low-floor light rail vehicles in service in the United States. Since its opening, the Westside line is serving 23,000 passengers on an average weekday.

### Status

The project opened on-time and within budget on September 12, 1998. Ridership is exceeding expectations. The last six low-floor light rail vehicles are in production.

In September 1992, FTA and Tri-Met entered into a Full Funding Grant Agreement (FFGA) for the segment from downtown Portland to 185th Avenue, approximately 11.7 miles. The Section 5309 New Start share for this segment was \$515.99 million. Final design and construction for the Hillsboro extension commenced in August 1994. Consistent with Section 325 of the Fiscal Year 1992 Department of Transportation and Related Agencies Appropriations Act (P.L. 102-143), a restated FFGA with a Federal commitment of \$590.06 million was signed in December 1994. The 1994 FFGA for the Westside-Hillsboro project provided an additional commitment of New Start funds of \$74.06 million to fund one-third of the 6-mile Hillsboro extension.

In 1996 Congress authorized a further \$40 million for the project. FTA amended the FFGA to reflect this additional authorization in November 1996, increasing the total commitment to \$630.06 million in Section 5309 New Start funds. Through FY 1999, Congress has appropriated \$619.00 million for the project, leaving a balance of \$11.06 million to satisfy the FFGA commitment.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date

<b>Federal: Section 5309 New Start FFGA Amount</b>	\$630.06	\$619.00 million appropriated through FY 1999
<b>Federal: Section 5307</b>	\$30.00	
<b>Federal: Flexible Funds</b>	\$44.00	
<b>Local:</b>	\$259.46	
<b>Total:</b>	<b>\$963.52</b>	

**Note:** Totals may not add due to rounding.

**[Westside-Hillsboro Corridor Map \(PDF\)](#)**

# Sacramento, California/South Corridor LRT

## South Corridor LRT

### Sacramento, California

(November 1998)

#### Description

The Sacramento Regional Transit District (RT) is developing an 11.3-mile light rail project on the Union Pacific right-of-way in the South Sacramento Corridor. RT has elected to synchronize the project to available state and local capital funds and to correspond with available operating funds. Phase 1 is a 6.3-mile minimum operable segment (MOS) of the full project. The segment would operate between downtown Sacramento and Meadowview Road and has been forecast to carry 25,000 trips per day in the year 2015. The estimated capital cost of the MOS is \$222.0 million (escalated dollars).

#### Status

A Major Investment Study/Alternatives Analysis/Draft EIS for the project was completed in September 1994. The preferred alternative was selected in March 1995. The Final Environmental Impact Statement (FEIS) was completed in February 1997. In March 1997, FTA issued a Record of Decision for the South Corridor MOS, and in June 1997, FTA and RT entered into a Full Funding Grant Agreement for \$111.2 million in Section 5309 funds for final design and construction. The final design phase of the project began in July 1997. Construction is anticipated to begin in late 1999 and revenue service is projected to begin in September 2003.

RT expects to begin preliminary engineering for Phase 2 as soon as additional operating funds can be secured.

TEA-21 Section 3030 (a)(71) authorizes the South Sacramento Corridor for final design and construction. Through FY 1999, Congress has appropriated \$53.46 million in Section 5309 New Start funds for the project of which \$51.47 million is covered under the FFGA.

#### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts	\$111.20	\$53.46 million appropriated through FY 1999
State/Local:	\$110.80	
<b>Total:</b>	<b>\$222.00</b>	

**Note:** Totals may not add due to rounding. Figures reflect an additional \$1.98 which was appropriated prior to award of the FFGA and was utilized for planning activities; this brings the total amount of Section 5309 funds for this project to \$113.18 million.

[South Corridor LRT Map \(PDF\)](#)

# Salt Lake City, Utah/North-South LRT

## North-South LRT

Salt Lake City, Utah

(November 1998)

### Description

The Utah Transit Authority (UTA) is implementing a 15-mile light rail transit (LRT) line from downtown Salt Lake City on State Street parallel to I-15 to suburban areas to the south. The South LRT line will operate at-grade on city streets in downtown Salt Lake City (two miles) and in a railroad right-of-way (13 miles) owned by UTA to the suburban community of Sandy. The total cost of this project is estimated at \$312.49 million (escalated dollars). The South LRT is estimated to carry 14,000 passengers per day in the year 2000 (opening year) and 23,000 passengers per day in 2010. The South LRT project is one component of the Interstate 15 corridor improvement initiative, which includes reconstruction of a parallel segment of I-15.

### Status

In August 1995, FTA and UTA entered into a Full Funding Grant Agreement (FFGA) for \$237.39 million in Section 5309 New Start funds. TEA-21 Section 3030(a)(74) authorized the South LRT for final design and construction. Through FY 1999, Congress has appropriated \$199.47 million for right-of-way acquisition, engineering, design and construction activities within the scope of the FFGA. An additional \$6.60 million in Section 5309 New Starts funds was appropriated prior to the FFGA.

FTA issued the Final Environmental Impact Statement (FEIS) in September 1994 and signed the Record of Decision in November 1994. Construction is underway and is estimated to be completed by December 2000.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Start	\$237.39	\$206.07 million appropriated through FY 1999
Federal: Section 5309 Bus	\$4.00	
Local:	\$71.10	
<b>Total:</b>	<b>\$312.49</b>	

**Note:** Totals may not add due to rounding. Appropriations include \$6.60 million appropriated prior to the FFGA.

**[North-South LRT Map \(PDF\)](#)**

# San Francisco, California/BART to San Francisco International Airport

## BART to San Francisco International Airport

San Francisco, California

(November 1998)

### Description

The Bay Area Rapid Transit (BART) and San Mateo County Transit District (SamTrans) are developing an 8.2-mile, 4-station BART extension south from the Colma BART Station through Colma, South San Francisco, San Bruno, an east-west aerial "wye" (Y) stub perpendicular to the CalTrain alignment into the San Francisco International Airport (SFIA), and terminating at the Millbrae Avenue BART/CalTrain Station. This project is estimated to cost \$1.233 billion (escalated dollars), which includes \$113 million provided for the project by the SFIA. Ridership is projected to be 68,600 trips per day by 2010, including approximately 17,800 daily trips by air travelers and airport employees.

### Status

An Alternatives Analysis/Draft Environmental Impact Statement (DEIS)/Draft Environmental Impact Report (DEIR) was completed in 1992, resulting in a locally preferred alternative. New alignments were later evaluated and, in April 1995, BART and SamTrans revised the preferred alternative. Due to MTC and Congressional direction to evaluate lower cost options, an aerial design option into the Airport was evaluated in a Focused Recirculated DEIR/Supplemental #2 DEIS. The Final EIS was completed in June 1996 and a Record of Decision (ROD) was issued in August 1996.

On June 30, 1997, FTA entered into a Full Funding Grant Agreement (FFGA) for the BART/SFO Extension for \$750.00 million in Federal Section 5309 New Start funds. TEA-21 Section 3030(a)(79) authorized the BART to SFO project for final design and construction.

Through FY 1999, \$153.43 million has been appropriated and allocated to the BART-SFO Extension.

The BART-SFO project is participating in the FTA Turnkey Demonstration Program, initiated by ISTEA to determine if the turnkey (design/build) approach will reduce implementation time and cost. The first BART-SFO contract for Site Preparation and Utility Relocation was awarded on July 24, 1997. The main contract for construction of the Line, Trackwork, and Systems was advertised for bid in August 1997. This is the first of the four design-build contracts. The bid opening for line and system work was made on November 25, 1997. The Revenue Operation Date contained in the FFGA for the BART-SFO extension is by September 30, 2001.

The San Francisco International Airport (SFIA) is a major partner in this extension project. The activities to be designed and constructed on the airport property consist mainly of construction of

structures and facilities and the installation of related equipment. These activities are being funded, designed, and constructed by SFIA for BART.

### **Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Start</b>	\$750.00	\$153.43 million appropriated through FY 1999
<b>San Francisco International Airport</b>	\$113.00	
<b>State:</b>	\$152.00	
<b>Local:</b>	\$218.00	
<b>Total:</b>	<b>\$1,233.00</b>	

**Note:** Totals may not add due to rounding.

**[\[BART to San Francisco International Airport Map \(PDF\)\]](#)**

# San Jose, California/Phase 1 Tasman LRT West Extension

## Phase 1 Tasman LRT West Extension

**San Jose, California**

(November 1998)

### **Description**

The Santa Clara County Transit District (SCCTD) originally developed a 12.4-mile extension to the existing light rail line, which would provide service from northeast San Jose to Capitol/Hosletter and downtown Mountain View. The total project includes 19 stations and 35 light rail vehicles. The State of California Supreme Court invalidation of the Measure A sales tax led to the development of new financing alternatives and the separation of the project into two phases, Phase I (West Extension) and Phase 2 (East Extension).

The Phase I West Extension, which is covered in this profile, consists of 7.6 miles of surface LRT from the northern terminus of the Guadalupe LRT in the city of Santa Clara, west through Sunnyvale, to the CalTrain commuter rail station in downtown Mountain View. The project will include 11 stations and will be double tracked except for single tracking in Mountain View. The Phase I West Extension will cost \$325.00 million (escalated dollars). Ridership on the West Extension is projected to be 7,500 per day by 2005.

### **Status**

Section 3032 of ISTEA directed that the Tasman Corridor Project be included in a program of interrelated projects as part of the San Francisco Bay Area Rail Extension Program.

Preliminary engineering on the Tasman Corridor was completed in August 1992. In July 1996, FTA and SCCTD entered into a Full Funding Grant Agreement (FFGA) for \$182.75 million in Federal Section 5309 New Start funds for the West Extension. The Tasman West LRT Extension is currently under construction. Originally anticipated to be open for revenue operations service by December 2000, the Extension may open up to a full year earlier.

TEA-21 Section 3030(a)(80) authorizes the San Jose Tasman Corridor Light Rail project for final design and construction. Through FY 1999, Congress has appropriated \$150.88 million of Section 5309 New Start funds to the project. The East Extension is being completed with State and local Measure A funding.

## Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Start FFGA Amount</b>	\$182.75	(\$150.88 million appropriated through FY 1999)
<b>Federal: Congestion Relief Program*</b>	\$37.25	
<b>Federal: CMAQ</b>	\$15.92	
<b>Federal: STP</b>	\$8.79	
<b>State:</b>	\$54.02	
<b>Local:</b>	\$26.28	
<b>Total:</b>	<b>\$325.00</b>	Phase 1 West Extension

**Note:** Totals may not add due to rounding.

\* California Flexible Congestion Relief Program reflects a State administered allocation of Federal Flexible Funds.

**[Phase I Tasman LRT Westside Extension (PDF)]**

# San Juan, Puerto Rico/Tren Urbano

## Tren Urbano

### San Juan, Puerto Rico

(November 1998)

#### Description

The Puerto Rico Department of Transportation and Public Works (DTPW), through its Highway and Transportation Authority (PRHTA), is constructing a 10.7-mile (17.2 km) double-track guideway between Bayamon Centro and the Sagrado Corazon area of Santurce in San Juan. Approximately 40 percent of the alignment is at or near grade. The remainder, aside from a short below-grade segment in the Centro Medico area as well as an underground segment through Rio Piedras, is generally elevated above roadway rights-of-way. The project includes 16 stations and a vehicle and trackway maintenance/storage facility.

The original capital cost for the project as specified in the Full Funding Grant Agreement totals \$1.250 billion (escalated dollars). The latest cost estimate total \$1.550 billion. The Tren Urbano project is expected to carry 113,300 riders per day in 2010.

#### Status

In 1993, the Federal Transit Administration (FTA) selected Tren Urbano as one of the Turnkey Demonstration Projects under the Intermodal Surface Transportation Efficiency Act (ISTEA). The Tren Urbano project is being constructed and will be operated under a turnkey procurement in order to expedite the implementation of the project and to develop the institutional capability necessary for its operation.

The Tren Urbano Phase 1 environmental review process was completed in November 1995 and included 14 stations. The alignment design allowed for the future addition of two stations, one in Rio Piedras and one in Hato Rey. A Record of Decision (ROD) was issued in February 1996. In March 1996, FTA entered into a Full Funding Grant Agreement (FFGA) for the Tren Urbano project providing a Federal commitment of \$307.40 million in Section 5309 New Start funds out of a total project cost of \$1.250 billion.

An additional \$4.96 million in Section 5309 New Start funds not included in the FFGA was awarded in January 1995. The remaining funding for the project would be provided by local revenues from the Puerto Rico Highway and Transportation Authority (PRHTA) and flexible and formula funds. All operating costs, as well as debt service on PRHTA bonds, would be paid as part of the PRHTA annual budget, established in accordance with standard PRHTA budget procedures.

Subsequent to the FFGA, three environmental assessments were prepared which revised the alignment at the Villa Nevarez station and added new stations, in Rio Piedras at the University of Puerto Rico, and in Hato Rey at Domenech Street. Findings of No Significant Impact (FONSI) by the FTA were issued for these three environmental assessments in November 1996, February 1997, and July 1997, respectively.

The Project has entered the construction phase of development. During 1996 and 1997, seven design-build contracts were awarded for different segments of the Tren Urbano Phase 1 system. The Systems Test Track and Turnkey contract, awarded in August 1996, provided for the purchase of rolling stock, design and installation of all systemwide components, construction of one of the civil segments, and operation and maintenance of Tren Urbano Phase 1 for an initial period of five years.

TEA-21 Section 3030(a)(81) authorizes the Tren Urbano project for final design and construction. Through FY 1999, Congress has appropriated \$53.23 million in Section 5309 New Start funds for the project, of which \$48.27 million is included in the scope of the FFGA.

PRHTA estimates that total Phase I project costs have increased to \$1.55 billion (escalated dollars) reflecting locally approved enhancements, which will be funded from local sources.

### **Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts FFGA Amount</b>	\$307.4	\$48.27 million appropriated through FY 1999
<b>Local:</b>	\$942.9	
<b>Local: Additional Local Funding Needs</b>	\$300.0	
<b>Total:</b>	<b>\$1,550.3</b>	

**Note:** An additional \$4.96 million was obligated to the project in prior years, but was not included in the FFGA scope, bringing the total appropriated to \$53.23 million. Totals may not add due to rounding.

**[Tren Urbano Map \(PDF\)](#)**

# St. Louis, Missouri Metropolitan Area/St. Clair County, Illinois Corridor

## St. Clair County, Illinois Corridor

### St. Louis, Missouri Metropolitan Area

(November 1998)

#### **Description**

The Bi-State Development Agency (Bi-State) is planning a 26-mile light rail line between downtown East St. Louis, Illinois, and the Mid America Airport in St. Clair County. The project would extend the MetroLink light rail project that opened in July 1993. The adopted alignment generally follows the former CSXT railroad right-of-way from East St. Louis to Belleville, IL, serving the Belleville Area College (BAC) and Mid America Airport / Scott Air Force Base. A 17.4 mile "Minimum Operable Segment" (MOS), which is covered in this profile, would terminate at BAC. The MOS includes 8 stations (seven with park and ride lots), 20 new light rail vehicles, and a new light rail vehicle maintenance facility in East St. Louis, Illinois.

The full project will cost \$426.7 million (1996 dollars) and is projected to carry 16,000 riders per day in the year 2010. The "Minimum Operable Segment" (MOS) is estimated to cost \$339.2 million (escalated dollars).

#### **Status**

Phase IIB covers the remaining 8.6 miles from Belleville Area College to Mid America Airport and will include two additional stations. Preliminary Engineering/ Final Environmental Impact Statement was completed in August 1996 and a Record of Decision was issued in September 1996 on the full 26-mile corridor. Phase IIB is currently in the final design project development phase. Section 5309 funds were made available in October 1996 to provide design and construction as far as BAC and a FFGA was awarded. The agreement authorized Bi-State to design and construct the MOS to BAC, with provisions for completing the additional segment from BAC to MAA should funding become available at a later date.

The East-West Gateway Coordinating Council (the MPO) completed a Major Investment Study and Draft Environmental Impact Statement (DEIS) in 1995. A Final Environmental Impact Statement (FEIS) was issued in August 1996.

FTA entered into a Full Funding Grant Agreement (FFGA) for \$243.93 million in Section 5309 New Start funds contributing to the total estimated cost of \$339.20 million (escalated dollars). The St. Clair County Transit District is providing \$95.3 million in local funds from a ¾ cent county sales tax. The cost of Phase IIB is \$121 million (YOE). Bi-State proposes \$60 million in Section 5309 funds.

Through FY 1999, Congress has appropriated \$112.83 million in Section 5309 New Start funds for the Minimum Operable Segment portion of the project.

## Locally Proposed Financing Plan

(Reported in \$1996)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts FFGA Amount	\$243.93	\$112.83 million appropriated through FY 1999
Local: ¾% Sales Tax	\$95.27	
<b>Total:</b>	<b>\$339.20</b>	MOS Only

**Note:** Totals may not add due to rounding.

**[[St. Clair County, Illinois Corridor Map \(PDF\)](#)]**

**Projects in Final Design**

# Dallas, Texas/North Central Corridor

## North Central Corridor

**Dallas, Texas**

(November 1998)

### Description

Dallas Area Rapid Transit (DART) plans to build a North Central Corridor light rail transit (LRT) extension beyond the existing Park Lane Station. DART's starter system opened in three phases from June 1996 to May 1997. The proposed extension from the current northern terminus at Park Lane Station is 12.5 miles long, nine stations are planned, terminating in Plano. Original plans proposed that the southern 7.5 miles of the corridor from Park Lane to Richardson Transit Center would be double tracked and the northern 5.0 miles from Richardson to Parker Road in Plano would be single tracked. However, in 1997 the DART Board of Directors approved the double tracking of the entire extension. DART estimates that over 17,000 daily riders will use this extension in the year 2010. The project is estimated to cost \$517.2 million (escalated dollars).

### North Central Corridor Summary Description

<b>Proposed Project</b>	Light rail extension 12.5 miles, 9 stations (1 additional future station)
<b>Total Capital Cost (\$YOE)</b>	\$517.20 million
<b>Section 5309 Share (\$YOE)</b>	\$333.00 million
<b>Annual Operating Cost (\$1994)</b>	\$9.80 million
<b>Ridership Forecast (2010)</b>	17,000 daily boardings 6,800 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed

through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

DART is concluding the Final Design phase of project development for the North Central Corridor. The project is included in the regionally adopted Metropolitan Transportation Plan and Transportation Improvement Program that are in conformance with the State Implementation Plan for Air Quality. TEA-21 Section 3030(a)(20) authorizes the North Central Extension for final design and construction. Through FY 1999 Congress has appropriated \$43.2 million in Section 5309 New Start funds to this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*.

## Justification

### Mobility Improvements

#### Rating: Medium-High

The LRT extension is estimated to produce 6,800 more daily transit trips than the TSM alternative and would result in the following annual travel time savings.:

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	18.30 million hours	41.90 million hours

There are an estimated 1,525 low-income households within a ½ mile radius of the proposed nine stations, approximately 13 percent of total households within a ½ mile radius of proposed stations.

### Environmental Benefits

#### Rating: High

Dallas/Fort Worth is classified as a "serious" non-attainment area for ozone. This is a recent increase from a moderate classification. DART estimates that the extension would result in the following annual emissions reductions.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 240 annual tons	decrease of 255 annual tons
Nitrogen Oxide (NOx)	decrease of 54 annual tons	decrease of 71 annual tons

<b>Volatile Organic Compounds (VOC)</b>	decrease of 28 annual tons	decrease of 24 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	decrease of 5 annual tons	decrease of 5 annual tons
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 18,068 annual tons	decrease of 22,162 annual tons

DART estimates that in 2010, the LRT extension would result in the following savings in regional energy consumption (measured in British Thermal Units - BTU):

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	decrease of 122,760 million annual BTU	decrease of 203,870 million annual BTU

#### Operating Efficiencies

**Rating: Medium**

DART estimates a slight decrease in the systemwide operating cost per passenger mile in the year 2010 as compared to the TSM alternative.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (YOE)</b>	\$0.41	\$0.42	\$0.41

Values reflect 2010 ridership forecast and 1994 dollars.

#### Cost Effectiveness

**Rating: Low-Medium**

DART estimates the following cost effectiveness indices:

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$16.90	\$13.50

Values reflect 2010 ridership forecast and 1994 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The proposed project's *Medium* land use rating primarily reflects the emerging local jurisdictional commitment to integrating future development with the proposed light rail extension while also taking into account the lack of adopted growth control measures in the Dallas region. The North Central corridor contains a mix of land uses. The predominant uses are commercial and single family housing, with some industrial, public/institutional, and medium- to high-density residential and office development. Several station areas contain large undeveloped parcels. Six prominent

employment centers are located within one-half mile of the corridor. Planning is underway for several high-density developments in the corridor. Given the success of DART's starter LRT system, local municipalities are emphasizing transit supportive land use policies and have initiated station area planning studies intended to encourage mixed use development in the corridor. DART has implemented a Joint Development Program. Developer interest in sites around the existing DART LRT and in transit supportive development is strong. DART, in conjunction with the Chamber of Commerce, held several economic development summits addressing transit supportive development. The City of Richardson, the City of Plano, and the City of Dallas have increased station area development and are working on land use plans and policies at the local jurisdictional level.

The City of Dallas has a Growth Policy Plan that provides a framework for future growth development in the city. The Plan calls for the preparation of station area design and development plans with the participation of businesses, property owners, and neighborhood groups, and includes the consideration of density bonuses and other actions necessary to support this goal. However, no formal growth management policies are enacted or proposed in the Dallas region. DART currently has a zero parking policy at 3 of the proposed 9 stations requiring those stations to not have high volume long-term parking.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 36 %**

DART is proposing \$333 million (64 percent) in Federal New Start funding and \$184 million (36 percent) in local funding for this project (all dollars escalated).

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: High**

The project's *High* capital finance rating reflects DART's dedicated revenue stream, total commitment of local funds needed for the project, and the agency's overall financial capacity. The local financial commitment to the project is proposed to be funded through the 1 percent local sales tax dedicated to DART. The North Central LRT is part of a 20-year, \$4.8 billion transit capital program adopted in FY 1998. A Northeast LRT Extension is being built solely with local funds (\$475 million). DART plans to seek \$1.44 billion in Federal funds for the total LRT expansion program. Sales tax revenue forecasts have recently been updated based on the latest revenue yield rates and personal income/retail sales trends, and provide a conservative future revenue outlook. Even with more conservative estimates, DART's financial capacity to cover the North Central Extension is solid. The FY 1999 Finance Plan includes \$295 million in debt financing which is well within the short-term debt capacity for DART.

### **Stability and Reliability of Operating Finance Plan**

#### **Rating: High**

The *High* rating of the operating financial plan is due primarily to the project's secure operating revenue stream. Local operations are funded from the 1 percent sales tax, which provides adequate resources to run and maintain the system. North Central LRT operating cost estimates have recently been increased to better account for actual operating experiences from the DART LRT starter system. DART has maintained a cash reserve plus a working capital requirement

throughout the 20-year financial planning period. In addition, the cash account reflects a positive cash flow of over \$2.0 billion at the end of the 20-year plan period.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts</b>	\$333.00	\$43.20 million appropriated through FY 1999
<b>Local:</b>	\$184.20	N/A
<b>Total:</b>	<b>\$517.20</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[North Central Corridor Map \(PDF\)](#)**

# Dallas-Ft. Worth, Texas/RAILTRAN Phase II

## RAILTRAN Phase II

Dallas, Ft. Worth, Texas

(November 1998)

### Description

The RAILTRAN Phase II project will provide additional commuter rail service on 25 miles of existing track and right-of-way between Irving and Fort Worth. Phase I initiated ten miles of service between Dallas and Irving in December 1996. Phase II is estimated to carry 10,950 daily riders in the year 2010 at a capital cost of \$141.4 million (1998 dollars). **FTA has estimated total project costs in year of expenditure (YOE) at \$153.5 million, with an estimated Section 5309 share of \$69.1 million.** Long-term plans call for Phase III to extend service to the Dallas-Fort Worth International Airport.

Phase II includes five passenger stations, track and signal improvements to the existing rail line, construction of 1.5 miles of new main track on a new alignment in downtown Fort Worth, expansion of the existing Irving Yard commuter rail maintenance facility, and purchase of rolling stock. Two stations are located in downtown Fort Worth, including the site of the Intermodal Transportation Center, and three stations are located in suburban locations. The local agencies have selected the name "Trinity Railway Express" (TRE) for the commuter service.

### RAILTRAN Phase II Summary Description

<b>Proposed Project</b>	Commuter Rail 25 miles, 5 stations
<b>Total Capital Cost (\$YOE)</b>	\$153.50 million
<b>Section 5309 Share (\$YOE)</b>	\$69.10 million
<b>Annual Operating Cost (\$YOE)</b>	\$9.20 million
<b>Ridership Forecast (2010)</b>	10,950 daily boardings 5,000 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applied to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In 1984, the RAILTRAN right-of-way between Dallas and Fort Worth was purchased with FTA assistance. Since then the Union Pacific and Burlington Northern Santa Fe have been operating freight service on the tracks.

The Fort Worth Transportation Authority (FWTA) and Dallas Area Rapid Transit (DART) have signed an agreement on the construction, operation, and financing of the RAILTRAN service. Phase II is scheduled to open in 2000, and FWTA is the lead local agency in the development of this phase. A Finding of No Significant Impact (FONSI) was issued in December 1998.

Section 3030(21) of TEA-21 authorizes the Dallas-Ft. Worth Railtran Project Phase II for final design and construction. Through FY 1999, Congress has appropriated \$46.4 million in Section 5309 New Starts funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*.

## Justification

### Mobility Improvements

**Rating: Medium**

FWTA estimates the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	57.90 million hours	17.80 million hours

There are an estimated 407 low-income households within a ½ mile radius of the proposed five stations, roughly 22 percent of total households within a ½ mile of proposed stations.

### Environmental Benefits

**Rating: High**

Dallas/Fort Worth is classified as a "serious" non-attainment area for ozone. FWTA estimates that RAILTRAN Phase 2 would result in the following annual emissions reductions.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 4 annual tons	decrease of 4 annual tons
Nitrogen Oxide (NOx)	decrease of 13 annual tons	decrease of 13 annual tons
Volatile Organic Compounds (VOC)	decrease of 121 annual tons	decrease of 115 annual tons
Particulate Matter (PM <sub>10</sub> )	decrease of 3 annual tons	decrease of 3 annual tons
Carbon Dioxide (CO <sub>2</sub> )	decrease of 852 annual tons	decrease of 563 annual tons

FWTA estimates that Phase 2 would result in the following savings in regional energy consumption (measured in British Thermal Units - BTU):

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	decrease of 11,238 million annual BTU	decrease of 7,492 million annual BTU

#### Operating Efficiencies

**Rating: Not Rated**

Information in operating efficiencies was not available.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (YOE)	N/A	N/A	N/A

Values reflect 2010 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Medium-High**

FWTA estimates the following cost effectiveness indices.

Cost Effectiveness	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$4.62	\$9.77

Values reflect 2010 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Low-Medium**

The project's *Low-Medium* land use rating reflects the low density along most of the proposed corridor, except for downtown Fort Worth at the western end of the corridor. The proposed commuter rail alignment generally lies adjacent to industrial, vacant, or agricultural land, although small clusters of residential and commercial development surround a few station areas. Fort Worth has experienced downtown employment growth of 41 percent between 1990 and 1995. Fort Worth supports housing in the downtown area by offering tax abatements; as a result, developers have added 800 new residential units in the Fort Worth CBD and have plans to add 650 more in a later phase of development. The staff of the City of Fort Worth is developing a proposed Transit Oriented Development (TOD) amendment to the zoning ordinance to encourage dense development with a mix of uses clustered around transit stops. Transit supportive development proposals are evident in the Mosier Valley and Rock Island Bottom areas along the corridor. However, there are no adopted policies to limit growth in the municipalities along the commuter rail corridor. In addition, there are no regional growth management policies, regionally coordinated urban infill policies or policies to curtail parking in the central business district.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 55%**

The project's financial plan proposes to utilize \$64.3 million (45 percent) in Section 5309 New Start funds, \$1.0 million (1 percent) in Section 5307 formula funds, \$40.4 million (33 percent) in Federal flexible funds, and \$35.7 million (26 percent) in State and local funds.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Medium-High**

The project's *Medium-High* capital plan rating reflects the relatively strong local financial commitment to the project and the significant reserves on hand to cover any potential cost overruns. DART and the RAILTRAN Authority both have the financial capacity to meet the funding commitments to the project. FWTA faces only modest capital investment commitments beyond Phase II of the RAILTRAN project. FWTA's \$35.7 million local match is to be derived from the agency's local sales tax (0.5 percent), Tarrant County, the City of Dallas, and the City of Fort Worth, RAILTRAN, FWTA, and DART. FWTA's Finance Plan demonstrates significant reserves to cover unanticipated cost overruns.

### **Stability and Reliability of Operating Finance Plan**

#### **Rating: Medium-High**

The project's *Medium-High* operating plan rating reflects the relatively strong fiscal capacity of the RAILTRAIN Authority, FWTA, and DART to operate the project. The projected annual operating costs of \$9 million beginning in FY 2000 are reasonable given the system size and type of service. Any operating deficit for RAILTRAN is to be financed from the agency's local sales tax revenue source or from positive cash balances and will cover the project's total operating needs. Operations of the completed commuter rail line have been contracted out to a private operator.

### **Locally Proposed Financing Plan**

(Reported in \$1997)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$64.30	\$46.40 million appropriated through FY 1999
Section 5307 Formula	\$1.00	N/A
Flexible Funds (CMAQ & STP)	\$40.40	N/A
<b>Local:</b>		
Sales tax revenue	\$35.70	N/A
<b>Total:</b>	<b>\$141.40</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

[\[RAILTRAN Phase 2 Map \(PDF\)\]](#)

# Fort Lauderdale, Florida/Tri-County Commuter Rail

## Tri-County Commuter Rail

**Ft. Lauderdale, West Palm Beach and Miami, Florida**

(November 1998)

### **Description**

The Tri-County Commuter Rail Authority (Tri-Rail) operates a 71.7-mile regional transportation system connecting Palm Beach, Broward and Miami-Dade Counties in South Florida. This area has a population of over four million, nearly one-third of the total population of Florida. Tri-Rail is proposing improvements to enhance significantly the service reliability of commuter rail in the rail corridor owned by the Florida Department of Transportation (FDOT). Tri-Rail intends to construct a second mainline track, rehabilitate the signal system, and provide station and parking improvements. In addition, project costs include acquisition of new rolling stock, improvements to the Hialeah maintenance yard facility, and construction of a new, northern layover facility. The proposed double-tracking is intended to allow for 15 minute headways during peak commuter hours, as opposed to the one-hour headways that now exist.

To date, 9.6 miles of the Double Track Corridor Improvement Project have been completed, including a station at Miami International Airport, which will be the cornerstone of the future Miami Intermodal Center. An additional 7.0 miles are scheduled to be completed in early 2000. FDOT, in conjunction with Tri-Rail, is arranging to assume the dispatching and maintenance operations in the corridor from the CSX Railroad, which is currently performing these functions. .

### **Tri-County Commuter Rail Summary Description**

<b>Proposed Project</b>	Commuter Rail Double Tracking and Station Modifications 71.7 miles, 19 stations
<b>Total Capital Cost (\$YOE)</b>	\$422.00 million
<b>Section 5309 Share (\$YOE)</b>	\$130.80 million
<b>Annual Operating Cost (\$1997)</b>	\$46.80 million
<b>Ridership Forecast (2015)</b>	68,348 average weekday boardings 30,063 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Highly Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The Tri-Rail system was created in 1989 as a traffic mitigation project during the State widening of Interstate 95. Environmental requirements for the Tri-County Commuter Rail improvements were satisfied with categorical exclusions.

Tri-Rail's double track corridor improvement project will be implemented in eleven phases. Phase I, an 8.14-mile portion between Pompano Beach and Broward Boulevard began in Spring 1995 and was completed in April 1997. Phase II, completed in Spring 1998, is a 1.5-mile southern extension which terminates at the New Miami International Airport Station, the cornerstone of the future Miami Intermodal Center. Construction of Phase III, 6.97 miles from south of the proposed Boca Raton/Glades Road Station to south of the Pompano Beach Station, began in March 1998 and is scheduled to be completed by January 2000. The full project will be completed in 2007.

TEA-21 Section 3030(a)(27) authorizes the Ft. Lauderdale-West Palm Beach-Miami Tri-County Commuter Rail for final design and construction. Through FY 1999, Congress has appropriated \$55.3 million in Section 5309 New Starts funding for this project. To date, Tri-Rail has also utilized \$11.5 million of apportioned Fixed Guideway Modernization monies for this project, \$24.1 million of Section 5307 formula funds, and \$38.2 million in State funds, for a total of \$134.6 million.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Improvements included in Tri-Rail's capital improvement program along the entire 71.7-mile system were used to develop the criteria. Tri-Rail indicates that no TSM alternative was advanced in the project development process; therefore, criteria comparing the New Start to the TSM alternative are not available (N/A).

## Justification

### Mobility Improvements

#### Rating: High

Tri-Rail estimates the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	26.60 million hours	N/A

Based on 1990 census data, there are an estimated 10,892 low income households within a ½ mile radius of the 19 stations, approximately 16 percent of the total households within a ½ mile radius of the stations.

## Environmental Benefits

### Rating: Low

Air Quality in the three metropolitan areas of West Palm Beach, Fort Lauderdale, and Miami, has recently been reclassified to attainment/maintenance. Tri-Rail estimates that in the year 2015, the project would result in the following emission increases compared to the No-Build alternative.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	increase of 46 annual tons	N/A
Nitrogen Oxide (NO <sub>x</sub> )	increase of 116 annual tons	N/A
Hydrocarbons (HC)	increase of 8 annual tons	N/A
Particulate Matter (PM <sub>10</sub> )	increase of 13 annual tons	N/A
Carbon Dioxide (CO <sub>2</sub> )	increase of 8,031 annual tons	N/A

Tri-Rail estimates that in 2015, the Commuter Rail improvements will result in the following increases in regional energy consumption (measured in British Thermal Units—BTU).

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	increase of 103.50 million annual BTU	N/A

## Operating Efficiencies

### Rating: High

Tri-Rail estimates a decrease in the systemwide operating cost per passenger mile in the year 2015.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2015)	\$0.29	N/A	\$0.24

Values reflect 2015 ridership forecast and 1997 dollars.

## Cost Effectiveness

### Rating: High

Tri-Rail estimates the following cost effectiveness index.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$5.06	N/A

Values reflect 2015 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The *Medium* land use rating reflects both the existence of moderate densities along the corridor and policies in the Palm Beach, Broward and Miami-Dade County Comprehensive Plans which promote transit-supportive land use, but which remain to be implemented fully. Potential high trip generators located along the Tri-Rail corridor include three international airports and three central business districts in Palm Beach, Fort Lauderdale and Miami. (Connections to the Fort Lauderdale and Miami CBDs, however, require transfers to additional transit services.) Residential development throughout the corridor is at low to medium densities. Growth and development within the Tri-Rail service area of Palm Beach, Broward, and Miami-Dade Counties is strictly contained within a 12-mile band bounded by the Atlantic Ocean on the east and the Palmetto Expressway on the west in Miami-Dade County and the Sawgrass Expressway on the west in both Broward and Palm Beach Counties.

All three counties recently amended their comprehensive plans to accommodate transit-supportive land development policies. A new Miami-Dade County conformity agreement offers guidelines calling for new development within ¼ mile of a transit station to be developed at a level of 75 employees and 15 dwelling units per acre. In conjunction with the State of Florida, local planning agencies and the Florida Department of Community Affairs have developed policies supporting both urban infill and the prevention of urban sprawl. Implementation of these policies depends on the actions of individual jurisdictions. Citizen participation is incorporated in the land development planning process as well as in the development of station site planning guidelines. Joint development negotiations have begun for five station sites. Two station sites have released Requests for Proposals for joint development.

### Local Financial Commitment

**Proposed Non-Section 5309 Share of Total Project Costs: 69%**

Tri-Rail's proposed financial plan assumes \$130.8 million (31 percent) in Section 5309 New Start funds, \$33.0 million (8 percent) in Section 5307 funds, \$34.1 million (8 percent) in Section 5309 Bus funds, \$26.2 million (6 percent) in Federal flexible funds, and \$197.9 million (47 percent) in State funds, all expressed in year of expenditure dollars. Tri-Rail has already received \$55.3 million of the \$130.8 million Section 5309 New Starts funds projected in the Capital Plan.

### Stability and Reliability of Capital Financing Plan

**Rating: Medium-High**

The *Medium-High* capital plan rating reflects that commitments are in place for most of the non-Section 5309 share of project costs. In the past year, capital cost projections have decreased from \$573.1 million to \$422.0 million, due to a reduction in the number of proposed vehicle

purchases and the elimination of elements of a related but separate project. Of the \$197.9 million in State funds in the proposed Financing Plan, \$96.4 million is committed FDOT funds. For the remaining \$101.5 million, FDOT has provided FTA with written documentation of its commitment to secure funds for the Tri-County Commuter Rail, contingent on FTA issuing a Full Funding Grant Agreement. In the past, FDOT has matched, and often overmatched, Federal funds received by Tri-Rail. FDOT provided over \$140 million of State funds for the project through FY 1998. FDOT has incorporated the Tri-Rail FY 1999-2004 Capital Plan into its own FY 2000-2004 Work Program

**Stability and Reliability of Operating Financing Plan**

**Rating: Medium**

The *Medium* operating plan rating reflects the positive financial structure of Tri-Rail’s existing operations and the availability of existing resources to assist with potential operational funding deficits. In recent years, Tri-Rail has experienced positive operating balances and increasing ridership. The current farebox recovery ratio is 25 percent. Tri-Rail projects that significant ridership increases and operating efficiencies will result in an 85 percent farebox recovery ratio in 2015. (However, funding sources are available if the projected recovery ratio is not met.) FDOT is required under State statute to fund up to 50 percent of Tri-Rail’s net deficit with the stipulation that FDOT’s total contributions cannot exceed the local contribution of the three counties served by Tri-Rail. Tri-Rail has agreements with Miami-Dade, Broward and Palm Beach Counties, by which each county has committed to contribute an amount equal to one-third of FDOT’s contribution. Federal law permits Florida to obligate up to \$4.0 million of the State’s FHWA funds for Tri-Rail operating expenses during each year that Interstate 95 is under reconstruction. Tri-Rail has received these funds since 1989 and expects to continue receiving them for the next five to seven years

**Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal:</b>		
Section 5309 New Starts	\$130.80	\$55.30 million appropriated through FY 1999
Section 5307	\$33.00	N/A
Section 5309(m)(1)(A)	\$34.10	N/A
FHWA Flexible Funds	\$26.20	N/A
<b>State:</b>		

FDOT District IV	\$46.40	N/A
FDOT District Commitment	\$50.00	N/A
FDOT Candidate	\$101.50	N/A
<b>Total:</b>	<b>\$422.00</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**Tri-County Commuter Rail (PDF)**

# New Orleans, Louisiana/Canal Streetcar Spine

## Canal Streetcar Spine

New Orleans, Louisiana

(November 1998)

### Description

The Regional Transit Authority (RTA) is developing a 4.7-mile streetcar project in downtown New Orleans. The Canal Streetcar Spine would extend along the median of Canal Street from the Canal Ferry at the Mississippi River in the Central Business District through the Mid-City neighborhood to two outer termini at the Cemeteries and City Park/Beauregard Circle. The capital cost estimate is \$154.0 million (escalated dollars). Ridership is estimated to be 31,600 passengers per day for the forecast year (2015).

### Canal Streetcar Line Summary Description

<b>Proposed Project</b>	Light Rail Streetcar 4.7 miles in length, 31 stations
<b>Total Capital Cost (\$YOE)</b>	\$154.00 million
<b>Section 5309 Share (\$YOE)</b>	\$123.20 million
<b>Annual Operating Cost (\$1997)</b>	\$5.50 million
<b>Ridership Forecast (2015)</b>	31,600 average weekday boardings 5,292 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

RTA completed a Major Investment Study/Alternatives Analysis of the Canal Street corridor in March 1995. The Regional Planning Commission, the Metropolitan Planning Organization for New Orleans, has included the Canal Spine and Carrolton Spur to City Park in the Transportation Plan and Transportation Improvement Program. The Federal Transit Administration (FTA) approved the initiation of preliminary engineering (PE) and the preparation of a Draft Environmental Impact Statement (DEIS) in September 1995. The DEIS was published in March 1997 and the Final Environmental Impact Statement (FEIS) was published in July 1997. FTA issued a Record of Decision for the project on August 28, 1997. The RTA initiated Final Design on the Canal Streetcar Spine in September 1997.

TEA-21 Section 3030(a)(51) authorizes the New Orleans Canal Streetcar project for final design and construction. Through FY 1999, Congress has appropriated \$54.21 million in Section 5309 New Starts funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria* unless otherwise indicated. N/A indicates that data are not available.

## Justification

### Mobility Improvements

#### Rating: Not Rated

Annual travel time savings have not been estimated consistent with FTA's *New Starts Technical Guidance*.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	N/A	N/A

Based on 1990 Census data, there are an estimated 8,522 low-income households within a ½ mile radius of the line's proposed stations, approximately 55 percent of the total households within a ½ radius of proposed stations.

### Environmental Benefits

#### Rating: Medium

The New Orleans metropolitan area is an attainment area for carbon monoxide and a maintenance area for ozone. RTA estimates the following annual emissions reductions.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 59 annual tons	decrease of 47 annual tons

<b>Nitrogen Oxide (NOx)</b>	decrease of 8 annual tons	decrease of 7 annual tons
<b>Volatile Organic Compounds (VOC)</b>	decrease of 8 annual tons	decrease of 7 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	No Change	No Change
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 1,750 annual tons	decrease of 636 annual tons

RTA estimates that in 2015, the Canal Streetcar Spine project will result in the following savings in regional energy consumption (measured in British Thermal Units – BTU):

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	decrease of 20,595 million annual BTU	decrease of 2,270 million annual BTU

#### Operating Efficiencies

**Rating: High**

RTA estimates a decrease in the systemwide operating cost per passenger mile in the year 2015.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2015)</b>	\$0.76	\$0.71	\$0.59

Values reflect 2015 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: High**

RTA estimates the following cost effectiveness indices:

<b>Cost Effectiveness</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Incremental Cost per Incremental Passenger</b>	\$8.33	\$7.47

Values reflect 2015 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Low-Medium**

The project's *Low-Medium* rating reflects the lack of transit-supportive land use policies and plans along the corridor, particularly outside of the CBD. The downtown and historic district portions of the corridor are relatively dense with mixed-use development, high trip generators, and a pedestrian friendly environment. Densities are lower in the outlying areas of the corridor while land use along the City Park Spur is only minimally transit-supportive. Land use policy changes

are under consideration for the CBD. In 1999, the City of New Orleans plans to complete a new master plan, which may include policies to increase the density of development in many older areas, such as the Canal corridor, and to encourage vertical zoning (residential atop commercial). The city is relying on improved transit access, a pedestrian friendly environment, and high-density, mixed-use zoning to attract development to the CBD. The City's Comprehensive Zoning Ordinance requires parking caps for new development in the CBD. There are no local or regional growth management policies or plans to increase densities or transit supportive conditions outside the CBD. Specific corridor and station-area plans have not been developed. Discussions about possible joint development opportunities at the Cemeteries Terminal have been impeded because RTA does not own property suitable for development and because of the built-up nature of the corridor.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 20%**

The project's financial plan proposes to utilize \$123.2 million (80 percent) in Section 5309 New Start funds, \$24.1 million (16 percent) in State funds and \$6.7 million (4 percent) in local and other funds.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Low-Medium**

The *Low-Medium* capital plan rating reflects the lack of confirmation of a firm local funding commitment to the project. The State's \$24.1 million contribution to the Canal Streetcar Spine is included in the State Capital Outlay Budget and backed by General Obligation bonds. Although the project is in Final Design, RTA did not provide independent confirmation of the local financial contributions that include right-of way donations by the City of New Orleans and material donations by local citizens. RTA plans to provide revenues from its projected operating surplus for use as a capital match for the project, but recent budgets or audited financial statements were not available to verify the current financial state of the agency. The 20-year capital plan appears balanced, although it does not include a contingency plan in case the full amount of anticipated Federal funds is not available. Project costs have increased by 12 percent since November 1997 (from \$136 million to \$154 million).

### **Stability and Reliability of Operating Financing Plan**

#### **Rating: Low-Medium**

The project's *Low-Medium* operating plan rating reflects that although RTA experienced a balanced operating cash flow in 1997 and 1998, the agency operated in a negative operating funding situation from 1993 through 1995. The rating also reflects declining ridership in recent years and questionable fare revenue expectations. The agency proposes to cover RTA's portion of project costs through a projected operating surplus. Revenues are expected from farebox recovery (projected to be approximately 40 percent of total operating costs), a local sales tax, State funds and charters, and other investment incomes. Annual ridership decreases (6.5 percent from 1990 through 1996) may present challenges to fare revenue expectations that are projected to increase at an average annual rate of 3.2 percent. RTA indicates that it has initiated an aggressive cost reduction program. Operating expenses declined by 7 percent in 1996. RTA

projects operating and maintenance costs will increase at an average rate of 3.0 percent from 1997 through 2017, which is consistent with the 2.7 percent average annual rate of increase demonstrated between 1991 and 1996. Retail sales tax sources, which contribute about 50 percent of operating funds, appear stable and the anticipated growth rate of 3.8 percent is consistent with historical trends (5.9 percent).

**Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$125.30	\$55.18 million appropriated through FY 2001
<b>State and Local:</b>		
City of New Orleans (Right-of-Way)	\$3.20	
Regional Transit Authority (RTA) Loan Funds	\$27.20	
Materials Donations (Poles)	\$1.00	
<b>Total:</b>	<b>\$156.60</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

[Canal Streetcar Map \(PDF\)](#)

# Northern New Jersey/Newark-Elizabeth Rail Link

## Newark-Elizabeth Rail Link (A New Jersey Urban Core Project)

Northern New Jersey

(November 1998)

### Description

The New Jersey Transit Corporation (NJ Transit) is proposing a one mile, five station Minimum Operable Segment (MOS) of an 8.8-mile, 16 station light rail transit (LRT) system which will eventually link Newark and Elizabeth, New Jersey. The MOS will function as an extension of the existing 4.3 mile Newark City Subway light rail line, running from Broad Street Station in Newark to Newark Penn Station. NJ Transit estimates that the MOS will cost \$150.0 million (YOE dollars), including associated stations, and will serve 13,300 riders daily in 2015. NJ Transit estimates that the entire 8.8-mile project will have a capital cost of \$694.0 million (1995 dollars) and will carry 24,900 riders per day in 2015.

### Newark-Elizabeth Rail Link Summary Description

<b>Proposed Project</b>	Light Rail Transit (Minimum Operable Segment) 0.97 miles, 5 stations
<b>Total Capital Cost (\$YOE)</b>	\$150.0 million
<b>Section 5309 New Starts Share (\$YOE)</b>	\$112.5 million
<b>Annual Operating Cost (\$1996)</b>	\$2.3 million
<b>Ridership Forecast (2015)</b>	13,300 average weekday boardings 6,400 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Highly Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings**

**and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## **Status**

The Newark-Elizabeth Rail Link is being advanced in three stages: the MOS, a one mile connection between the Broad Street Station and Newark Penn Station; the second segment, a one mile line from Newark Penn Station to Camp Street in downtown Newark; and the third segment, a seven mile LRT line from downtown Newark to Elizabeth, including a station serving Newark International Airport. The Draft Environmental Impact Statement (DEIS) covering all three stages of the full build alternative was completed in January 1997. The Final Environmental Impact Statement (FEIS), which addressed only the MOS, was completed in October 1998. The Federal Transit Administration signed the Record of Decision (ROD) for the MOS in November 1998. Environmental work on the other segments of the Newark-Elizabeth Rail Link awaits completion of additional planning study.

TEA-21 Section 3030(a)(57) authorized the New Jersey Urban Core Project, which consists of eight separate elements, including the Newark-Elizabeth Rail Link, for final design and construction. TEA-21 continued Section 3031(b) of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) which stated:

*[F]or the purpose of calculating non-Federal contributions to the net cost of the New Jersey Urban Core Project, the Secretary [of Transportation] shall include all non-Federal contributions made on or after January 1, 1987 for construction of any element of the project. Non-Federal funds committed to one element of the project may be used to meet the non-Federal share requirement for any other element of the project.*

Through FY 1999, Congress has appropriated \$17.91 million in Section 5309 funds for the New Jersey Urban Core Newark-Elizabeth Rail Link Project.

## **Evaluation**

Under Section 3031(c) of the Intermodal Surface Transportation Efficiency Act of 1991, the Newark-Elizabeth Rail Link, as part of the New Jersey Urban Core Project, was exempted from the New Starts criteria. This exemption has been continued under TEA-21. Although exempted, NJ Transit provided selective data on the MOS for the FY 1999 and FY 2000 New Starts Reports. Data in the criteria tables below reflect consolidated New Starts information that

NJ Transit submitted for the FY 1999 and 2000 reports. No information was submitted on a TSM alternative. N/A indicates that information is not available for specific criteria at this time.

## **Justification**

**Mobility Improvements**

**Rating: Medium**

NJ Transit estimates the following annual travel time savings for the MOS.

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	0.3 million hours	N/A

Based on 1990 census data, there are an estimated 3,645 low-income households within a ½ mile radius of the proposed five stations, approximately 33% of the total households within a ½ mile radius of the stations.

#### Environmental Benefits

##### **Rating: Medium**

Northern New Jersey is a "severe" nonattainment area for ozone and a "moderate" nonattainment area for carbon monoxide. NJ Transit estimates that in 2015, implementation of the MOS would result in the following emission reductions.

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	decrease of 101 annual tons	N/A
<b>Nitrogen Oxide (NOx)</b>	decrease of 7 annual tons	N/A
<b>Volatile Organic Compounds (VOC)</b>	decrease of 24 annual tons	N/A
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 2,740 annual tons	N/A

NJ Transit estimates that implementation of the MOS would result in the following annual savings in regional energy consumption (measured in British Thermal Units – BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	decrease of 22,090 million annual BTU	N/A

#### Operating Efficiencies

##### **Rating: Medium**

NJ Transit projects a slight decrease in systemwide operating cost per passenger mile for the MOS compared to the No-Build alternative.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2015)</b>	\$0.47	N/A	\$0.46

Values reflect 2015 ridership forecast and 1996 dollars.

### Cost Effectiveness

#### Rating: High

NJ Transit projects the following cost effectiveness index for the MOS.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$5.70	N/A

Values reflect 2015 ridership forecast and 1996 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

#### Rating: Medium-High

The project's *Medium-High* Land Use rating reflects the high density and transit ridership of Newark's Central Business District (CBD) and City and State policies and activities which have promoted transit supportive development. The area surrounding the MOS alignment is an older, mostly built-up CBD with moderate to high densities, a variety of commercial, civic, and institutional land uses, and a high transit-mode share. Penn Station is a major intermodal rail and bus hub. The 1998 Master Plan for the Penn Station area includes enforceable Design Guidelines which support transit-oriented, pedestrian-friendly development. Increasing commercial and residential occupancy rates in the CBD may indicate that the area is on the verge of more high-density development and redevelopment. The State has established abatements to promote urban redevelopment and legislation is being considered to provide disincentives for "urban sprawl" development.

The City has strong transit-supportive policies, including promotion of high-density and mixed use development, pedestrian design improvements and amenities, and strict limitation on parking at new developments. A consortium of downtown businesses and property owners are working with the City to develop a Special Improvement District, which would collect a fee to be used for public safety, beautification and image improvement projects. Major pedestrian-oriented development is planned along the nearby Passaic River waterfront. Ground has been broken on a 6,000-seat minor league baseball stadium near the Washington Park Station. Air-rights construction is being considered over the Performing Arts Center and Center Street Stations. To date, the only commitments for station development have been from institutions, rather than the commercial community.

### Local Financial Commitment

#### Proposed Non-Section 5309 Share of Total Project Costs: 25%

The proposed Newark-Elizabeth Rail Link MOS Financing Plan calls for \$112.5 million (75 percent) of the \$150.0 million total capital cost to be funded from Section 5309 New Starts funds (escalated dollars). Section 5307 (Urbanized Area Formula) funds would provide \$35.7 million (24 percent) of the total capital costs. The local, non-Federal share of the capital cost would be approximately 1 percent, with \$1.4 million (1 percent) from leveraged leases and \$0.4 million (0.2

percent) from donated right-of-way. Under Section 3031(b) of ISTEA, described above, the Newark Elizabeth Rail Link, as an element of the New Jersey Urban Core project, is not required to meet the statutorily mandated requirement (49 U.S.C. 5309(h)) that the Federal share of an individual transit project may not exceed 80 percent of the total capital cost. The elements of the New Jersey Urban Core Project are viewed cumulatively, rather than individually, to ascertain compliance with the requirement for an 80 percent maximum Federal share and 20 percent minimum non-Federal share of net Project costs.

**Stability and Reliability of Capital Financing Plan**

**Rating: Medium-High**

The *Medium-High* capital plan rating reflects the financial strength of NJ Transit and the existence of New Jersey's Transportation Trust Fund (TTF) as a secure, permanent source of capital funds. The TTF provides nearly 50 percent of NJ Transit's capital program revenues. NJ Transit's 20-year cost flow analysis includes \$2.7 million in annual costs for six Light Rail Transit vehicles for the Newark-Elizabeth Rail Link to be funded from the TTF, above the project's \$150.0 million capital cost. Federal sources traditionally account for less than 50 percent of NJ Transit's total capital program.

**Stability and Reliability of Operating Finance Plan**

**Rating: Medium-High**

The *Medium-High* operating plan rating reflects the strong overall operating financial condition of NJ Transit. NJ Transit is required by law to maintain a balanced budget and the agency has the ability to secure sufficient funding from State Operating Assistance and farebox revenues to meet projected operating expenses. In FY 1999, NJ Transit system operations generated a surplus of \$20.7 million in revenues from fares, State Operating Assistance, and other sources. The MOS's Operating Finance Plan includes reasonable operating and maintenance cost estimates and escalation factors. The Plan assumes a high farebox recovery ratio of 96 percent, with the need for State Operating Assistance of only \$0.1-\$0.2 million annually. Currently farebox and other system-generated revenues offset 57 percent of NJ Transit's operating costs systemwide.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$112.50	\$17.91 million appropriated through FY 1999.
Section 5307 Urbanized Area Formula	\$35.70	

Funds		
<b>Local:</b>		
Leveraged Leases	\$1.40	
Donated Right-of-Way	\$0.40	
<b>Total:</b>	<b>\$150.00</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Newark-Elizabeth Rail Link Map \(PDF\)](#)**

# San Diego County, California/LOSSAN Rail Corridor

## LOSSAN Rail Corridor

San Diego County, California

(November 1998)

### Description

The Los Angeles-San Diego Rail Corridor Agency (LOSSAN), a Joint Powers Authority operating in Los Angeles, Orange, and San Diego counties, was created to improve the rail system between San Diego and Los Angeles, along a 126-mile corridor with 21 stations (11 joint commuter rail/intercity stations and 10 commuter rail-only stations). This rail corridor is used by both passenger (intercity and commuter rail) and freight service. LOSSAN is implementing a long-range plan to improve the safety, capacity and speed of inter-city rail service between Los Angeles and San Diego.

The proposed five-element rail improvement program would provide intercity rail capital enhancements to the terminal facility at Los Angeles Union Station; expand the parking supply at the Irvine, Oceanside, and Solana Beach Amtrak stations; and stabilize the railway roadbed in the City of Del Mar. An earlier project implemented grade-separation improvements at three sites (Commerce in Los Angeles County, Fullerton in Orange County, and Solana Beach in San Diego County).

Total project costs for the program of improvements in the LOSSAN Rail Corridor equal \$60.6 million (escalated dollars).

### LOSSAN Rail Corridor Summary Description

<b>Proposed Project</b>	Inter-city Rail Improvements 126 miles in length; 21 stations
<b>Total Capital Cost (\$YOE)</b>	\$60.6 million
<b>Section 5309 Share (\$YOE)</b>	\$44.2 million
<b>Annual Operating Cost (\$1996)</b>	\$18.0 million
<b>Ridership Forecast</b>	650 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Not Rated</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

Section 1010 of ISTEA identified five corridors nationwide to be developed into high-speed rail corridors. One of these corridors is the Los Angeles-San Diego (LOSSAN) State Passenger High Speed corridor. TEA-21 Section 3030(b)(26) authorizes the LOSSAN Rail Corridor for Alternatives Analysis and Preliminary Engineering. Through FY 1997, Congress appropriated \$19.89 million in Section 5309 New Start funds for several grade separation projects. The Solana Beach grade separation project is currently under construction, while the Fullerton and Commerce projects are to begin constructions this fiscal year. The Fullerton and Solana Beach projects each received \$6.7 million of previously appropriated funds. The City of Commerce site has received \$8.0 million in previous appropriations.

There was no Congressional appropriation for LOSSAN rail improvements in FY 1998 or FY 1999.

## Evaluation

The LOSSAN agency was created to implement a program of rail system improvements in the three-county area of Los Angeles, Orange, and San Diego. This program of rail projects is to be completed over a five-year horizon, and each individual project is under \$20 million. A formal Major Investment Study or an Alternatives Analysis was not prepared for this project because it is an incremental intercity rail service improvement project. For the most part, LOSSAN's New Starts criteria were not estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. The Land Use evaluation focuses primarily on the Los Angeles CBD, and the other three station areas for which improvements are planned. N/A indicates data is not available or cannot be confirmed by FTA for a specific measure.

## Justification

### Mobility Improvements

**Rating: Not Rated**

The elements of the proposed project are terminal improvements, parking facilities, and bluff stabilization. These improvements will not result in travel time savings for rail passengers in the corridor.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	N/A	N/A

Based on 1990 Census data, there are approximately 4,370 low-income residents within ½ mile radius of the Union Station, Irvine, Oceanside, and Solana Beach stations, approximately 24 percent of total households within ½ mile of the proposed stations.

**Environmental Benefits**

**Rating: Not Rated**

The EPA air quality designation for the Los Angeles area is extreme and the designation for the San Diego and portions of Orange County are serious. LOSSAN did not submit information on project benefits.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxide (NOx)	N/A	N/A
Hydrocarbons (HC)	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Carbon Dioxide (CO <sub>2</sub> )	N/A	N/A

LOSSAN did not submit information on energy savings of the proposed improvements.

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	N/A	N/A

**Operating Efficiencies**

**Rating: Not Rated**

LOSSAN estimates the following systemwide operating cost per passenger mile for the existing system in 1998.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (1998)	\$0.17	N/A	N/A

Values reflect 1998 ridership forecast and 1998 dollars.

**Cost Effectiveness**

**Rating: Medium**

LOSSAN estimates the following incremental cost per new rider as compared to the No-Build.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$13.97	N/A

Values reflect "near term" ridership forecasts and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

##### **Rating: Medium**

The Medium rating reflects planned development opportunities around several stations which are proposed for improvement. While the Los Angeles CBD contains 300,000 jobs, Union Station is located on the far outskirts of the CBD and is separated by a major freeway and underutilized land; a transfer to bus or rail transit is necessary to reach most CBD employment. The Solana Beach and Oceanside stations are located in small downtown areas, while the Irvine station is located in a low density, auto-oriented environment. Planned redevelopment in all but the Irvine station area is focused on improving pedestrian and transit access. Regional planning agencies throughout Southern California are promoting transit-oriented development, but few local jurisdictions along the LOSSAN have adopted specific plans or policies to accomplish transit supportive development. Little information was provided on local zoning regulations near LOSSAN stations.

#### Local Financial Commitment

##### **Proposed Non-Section 5309 Share of Total Project Costs: 27%**

LOSSAN estimates the total cost of the five element program at \$60.6 million in escalated dollars. Of this amount, \$44.2 million (73 percent) is proposed for Section 5309 New Starts funding, \$13.2 million (23 percent) is proposed for state funding, and \$2.1 million (4 percent) is proposed for local funding.

#### Stability and Reliability of Capital Financing Plan

##### **Rating: Low**

The capital plan rating reflects the lack of committed local funding for most elements of the rail improvement program. Each of the five elements of the proposed improvement program employ distinct funding assumptions. While the Del Mar Stabilization project and the Oceanside Transit Center Parking Structure demonstrate a committed source of local funding, the other station areas (Union Station in Los Angeles, Irvine, and Solana Beach) have little or no local funding commitments. Up to \$48 million in additional state resources have recently been made available for intercity projects statewide; LOSSAN is pursuing this funding to meet the non-Federal share of project costs.

#### Stability and Reliability of Operating Finance Plan

##### **Rating: Not Rated**

No information was provided on system operations. The proposed LOSSAN improvements do not provide new transportation service - the five elements are all infrastructure improvements.

**Locally Proposed Financing Plan**  
(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Start</b>	\$44.2	\$0.0 million appropriated through FY 1999 for the rail improvement program. \$19.89 million appropriated for prior improvements.
<b>State:</b>	\$14.1	
<b>Local:</b>	\$2.3	
<b>Total:</b>	<b>\$60.6</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[LOSSAN Rail Corridor Map \(PDF\)](#)**

# San Diego County, California/Mission Valley East

## Mission Valley East

San Diego, California

(November 1998)

### Description

The Metropolitan Transit Development Board (MTDB) is planning to build a 5.9-mile Mission Valley East Light Rail Transit (LRT) extension from east of Interstate 15 to the City of La Mesa, where it would connect to the existing East LRT Line (now referred to as the Orange Line) near Baltimore Drive. The line would serve four new stations at Grantville, San Diego State University (SDSU), Alvarado Medical Center and 70th Street, as well as two existing stations at Mission San Diego and Grossmont Center. The proposed project would include elevated, at-grade, and tunnel portions and provide two park and ride lots and a new access road between Waring Road and the Grantville Station. The total project capital cost is \$361 million (escalated dollars). The project is expected to serve approximately 10,800 daily riders in the corridor by 2015

### Mission Valley East Summary Description

<b>Proposed Project</b>	Light rail extension 5.9 miles, 4 stations
<b>Total Capital Cost (\$YOE)</b>	\$361.0 million
<b>Section 5309 Share (\$YOE)</b>	\$275.2 million
<b>Annual Operating Cost (\$1994)</b>	\$4.5 million
<b>Ridership Forecast (2015)</b>	10,800 average daily boardings 7,400 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Highly Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The Major Investment Study/Draft Environmental Impact Statement (DEIS) was completed in May 1997. The Locally Preferred Alternative was selected by the Metropolitan Transit Development Board in October 1997 with concurrence from the San Diego Association of Governments (SANDAG, the local metropolitan planning organization). FTA approval to enter the Preliminary Engineering (PE) phase of project development was granted in March 1998. PE was completed in July 1998. This abbreviated schedule for PE was possible due to the extensive public involvement and detailed analyses undertaken during the planning stages, streamlining much of the work that would traditionally be undertaken in the PE/FEIS phase. The Final Environmental Impact Statement (FEIS) is completed and the Record of Decision (ROD) was issued in August 1998. FTA approval to enter Final Design was granted in October 1998.

The Mission Valley East Extension project is in SANDAG's financially constrained Regional Transportation Plan (RTP) and adopted 1998-04 Regional Transportation Improvement Program (RTIP).

Section 3030(a)(76) of the Transportation Equity Act for the 21st Century (TEA-21) authorized the project for final design and construction. Section 3030(c)(1)(A)(ii) of TEA-21 authorized \$325 million in Section 5309 New Starts funds for the Mission Valley East project. Through FY 1999, Congress has appropriated \$2.5 million in Section 5309 New Starts funds to this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. The MTDB did not provide criteria on a TSM alternative. N/A indicates that data are not available for a specific measure.

## Justification

### Mobility Improvements

**Rating: Medium-High**

MTDB estimates the following annual travel time savings.

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	1.9 million	N/A

Based on 1990 census data, there are an estimated 1,049 low-income households within a ½ mile radius of the proposed four stations, roughly 18 percent of total households within ½ mile of proposed stations.

### Environmental Benefits

**Rating: Medium**

The San Diego region is a serious non-attainment area for ozone, and a moderate non-attainment area for carbon monoxide. This corridor runs parallel to Interstate 8, which is the most

congested freeway in the San Diego region. MTDB projects the following annual emissions reductions.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 166 annual tons	N/A
Nitrogen Oxide (NOx)	decrease of 23 annual tons	N/A
Volatile Organic Compounds (VOC)	decrease of 15 annual tons	N/A
Particulate Matter (PM <sub>10</sub> )	decrease of 2 annual tons	N/A
Carbon Dioxide (CO <sub>2</sub> )	decrease of 11,659 annual tons	N/A

MTDB estimates that in 2015, the LRT would result in the following savings in regional energy consumption (measured in British Thermal Units-BTU).

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	decrease of 151,155 million annual BTU	N/A

**Operating Efficiencies**

**Rating: Medium**

MTDB estimates the following systemwide operating cost per passenger mile in the year 2015 for the Mission Valley East extension and the No-Build alternative.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (1997)	\$0.19	N/A	\$0.19

Values reflect 2015 ridership forecast and 1997 dollars.

**Cost Effectiveness**

**Rating: Medium-High**

MTDB estimates the following cost effectiveness measure:

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$8.87	N/A

Values reflect 2015 ridership forecast and 1997 dollars.

## Transit-Supportive Existing Land Use and Future Patterns

### **Rating: Medium-High**

The *Medium-High* Land Use rating reflects the City's and MTDB's successful efforts to foster transit-oriented development both along the Mission Valley East corridor and throughout the light rail system. The corridor contains a mix of industrial, commercial, and residential use including such major activity centers as the Grantville employment area, the Grossmont Regional shopping center, San Diego State University (SDSU), Kaiser Hospital, and the Alvarado Medical Center. The City of San Diego and the San Diego State University Foundation have undertaken a 58.6 acre mixed-use, pedestrian-oriented urban village redevelopment project adjacent to the SDSU campus. SDSU plans to integrate the LRT station into the heart of the redevelopment project. The City of San Diego adopted transit-oriented development design guidelines to provide a framework for redevelopment strategies, street and circulation system design, and transit facility development. The MTDB has established joint development policies for all of its properties and published a manual to guide developers and designers to orient land development around transit.

San Diego has initiated efforts to limit and implement policies that encourage infill development and redevelopment. SANDAG has supported growth management by encouraging more intense residential and commercial development around stations. The City of San Diego has made positive steps in managing parking supply along the transit corridors to support compact and transit oriented development.

## Local Financial Commitment

### **Proposed Non-Section 5309 Share of Total Project Costs: 24%**

The financial plan includes \$275.2 million (76.2 percent) in Section 5309 New Start funds, \$12.1 million (3.4 percent) in CMAQ funds, \$62.8 million (17.4 percent) in State funds, and \$11.0 million (3 percent) in local funds. However, the state and local contribution to the \$813 million LRT trolley system currently in place constitutes approximately 92% of the total system cost. Federal funds for the total existing system equal 8% and, of those funds, less than one-third were contributed from the New Starts Section 5309 program.

## Stability and Reliability of Capital Financing Plan

### **Rating: High**

The *High* rating reflects the fact that all non-Federal funds proposed for the Mission Valley East extension have been formally committed by state and local decision makers to the project. In 1987, San Diego voters approved a ½ cent local sales tax (TransNet) dedicated to transportation. One-third of the TransNet revenues, or \$750 million over 20 years, are earmarked for capital improvements to public transit, and a major share of this is for LRT extensions. MTDB states that the Mission Valley East LRT project has first funding priority for transit projects in the San Diego region. The State has committed \$62.8 million through funding programmed in the current California State Transportation Improvement Program (STIP). Preliminary capital cost estimates are reasonable with inflation assumptions in line with regional trends.

## Stability and Reliability of Operating Finance Plan

### **Rating: High**

The operating plan is rated *High* for the project's dedicated operating revenue stream. An annual proposed operating budget is projected to be to \$4.5 million. The FY 1999 operating budget shows a dramatic improvement in the agency's financial condition due to a large increase in the light rail system ridership and a 10 % growth in bus ridership. The current LRT farebox recovery ratio is 70%. The light rail system carried 16.7 million passengers during fiscal year 1996 and 18.2 million passengers in fiscal year 1997. MTDB predicts that with the rapid growth of ridership, it will be able to balance its annual operating budgets through FY 2002 without raising fares. The other source of operating funds, the State Transportation Development Act (TDA), is reliable and stable. The financial plan features the use of innovative financing sources from San Diego State University (SDSU), which is pledging \$1 million annually for operating and maintaining the LRT/bus station on campus.

**Locally Proposed Financing Plan**  
(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$275.2	\$2.5 million appropriated through FY 1999
Flexible Funds (CMAQ)	\$12.1	
<b>State:</b>		
TCI	\$4.1	
TSM	\$0.8	
STIP	\$57.9	
<b>Local:</b>		
TransNet Sales Tax	\$10.0	
Sam Diego State University Contribution	\$1.0	
<b>Total:</b>	<b>\$361.0</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Mission Valley East Map (PDF)]**

# Seattle, Washington/Seattle-Tacoma Sounder Commuter Rail

## Seattle-Tacoma Sounder Commuter Rail

### Seattle-Tacoma, Washington

(November 1998)

#### Description

Sound Transit (Central Puget Sound Regional Transit Authority) plans to implement an 8-station 40-mile *Sounder* commuter rail line between Tacoma and Seattle, Washington. The project would provide peak-period, bi-directional commuter rail service between downtown Tacoma and Seattle on existing Burlington Northern Santa Fe (BNSF) tracks. Planned improvements along the BNSF line will allow increased passenger rail speed and minimize conflicts with existing freight and Amtrak traffic. Express and local feeder bus service will provide access between commuter rail stations and other regional transportation facilities, including light rail, monorail, and ferry terminals. Sound Transit estimates approximately 12,300 average weekday riders on the Seattle-Tacoma *Sounder* line in 2020. Capital costs are estimated at approximately \$401 million (escalated dollars), and annual operating costs are estimated to total \$11.4 million (escalated dollars).

The Tacoma-to-Seattle line is Phase 1 of what Sound Transit proposes to be a 14-station, 82-mile commuter rail system. Phase 2 would extend the system south from Tacoma to Lakewood (8.2 miles) and north from Seattle to Everett (34.5 miles). Sound Transit estimates 18,800 riders on the full system in 2020. Commuter rail itself is only one element of Sound Transit's voter-approved ten year, \$3.914 billion (\$1995) *Sound Move* regional transit plan, which also includes implementation of a 23-mile light rail transit line between Seattle and SeaTac Airport; a 2-mile LRT line in downtown Tacoma; 20 new regional express bus routes; 14 high occupancy vehicle (HOV) direct access ramps (providing access to over 100 miles of existing HOV lanes); 14 new park and ride lots and 9 transit centers; and other service improvements.

#### Seattle-Tacoma Sounder Summary Description

<b>Proposed Project</b>	Commuter Rail; 40 miles, 8 stations
<b>Total Capital Cost (\$YOE)</b>	\$401.0 billion
<b>Section 5309 Share (\$YOE)</b>	\$100.0 million
<b>Annual Operating Cost (\$YOE)</b>	\$11.4 million
<b>Ridership Forecast (2020)</b>	12,300 daily boardings

	3,300 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The RTA Board adopted the *Sound Move* regional transit plan in May 1996. Voters approved \$3.914 billion in local funding for implementation of the plan in November, 1996. A Major Investment Study of *Sound Move's* services was completed in March 1997. *Sound Move* is included in the Puget Sound Regional Council's (the area's MPO) Transportation Plan and Transportation Improvement Program (TIP).

Sound Transit's request to enter into Preliminary Engineering on the full 82-mile Everett-to-Lakewood commuter rail corridor was approved by FTA in March 1998. In 1993, the Regional Transit Authority (now known as Sound Transit) received a \$1.9 million grant to conduct an Environmental Assessment (EA) on the 40-mile Tacoma-to-Seattle segment (Phase 1) of the line. The EA was completed and FTA issued a Finding of No Significant Impact (FONSI) in June 1998. Sound Transit received FTA approval to enter final design in December 1998. Sound Transit is currently in the process of procuring locomotives and passenger coaches. Sound Transit plans to initiate revenue service on the *Sounder* Tacoma-to-Seattle line in late 1999. Sound Transit is continuing PE and undertaking a Final Environmental Impact Statement on the Lakewood-Tacoma and Seattle-Everett segments of the *Sounder* commuter rail project Sound Transit is anticipating a Record of Decision on these segments in the fall of 1999.

TEA-21 Section 3030(a)(85) authorizes the Seattle Sound Move Corridor, of which *Sounder* is one element, for final design and construction. Through FY 1999, Congress has appropriated \$55.49 million in Section 5309 New Starts funding for this project.

## Evaluation

The following criteria have been estimated in conformance with *FTA's Technical Guidance on Section 5309 New Starts Criteria*, and applies to the 40-mile Seattle-Tacoma *Sounder* commuter rail project. Information was provided by Sound Transit comparing the New Start to the TSM alternative. N/A indicates that data are not available for this measure.

## Justification

Mobility Improvements

**Rating: Medium**

Sound Transit estimates the following travel time savings.

<b>Mobility Improvements</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Annual Travel Time Savings (Hours)</b>	N/A	1.2 million

Based on 1990 US Census data, Sound Transit estimates that 630 low-income households are located within a ½ mile radius of the 8 proposed stations (representing 40.4 percent of total households located within a ½ mile radius of stations).

**Environmental Benefits**

**Rating: Medium**

The Central Puget Sound Area is classified as a maintenance area for carbon monoxide and ozone. Spot areas in the region are designated as non-attainment for PM<sub>10</sub>. Sound Transit estimates the following changes in emissions for the Seattle-Tacoma *Sounder* commuter rail. Note that it is estimated that the investment will realize a reduction in all pollutants as compared to the TSM except for VOC, which is expected to increase.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	N/A	decrease of 3 annual tons
<b>Nitrogen Oxide (NOx)</b>	N/A	decrease of 26 annual tons
<b>Volatile Organic Compounds (VOC)</b>	N/A	increase of 20 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	decrease of 1 annual ton
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	N/A	decrease of 710 annual tons

Sound Transit estimates the following annual savings in regional energy consumption (measured in British Thermal Units – BTUs).

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	N/A	decrease of 9,130 million annual BTU

**Operating Efficiencies**

**Rating: Medium**

Sound Transit estimates a slight decrease in the systemwide operating costs per passenger mile in 2020 for the Seattle-Tacoma *Sounder* commuter rail compared to the TSM alternative.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2020)	N/A	\$0.44	\$0.43

Values reflect 2020 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Low**

Sound Transit estimates the following cost-effectiveness indices.

Cost Effectiveness	New Start vs. No-Build	New Start vs. TSM
Incremental Cost per Incremental Passenger	N/A	\$27.89

Values reflect 2020 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium-High**

The *Medium-High* Land Use rating reflects the fact that while existing densities surrounding proposed commuter rail stations along the corridor vary greatly, jurisdictions along the Tacoma – Seattle alignment are aggressively promoting mixed-use transit and pedestrian-oriented development in local land use plans and policies. Communities have been active in station area planning activities. Policies supportive of managed growth and transit-oriented development are in place at the State and regional level, as well as in jurisdictions throughout the *Souder* commuter rail corridor. Each of the cities along the line have adopted comprehensive plans which comply with the State's Growth Management Act and support the Central Puget Sound region's *VISION 2020* land use plan.

The project will serve several major event facilities, including Seattle's planned new sports stadiums and the Tacoma Dome. The station located in Seattle's South Downtown (SODO) area will serve an expanding employment market, and the Tukwila/Longacres station will provide access to a planned Boeing facility with 10,000 jobs.

#### Other Factors

**Criteria for Full Corridor:** Sound Transit also submitted to FTA New Starts criteria on the full 82-mile Lakewood – Everett *Souder* commuter rail system. As compared with the TSM, Sound Transit estimates 2.9 million hours of travel time savings and a decrease in systemwide operating costs for the full corridor. In addition, Sound Transit estimates an improved cost-effectiveness figure of \$20.20 for the full corridor, as compared with the TSM.

**Multimodal Emphasis with Regional Integration:** Sound Transit's *Sound Move* is a multimodal program of commuter rail, light rail, bus, and HOV systems connected to a network of park and ride lots and transit centers. Forty percent of projected riders will be on modes other than light rail. Sound Transit intends to integrate its services with the region's five other existing bus

operators, the State ferry system, the operation of the State's HOV system, and other regional, interstate, and international services. By 1999, Sound Transit projects that the region's public transit riders will be able to ride regionwide on a single fare/pass.

Freight FAST Corridor Coordination: Development of the *Sounder* commuter rail service is being coordinated with the FAST Corridor project to add grade separations and other enhancements to improve safety, reliability, and the region's ability to move freight to and from its Ports.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 75%**

Sound Transit proposes to utilize \$100.0 million (25 percent) in Section 5309 New Starts funds and \$301.0 million (75 percent) in local funds for the Seattle-Tacoma segment of the *Sounder* commuter rail project. Sound Transit proposes \$150 million in Section 5309 New Starts funds and \$401 million in local resources to fund the entire Lakewood-Everett *Sounder* system.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: High**

The project's High capital plan rating reflects the exceptionally high level of local funding committed to implement not only commuter rail but the entire Sound Move program. Sound Transit's *Sound Move* program is supported by two local tax sources: a 0.4% sales and use tax, and a 0.3% motor vehicle excise tax, approved by the region's voters in November 1996. The taxes continue in perpetuity with no sunset provisions and are dedicated solely to Sound Transit projects. These tax sources have traditionally grown faster than the consumer price index. In 1998, Sound Transit expects to receive \$175.1 million from the sales and use tax, and \$44.5 million from the MVET. Growth in tax revenues from these sources has outpaced inflation, reflecting positive regional economic growth. Local tax revenues over the span of the ten-year voter-approved *Sound Move* transit plan are now projected to be \$157 million higher than pre-vote estimates. Sound Transit's use of debt financing for all programs (light rail, commuter rail and regional express) is anticipated to be well under half of its legally available debt limit.

### **Stability and Reliability of Operating Finance Plan**

#### **Rating: High**

The *High* operating finance plan rating reflects the dedicated operating revenues available to operate the entire *Sound Move* transit plan. Sound Transit has a dedicated revenue stream that is available in its entirety to finance Sound Transit projects; no revenues will be drawn from sources that are used to support existing transit services (local bus operators independently collect their own transit-dedicated sales taxes which are matched by locally collected motor vehicle excise taxes). Sound Transit's financing plan fully covers all operating costs, debt service and capital replacement costs following completion of the construction program. If no further major capital programs are undertaken by Sound Transit, it will be possible to reduce Sound Transit's local tax rates and still meet all on-going financial requirements.

### **Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Start</b>	\$100.0	Congress has appropriated \$55.49 million in Section 5309 funds appropriated through FY 1999
<b>Local:</b>	\$301.0	
<b>Total:</b>	<b>\$401.0</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Seattle-Tacoma Sounder Commuter Rail Map \(PDF\)](#)**

## Projects in Preliminary Engineering

# Austin, Texas/Northwest/North Central Corridor

## Northwest/North Central Corridor

Austin, Texas

(November 1998)

### Description

The Austin Capital Metropolitan Transportation Authority (Capital Metro) is proposing to build a light rail system for the Northwest/North Central Corridor of Austin, Texas. Since 1994, a proposed 54-mile rail system has been a critical part of the Austin Metropolitan Area Transportation Study (ATS) Plan for the year 2020, which has been adopted by the ATS, Capital Metropolitan Transportation Authority (Capital Metro), and the cities and counties in the ATS area. The FY1999 *Annual New Starts Report* profiled the locally preferred starter line alternative known as the Red Line Alignment. However, local officials have recently halted planning activity on the Red Line in order to consider other starter line options.

At the present time, three light rail alternatives are under consideration for the Northwest/North Central Corridor. The Red Line Alignment remains a possibility. A major investment study (MIS) conducted by Capital Metro in 1996-97 identified this 29-mile, 20 station, light rail transit line (LRT) from downtown Austin (home to the State Capital complex and the University of Texas) north to the City of Leander. The Red Line Alignment would use the existing publicly owned Giddings-Llano railroad line for approximately 95 percent of the route. The projected cost is \$197.2 million (\$1997) with a daily ridership of 26,000 in the year 2020.

The MIS also identified a second rail alternative, the Green/Red Alignment, that would run from the downtown area to north Austin, tying into the Red Line and continuing north to Leander. Twenty stations were proposed for the 28-mile Green/Red Line with daily boardings estimated at 51,000 in the year 2020. The estimated cost of the Green/Red Line is \$516.7 million (\$1997).

Capital Metro's Board of Directors conducted a four-day rail planning workshop in April 1998. The workshop group, including two dozen national rail consultants, suggested a third starter rail strategy and reinforced the need to work with the community to define options. The workshop group concluded that the starter line should serve the densest destination points and corridors first because of higher expected ridership, despite a higher cost of \$700 million (\$1998). This option includes most of the centrally located Green Line and would start at Ben White Boulevard in south Austin, continue north through the downtown area, past the State Capitol Complex and the University of Texas, connect with the Red Line and continue north to Parmer Lane or Howard Lane.

As Capital Metro has been exploring alternative rail approaches for the Northwest/North Central Corridor, the agency has also experienced major internal changes. The State legislature made new appointments to the Capital Metro Board, which in turn selected a new General Manager in

October 1998. The agency is now re-examining all the rail options described above and is seeking extensive public input. Any decisions concerning these rail options will be placed before the voters in a local referendum to be held in November 1999 or January 2000.

## Status

The MIS that resulted in the selection of the Red Line Alignment as the Locally Preferred Alternative occurred in 1996-97. The Federal Transit Administration authorized Capital Metro to enter preliminary engineering and to prepare an Environmental Impact Statement for the Red Line Alignment in October 1997. However, Capital Metro is currently exploring alternative rail alignments. As a result, the project is not rated at this time.

TEA-21 Section 3030(a)(85) authorizes the Austin Northwest/North Central/Southeast-Airport Light Rapid Transit (LRT) for final design and construction. Through FY 1999, Congress has appropriated \$2.0 million for the Austin Capital Metro Project Preliminary Engineering.

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Start</b>	TBD	\$2.00 million appropriated through FY 2001
<b>State:</b>	TBD	N/A
<b>Local:</b>	TBD	N/A
<b>TOTAL</b>	<b>TBD</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

# Baltimore, Maryland/Baltimore Central Light Rail Double Tracking

## Baltimore Central Light Rail Double Tracking

Baltimore, MD

(November 1998)

### Description

The Maryland Mass Transit Administration proposes to construct 9.4 miles of track to upgrade designated areas of the Baltimore Central Light Rail Line (CLRL) that are currently single track. The CLRL is 29 miles long and operates from Hunt Valley in the north to Cromwell/Glen Burnie in the south, serving Baltimore City and Baltimore and Anne Arundel Counties, with extensions providing service to Amtrak at Penn Station and the Baltimore-Washington International Airport.

The proposed project will double track eight sections of the CLRL between Timonium and Cromwell Station/Glen Burnie. Although no new stations are required, the addition of a second track will require construction of second station platforms at four stations where side boarding platforms are now in use. Other elements included in the double track project are bridge and crossing improvements, bi-directional signal system with traffic signal preemption on Howard Street, and catenary and other equipment and systems. The double tracking will be constructed almost entirely in existing right-of-way. The MTA estimates the total cost of these improvements at \$150 million (in escalated dollars).

### Baltimore Central Light Rail Double Tracking Summary Description

<b>Proposed Project</b>	Light rail line double tracking 9.4 miles, new platforms at 4 stations.
<b>Total Capital Cost (\$YOE)</b>	\$150.00 million
<b>Section 5309 Share (\$YOE)</b>	\$120.00 million
<b>Annual Operating Cost (\$1997)</b>	\$6.58 million
<b>Ridership Forecast (2020)</b>	6,750 daily new riders
<b>FY 2000 Finance Rating:</b>	<b>Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>

<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>
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The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The original Central Corridor Light Rail Line was built entirely with local funds. The line began operations in 1992 as single track. MTA subsequently examined the feasibility and environmental impacts and benefits of double tracking eight sections. The double track project was adopted by the Baltimore Metropolitan Council and included in its financially constrained long range plan in 1993.

FTA approved (in January 1999) MTA's request to enter preliminary engineering, which will be divided into two segments. The preliminary engineering and environmental review phase for the Southern segment, Cromwell Station to Hamburg Street, is anticipated to be completed by Spring 1999 with a Record of Decision (ROD) expected by Summer 1999. The PE phase for the Northern segment, North Avenue to Timonium, is anticipated to be complete in late 1999 or early 2000; MTA estimates a ROD for the Northern segment by Spring 2000.

Section 3030(a)(42) of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorizes the "Maryland – Light Rail Double Track" for final design and construction. Section 3030(g)(1)(C) specifies that the "Baltimore-Washington Transportation Improvements Program" projects will be funded at an 80 percent Federal share, comparing the aggregate expenditure of State and local funds, including highway funds, provided by the State of Maryland for all phases of the Central Corridor Light Rail project. Through FY 1999, Congress has appropriated \$1 million for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Criteria was submitted on the entire 29 mile CLRL corridor. The MTA did not provide data comparing the New Start to a TSM alternative. N/A indicates that the data are not available for a specific measure.

## Justification

### Mobility Improvements

**Rating: Medium**

MTA estimates the following annual travel time savings.

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	0.3 million hours	N/A

Based on 1990 Census data, there are an estimated 7,315 low-income households within a ½ mile radius of stations along the proposed double track project.

## Environmental Benefits

### Rating: High

The Baltimore Metropolitan Area is a severe non-attainment area for ozone. MTA estimates that in 2020, the CLRL double tracking would result in the following annual emissions reductions.

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	reduction of 301 annual tons	N/A
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	reduction of 2700 annual tons	N/A
<b>Volatile Organic Compounds (VOC)</b>	reduction of 210 annual tons	N/A
<b>Particulate Matter (PM<sub>10</sub>)</b>	No Change	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	reduction of 8,170 annual tons	N/A

MTA estimates that in 2020, the project would result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (million)</b>	reduction of 9,095 million BTU	N/A

## Operating Efficiencies

### Rating: Medium

MTA estimates a slight decrease in the systemwide operating cost per passenger mile in the year 2020 for the CLRL double tracking compared to the No-Build alternative.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2025)</b>	\$0.60	N/A	\$0.59

**Note:** Values reflect 2020 ridership forecast and 1997 dollars.

## Cost Effectiveness

**Rating: Medium-High**

MTA estimates the following cost effectiveness index.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$8.68	N/A

**Note:** Values reflect 2020 ridership forecast and 1997 dollars.

## Transit-Supportive Existing Land Use and Future Patterns

**Rating: Low-Medium**

The Low-Medium Land Use rating reflects the minimal progress made by local jurisdictions in developing policies to increase transit-supportive development beyond the CBD. The Central Corridor Light Rail Line traverses low to moderate density suburban communities, a portion of the CBD, and several entertainment and sports centers and tourist attractions. Nearly 20 percent of regional employment and 5 percent of residences are located within ½ mile of CLRL stations. Employment is forecast to increase slightly in the corridor but at a slower rate than regional employment growth. Corridor population is projected to decrease more than 10 percent by 2020. The State of Maryland's "Smart Growth Initiative", is a very positive program aimed at managing growth and fostering more transit- and pedestrian-friendly communities. However, at the present time, policies of local jurisdictions in the corridor are only moderately supportive of transit-oriented growth management. Within downtown Baltimore, some revitalization efforts have been undertaken, including streetscape treatments, brownfields redevelopment, infill development at station areas and activity centers, and major renovations/historic redevelopment along Howard Street. Although mixed-use and commercial development continues to occur in suburban areas, with some efforts to integrate station area development at the north end of the corridor, pedestrian access in most station areas is relatively poor. An increase in the downtown parking supply has been recommended to increase economic development.

## Local Financial Commitment

**Proposed Non-Section 5309 Share of Total Project Costs: 20%**

MTA proposes \$120 million (80 percent) in Section 5309 new starts funds and \$30 million (20 percent) of State funds. Section 3030(g)(1)(C) of TEA-21 specifies the 80 percent Federal share for this project, in recognition of previous State and local contributions for all phases of the CLRL including the State's prior 100 percent investment in the CLRL main line. Taking these local investments into consideration results in an overall 38 percent Federal investment in the Central Corridor light rail system.

## Stability and Reliability of Capital Financing Plan

**Rating: Medium**

The capital plan is rated Medium based on the absence of an approved State financial commitment to the project, although the proposed local source --- the Maryland Transportation Trust Fund (MTTF) --- provides a stable revenue source for capital projects throughout the State. The State has expressed intent to commit \$30 million -- \$5 million for each of six years -- in the State's FY 1999 -- FY 2004 Consolidated Transportation Program as the local match. The State legislature is expected to act on this measure in the 1999 session. The Maryland Department of Transportation (MDOT) has an overall debt limit of \$1.2 billion, with \$868 million outstanding as of January 1, 1998, and receives the second highest bond rating in the capital market. Revenues allocated to the MTTF exceed \$2 billion annually, with stable and reliable -- but not inflation-sensitive -- revenue streams from its two largest sources, motor fuel and vehicle titling taxes. Historically, significant revenue growth has only resulted from statutory increases in specific user fees. Bonding capacity exists, and MDOT/MTA intends to reprogram funds for transit to leverage the Federal share. A 25 percent cost contingency is built into the cost estimates, as well as the additional capability of the MTTF to issue debt should the need arise.

### Stability and Reliability of Operating Finance Plan

**Rating: Medium**

The Medium operating finance plan also reflects the absence of the State's commitment to financially supporting project operations. Historically, MDOT and the MTA have operated and maintained the existing statewide transit system, while continuing to expand it. These operations are secured by the MTTF, with annual revenues exceeding \$2 billion. No specific commitment of MTTF funds to the project yet exists. Estimated annual operating costs are \$6.58 million (\$ 1997). The MTA anticipates that farebox revenues would account for 55 to 60 percent of total system revenues; State law requires that operating revenues meet at least 50 percent of operating costs on a systemwide level.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Start</b>	\$120.00	\$1.00 million appropriated through FY 1999
<b>State: MDOT/TFF</b>	\$30.00	N/A
<b>Total</b>	<b>\$150.00</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Baltimore Central Light Rail Double Tracking Map \(PDF\)](#)**

# Boston, Massachusetts/South Boston Piers Transitway - Phase II

## South Boston Piers Transitway - Phase II

**Boston, Massachusetts**

(November 1998)

### Description

The Massachusetts Bay Transportation Authority (MBTA) is building Phase I of an underground Transitway connecting the MBTA's existing transit system with the South Boston Piers area, located adjacent to Boston's central business district. Dual mode trackless trolleys will operate in the Transitway tunnel and on limited surface routes in the eastern end of the Piers area. Phase I will connect South Station – which is the terminus of the MBTA's south side commuter rail operations, the terminus of Amtrak's Northeast Corridor service, a major bus station, and a station on the MBTA's Red Line – to the World Trade Center in the Piers area. Phase II would wholly extend the Transitway underground from South Station to Chinatown Station on the Orange Line and Boylston Station on the Green Line, a distance of approximately one-half mile. Based on enhanced engineering, Phase II is estimated to cost \$363.7 million (in 1996 dollars).

### South Boston Piers Transitway - Phase II Summary Description

<b>Proposed Project</b>	Underground Transitway 0.5 miles in length; 2 stations
<b>Total Capital Cost (\$1996)</b>	\$363.70 million
<b>Section 5309 Share (\$1996)</b>	\$291.00 million
<b>Annual Operating Cost (\$1996)</b>	\$864.30 million
<b>Ridership Forecast (2010)</b>	37,000 daily boardings; (6,513 daily new riders)
<b>FY 2000 Finance Rating:</b>	<b>Low</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings**

**and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In February 1993, the MBTA completed alternatives analysis and selected a 1.5-mile underground transit tunnel from Boylston Station to the World Trade Center combined with surface bus operations as the locally preferred alternative. This alternative is referred to as the Full Build Transitway, which was proposed to be constructed in two phases. The Final Environmental Impact Statement was completed in December 1993. FTA issued a Record of Decision in May 1994 applicable to the Full Build Transitway.

In 1994, FTA signed a Full Funding Grant Agreement for \$330.73 million, including a contingent commitment for \$53 million, with the MBTA for Phase I of the Transitway. Phase I is scheduled to open in 2002, at which time construction of Phase II is expected to proceed. Phase II is scheduled to open in 2008.

Section 3030(a)(86) of the Transportation Efficiency Act for the 21<sup>st</sup> Century (TEA-21) authorizes the "South Boston – Piers Transitway" for final design and construction, with no distinction between Phase I and Phase II. No funds have been appropriated for Phase II.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Phase II of the Transitway project was never analyzed as a stand alone segment; hence, the basis of comparison for calculating the new starts criteria for Phase II is against the Phase I of the Transitway. Therefore, Phase II is considered the new start and Phase I the "no build" alternative, as it reflects conditions upon commencement of Phase II. N/A indicates that data are not available for a specific measure.

## Justification

### Mobility Improvements

**Rating: Low-Medium**

MBTA estimates the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	0.5 million hours	N/A

Based on 1990 Census data, there are an estimated 649 low income households within a ½ mile radius of the proposed transitway tunnel extension, equivalent to 24 percent of total households.

### Environmental Benefits

**Rating: Medium**

Metropolitan Boston is a serious non-attainment area for ozone. MBTA estimates the following emission reductions in 2010, under a "high-growth scenario".

Criteria Pollutant	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	reduction of 68 annual tons	N/A
Nitrogen Oxide (NOx)	reduction of 13 annual tons	N/A
Hydrocarbons (HC)	reduction of 8 annual tons	N/A
Particulate Matter (PM <sub>10</sub> )	No Change	N/A
Carbon Dioxide (CO <sub>2</sub> )	reduction of 4,781 annual tons	N/A

MBTA estimates that in 2010 the project would result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

Annual Energy Savings	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
BTU (million)	reduction of 59,765 million BTU	N/A

#### Operating Efficiencies

**Rating: Medium**

MBTA estimates a modest decrease in the systemwide operating cost per passenger mile in 2010 for Phase II of the South Boston Piers Transitway.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2010)	\$0.63	N/A	\$0.58

**Note:** Values reflect 2010 ridership forecast and 1996 dollars.

#### Cost Effectiveness

**Rating: Low-Medium**

MBTA estimates the following cost effectiveness index.

Cost Effectiveness	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$15.57	N/A

**Note:** Values reflect 2010 ridership forecast and 1996 dollars.

## Transit-Supportive Existing Land Use and Future Patterns

### Rating: High

The South Boston Piers Transitway study area includes downtown Boston and the South Boston Piers/Fort Point Channel area. Downtown Boston contains approximately 19 percent of total regional employment, extremely dense concentration of population, the city's retail shopping core, a majority of the city's hotels, and a theater district. The South Boston Piers/Fort Point Channel area, though less intensely developed, contains renovated office complexes, a recently completed Federal Courthouse, the World Trade Center, a new hotel, planned new hotels, high and medium quality high density housing, artists' lofts, and additional redevelopment opportunities. The proposed transitway project will connect three of the four MBTA rail transit lines and the South Station multi-modal terminal serving Amtrak, local and intercity bus, and commuter rail. Several high trip generators exist in the corridor, including the Boston Marine Industrial Park (3.3 million square feet), the Museum Wharf, South Boston Postal annex, Chinatown, Tufts New England Medical Center, several large government office buildings, and major office towers.

The Transitway corridor is zoned for mixed-use, high-density development. The mix of future development is in the planning stage. Planned land use will focus on housing, manufacturing, research and development, tourism, recreation, retail, food services, visual arts, and maritime industries. Growth management policies are indirect and rely upon concentration of development in the downtown core rather than limitation of development throughout the region. The CBD is the focus of a greater variety of uses through redevelopment efforts. The Boston Downtown Transportation Plan and various economic development policies promote transit-supportive development with a strong pedestrian- focused environment and transit proximity development incentives. Parking has been drastically reduced for commuters due to a freeze on the number of allowable parking spaces for commercial development within the CBD and the South Boston Piers area, further fostering transit-oriented development. Designated Economic Development Areas, located around the proposed Courthouse Station, allow the greatest development density in the project area and contain the Transitway alignment.

Strong institutional and public support enhances the growth of transit- supportive development in both the downtown and South Boston Piers/Fort Point Channel areas through the development review and approval processes. A master plan for the Seaport District, including the South Boston waterfront and Fort Point areas, is being finalized and focuses on high-intensity mixed-use development.

### Other Factors

**Coordination with Other Major Infrastructure Development** - The South Boston Piers area is located near the crossroads of the regional transportation network. The collective investment of local, State and Federal monies in transportation infrastructure has supported development of access to the South Boston Piers area with efficient and reliable transit service. This transportation infrastructure investment has enabled the continued economic expansion of the South Piers area, and includes such projects as the depression of the Central Artery, construction of a new Third Harbor Tunnel, renovation and redevelopment of South Station, and construction of the new Haul Road and access roadways to the Third Harbor Tunnel. A portion of the

Transitway Project is being jointly constructed with the Central Artery Project, reducing the costs and environmental impacts of both projects.

## **Local Financial Commitment**

### **Proposed Non Section 5309 Share of Total Project Costs: 20%**

The financial plan includes \$291 million (80 percent) in Section 5309 New Starts funds and \$72.7 million (20 percent) in unspecified State and local funds.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Low**

The low capital finance plan rating reflects the inability to adequately determine MBTA's financial capacity, as no current financial plan was provided. MBTA does not have a financial plan for Phase II of the Transitway Project and is developing a recovery plan for the Phase I segment. The Metropolitan Area Planning Council, the Boston area regional planning agency and MPO, projects total capital needs for the period 1997 – 2020 to be \$9.66 billion. This cost projection does not include other planned MBTA major capital projects such as the North-South Rail Link, the Inner Ring, and the Massport Airport Intermodal Center. Current Phase II cost estimates reflect a 41 percent increase; hence, the reasonableness of all project costs is undetermined. Under Massachusetts law, the State guarantees 90 percent of the debt service charges incurred by MBTA for capital expenditures. MBTA has proposed utilization of this mechanism to fund capital expenditures for the Transitway Project but does not indicate the State's willingness or ability to meet these funding expectations. Although MBTA may issue bonds to cover the local share, there is no outline yet of how these sources would be applied. The capital plan provides no indication of the presence of contingency factors or other protection against cost overruns.

### **Stability and Reliability of Operating Finance Plan**

#### **Rating: Low-Medium**

The low-medium rating for the operating finance plan is based on the expectation of only marginally higher O&M costs for Phase II over Phase I, although the existing financial plan does not provide sufficient detail to analyze these costs or their supporting assumptions. MBTA operations are funded through a combination of fare revenues, state assistance, local assessments, and Federal aid. The financial plan does not consider the ability of existing funding sources to cover additional operating expenses related to this project. The State lacks the financial capacity to absorb an increased share of MBTA's operating deficits and has forced MBTA to adopt stringent measures to limit growth in operating costs. In recent years, MBTA has experienced strong positive cash flow balances, increased farebox recovery ratio, moderate increases in service, and a moderate decline in ridership.

## **Locally Proposed Financing Plan**

(Reported in \$1996)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Start</b>	\$291.00	\$242.00 million appropriated to Phase I through FY 1999 \$0.00 appropriated to Phase II through FY 1999
<b>State/Local: Unspecified</b>	\$72.70	N/A
<b>Total</b>	<b>\$363.70</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[\[South Boston Piers Transitway - Phase 2 Map \(PDF\)\]](#)**

# Chicago, Illinois/Central Kane Corridor

## Central Kane Corridor

Chicago, Illinois

(November 1998)

### Description

Metra, the commuter rail division of the Regional Transportation Authority (RTA) of northeastern Illinois, is proposing an 8-mile extension to the existing 36-mile Union Pacific West (UPW) Line (also known as the Central Kane Corridor). Metra's UPW commuter rail line currently provides service between downtown Chicago west to Geneva. The proposed project would extend trackage further west to Elburn, Illinois. The proposed action also includes multiple track and signal improvements, construction of two additional stations and parking facilities, construction of a new train storage yard, and the purchase of one diesel locomotive and eight bi-level passenger cars. The proposed extension will utilize an existing railroad track and right-of-way currently used by both Metra and the Union Pacific freight railroad. The total estimated capital cost for the UPW Line extension and improvements is \$100.74 million (escalated dollars). Metra estimates that 3,900 daily new riders will use the line in the year 2020.

<b>Proposed Project</b>	Commuter Rail Line (extension and multiple improvements) 8 miles, 2 stations
<b>Total Capital Cost (\$YOE)</b>	\$100.74 million
<b>Section 5309 Share (\$YOE)</b>	\$59.44 million
<b>Annual Operating Cost (\$YOE)</b>	\$0.12 million
<b>Ridership Forecast (2020)</b>	3,900 daily new riders
<b>FY 2000 Finance Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In April 1997, Metra initiated a Major Investment Study (MIS) for the Central Kane Corridor. The purpose of the MIS was to analyze the ability and cost effectiveness of various alternative investment strategies to serve the growing need for travel from the Central Kane Corridor to the Chicago CBD job market. Based on the results of the MIS, Metra selected Rail Alternative R1 as the Locally Preferred Alternative (LPA). This project would provide for the extension of commuter rail service from Geneva to Elburn, Illinois on the UPW Line.

The LPA was included in the Chicago Area Transportation Study's (local Metropolitan Planning Organization) 2020 Long Range Plan and Transportation Improvement Program in November 1997.

FTA approved (in December 1998) the Central Kane Corridor to initiate preliminary engineering and the environmental review process of project development. Section 3030(a)(13) of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorizes the "West Line Extension" for final design and construction. Through FY 1999, Congress has appropriated \$2.98 million in Section 5309 New Starts funds for the project.

## Evaluation

The following criteria have been estimated in conformance with *FTA's Technical Guidance on Section 5309 New Starts Criteria*. For reporting purposes, Metra provided criteria for an "Existing Airport Improvements (EAI)" socio-demographic scenario. Data from the EAI socio-demographic were used to evaluate the proposed new start project against both the No-build and TSM alternatives. N/A indicates that information for a specific criterion was not available.

## Justification

### Mobility Improvements

**Rating: Medium-High**

Metra estimates the following annual travel time savings for the Central Kane Corridor:

<b>Mobility Improvements</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>Annual Travel Time Savings (Hours)</b>	0.3 million hours	0.7 million hours

Based on 1990 census data, there is one (1) estimated low-income household within a ½ mile radius of the two proposed stations. This represents 2 percent of the total number of households within ½ mile of the proposed stations.

### Environmental Benefits

**Rating: Medium**

Northeastern Illinois is classified as being in "severe" nonattainment for ozone. The region is in attainment for carbon monoxide (CO) and particulate matter (PM<sub>10</sub>). Metra estimates that in the year 2020, the proposed project would result in the following emissions reductions:

Criteria Pollutant	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	reduction of 215 annual tons	reduction of 154 annual tons
Nitrogen Oxide (NOx)	reduction of 36 annual tons	reduction of 26 annual tons
Hydrocarbons (HC)	reduction of 3 annual tons	reduction of 5 annual tons
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Carbon Dioxide (CO <sub>2</sub> )	reduction of 14,390 annual tons	reduction of 10,624 annual tons

Metra estimates that the proposed project will result in the following decreases in regional energy consumption (measured in British Thermal Units – BTUs):

Annual Energy Savings	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
BTU (million)	reduction of 188,315 million BTU	reduction of 138,867 million BTU

#### Operating Efficiencies

**Rating: Medium**

Metra estimates a decrease in the systemwide operating cost per passenger mile in the year 2020 for the New Start compared to both the No-Build and TSM alternatives.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2020)	\$0.23	\$0.23	\$0.22

**Note:** Values reflect 2020 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Medium**

Metra estimates the following cost effectiveness indices, comparing the proposed project to the No-Build and TSM alternative:

Cost Effectiveness	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$9.45	\$12.13

**Note:** Values reflect 2020 ridership forecast and 1997 dollars.

## **Transit-Supportive Existing Land Use and Future Patterns**

### **Rating: Low-Medium**

The *Low-Medium* land use rating reflects both the low densities and the relatively few transit-supportive land use policies that currently exist within the proposed corridor, outside of the Chicago Central Business District (CBD). This corridor is similar to other outlying areas of the Chicago metropolitan region, with significant auto-oriented development. The Union Pacific-West Line (Central Kane Corridor) links downtown Chicago in Cook County with the western suburbs of DuPage and Kane Counties, a distance of approximately 10 miles west of the Chicago CBD. There is a mix of developed land uses, including residential, commercial, industrial, institutional and open space along the proposed corridor. The existing downtown stations are fully built out at high densities, while the remaining impacted station areas are partially developed at low densities. In general, development in the corridor is primarily industrial and commercial around stations near the CBD and more residential in station areas west of Chicago. Residential development around the proposed stations is predominantly low-density single family housing.

The Kane County 2020 Land Resource Management Plan has various policies that not only support the extension of commuter rail, but also encourage the development of pedestrian and transit-friendly communities in the area. The Kane County 2020 Transportation Plan, developed in coordination with the county's land use plan, also supports the extension of the commuter rail line and encourages Transit-Oriented-Development (TOD) in the corridor.

In the Chicago CBD, which is a primary destination for the Union Pacific-West Line, the City maintains a ban on new parking structures in the area inside "the Loop." Outside the CBD, however, it is unclear what types of policies are in place to restrict parking supply in order to encourage transit use. At the regional level, the Northeastern Illinois Planning Commission supports further study of the concept of Diversified Regional Centers (mixed use developments). This approach involves the clustering of employment and households into dense areas that are often more than 160 acres in size. While a number of regional and county-level documents consider or encourage transit-oriented development, they do not contain implementation strategies.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 41%**

Metra proposes that \$59.44 million (59 percent) in Section 5309 New Start funds and \$41.30 million (41 percent) in State funds be applied to the Central Kane Corridor (Union Pacific-West Line) project.

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Medium**

The Medium capital plan rating reflects that Metra is reasonably financially capable to provide the non-Section 5309 share of project costs. The current financial capacity of Metra is strong. However, a proposed financial plan was not submitted to FTA for review. A financial plan outlining the combination of federal, state, and local sources will be performed during the next phase of project development. Metra, through its relationship with the RTA, has a successful

history of advancing capital projects that have required significant resources beyond the federal formula funding and rail modernization program.

Metra relies on its own resources from sales tax receipts and farebox revenue to provide significant funding for its capital program. Farebox revenue dedicated to capital expenditures is considered an innovative financing tool, which generated \$8 million in 1997. Metra will have to commit this revenue source over four to five years to provide the local share for the project. Capital additions are generally funded by a combination of federal, state and local grants and from Metra's retained earnings. Metra had cash and cash equivalents of \$56 million as of December 31, 1997. Metra also receives annual allocations of dedicated sales tax revenues from the RTA. The State of Illinois General Assembly typically provides approximately \$40 million each year to fund public transportation capital projects in northeast Illinois. Metra's share of this funding is approximately \$14 million. In addition, Metra has established a policy that the local communities receiving service must provide funding for stations and parking facilities. Communities may utilize flexible funding such as CMAQ and STP funds for their share. Metra estimates that communities that directly benefit from the proposed project will contribute \$3.9 million.

### Stability and Reliability of Operating Finance Plan

**Rating: High**

The High operating plan rating reflects the strong financial structure of Metra's current operations and the availability of its existing resources to assist with potential operational funding deficits. A financial plan focusing on each proposed new start project and outlining the funding and operating mechanisms will be prepared during the next phase of project development. As provided under the Regional Transportation Authority Act, Metra was established in 1980 to serve as RTA's operating rail corporation. Metra receives revenues directly from the operation of Rock Island, Milwaukee Road, Metra Electric, Heritage Corridor, North Central Service, and the Metra Southwest Service lines, and financial operating assistance from the RTA. Metra is proposing operating budgets through the year 2001 that will attain a 55 percent revenue recovery ratio. The service extension to Elburn, will require an operating subsidy of \$1.3 million (1997 dollars). This represents an increase of 0.7 percent in operating assistance requirements. Metra's share of RTA's sales tax revenues is projected to increase by approximately 4 percent during this period.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Start</b>	\$48.54	\$2.98 million appropriated through FY 1999
<b>State/Local:</b>	\$33.63	N/A
<b>Total:</b>	<b>\$82.17</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Central Kane Corridor Map \(PDF\)](#)**

# Chicago, Illinois/North Central Corridor

## North Central Corridor

Chicago, Illinois

(November 1998)

### Description

Metra, the commuter rail division of the Regional Transportation Authority (RTA) of northeastern Illinois, is proposing to construct 12 miles of an additional (second) mainline track along the existing 53-mile North Central Corridor (also known as the Wisconsin Central Limited Corridor). The corridor extends from downtown Chicago to Antioch on the Illinois-Wisconsin border, traversing suburban Lake County. The proposed project also includes track and signal upgrades, construction of five new stations, parking facilities, expansion of an existing rail yard, and the purchase of one new diesel locomotive and eight bi-level passenger cars. The total estimated capital cost for the North Central Corridor is \$204 million (\$escalated).

The North Central Corridor is a 12-mile area located along either side of the Wisconsin Central Limited track between Antioch and Franklin Park in Lake and Cook counties and along the Milwaukee-West Line between Franklin Park and the City of Chicago. The corridor includes the two most significant hubs of employment in the six-county northeastern Illinois region, namely, the Chicago Central Business District (CBD) and the area surrounding O'Hare International Airport. Metra estimates that 8,400 daily new riders will use the system in the year 2020.

### North Central Corridor Summary Description

<b>Proposed Project</b>	Commuter Rail Line (upgrade, multiple improvements) 12 miles, 5 stations
<b>Total Capital Cost (\$YOE)</b>	\$204.00 million
<b>Section 5309 Share (\$YOE)</b>	\$130.60 million
<b>Annual Operating Cost (\$1997)</b>	\$5.50 million
<b>Ridership Forecast (2020)</b>	8,400 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In April 1997, Metra initiated a Major Investment Study (MIS) for the North Central Corridor. The primary purpose of the MIS was to analyze the ability and cost effectiveness of various alternative investment strategies to serve the growing need for travel from the corridor to employment in the Chicago CBD. As a secondary purpose, Metra also analyzed the need for travel from the corridor to the area surrounding O'Hare International Airport.

Based on the results of the MIS, Metra selected the Locally Preferred Alternative (LPA) to be Rail Alternative R2 which provides for the enhancement of commuter rail service in the North Central Corridor. The LPA was included in the Chicago Area Transportation Study's (local Metropolitan Planning Organization) 2020 Long Range Plan and Transportation Improvement Program in November 1997.

FTA approved (in December 1998) the North Central Corridor to initiate preliminary engineering and the environmental review process of project development. Section 3030(a)(10) of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA- 21) authorizes the "North Central Upgrade – Commuter Rail [Metra]" for final design and construction. Through FY 1999, Congress has appropriated \$2.98 million in Section 5309 New Starts funds for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. For reporting purposes, Metra provided criteria for the "Existing Airport Improvements (EAI)" socio-demographic scenario. Data from the EAI socio-demographic scenario was used to evaluate the proposed new start project against both the No-build and TSM alternatives. N/A indicates that information for a specific criterion was not available.

## Justification

Mobility Improvements

**Rating: Low-Medium**

Metra estimates the following annual travel time savings for the North Central Corridor:

Mobility Improvements	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
<b>Annual Travel Time Savings (Hours)</b>	0.3 million hours	0.1 million hours

Based on 1990 census data, there are an estimated 1,516 low-income households within a ½ mile radius of the proposed five stations. This represents 7 percent of the total number of households within ½ mile radius of the proposed stations.

**Environmental Benefits**

**Rating: Medium**

Northeastern Illinois is classified as being in "severe" nonattainment for ozone. The region is in attainment for carbon monoxide (CO) and particulate matter (PM<sub>10</sub>). Metra reports a slight increase in hydrocarbon emissions for the New Start compared to both the No-Build and TSM alternatives. Metra estimates that in the year 2020, the proposed project will result in the following emissions reductions:

<b>Criteria Pollutant</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	reduction of 159 annual tons	reduction of 78 annual tons
<b>Nitrogen Oxide (NOx)</b>	reduction of 21 annual tons	reduction of 8 annual tons
<b>Hydrocarbons (HC)</b>	increase of 50 annual tons	increase of 44 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	reduction of 9,433 annual tons	reduction of 4,166 annual tons

Metra estimates that the proposed project will result in the following decreases in regional energy consumption (measured in British Thermal Units – BTUs):

<b>Annual Energy Savings</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	reduction of 123,963 million BTU	reduction of 54,964 million BTU

**Operating Efficiencies**

**Rating: Medium**

Metra estimates the following systemwide operating cost per passenger mile in the year 2020 for the New Start, No-Build, and TSM alternatives.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.23	\$0.23	\$0.23

Values reflect 2020 ridership forecast and 1997 dollars.

**Cost Effectiveness**

**Rating: Medium**

Metra estimates the following cost effectiveness indices, comparing the proposed project to the No-Build and TSM alternatives:

Cost Effectiveness	New Start vs. <i>No- Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$8.93	\$11.41

Values reflect 2020 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Low-Medium**

The *Low-Medium* land use rating reflects both the moderate to low densities as well as the relatively few transit-supportive policies that currently exist within the proposed corridor, outside of the Chicago Central Business District (CBD). The North Central Line connects rapidly expanding suburban residential communities in northern portions of Lake County, Illinois to medium and low density employment areas surrounding O'Hare International Airport, and the high-density employment center located in the Chicago CBD. Low-density residential neighborhoods, separation of land uses, and a hierarchical collector/arterial street network characterize development around suburban stations. Exceptions to the low-density characteristics of development along the North Central Line include a new "Neo-Traditional" residential development immediately adjacent to the Vernon Hills and River Grove stations that include several pockets of multi-family housing, as well as nearby retail activity. Regionally, RTA operates a Technical Program that provides funding and informational tools for communities that are interested in creating transit- friendly developments.

The current development characteristics of station area development along the proposed corridor reflect, in part, the relatively recent initiation of Metra service that began on the North Central Line in 1996. The Line utilizes an existing freight rail corridor that passes through the urban periphery of communities in its path. Development characteristics may change in response to the new stations over the long term. Metra, in coordination with local municipalities, provides park and ride lots in close proximity to commuter rail stations on the North Central Line. The 2020 Regional Transportation Plan contains specific policies which encourage higher density development at transit facilities. In the Chicago CBD, which is a primary destination for the North Central Line, the City maintains a ban on new parking structures or lots in the area inside "the Loop." Outside of the CBD, however, few policies exist to restrict parking supply in order to encourage transit use.

### Local Financial Commitment

**Proposed Non-Section 5309 Share of Total Project Costs: 36%**

Metra proposes \$130.60 million (64 percent) in Section 5309 New Start funds and \$73.40 million (36 percent) in State funds for the proposed North Central Line Upgrade and Improvements.

### Stability and Reliability of Capital Financing Plan

**Rating: Medium**

The *Medium* capital plan rating reflects that Metra is reasonably financially capable to provide the non-Section 5309 share of project costs. However, a proposed financial plan was not submitted to FTA for review. The financial capacity of Metra is considered strong. A financial plan outlining the combination of federal, state, local sources will be prepared during the next phase project

development. Metra, through its relationship with the RTA, has a successful history of advancing capital projects that have required significant resources beyond the federal formula and rail modernization program. Metra relies on its own resources from sales tax receipts and farebox revenue to provide significant funding for its capital program. Farebox revenue dedicated to capital expenditures is considered an innovating financing tool, which generated \$8 million in 1997. Metra would have to commit this revenue source over seven to eight years to provide the local share for the project. A combination of Federal, state and local grants from Metra's retained earnings usually fund capital expenditures. Metra had cash and cash equivalents of \$56 million as of December 31, 1997. The State of Illinois General Assembly typically provides about \$40 million each year to fund public transportation capital projects in northeastern Illinois. Metra's share is approximately \$14 million. Metra also receives annual allocations of dedicated sales tax revenues from the RTA. Metra estimates that communities that directly benefit from the proposed project will contribute \$17 million in Federal flexible funding to the project.

### Stability and Reliability of Operating Finance Plan

#### Rating: High

The *High* operating plan rating reflects the strong financial structure of existing operations of Metra and the availability of existing resources to assist with potential operational funding deficits. This is one of three new start projects that Metra has under development. A financial plan, focusing on each proposed new start project outlining the funding and operating mechanisms will be finalized during the next phase of project development. As provided under the Regional Transportation Authority (RTA) Act, Metra was established in 1980 to serve as RTA's operating rail corporation. Metra receives revenues directly from the operation of Rock Island, Milwaukee Road, Metra Electric, Heritage Corridor, North Central Line, and the Southwest Service Line, as well as financial operating assistance from the RTA. Metra demonstrates strong financial capacity to support operations of the proposed project in addition to ongoing system operations. Metra is proposing operating budgets through the year 2001 that will attain a 55 percent revenue recovery ratio. The North Central Line upgrade will require an operating subsidy of \$5.5 million (1997 dollars). This represents an increase of 0.3 percent in operating assistance requirements. Metra's share of RTA's sales tax revenues is projected to increase by approximately 4 percent during this time period.

### Locally Proposed Financing Plan

(Reported in \$1997)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Starts</b>	\$106.53	\$2.98 million appropriated through FY 1999
<b>State/Local:</b>	\$61.15	N/A
<b>Total:</b>	<b>\$167.68</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[North Central Corridor Map \(PDF\)](#)**

# Chicago, Illinois/Southwest Corridor

## Southwest Corridor

Chicago, Illinois

(November 1998)

### Description

Metra, the commuter rail division of the Regional Transportation Authority (RTA) of northeastern Illinois, is proposing to construct 11 additional miles to an existing 29-mile corridor connecting Union Station in downtown Chicago to 179<sup>th</sup> Street in Orland Park, Illinois. The proposed project would extend commuter rail service from Orland Park southwest to Manhattan, Illinois. The proposed action also includes the construction of three miles of a second mainline track and multiple track, signal, and station improvements. In addition, two existing rail yards would be expanded, a third rail yard would be constructed, and several railroad bridges would be rehabilitated. Metra plans to purchase two diesel locomotives and 13 bi-level passenger cars. Finally, the proposed project also includes the relocation of the downtown Chicago terminal from Union Station to the LaSalle Street Station, also in Chicago. The total estimated capital cost for these Southwest Corridor improvements is \$177.4 million (\$escalated).

The Southwest Corridor is an 11-mile area located along either side of the Norfolk Southern railroad between the southwest side of Chicago and Orland Park in Cook County. The corridor also encompasses the central and southwest portions of Will County, including the former Joliet Arsenal property. The corridor includes the most significant hub of employment in the six-county northeastern Illinois region, namely, the Chicago Central Business District (CBD). Metra estimates that 13,800 daily new riders will use the full system (including the 11-mile extension) in the year 2020.

### Southwest Corridor Summary Description

<b>Proposed Project</b>	Commuter Rail Line (extension, multiple line improvements) 11 miles, 2 stations
<b>Total Capital Cost (\$YOE)</b>	\$177.40 million
<b>Section 5309 Share (\$YOE)</b>	\$111.80 million
<b>Annual Operating Cost (\$1997)</b>	\$11.70 million
<b>Ridership Forecast (2020)</b>	13,800 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>

<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Highly Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In April 1997, Metra initiated a Major Investment Study (MIS) for the Southwest Corridor. The purpose of the MIS was to analyze the ability and cost effectiveness of various alternative investment strategies to serve the growing need for travel along the corridor to employment in the Chicago CBD. Based on the results of the MIS, Metra selected the Locally Preferred Alternative (LPA) to be Rail Alternative R1, which provides for the upgrade of commuter rail service on the Southwest Corridor with an extension to Manhattan, Illinois. The LPA was included in the Chicago Area Transportation Study's, (the local Metropolitan Planning Organization) 2020 Long Range Plan and Transportation Improvement Program in November 1997.

FTA approved (in December 1998) the Southwest Corridor to initiate preliminary engineering and the environmental review process of project development. Section 3030(a)(12) of TEA-21 authorizes the "Southwest Extension [Metra]" for final design and construction. Through FY 1999, Congress has appropriated \$2.98 million in Section 5309 New Starts funds for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. For reporting purposes, criteria are reported for the "Existing Airport Improvements (EAI)" socio-demographic forecast scenario. Data from the EAI socio-demographic scenario was used to evaluate the proposed new start project against both the No-build and TSM alternatives. N/A indicates that information for a specific criterion was not available.

## Justification

### Mobility Improvements

**Rating: Medium-High**

Metra estimates the following annual travel time savings for the Southwest Corridor:

<b>Mobility Improvements</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>Annual Travel Time Savings (Hours)</b>	5.60 million hours	6.20 million hours

Based on 1990 census data, there are an estimated 844 low-income households within a ½ mile radius of the proposed two stations. This represents 6 percent of the total number of households within a ½ mile radius of the proposed stations.

**Environmental Benefits**

**Rating: Medium**

Northeastern Illinois is classified as being in "severe" nonattainment for ozone. The region is in attainment for carbon monoxide and particulate matter (PM<sub>10</sub>). Metra reports a slight increase in hydrocarbon emissions for the New Start compared to both the No-build and TSM alternatives. Metra estimates that in the year 2020, the proposed project will result in the following emissions reductions:

<b>Criteria Pollutant</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	reduction of 175 annual tons	reduction of 185 annual tons
<b>Nitrogen Oxide (NOx)</b>	reduction of 26 annual tons	reduction of 30 annual tons
<b>Hydrocarbons (HC)</b>	increase of 27 annual tons	increase of 26 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	reduction of 10,977 annual tons	reduction of 12,401 annual tons

Metra estimates that the proposed project will result in the following decreases in regional energy consumption (measured in British Thermal Units – BTUs):

<b>Annual Energy Savings</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	reduction of 143,953 million BTU	reduction of 162,231 million BTU

**Operating Efficiencies**

**Rating: Medium**

Metra estimates a decrease in the systemwide operating costs per passenger mile in the year 2020 for both the No-Build and TSM alternatives compared to the New Start.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (\$1997)</b>	\$0.22	\$0.22	\$0.23

Values reflect 2020 ridership forecast and 1997 dollars.

**Cost Effectiveness**

**Rating: High**

Metra estimates the following cost effectiveness indices, comparing the proposed project to the No-Build and TSM alternatives:

<b>Cost Effectiveness</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$5.93	\$5.81

Values reflect 2020 ridership forecast and 1997 dollars.

**Transit-Supportive Existing Land Use and Future Patterns**

**Rating: Low-Medium**

The *Low-Medium* land use rating reflects both the moderate to low densities as well as the relatively few transit-supportive policies that currently exist within the proposed corridor, outside of the Chicago Central Business District (CBD). The communities of Orland Park, Chicago Ridge, and Oak Lawn, all located along the Southwest Service Line, have made some progress in making their station areas more transit-friendly. There are a variety of land uses located near proposed and existing station areas, including low-density single and multi-family residential areas, transportation, communication, utilities, institutional, commercial, industrial facilities, and water/wetlands. The two proposed stations at Manhattan and Baker Road are located in southeast Will County in low-density areas. Currently, there are no transit services at either of the proposed stations. Approximately one-third of the Manhattan area is used for single-family residential, another third is agriculture, and the remainder is greenfield and industrial uses. The 1/2-mile radius surrounding the proposed Baker Road station is also used for agricultural purposes. The Will County Land Resource Management Plan contains policies that encourage development of higher density land uses in proximity to transit stations, and to promote the development of new transit services in the area. Local plans within the corridor, especially in Manhattan, Orland Park, Chicago Ridge and Oak Lawn, also encourage transit station area development.

Existing station area parking is generally provided in outlying areas oriented to inbound commuters, although several villages and towns (e.g., Palos Park, Chicago Ridge, Oak Lawn) have expressed the need to increase parking at their respective Metra stations. Metra stations closer to the Chicago CBD, however, maintain fewer spaces as a means to promote transit ridership and more efficient land use. The Chicago CBD through an existing parking levy, imposes parking fees as a means of encouraging developers of large buildings within the Chicago CBD (Chicago River, Congress Parkway, and Michigan Avenue boundaries) to reduce the construction of parking facilities (lots) accompanying development projects.

**Local Financial Commitment**

**Proposed Non-Section 5309 Share of Total Project Costs: 37%**

Metra proposes \$111.8 million (63 percent) in Section 5309 New Starts funds and \$65.6 million (37 percent) in State funds be applied to the proposed Southwest Service Line project.

**Stability and Reliability of Capital Financing Plan**

**Rating: Medium**

The Medium capital plan rating reflects that Metra is reasonably financially capable to provide the non-Section 5309 share of project costs. However, a proposed financial plan was not submitted to FTA for review. The current financial capacity of Metra appears strong. A financial plan outlining the combination of federal, state and local sources will be prepared during the next phase of project development. Metra, through its relationship with the RTA, has a successful history of advancing capital projects that have required significant resources beyond the federal allocation process (FTA Rail Modernization Program). Capital expenditures are usually funded by a combination of federal, state, and local grants, and from Metra's retained earnings. Metra had cash and cash equivalents of \$56 million as of December 31, 1997. Metra also receives annual allocations of dedicated sales tax revenues from the RTA. In addition, Metra has established a policy that the local communities receiving service would provide funding for stations and parking facilities. Communities may utilize flexible funding such as CMAQ and STP funds for their share. Metra estimates that communities that directly benefit from the proposed Southwest Service project will contribute \$2.33 million.

**Stability and Reliability of Operating Finance Plan**

**Rating: High**

The High capital plan rating reflects that Metra is considered financially strong and capable of providing the proposed non-Section 5309 share of project costs. This is one of three New Start projects that Metra has under development. A financial plan, focusing on each proposed new start project outlining the funding and operating mechanisms, will be prepared during the next phase of project development. As provided under the Regional Transportation Authority (RTA) Act, Metra was established in 1980 to serve as RTA's operating rail corporation. Metra receives revenues directly from the operation of Rock Island, Milwaukee Road, Metra Electric, Heritage Corridor, North Central Service, and the existing Southwest Service lines, and financial operating assistance from the RTA. Metra is proposing operating budgets through the year 2001 that will attain a 55 percent revenue recovery ratio. The Southwest Service Improvements and Extension will require an operating subsidy of \$1.7 million (1997 dollars). This represents an increase of 0.9 percent in operating assistance requirements. Metra's share of RTA's sales tax revenues is projected to increase by approximately 4 percent during this time period.

**Locally Proposed Financing Plan**

(Reported in \$1997)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts</b>	\$91.69	\$2.98 million appropriated through FY 1999
<b>State/Local:</b>	\$54.66	N/A
<b>Total:</b>	<b>\$146.35</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Southwest Corridor Map \(PDF\)](#)**

## Cincinnati, Ohio/Interstate 71 Corridor

### Interstate 71 Corridor

**Cincinnati, Ohio**

(November 1998)

#### Description

The Ohio-Kentucky-Indiana (OKI) Regional Council of Governments is proposing to design and construct a 43-mile Light Rail Transit (LRT) line in a corridor extending north from the Cincinnati/Northern Kentucky International Airport and Florence, Kentucky to the City of Mason, Ohio. The proposed alignment will use an existing right-of-way along a portion of Interstate 71 as well as a former Conrail Railroad right-of-way and active right-of-way of the Indiana and Ohio (I&O) Railroad, owned by the Southwest Ohio Regional Transit Authority (SORTA). OKI is planning to initiate preliminary engineering and the preparation of a Draft Environmental Impact Statement (DEIS) for the first Minimum Operable Segment (MOS-1) extending approximately 16.5 miles. The MOS-1 begins at 12<sup>th</sup> Street in Covington, Kentucky and terminates at Pfeiffer Road in Blue Ash, Ohio. The MOS-1 includes a proposed 18 stations. Capital cost estimates for MOS-1 total \$675.8 million (escalated dollars). OKI estimates that 19,821 average weekday riders will use the MOS-1 in the year 2020.

The total capital cost estimate for the entire 43-mile LRT, including 30 proposed stations, for the I-71 Corridor is \$1.157 billion (in 1996 dollars).

#### Interstate 71 Corridor Summary Description

<b>Proposed Project</b>	Light Rail Transit (LRT) Line (MOS-1); 16.5 miles, 18 stations
<b>Total Capital Cost (\$YOE)</b>	\$675.80 million
<b>Section 5309 Share (\$YOE)</b>	\$337.90 million
<b>Annual Operating Cost</b>	Not reported at this time
<b>Ridership Forecast (2020)</b>	19,821 Average Weekday Riders
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>

<b>FY 2000 Project Justification Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates, costs, benefits and impacts are refined. **The FTA ratings and recommendations will be updated to reflect new information, changing conditions, and refined financing plans.**

## Status

OKI was designated as the lead local agency for the I-71 Major Investment Study (MIS). The initial phases of the MIS, from May 1995 through November 1997, identified and evaluated a number of transportation mode options and alignments for the I-71 corridor. In March 1998, the study concluded with the selection of the Locally Preferred Alternative (LPA) recommending the design and construction of a 43-mile LRT line. The entire 43-mile LRT (including MOS-1) is included in OKI's Metropolitan Area Transportation Plan and conforming Transportation Improvement Program. Using \$5.8 million in Section 5307 flexible funds, SORTA purchased several portions of active and abandoned railroad right-of-way for the proposed project.

FTA has approved (in December 1998) the initiation of preliminary engineering and the preparation of a Draft Environmental Impact Statement (DEIS) for the initial 16.5-mile MOS. Section 3030(b) (66) of TEA-21 authorizes the "Cincinnati/Northern Kentucky Northeast Corridor" for alternatives analysis and preliminary engineering. Through FY 1999, Congress has appropriated \$8.78 million in Section 5309 New Starts funds for the proposed project.

## Evaluation

The following criteria have been estimated in conformance with *FTA's Technical Guidance on Section 5309 New Starts Criteria*. OKI has reported the New Starts criteria for the 16.5-mile MOS-1. N/A indicates that information for a specific measure was not available.

## Justification

### Mobility Improvements

**Rating: Low-Medium**

OKI estimates the following annual travel time savings for MOS-1 of the I-71 Corridor project:

<b>Mobility Improvements</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>Annual Travel Time Savings (Hours)</b>	3.10 million hours	2.20 million hours

Based on 1990 census data, there are an estimated 13,877 low-income households within a ½ mile radius of the proposed 18 stations for MOS-1. This represents 33 percent of the total number of households within a ½ mile of the proposed MOS-1.

**Environmental Benefits**

**Rating: Medium**

The Cincinnati metropolitan area is currently classified as a moderate non-attainment area for ozone and is in attainment for carbon monoxide (CO). OKI estimates that in 2020, the proposed project would result in the following emissions reductions. Note that carbon dioxide (CO<sub>2</sub>) estimates illustrate an increase compared to the TSM and a decrease compared to the No-Build.

<b>Criteria Pollutant</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	reduction of 11 annual tons	reduction of 10 annual tons
<b>Nitrogen Oxide (NOx)</b>	increase of 33 annual tons	reduction of 26 annual tons
<b>Hydrocarbons (HC)</b>	reduction of 2 annual tons	reduction of 2 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	reduction of 2 annual tons	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	increase of 12,777 annual tons	reduction of 3,536 annual tons

OKI estimates that the proposed project will result in the following decreases in regional energy consumption (measured in British Thermal Units – BTUs).

<b>Annual Energy Savings</b>	<b>New Start vs. No- Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	increase of 453,242 million BTU	increase of 250,044 million BTU

**Operating Efficiencies**

**Rating: Low**

OKI estimates an increase in the systemwide operating cost per passenger mile in the year 2020 for the New Start compared to both the No-Build and TSM alternatives.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.51	\$0.53	\$0.54

Values reflect 2020 ridership forecast and 1998 dollars.

**Cost Effectiveness**

**Rating: Medium**

OKI estimates the following cost effectiveness indices, comparing the proposed project to the No-Build and TSM alternatives:

<b>Cost Effectiveness</b>	<b>New Start vs. <i>No- Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Incremental Cost per Incremental Passenger</b>	\$8.43	\$11.72

Values reflect 2020 ridership forecast and 1998 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Low**

The *Low* land use rating reflects the lack of transit-supportive land use or parking policies within the proposed corridor. The Interstate 71 corridor encompasses a variety of different kinds of land uses including the central business district (CBD), inner city neighborhoods, and lower density suburbs. The proposed corridor also includes a number of high trip generators such as two major universities (University of Cincinnati, Xavier University), medical facilities, professional sports complexes, and both urban and suburban retail and office spaces. Total population within a ½ mile radius of all stations in the Minimum Operable Segment is estimated to be 73,700. Total employment in the CBD is 79,700 (8.5 percent of the metropolitan region) at an employment density of 217 jobs per acre. While the metropolitan region as a whole is expected to grow, housing and population densities are projected to decrease for many of the areas along the proposed corridor, and absolute housing and population is forecast to increase for only five of the proposed stations, primarily located near the northern terminus of the corridor. The communities along the proposed corridor have no existing plans or ordinances that encourage station area development, although the project is still early in the development process. Currently, there are no regional parking policies or requirements in place to encourage transit use.

The region’s existing 2020 Metropolitan Transportation Plan recommends that local governments manage growth and encourage alternatives to single occupant vehicles. The City of Cincinnati has applied for certain neighborhoods to be designated Empowerment Zones. Funding has been made available to construct new football and baseball facilities along the Ohio River. As a result, there has been an active interest in redeveloping the riverfront near the proposed corridor.

### Local Financial Commitment

**Proposed Non-Section 5309 Share of Total Project Costs: 50%**

OKI proposes a 50 percent share of \$337.9 million in Section 5309 New Start funds and \$337.9 million (all dollars escalated) in State and local funds.

### Stability and Reliability of Capital Financing Plan

**Rating: Low-Medium**

The *Low-Medium* capital plan rating reflects the absence of a financial plan and an entity (existing or new local agency) to construct and operate the proposed new start project. The financing plan, identifying Federal, state and local participation has not been completed. Therefore, it is not possible to identify specific sources of local match at this time. OKI indicates that a more detailed analysis of specific Federal, state and local sources will be addressed in the preliminary engineering/environmental review phase of project development. Both the State of Ohio and the Commonwealth of Kentucky, which together will be responsible for funding 25 percent (\$168.95

million) of the proposed project, are strong financially. The remaining 25 percent may be provided by local jurisdictions via a voter referendum on a proposed dedicated transit tax in the form of either a gasoline or sales tax. These potential funding mechanisms will be examined further during the next phase of project development.

**Stability and Reliability of Operating Finance Plan**

**Rating: Low-Medium**

The *Low-Medium* operating plan rating reflects the absence of a financial plan and an entity (existing or new local agency) to build and operate the proposed new start project. Because a financial plan has not been completed, a definitive analysis of the exact mix of dedicated funding sources, outlining potential operating revenues, is not available. Currently, an agency has not been identified to operate the proposed project once it is constructed. The project’s operating deficit may be covered with an as yet unidentified dedicated transit tax. Operating assistance for the Southwest Ohio Regional Transit Authority (SORTA) is currently provided primarily with local sources, with some Federal contributions. These funding and operating mechanisms will be analyzed further during the next phase of project development.

**Locally Proposed Financing Plan**

(Reported in \$1997)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts</b>	\$310.00	\$8.78 million appropriated through FY 1999
<b>State:</b>	\$155.00	N/A
<b>Local:</b>	\$150.00	N/A
<b>Total:</b>	<b>\$620.00</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Interstate 71 Corridor Map \(PDF\)](#)**

# Cleveland, Ohio/Euclid Corridor Improvement Project

## Euclid Corridor Improvement Project

Cleveland, Ohio

(November 1998)

### Description

The Greater Cleveland Regional Transit Authority (GCRTA), in partnership with the City of Cleveland, is proposing to design and construct a 5.6-mile transit corridor incorporating exclusive bus rapid transit lanes and related capital improvements on Euclid Avenue from Public Square in downtown Cleveland, east to University Circle. The proposed project is known as the Euclid Corridor Improvement Project (ECIP). GCRTA also proposes that three stations along the existing Red Line (heavy rail) be relocated and three stations be renovated in order to spur economic development and improve access between the stations, surrounding neighborhoods, and employment centers. The total capital cost estimate for the ECIP is \$327 million (escalated dollars).

The right-of-way on East 17<sup>th</sup>/East 18<sup>th</sup> Street from the Inner Belt to Lakeside Avenue will be reconfigured to facilitate traffic movement and increase accessibility to employment and retail centers in the Central Business District. The downtown area bounded by Superior Avenue, St. Clair Avenue, West 3<sup>rd</sup> Street and East 18<sup>th</sup> Street will be designated a "Transit Zone" to provide expanded and more visible bus operations and allow for convenient transfer between cross-town bus routes. New community-oriented bus services will also be implemented to serve the adjacent empowerment zone.

### Euclid Corridor Improvement Summary Description

<b>Proposed Project</b>	Bus Rapid Transit Lanes and related capital improvements
<b>Total Capital Cost (\$YOE)</b>	\$327.00 million
<b>Section 5309 Share (\$YOE)</b>	\$262.00 million
<b>Annual Operating Cost:</b>	Not reported at this time
<b>Ridership Forecast (2015)</b>	3,800 daily new riders
<b>FY 2000 Financial Rating:</b>	Medium
<b>FY 2000 Project Justification Rating:</b>	Low-Medium
<b>FY 2000 Overall Project Rating:</b>	Not Recommended

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated to reflect new information, changing conditions, and refined financing plans.**

## Status

Section 3035 of ISTEA authorized FTA to enter into a multiyear grant agreement for development of the Dual Hub Corridor, originally considered as a rail link between downtown and University Circle. In November 1995, the GCRTA Board of Trustees selected the ECIP as the Locally Preferred Alternative (LPA). The LPA is the Transportation Systems Management Alternative (TSM) focusing on various bus system improvements and selected rail elements.

In December 1995, the Northeast Ohio Areawide Coordinating Agency (local Metropolitan Planning Organization) adopted a resolution supporting the ECIP. In September 1996, FTA approved a grant for \$4.02 million in Section 5309 New Starts funds. Of these funds, \$2.82 million were used to initiate preliminary engineering (PE) on the ECIP. During PE, plans for the design and operation of the ECIP are being refined, environmental issues addressed, and the financing plan finalized. This work is scheduled for completion in February 1999.

Section 3030(a)(17) of TEA-21 authorized the "Euclid Corridor Extension" for final design and construction. Through FY 1999, Congress has appropriated \$8.50 million in Section 5309 New Starts funds for the Euclid Corridor Improvement Project. Of this amount, \$4.72 million was rescinded or reprogrammed by Congress.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Because the LPA for the ECIP served as the TSM for the proposed project, a comparison of the New Start (ECIP) to the TSM is not applicable. N/A indicates that data are not available for a specific measure.

## Justification

### Mobility Improvements

#### Rating: Low

The ECIP is estimated to increase transit travel by 3,800 daily new transit trips over the No-Build Alternative (a 2.5 percent increase). GCRTA estimates the following annual travel time savings for the ECIP:

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	0.20 million hours	N/A

Based on 1990 census data, there are an estimated 12,406 low-income households within a ½ mile radius of the 22 proposed stations. This represents 65 percent of the total households within a ½ mile radius of the proposed stations.

**Environmental Benefits**

**Rating: Low**

Cleveland is currently classified as a maintenance nonattainment area for ozone and a moderate nonattainment area for particulate matter (PM<sub>10</sub>). GCRTA estimates the following emissions increases for the ECIP as compared to the No-Build alternative.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	increase of 16 annual tons	N/A
<b>Nitrogen Oxide (NOx)</b>	increase of 5 annual tons	N/A
<b>Volatile Organic Compounds (VOC)</b>	increase of 4 annual tons	N/A
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	increase of 717 annual tons	N/A

GCRTA estimates that the ECIP will result in the following increase in regional energy consumption (measured in British Thermal Units – BTUs) compared to the No-Build Alternative.

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	increase of 23,458 million BTU	N/A

**Operating Efficiencies**

**Rating: Medium**

GCRTA estimates the following systemwide operating costs per passenger mile in the year 2015 for the New Start compared to the No-Build:

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (YOE)</b>	\$0.63	N/A	\$0.63

Values reflect 2015 ridership forecast and escalated dollars.

**Cost Effectiveness**

**Rating: Low**

GCRTA estimates the following cost effectiveness indices:

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$48.33	N/A

Values reflect 2015 ridership forecast and escalated dollars.

### Transit-Supportive Existing Land Use and Future Patterns

#### Rating: Medium-High

The *Medium-High* land use rating reflects both the transit-supportive parking policies currently in place in the Cleveland Central Business District (CBD) and the high trip generator characteristics of the corridor. The proposed Euclid Corridor Improvement Project serves two major activity centers: 1) the Cleveland CBD, characterized by commercial/office, retail, and institutional uses; and 2) the University Circle area to the east, which includes educational, cultural, and medical facilities. The City of Cleveland's Midtown area, located between these two anchor areas, is an Empowerment Zone, with marginal commercial/retail and industrial establishments and abandoned industrial sites and nearby areas of multi-family and single-family housing. Population and employment in these areas have increased since 1990 and are forecast to continue, increasing at a faster rate than for the metropolitan area as a whole. The City has undertaken a number of planning activities and redevelopment programs to achieve infill and redevelopment in the CBD and corridor. There is a strong network of public agencies, business associations, and development corporations that promote and provide mechanisms for commercial and residential redevelopment. Some redevelopment activities have taken place within the Euclid Corridor as a result of these organizations and programs.

Parking management strategies are currently in place in the CBD. The City of Cleveland recognizes that current zoning for the ECIP is unsupportive of increased transit ridership and has indicated that zoning codes will be revised in the near future to support increased transit patronage.

### Other Factors

**ECIP as an Economic Development Generator:** At least three major redevelopment projects in the downtown area have recently been undertaken with a strong orientation toward existing rail and bus transit. In addition, the ECIP is investigating joint development opportunities for a proposed downtown transit center, while simultaneously working with a private corporation to identify development opportunities in the Cleveland metropolitan area.

**Brownfields:** Cuyahoga County, which includes the Cleveland metropolitan area, initiated the first U.S. Environmental Protection Agency-funded Brownfields Pilot Project program in the nation in 1993 and has continued to implement a "comprehensive strategy to redevelop Brownfields." The Ohio State legislature has streamlined regulations for Brownfields redevelopment, and the County has established a \$20 million revolving loan program. The County received an EPA grant in 1997 to assess properties in the Cleveland MidTown area. More than 100 properties have been preliminarily assessed for their environmental condition as a baseline for determining their potential for redevelopment.

## Local Financial Commitment

### Proposed Non-Section 5309 Share of Total Project Costs: 20%

GCRTA proposes an 80 percent Federal share of \$262 million in Section 5309 New Starts funds, and \$65 million (20 percent) in local funds. Since the FY 1999 New Starts Report, total estimated capital costs have decreased by \$6 million (2 percent).

### Stability and Reliability of Capital Financing Plan

#### Rating: Medium

The *Medium* capital plan rating reflects GCRTA's ability to finance and construct the proposed project while also noting that specific funding sources and commitments have not been finalized to date. The GCRTA has successfully completed a number of capital projects over the last few years and demonstrates the financial and management capabilities to carry out its program. GCRTA anticipates receiving at least \$37 million from dedicated sales tax revenues for the proposed Euclid Corridor Improvement Project. These funds, which represent an existing source, are eligible for both operations and capital expenditures. This is considered a modest amount given the agency's planned \$1.3 billion capital budget for the next twenty years. In 1998, the State of Ohio's Transportation Review Advisory Council (TRAC) approved \$70 million in funding for the proposed project. The GCRTA, the State, and the City of Cleveland are in the process of determining how these funds will be used for this project. An additional source of funding is expected to come from the State Infrastructure Bank Program. Funding from this source would be used for viaduct improvements and financial management activities. In addition, GCRTA anticipates funding several proposed transit centers with \$32 million in projected revenue generated by parking and lease agreements with Cleveland's private sector. An economic analysis is currently underway to determine the revenue flow from the proposed transit centers. If, as a result of the study, GCRTA must reduce the amount of funding from this source, the agency has indicated that it will make up the shortfall using sales tax revenues.

### Stability and Reliability of Operating Finance Plan

#### Rating: Medium

The *Medium* operating plan rating reflects the positive financial structure of GCRTA's current operations and the availability of existing resources to assist with potential operating funding deficits. However, specific operating requirements and funding commitments have not been finalized to date. The GCRTA has managed to fully fund the operations of its existing system during a period of expansion. In 1997, ridership increased by 4% over 1996. Both bus and rail ridership increased for the first time since 1990. A major reason for the increased ridership can be attributed to special events in downtown Cleveland and a generally improved economy. The regional economy has experienced moderate growth that has generated sufficient sales tax revenues to cover operations and expansion costs. In addition, GCRTA is developing new strategies to attract and retain ridership including new services such as the Waterfront Line light rail line (which opened in 1996), increased numbers of Community Circulator routes (which use small buses to serve specific communities), station renovations, and service promotions.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Starts</b>	\$262.00	\$8.50 million appropriated through FY 1999
<b>State/Local:</b>	\$65.00	N/A
<b>Total:</b>	<b>\$327.00</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Euclid Corridor Map \(PDF\)](#)**

# Denver, Colorado/Denver Southeast Corridor

## Southwest LRT

Denver, Colorado

(November 1998)

<b>Description</b>	<p>The Regional Transportation District (RTD) is implementing an 8.7-mile light rail transit (LRT) extension from the I-25/Broadway interchange in Denver parallel to Santa Fe Drive to Mineral Avenue in Littleton. The LRT will operate over an exclusive, grade-separated right-of-way and connect with the existing 5.3-mile Central Corridor light rail line, which was constructed entirely with local funds and opened in October 1994.</p> <p>The capital cost for the project is \$176.32 million (escalated dollars). This estimate includes local costs already incurred by RTD for right-of way acquisition, a portion of an existing LRT maintenance and storage facility, transit improvements along the Southwest corridor, and preliminary engineering, as well as new costs for final design, construction, and the acquisition of rolling stock. The project is estimated to carry 8,400 passengers per day in the year 2000 (opening year) and 22,000 passengers per day in 2015.</p>
<b>Status</b>	<p>FTA issued the Final Environmental Impact Statement (FEIS) in February 1996 and signed the Record of Decision in March 1996. RTD and FTA entered into a Full Funding Grant Agreement (FFGA) in May 1996, committing \$120 million in Section 5309 New Starts funding.</p> <p>TEA-21 Section 3030(a)(24) authorizes the Denver Southwest LRT for final design and construction. Through FY 1999, Congress has appropriated \$64.12 million in Section 5309 New Start funds. An additional \$1.34 million was provided in FY 1997 from reprogrammed funds for a total of \$65.46 million made available to the project.</p> <p>Construction is underway and is scheduled to be completed in July 2000.</p>

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: § 5309 New Start (FFGA Amount)</b>	\$120.00	\$65.46 million appropriated through FY 1999
<b>Federal: § 5307</b>	\$18.88	\$18.00 million in Flexible Funds
<b>Local: RTD Sales and Use Tax and in-kind contributions</b>	\$37.44	N/A
<b>Total:</b>	<b>\$176.32</b>	

**Note:**Totals may not add due to rounding.

[Southwest LRT Map \(PDF\)](#)

# Kansas City, Missouri/Southtown Corridor

## Southtown Corridor

Kansas City, Missouri

(November 1998)

### Description

The Kansas City Area Transportation Authority (KCATA) is proposing a 15.2-mile light rail transit (LRT) project in the Southtown Corridor. This Locally Preferred Alternative (LPA) is estimated to cost \$490 million (1997 dollars) and would carry 16,800 riders per day in 2010. The corridor would extend from the riverfront and downtown Kansas City south to the Country Club Plaza (Plaza) and to 85th Street and Holmes Road. The project would also include an eastern line from the Plaza to Watkins Drive and south to 75th Street. KCATA proposes to build the project in phases, starting with a 5.6 miles segment from the River Market to 51st Street at the southern edge of the Plaza. The segment is estimated to cost \$220 million (1997 dollars) and would carry 10,800 riders per day in 2010. *FTA has estimated total project costs in year of expenditure (YOE) at \$247.7 million, with an estimated Section 5309 share of \$198.2 million.*

### Southtown Corridor Summary Description

<b>Proposed Project</b>	Light rail line 5.6 miles
<b>Total Capital Cost (\$YOE)</b>	\$247.70 million
<b>Section 5309 Share (\$YOE)</b>	\$198.20 million
<b>Annual Operating Cost (\$YOE)</b>	\$8.40 million
<b>Ridership Forecast (2010)</b>	10,800 daily boardings 4,800 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Low</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Not Rated</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings**

**and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

**Status**

In 1995, the Alternatives Analysis/Major Investment Study (MIS) was completed and the Southtown Corridor LRT was included in the Mid-America Regional Council (the MPO) adopted long range transportation plan. In October 1995, FTA approved the initiation of Preliminary Engineering (PE) on the project. The PE phase has progressed slowly as local officials reassessed the need for light rail and reconsidered the alignment options for downtown.

Section 3030 (a) (33) authorizes the Kansas City Southtown Corridor for final design and construction. Through FY 1999, Congress has appropriated \$4.48 million in Section 5309 New Start funds for this project (of which \$0.46 million was rescinded in FY 1995).

**Evaluation**

KCATA indicates that several of the New Start criteria are not available at this time. Available data presented below is for the 5.6-mile initial segment. (N/A indicates that data are not available for specified measures at this time.)

**Justification**

**Mobility Improvements**

**Rating: Not Rated**

KCATA estimates that the 5.6-mile route will increase total transit trips (bus and rail) by 4,850 per day. However, information is not available on annual travel time savings.

<b>Mobility Improvements</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Annual Travel Time Savings (Hours)</b>	N/A	N/A

Information is not available on the estimated number of low-income households within a ½ mile radius of the project's proposed stations.

**Environmental Benefits**

**Rating: Not Rated**

Kansas City is a "maintenance" area for ozone and carbon monoxide. KCATA reports the following changes in emissions.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	N/A	N/A
<b>Nitrogen Oxide (NOx)</b>	N/A	N/A

<b>Volatile Organic Compounds (VOC)</b>	N/A	N/A
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	N/A	N/A

KCATA estimates that in 2010, the project would result in the following savings in regional energy consumption measured in British Thermal Units – BTU):

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	N/A	N/A

**Operating Efficiencies**

**Rating: Not Rated**

Information is not available on estimated operating costs per passenger mile.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile</b>	N/A	N/A	N/A

**Cost Effectiveness**

**Rating: Medium**

KCATA estimates the following cost effectiveness indices.

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$14.18	\$14.69

Values reflect 2010 ridership forecast and 1997 dollars.

**Transit-Supportive Existing Land Use and Future Patterns**

**Rating: Medium**

The LRT Starter Line will serve the highest population and employment densities in the Kansas City metropolitan area, including the Central Business District, Crown Center, and Country Club Plaza. The project area is experiencing renewed growth. KCATA has studied the corridor’s development potential, including proposed station sites, and is developing a joint development policy. The Kansas City’s Comprehensive Plan (FOCUS) adopted in 1997, recommends light rail as one of several strategies to generate redevelopment and new development in the Southtown Corridor, as well as other portions of the Kansas City area. This plan includes policy recommendations aimed at promoting transit-oriented development. The City is now

contemplating strategies to implement these policies, including a new zoning ordinance and targeted incentives.

## Local Financial Commitment

### Proposed Non-Section 5309 Share of Total Project Costs: 20%

KCATA's financial plan for the 5.6-mile Starter Line proposes \$176 million (80 percent) in Section 5309 New Start funds and \$44 million (20 percent) in State funds.

### Stability and Reliability of Capital Financing Plan

#### Rating: Low

The *Low* capital plan rating reflects the absence of any non-Federal funding for the project at this time. KCATA's proposed finance plan is contingent on an increase to the statewide general sales tax, which would require legislative approval to be put to the voters. The finance plan presents only the incremental costs of light rail development and does not consider the agency's other short and long-term capital needs. KCATA provided a 20-year cash flow analysis on the rail project only and not on the total system.

### Stability and Reliability of Operating Finance Plan

#### Rating: Low

The *Low* operating plan rating is based on the lack of operating revenue sources for the project. One-half cent of the general sales tax in Kansas City is dedicated to transit. KCATA has been forced to reduce bus operations staffing and decrease bus service levels in recent years due to funding shortfalls in the local sales tax. This represents a source of concern for future system expansion. Current farebox recovery ratio is 20 percent. Additional operating funds are expected to come from the proposed state source of funds. These funds are not approved nor implemented at this time. The finance plan does not address any other contingent sources of funds in the event the sales tax increase is not approved.

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts	\$176.00	\$4.48 million appropriated through FY 1999)
State:	\$44.00	N/A
<b>Total:</b>	<b>\$220.00</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding. Dollars escalated by FTA.

**[[Southtown Corridor Map \(PDF\)](#)]**

# Las Vegas, Nevada/Las Vegas Resort Corridor Fixed Guideway

## Las Vegas Resort Corridor Fixed Guideway

Las Vegas, Nevada

(November 1998)

### Description

The Regional Transportation Commission (RTC) of Clark County (Las Vegas), Nevada, is the designated Metropolitan Planning Organization (MPO) and regional governmental entity responsible for providing public mass transportation within Clark County. In the Fall 1997, RTC selected a locally preferred alternative (LPA) for the Las Vegas Resort Corridor which includes a combination of fixed guideway transit, significant expansion of the bus fleet, implementation of TSM/TDM strategies, and some roadway improvements. The core system includes a dual direction elevated fixed guideway rail system along Las Vegas Boulevard (referred to as The Strip) with a link to downtown Las Vegas, an interim maintenance and control facility, and the acquisition of 30 vehicles. The Resort Corridor Project will be completed in two phases, with a Phase I minimum operable segment (MOS), located in the northernmost portion of the system.

The MOS consists of 5.2 miles of double track, all-elevated, automated guideway with 10 stations. A major facility at the northern terminus will include a guideway station, a 28- to 30-bay bus terminal, a 2,000 vehicle park and ride lot, and a maintenance and operating facility. The MOS is estimated to cost \$500.3 million (escalated dollars), and serve 93,000 daily riders in the year 2020.

The full build-out of the complete project includes up to 18.4 miles of double track, all elevated, automated guideway with 27 stations extending to McCarran International Airport, and is estimated to cost \$2.18 billion (escalated dollars).

### Las Vegas Resort Corridor Summary Description

<b>Proposed Project</b>	Automated Fixed Guideway Transit (MOS) 5.2 miles, 10 stations
<b>Total Capital Cost (\$YOE)</b>	\$500.30 million
<b>Section 5309 Share (\$YOE)</b>	\$225.10 million
<b>Annual Operating Cost (\$YOE)</b>	\$10.50 million
<b>Ridership Forecast (2020)</b>	93,000 daily boardings 59,700 daily new riders

<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

### Status

RTC completed a Major Investment Study (MIS) for the central employment area of the Las Vegas Valley commonly known as the Resort Corridor. In October 1997, the RTC and the City of Las Vegas formally adopted the locally preferred alternative of the Resort Corridor MIS. In January 1998, the RTC adopted the transit guideway LPA into a conforming, financially constrained regional transportation plan and transportation improvement program.

FTA approved entrance to begin preliminary engineering and development of the draft Environmental Impact Statement on the MOS in July 1998. The RTC estimates a Record of Decision by January 2000.

TEA-21 Section 3030(a)(35) authorizes the Las Vegas Corridor for final design and construction. Through FY 1999, Congress has appropriated \$8.97 million in Section 5309 New Start funds for this project.

### Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Information and criteria are presented for the Phase 1 MOS. N/A indicates that data are not available for a specific measure.

### Justification

#### Mobility Improvements

**Rating: Medium-High**

RTC estimates that the MOS will result in the following annual travel time savings.

<b>Mobility Improvements</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Annual Travel Time Savings (Hours)</b>	73.20 million hours	27.60 million hours

Based on 1990 census data, there are an estimated 3,785 low-income households within a ½ mile radius of the proposed 10 stations of the MOS, 18.5 percent of total households within ½ mile of proposed stations.

**Environmental Benefits**

**Rating: High**

The Las Vegas Metropolitan Area is an attainment area for ozone and nitrogen oxides; however, it is designated as a "serious" non-attainment area for both carbon monoxide (CO) and particulate matter. RTC estimates that in 2020, the MOS would result in the following annual emissions reductions.

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	decrease of 2853 annual tons	decrease of 754 annual tons
<b>Nitrogen Oxide (NOx)</b>	decrease of 380 annual tons	decrease of 198 annual tons
<b>Hydrocarbons (HC)</b>	decrease of 381 annual tons	decrease of 236 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	decrease of 265 annual tons	decrease of 194 annual tons
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 38,377 annual tons	decrease of 88,065 annual tons

RTC estimates that in 2020 the MOS would result in the following savings in regional energy consumption (measured in British Thermal Units - BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	decrease of 489,934 million annual BTU	decrease of 1,096,406 million annual BTU

**Operating Efficiencies**

**Rating: Medium**

The RTC estimates a decrease in the systemwide operating cost per passenger mile in the year 2020 for the MOS compared to the TSM and an increase compared to the No-Build.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (YOE)</b>	\$0.22	\$0.36	\$0.32

Values reflect 2020 ridership forecast and 1997 dollars.

**Cost Effectiveness**

**Rating: High**

RTC estimates the following cost effectiveness indices.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$4.81	\$2.54

Values reflect 2020 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

#### Rating: Medium

The *Medium* Land Use rating reflects the lack of transit-supportive land use and parking policies in Las Vegas, although the resort area itself includes some existing transit-oriented development. Population and employment in the Las Vegas Valley increased by 120 percent between 1980 and 1995, and is projected to nearly double again by the year 2020. The 18.4 mile Resort Corridor currently contains 50 percent of the region's employment. High trip generation is produced by the large concentration of resort activities, employment, commercial, and retail uses along the corridor. The areas adjacent to the major resort activities are pedestrian- and transit-friendly. Outside of the integrated resort area, however, the land use patterns lack zoning regulations and there are no policies specifically to encourage transit-supportive/oriented development. The City of Las Vegas has taken steps to implement a downtown urban design plan and which would promote redevelopment along the corridor. The City of Las Vegas does not have a transit supportive parking policy at this time.

### Other Factors

**Private Sector Involvement:** RTC indicates potential private sector financing of a portion of a Resort Corridor system. Several private resorts are proposing to construct and operate "transit grade" segments of a fixed guideway system. An example is an extension of the existing MGM/Bally monorail system to the Las Vegas Hilton Hotel and the Las Vegas Convention Center, where it would connect to the RTC Phase 1 project. The RTC and MGM/Bally have entered into a Technical Memorandum of Understanding (MOU) in October 1998 to pursue common interests.

### Local Financial Commitment

#### Proposed Non-Section 5309 Share of Total Project Costs: 55%

The RTC Phase 1 Resort Corridor Fixed Guideway financial plan proposes \$225.1 million (45 percent) in Section 5309 New Start funds and \$275 million (55 percent) in a combination of State, local and private sources.

### Stability and Reliability of Capital Financing Plan

#### Rating: Low-Medium

The current financial capacity of the RTC, which operates a 215 bus transit system, is solid. However, the Low-Medium capital plan rating reflects that specific local funding sources for the project are not specified at this time. The RTC is evaluating a number of potential funding mechanisms, including both new and existing sources. No local funds have been committed to the project, and utilization of public resources would require legislative action, voter approval,

and/or bonding of the existing sales tax source. The RTC is pursuing the potential for innovative financing with several resorts along the corridor; while an MOU has been agreed to with MGM/Bally, no financial commitments have been made. The financial plan does not indicate the use of contingency factors or provide evidence of the ability to cover cost overruns.

**Stability and Reliability of Operating Finance Plan**

**Rating: Low-Medium**

The *Low-Medium* operating plan rating reflects the lack of committed revenues for operating the MOS. In recent years, RTC's transit system has experienced significant increases in ridership, increases in productivity, but declining annual cash flow surpluses. The project's financial plan estimates operating and maintenance costs of \$10.5 million for the 5.2 mile MOS, and estimates a 60 percent farebox recovery ratio (considered reasonable given the high ratios on the current system). RTC proposes that annual operating deficits for the Resort Corridor be funded from one of the existing local revenue sources, including the dedicated sales tax and a hotel room tax, but no commitments yet exist.

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts	\$225.10	\$8.97 million appropriated through FY 1999)
Local:	\$275.20	N/A
<b>Total:</b>	<b>\$500.30</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding. Dollars escalated by FTA.

**[\[Las Vegas Resort Corridor Fixed Guideway Map \(PDF\)\]](#)**

# Little Rock, Arkansas/Little Rock River Rail Project

## Little Rock River Rail Project

Little Rock, Arkansas

(November 1998)

### Description

The Central Arkansas Transit Authority (CATA) is planning a 1.9-mile circulator system on existing right-of-way connecting the Alltel Arena, the River Market, and the Convention Center in downtown Little Rock to the communities of North Little Rock and Pulaski County. CATA proposes that service be provided by seven replica streetcars operating on a single track powered by overhead catenary. Phase I will include vehicle purchase and construction of a maintenance facility and is estimated to cost \$7.6 million (1997 dollars). *FTA has estimated total project costs in year of expenditure (YOE) at \$8.28 million, with an estimated Section 5309 share of \$6.62 million.* Ridership projections estimate 1,000 to 1,200 daily riders with an additional 1,000 to 1,800 riders on special event days. Phase II of the project includes a proposed 0.4 mile extension along existing right-of-way to the William Jefferson Clinton Presidential Library site.

### Little Rock River Rail Summary Description

<b>Proposed Project</b>	Vintage Streetcar service 1.9 miles, 7 stations
<b>Total Capital Cost (\$YOE)</b>	\$8.28 million
<b>Section 5309 Share (\$YOE)</b>	\$6.62 million
<b>Annual Operating Cost (\$1997)</b>	\$0.5 million
<b>Ridership Forecast (2020)</b>	1,000 - 1,200 daily boardings
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Not Rated</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

A feasibility study was completed in 1997. No formal Major Investment Study (MIS) was completed due to the limited scale of the project, the use of existing rail and street rights-of-way, and the low cost. FTA approval to enter the Preliminary engineering (PE) phase of project development was granted in May 1998. Preliminary Engineering is scheduled to be completed by May 1999. CATA anticipates requesting permission to enter Final Design in the summer of 1999.

Metro 2020, the Metropolitan Transportation Plan for the Central Arkansas Regional Transportation Study area (CARTS), was updated in January 1998 to include the River Rail Project in the plan. TEA-21 Section 3030(a)(36) authorizes the Little Rock River Rail project for final design and construction. Through FY 1999, Congress has appropriated \$2.98 million in Section 5309 New Starts funds to this project.

## Evaluation

The River Rail Project is exempt from the New Starts criteria because the Section 5309 share is less than \$25 million. As a result, criteria are not addressed for mobility improvements, environmental benefits, operating efficiencies, and cost effectiveness. Although this project is exempt, CATA has provided information for the assessment of transit supportive land use, local financial commitment, and other factors. In addition, CATA reports that based on the 1990 Census data, there are an estimated 565 low-income households within a ½ mile radius of the proposed seven stations, roughly 43 percent of total households within ½ mile of proposed stations.

## Justification

### Transit-Supportive Existing Land Use and Future Patterns

#### **Rating: Medium**

The land use rating of *Medium* for the proposed project is a reflection of the moderate densities along the corridor and emerging local efforts to better integrate transit and adjacent development. Existing land uses in the Little Rock and North Little Rock Central Business Districts (CBDs) consist of moderate density commercial, office, retail, and residential. Adaptive reuse of older commercial/warehouse structures is resulting in the creation of a new entertainment and cultural district along the Little Rock waterfront adjacent to the proposed rail line. Efforts are underway to allow mixed uses and to increase the pedestrian friendliness and transit orientation of both Little Rock and North Little Rock. These local jurisdictions have developed a number of zoning and design regulations for the CBD areas that are supportive of transit. Metro 2020, the long range transportation plan for the area, recommends that the metropolitan core be preserved as an economically healthy symbol for the region. Future growth can be focused where water, sewer, and community facilities are already in place and transit friendly development can also be encouraged. The City of Little Rock does not have a transit supportive parking policy at this time.

## Other Factors

**Empowerment Zones and Livable Communities:** The corridor area is part of a proposed Enterprise Community and Empowerment Zone; its status is currently pending. CATA is considering a Joint Development/Livable Communities Initiative project that includes streetscape,

downtown streetcar interface, a parking deck, and the integration of the streetcar maintenance facility with a rail museum and other educational facilities.

The corridor area is part of a proposed Enterprise Community and Empowerment Zone; its status is currently pending. CATA is considering a Joint Development/Livable Communities Initiative project that includes streetscape, downtown streetcar interface, a parking deck, and the integration of the streetcar maintenance facility with a rail museum and other educational facilities.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 20%**

The financing plan for the Phase I of the River Rail Project includes \$6.1 million (80 percent) of Section 5309 New Start funds and \$1.5 million (20 percent) in local funds (all in 1997 dollars).

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Low-Medium**

The rating of *Low-Medium* for the proposed project is primarily due to the lack of detailed financial statements from some of the participating jurisdictions and recent local difficulties to provide local match to FTA Section 5307 funds. The Central Arkansas Transit Authority (CATA) is governed by an Interlocal Agreement where six local governments (Pulaski County, Little Rock, North Little Rock, Sherwood, Maumelle, and Cammack Village) appoint the governing board and apportion the capital and operating costs among themselves based upon vehicle miles of service. Because the River Rail Project impacts only three jurisdictions (Little Rock, North Little Rock, and Pulaski County), a three-way cost split has been negotiated. The three jurisdictions have all provided letters to the CATA board of directors expressing their commitment to provide their share of the capital investment and the operating funds necessary to construct and operate Phase I of the River Rail project. Little Rock and North Little Rock have submitted financial documentation for review and are deemed financially capable to meet their respective anticipated capital contributions to the project. Financial statements for Pulaski County have not been submitted for review. Specific amounts that each jurisdiction will contribute to the capital costs have not been detailed in any document provided by CATA. However, CATA developed and submitted its Capital Replacement Plan in 1998, which demonstrates CATA and its member governments' strong commitment to address CATA's urgent capital needs and how those needs will be met.

### **Stability and Reliability of Operating Finance Plan**

#### **Rating: Low-Medium**

The *Low-Medium* rating on the operating finance plan is due to the lack of a CATA bus replacement program and the insufficient match of local funds for FTA Section 5307 funds. The annual operating costs associated with Phase I are estimated to be between \$400-\$600 thousand, a 5-9 percent increase in CATA's operating budget. There currently exists a serious concern with CATA's bus replacement program because over half of the agency's buses are over the recommended replacement age of 12 years. CATA has not had a regular capital replacement program in the transit agency's history. Currently, FTA Section 5307 funds provided to CATA have not been matched with sufficient local funds. At present there is discussion on providing the local match for the Section 5307 through revenues generated by the planned Joint Development/

Livable Communities Initiative project and/or through increased contributions from local jurisdiction.

Local subsidies to CATA's operating revenues doubled between 1990 and 1995 while Federal subsidies decreased by 23 percent. In FY 1995, passenger fares accounted for approximately 22 percent of total revenues and local subsidies accounted for 61 percent of total operating budget. CATA received a state contribution from the dedicated gasoline tax in 1995 representing 1 percent of the total operating budget. However, it is unclear if this source of funds is to continue.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Start</b>	\$6.10	\$2.98 million appropriated through FY 1999
<b>Local: City of Little Rock, City of North Little Rock, and Pulaski County</b>	\$1.50	N/A
<b>Total:</b>	<b>\$7.60</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[\[Little Rock River Rail Map \(PDF\)\]](#)**

# Memphis, Tennessee/Medical Center Rail Extension

## Medical Center Rail Extension

**Memphis, Tennessee**

(November 1998)

### Description

The Memphis Area Transit Authority (MATA), in cooperation with the City of Memphis, is proposing to build a 2.5-mile light rail transit extension from its current termini on the western portion of Main Street Mall in the central business district east to Cleveland Street on the east (Medical Center). The proposed project would operate on-street in mixed traffic and would connect with the Main Street Trolley. At the eastern terminus, near Cleveland and Claybrook Streets, a transit terminal would be constructed to accommodate riders transferring to and from buses and cars. Fifteen stops would be located along the route. The line will be designed to accommodate light rail vehicles but vintage rail cars would be utilized until a proposed regional LRT line is implemented and a fleet of modern LRT vehicles is acquired. The project is proposed as the last segment of the downtown rail circulation system as well as the first segment of a regional light rail line.

The total capital cost of the 2.5 mile project is estimated at \$30.4 million (1995 dollars). *MATA has estimated total project costs in year of expenditure (YOE) at \$35.9 million, with a Section 5309 share of \$24.3 million.* MATA estimates that the daily ridership of the proposed project would be 2,100 in the opening year (2002) and would increase to 4,200 by the forecast year 2020.

### Medical Center Rail Summary Description

<b>Proposed Project</b>	LRT Extension 2.5 miles, 15 stations
<b>Total Capital Cost (\$YOE)</b>	\$35.90 million
<b>Section 5309 Share (\$YOE)</b>	\$24.30 million
<b>Annual Operating Cost (\$YOE)</b>	\$1.10 million
<b>Ridership Forecast (2020)</b>	4,200 average weekday boardings 1,650 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>

<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>
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The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

**Status**

The proposed project is included in the City of Memphis' Capital Improvement Program, the Memphis MPO Transportation Improvement Program, and the State Transportation Improvement Program. A Major Investment Study/Environmental Assessment was completed in May 1997. FTA approved initiation of Preliminary Engineering for the project in March 1998.

TEA-21 Section 3030(a)(43) authorizes the Memphis Medical Center Extension for final design and construction. Through FY 1999, Congress has appropriated \$7.93 million in Section 5309 New Starts funds for this project.

**Evaluation**

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Information was not provided by MATA comparing the New Start to the Transportation System Management (TSM) alternative. As the Section 5309 share for the proposed project is below \$25 million, the project is exempt from the New Starts criteria. However, MATA did report data on several criteria measures. N/A indicates that data were not reported for a specific measure.

**Justification**

Mobility Improvements

**Rating: Low-Medium**

No information on travel time savings is available at this time.

<b>Mobility Improvements</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Annual Travel Time Savings (Hours)</b>	N/A	N/A

Based on 1990 data, there are an estimated 3,488 low-income households within a ½ mile radius of proposed stations, representing 50 percent of total households within ½ mile of boarding points.

Environmental Benefits

**Rating: Medium**

Memphis is currently classified as a maintenance area for ozone and carbon monoxide. Memphis projects that in 2020, the proposed project would result in the following emissions reductions for CO, NOx, and VOC.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 8 annual tons	N/A
Nitrogen Oxide (NOx)	decrease of 1 annual ton	N/A
Volatile Organic Compounds (VOC)	decrease of 2 annual tons	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Carbon Dioxide (CO <sub>2</sub> )	N/A	N/A

MATA estimates the following savings in regional energy consumption (measured in British Thermal Units - BTU) for the forecast year 2020.

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	decrease of 10,300 million annual BTU	N/A

**Operating Efficiencies**

**Rating: Not Rated**

MATA estimates the following systemwide operating cost per passenger mile for the proposed project in the forecast year.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (1995)	N/A	N/A	\$1.06

Values reflect 2020 ridership forecast and 1995 dollars.

**Cost Effectiveness**

**Rating: High**

MATA estimates the following cost-effectiveness index, comparing the proposed project to the No-Build alternative.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$2.90	N/A

Values reflect 2020 ridership forecast and 1995 dollars.

## Transit-Supportive Existing Land Use and Future Patterns

### **Rating: Medium**

The Medical Center Extension is rated *Medium* to reflect existing transit-supportive conditions, improving policies, and proposed new developments within the corridor. Existing development in the 2.5 mile corridor is generally centered around the two ends of the proposed project. Downtown, at the western end, contains a mix of densely developed commercial, office, and government land uses, and a new baseball stadium. The eastern end of the corridor contains a high concentration of medical facilities that includes seven hospitals and two colleges/universities. These two clusters of development provide strong activity centers at both the western and eastern portions of the proposed project. Development towards the center of the proposed corridor currently consists of primarily vacant and underutilized commercial and industrial uses. However, several new developments are underway or proposed directly along the proposed transit project. Employment in the core of the downtown area is expected to grow from 15,366 in 1995 to 24,008 in 2020, a 56 percent increase. Population is expected to grow in the corridor by 400 percent over the same time period. The Medical Center is a major employment center with 13,650 employees in the core area in 1995; however growth in medical center employment is expected to be low.

The City of Memphis and Shelby County have developed a joint Balanced Growth Policy. The policy emphasizes growth of the tax base by encouraging the revitalization and retention of households within existing city limits, encouraging new development to occur within city limits, the annexation of areas on the fringe of the city limits, and an orderly plan of growth beyond the city limits. The Memphis Regional Transit Plan identified proposed station sites in three additional regional transit corridors that have market potential for new development. The city and county are considering plans to reduce parking supply along the corridor.

## Local Financial Commitment

### **Proposed Non-Section 5309 Share of Total Project Costs: 20%**

MATA proposes a 80 percent Federal share of \$24.3 million in Section 5309 New Start funds. The financial plan includes \$3.0 million in State funds (10 percent) and \$3.0 million in local funds (10 percent).

## Stability and Reliability of Capital Financing Plan

### **Rating: High**

The *High* capital finance rating reflects the demonstrated commitment of state and local funding sources to the project. The local share of capital costs for the proposed project is funded through general obligation bonds supported by the City of Memphis. The City has a high grade of bond ratings on indebtedness. Additional non-Federal capital funding will be provided by the Tennessee Department of Transportation. Both sources are considered stable, and are committed to the Medical Center Extension project.

## Stability and Reliability of Operating Finance Plan

### **Rating: Medium-High**

The project's *Medium-High* operating finance rating is based primarily on the City of Memphis' demonstrated commitment to increasing its financial support for transit operations. MATA proposes that operating costs for the project will be covered through passenger fares and State and local sources. The City of Memphis is the largest single source of operating revenue for MATA, providing over 43 percent of total operating revenues. As Federal operating assistance has declined, the City increased its transit operating subsidy by 160 percent between the years 1980 and 1997. Approximately 35 percent of systemwide operating revenues are generated at the farebox. Operating costs for the Medical Center Rail Extension are expected to add approximately \$1.1 million (1995) to the system operating costs; however, MATA estimates that a reduction in bus miles due to turned-back routes as a result of the new trolley service will essentially offset the cost of operating rail service in the corridor.

### **Locally Proposed Financing Plan**

(Reported in \$1995)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Starts</b>	\$24.30	\$7.93 million appropriated through FY 1999
<b>State:</b>	\$3.04	N/A
<b>Local:</b>	\$3.04	N/A
<b>Total:</b>	<b>\$30.40</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[\[Medical Center Extension Map \(PDF\)\]](#)**

# Miami, Florida/Miami East-West Corridor

## Miami East-West Corridor

Miami, Florida

(November 1998)

### Description

The Miami-Dade Transit Agency is proposing a locally preferred alternative (LPA) including a set of multimodal improvements in the Route (SR 836) East-West corridor that will link the suburban area west of the Palmetto Expressway (SR 836) with the Miami International Airport (MIA), downtown Miami, and the Port of Miami seaport. The LPA includes an 11.2-mile minimum-operable-segment (MOS) of a heavy rail transit alignment that runs from just east of the Palmetto Expressway (SR 836) to the Port of Miami. There is an additional (0.7-mile) branch from MIA to the Miami Intermodal Center (MIC). The heavy rail line includes 8.2 miles of aerial guideway and 3.6 miles of bored tunnel with ten stations (six aerial and four underground). The LPA includes two buffer-separated HOV lanes, one in each direction, in the median of SR 836 from NW 107th Avenue to the SR 836/SR 112 Interconnector/(MIC).

Capital costs estimates for the LPA (transit and roadway improvements) total \$1.58 billion (1995 dollars). The rail portion of the project is estimated to cost \$1.48 billion (1995 dollars) and \$2.15 billion in escalated dollars. The new rail line is expected to carry 27,300 average weekday boardings on opening day and 31,400 average weekday boardings by the year 2020.

### Miami East-West Corridor Summary Description

<b>Proposed Project</b>	Heavy-rail line 11.9 miles, 10 stations
<b>Total Capital Cost (\$YOE)</b>	\$2,152.00 million
<b>Section 5309 Share (\$YOE)</b>	\$808.00 million
<b>Annual Operating Cost (\$1995)</b>	\$25.80 million
<b>Ridership Forecast (2020)</b>	31,400 average weekday boardings 13,300 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits and impacts are refined. **The FTA ratings and recommendations will be updated annually reflect new information, changing conditions, and refined financing plans.**

## Status

Preliminary Engineering (PE) and the Final Environmental Impact Statement (FEIS) on the East-West Corridor are completed, with the Federal Highway Administration (FHWA) participating as the lead federal agency. The Federal Transit Administration (FTA), the Federal Aviation Administration, the Federal Railroad Administration, the Maritime Administration, and the Coast Guard are cooperating agencies pursuant to a 1993 Memorandum of Understanding. In October 1996, FDOT initiated PE and the FEIS for the LPA. The FEIS was finalized in August 1998 and a joint FHWA/FTA Record of Decision was issued September 28, 1998. The Miami-Dade Transit Agency (MDTA) recently assumed responsibility for the project from the Florida Department of Transportation.

TEA-21 Section 3030 (a) (44) authorizes the Miami East-West project for final design and construction. Through FY 1999, Congress has appropriated \$9.47 million in Section 5309 New Start funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. MDTA indicates that a TSM alternative was not advanced in the project development process; therefore, criteria comparing the New Start to the TSM alternative are not available (NA).

## Justification

### Mobility Improvements

**Rating: Medium**

MDTA estimates the following annual travel time savings for the forecast year 2020.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
<b>Annual Travel Time Savings (Hours)</b>	10.10 million hours	N/A

Based on 1990 census data, there are an estimated 849 low-income households (defined as households below the poverty level by the U.S. Bureau of the Census) within a ½ mile radius of the proposed 10 stations, about 37 percent of total households within ½ mile of the proposed stations.

### Environmental Benefits

Rating: Medium

The southeast Florida area is an attainment area for carbon monoxide and a maintenance area for ozone. MDTA estimates that in the year 2020, the rail component of the LPA would result in emissions reductions for Carbon Monoxide (CO) and HC (Hydrocarbons), and increases for Nitrogen Oxides (NOx) and Particulate Matter (PM10).

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	decrease of 18,241 annual tons	N/A
<b>Nitrogen Oxide (NOx)</b>	increase of 141 annual tons	N/A
<b>Hydrocarbons (HC)</b>	decrease of 1,067 annual tons	N/A
<b>Particulate Matter (PM<sub>10</sub>)</b>	increase of 63 annual tons	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 2 annual tons	N/A

MDTA estimates that in the year 2015, the proposed project will result in a decrease in regional energy consumption (measured in British Thermal Units) as shown below.

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	decrease of 3 annual BTU	N/A

**Operating Efficiencies**

**Rating: Medium**

MDTA estimates a slight increase in the system-wide operating cost per passenger mile in the year 2020 for the rail component compared to the No-Build alternative.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.35	N/A	\$0.36

Values reflect 2020 ridership forecast and 1995 dollars.

**Cost Effectiveness**

**Rating: Low-Medium**

MDTA estimates the following cost-effectiveness index for the rail component compared to the No-Build Alternative.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$18.90	N/A

Values reflect 2020 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

#### **Rating: Medium-High**

The *Medium-High* rating for transit-supportive existing and future land use patterns is largely due to the high-trip generators along the project corridor and local policies to promote infill development and increased densities at transit station locations. Major trip generators are located along the corridor including downtown Miami, the planned sports arena in downtown Miami, the Orange Bowl and the planned Miami Intermodal Center. The project will provide intermodal connections with the Miami International Airport and the Tri-County Commuter Rail service at the Miami Intermodal Center, with the existing Metrorail and Metromover service in downtown Miami, and with the cruise ship terminals at the Port of Miami.

While densities are currently low in some portions of the corridor, densities are expected to increase through infill development as promoted by initiatives from the State of Florida and several regional planning councils, the City of Miami, and recommendations from an Urban Infill Strategy Task Force. Also, recent changes to Miami-Dade County's Comprehensive Development Master Plan (CDMP) require a minimum density of housing units and employment based on distance from rail stations. The Station Area Aesthetics, Design and Development (SAAD&D) initiative creates separate community-oriented planning processes to develop area plans and design guidelines for each station. The SAAD&D process began in late 1998 for corridor stations following final alignment and station site choices. MDTA has completed preliminary market development surveys for each station and has determined general development potential. Some progress toward development around several stations is evident and plans for several stations appear advanced. Plans for development at station areas along the proposed East-West corridor include proposals for mixed-use development at the NW 57<sup>th</sup> Avenue and MIC station areas and a new post office and day care center adjacent to the proposed Blue Lagoon Station area.

### Local Financial Commitment

#### **Proposed Non-Section 5309 Share of Total Project Costs: 62.5%**

MDTA's financial plan assumes \$808 million from Section 5309 New Start funds (37.5 percent of total project cost) and local funding sources totaling \$1.334.5 billion (62.5 percent). Local funding sources identified in the financial plan include \$796.6 million (37 percent of total project costs) in funds from the regional Long-Range Transportation Plan (LRTP), \$229 million (10.7 percent) from toll road revenue bonds, \$100 million (4.6 percent) from Port of Miami revenue bonds, \$30 million (1.4 percent) from development rights, \$11.2 million (0.5 percent) from cross-border leasing, and \$177.1 million (8.2 percent) from the Local Option Gas Tax.

### Stability and Reliability of Capital Financing Plan

**Rating: Low**

The *Low* rating is largely due to the fact that a large share of the proposed non-Federal funding has either not been committed by participating agencies, or exact funding sources and financing mechanisms have not been specified. \$1,025 million of non-Federal funding sources may be committed through legislation, resolution or other formal, binding agreement; however, exact sources have not been identified or confirmed. \$796.6 million in current state and non-discretionary federal funding programs historically available to Miami-Dade County are being examined, as well as local fuel taxes and some federal sources. MDTA proposes to bond some funds included in the long range regional transportation plan as a source of funding for the project. \$229 million in Dade County Expressway Authority (DCEA) toll revenues are committed by legislation but the tolls are not yet operational.

MDTA estimates approximately \$30 million in funds from the sale or lease of rail station development rights, however, the agency has yet to obtain a firm funding commitment for this transaction. An estimated \$100 million is proposed from the Port of Miami (towards capital costs associated with a premium Airport-Seaport rail service). However, the Port has yet to commit to this funding level. MDTA continues to indicate a potential cost savings from cross-border leasing as a source of funds. The Miami-Dade County Board has not approved implementation of a local option gas tax (proposed to contribute \$177.1 million) which would support construction of the project.

**Stability and Reliability of Operating Finance Plan**

**Rating: Low**

The *Low* rating reflects the fact that no sources of ongoing operating funds have been committed by participating agencies at this time. The only source proposed to date includes surpluses from a premium round-trip service for tourists traveling between the Miami International Airport and the Port of Miami on the proposed East-West line. The actual revenues that will be generated by this premium service have yet to be determined, and no commitments are in place. The financial operating plan assumes that 54 percent of cruise ship embarkations will select this service over the taxi and charter bus options, generating a farebox recovery ratio of 214 percent for this service. Surpluses from this premium service are anticipated to fully cover operating deficits on the East-West line. No other funding sources are identified within the plan to cover the operating deficit.

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal:</b>		
Section 5309 New Starts	\$808.00	\$9.47 million appropriated through FY 1999
<b>State and Local:</b>		
Long-Range Transportation Plan (LRTP)	\$796.60	N/A

Toll Revenue Bonds	\$229.00	N/A
Port of Miami	\$100.00	N/A
Cross Border Leasing	\$11.20	N/A
Local Option Gas Tax	\$177.10	N/A
Joint Development	\$30.00	N/A
<b>Total:</b>	<b>\$2,152.50</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Miami East-West Corridor Map \(PDF\)](#)**

# Miami, Florida/Miami North 27th Avenue

## Miami North 27<sup>th</sup> Avenue

Miami, Florida

(November 1998)

### Description

The Miami-Dade Transit Agency (MDTA) is proposing a locally preferred alternative that will extend existing Metrorail service into north-central Miami-Dade County. The Miami-Dade County Metropolitan Planning Organization (MPO) has selected a locally-preferred alternative (LPA), identifying a new heavy rail line along a 9.5-mile section of NW 27<sup>th</sup> Avenue between an existing Dr. Martin Luther King Jr. Metrorail station and the Broward County line. Park-n-ride lots would be provided to intercept commuters in the corridor. The proposed heavy rail line along the Northwest 27<sup>th</sup> Avenue corridor would provide direct service to the Miami CBD and Medical Center as well as provide service to Miami Dade Community College - North Campus and the Pro Player Stadium. *MDTA has estimated total project costs in year of expenditure (YOE) at \$595.7 million; based on the assumed Federal/local share, the YOE Section 5309 share is \$405.4 million.*

### Miami North 27th Avenue Summary Description

<b>Proposed Project</b>	Heavy rail line 9.5 miles, 7 stations
<b>Total Capital Cost (\$YOE)</b>	\$579.20 million
<b>Section 5309 Share (\$YOE)</b>	\$405.40 million
<b>Annual Operating Cost (\$1998)</b>	\$7.80 million
<b>Year Ridership Forecast (2015)</b>	11,200 daily boardings
<b>FY 2000 Financial Rating:</b>	<b>Low</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The Miami-Dade Transit Agency completed a Major Investment Study (MIS) for the North Corridor in November 1995. The MPO Board selected the NW 27<sup>th</sup> Avenue alignment as the locally preferred alternative in November 1995 and added the project to its Cost Feasible Year 2015 Long Range Transportation Plan. An Option 1 Alternative Analysis and the Draft Environmental Impact Statement (DEIS), including consideration of two busway alternatives and one heavy rail alternative, has been completed with FTA participating as the lead Federal Agency. In May 1998, the MPO selected the heavy rail alternative, a Metrorail Extension along NW 27<sup>th</sup> Avenue, as the LPA. The Preliminary Engineering/Final Environmental Impact Statement (FEIS) phase is underway and is currently scheduled for completion in April 1999.

Through FY1999, Congress has appropriated \$11.94 million in Section 5309 New Start funds for this proposed project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria* for the 9.5 mile Metrorail Extension. N/A indicates that information is not available for a specific measure.

## Justification

### Mobility Improvements

#### Rating: Low-Medium

MDTA estimates the following annual travel time savings for the Metrorail Extension alternative compared to the No-Build and TSM alternatives.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	0.90 million hours	0.80 million hours

Based on 1990 census data, there are an estimated 1,383 low-income households (defined as households below the poverty level by the U.S. Bureau of the Census) within a ½ mile radius of the proposed seven stations for the Metrorail extension, roughly 27 percent of total households within ½ mile of the proposed stations.

### Environmental Benefits

#### Rating: High

The southeast Florida area is an attainment area for carbon monoxide and a maintenance area for ozone. MDTA estimates that in 2015, the Metrorail Extension will result in the following impact on emissions.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 689 annual tons	decrease of 861 annual tons

<b>Nitrogen Oxide (NOx)</b>	decrease of 61 annual tons	decrease of 82 annual tons
<b>Hydrocarbons (HC)</b>	decrease of 46 annual tons	decrease of 59 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	decrease of 78 annual tons	decrease of 97 annual tons
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 17,450 annual tons	decrease of 24,227 annual tons

MDTA estimates that in the year 2015, the LPA will result in the following impacts on regional energy consumption.

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	decrease of 160,084 million annual BTU	decrease of 119,449 million annual BTU

#### Operating Efficiencies

**Rating: Medium**

MDTA estimates a decrease in the system-wide operating cost per passenger mile in the year 2015 for the heavy-rail alternative compared to both the No-Build and TSM.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2015)</b>	\$0.41	\$0.41	\$0.39

Values reflect 2015 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Low-Medium**

MDTA estimates the following cost-effectiveness indices for the Metrorail Extension alternative compared to the No-Build and the TSM alternatives.

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$13.30	\$17.90

Values reflect 2015 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The *Medium* Land Use rating reflects local policies which encourage infill development and increased densities at transit station locations and the potential for future development activities in the corridor. Land use along the project corridor consists mainly of strip commercial areas

bordered on the east and west by low/medium residential uses. Potential high-trip generators including the Pro Player Stadium, St. Thomas University and the North Campus of the Miami-Dade Community College and Miami-Dade County Health Center are located along the project corridor.

Infill development and increased densities are promoted by initiatives from the State of Florida and several regional planning councils and recommendations from an Urban Infill Strategy Task Force. State and regional policies promote infill development with implementation dependent on local jurisdictions. Miami-Dade County's Comprehensive Development Master Plan (CDMP) requires localities to accommodate new development around transit stations that incorporate certain physical design elements. The CDMP promotes pedestrian access and provision of bus stops. Recent changes to the Miami-Dade County's CDMP require a minimum density of housing units and employment based on distance from rail stations. Currently, there is no county-wide parking policy for Dade County. However, a recent study proposes a schedule for development of a coordinated parking policy. The DEIS process has resulted in a program to tie each station to the adjoining residential neighborhoods through the planning of pedestrian connections and bus transfers. Dade County has included extensions of water and sewer lines to each station along the project corridor to support development in the station areas. The development community has participated in project planning through membership in the citizen's advisory committee. Recent development activities are indicated by proposals for new development projects. For example, developers have obtained clearances for large-scale projects near the proposed NW 199<sup>th</sup> Street Station.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 of Total Project Costs: 30%**

MDTA's financial plan assumes \$334.2 million from Section 5309 New Start funds (70 percent of the total project cost), \$71.6 million (15 percent) in State funds, and \$71.6 million (15 percent) in other local funds (all in 1997 dollars).

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Low**

The *Low* rating is largely due to the uncertain nature of the identified sources of the proposed local share of project costs. As of the date of this report, MDTA had not yet secured firm funding commitments from either the state or local funding matches for the project. The potential State funding source for 15 percent of total costs has been identified as Supplemental Appropriations provisions of Florida's Public Transit Block Grant Program. MDTA currently receives its full allocation from this source, and intends to seek legislative action to raise the Block Grant spending cap to seek additional funds for the project.

The Local Option Gas Tax (LOGT) is proposed to yield \$70 million (15 percent of total cost). However, the LOGT has been rolled back from the five cents per gallon assumed in the project's financial plan to three cents per gallon, and may only provide \$15 million (pay-as-you-go) to \$30 million (via revenue bonds) towards the project.

MDTA is proposing that Miami-Dade County fund a portion of the local match through general obligation bonds supported by the County's existing revenues. This source is proposed based on

the redevelopment benefits the project is assumed to provide within the North Corridor. This source has not been approved by the County.

**Stability and Reliability of Operating Finance Plan**

**Rating: Low**

The *Low* operating plan rating reflects the fact that specific funding sources to cover project operating costs have yet to be committed. MDTA projects an annual operating cost of \$7.8 million (\$1998) in the year 2015. MDTA indicates that Miami-Dade County has historically provided sufficient operating funds as required to operate new transit investments; however, there is no evidence of specific support for operating the North 27<sup>th</sup> Avenue Rail line. In recent years, MDTA has experienced a 30 percent farebox recovery ratio and consistent ridership levels.

**Locally Proposed Financing Plan**

(Reported in \$1997)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Starts</b>	\$334.20	\$11.94 million appropriated through FY 1999
<b>State: Public Transit Block Grant Program</b>	\$71.60	N/A
<b>Local: Local Option Gax Tax (Right-of-Way Easements, General County Revenues/General Obligation Bonds)</b>	\$71.60	N/A
<b>Total:</b>	<b>\$477.40</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding. Dollars escalated by FTA.

**[Miami North 27th Avenue Map \(PDF\)](#)**

# Minneapolis, Minnesota/Hiawatha Avenue Corridor

## Hiawatha Avenue Corridor

Minneapolis-St. Paul, Minnesota

(November 1998)

### Description

MetroTransit and the Metropolitan Council (local metropolitan planning organization), in cooperation with the Minnesota Department of Transportation (MnDOT) and Hennepin County, are proposing to design and construct a 12.2-mile Light Rail Transit (LRT) line along the Hiawatha Avenue Corridor. The proposed LRT will operate on the Hiawatha Avenue/Trunk Highway 55 Corridor linking downtown Minneapolis, the Minneapolis-St. Paul (MSP) International Airport, and the Mall of America in Bloomington. The LRT is the transit component of a Locally Preferred Alternative (LPA) which includes reconstruction of TH-55 as a four lane at-grade arterial between Franklin Avenue and 59<sup>th</sup> Street and construction of an interchange between TH-55 and TH-62 (Crosstown Highway).

Current plans call for the north end of the LRT to begin in the Central Business District (CBD) and operate on the existing transit mall along 5<sup>th</sup> Street. The LRT is planned to exit the CBD near the Hubert Humphrey Metrodome, following the former Soo Line Railroad to Franklin Avenue, then parallel Hiawatha Avenue. The project will include a 0.8-mile tunnel to be constructed under the MSP airport runways and taxiways. The line is then planned to emerge from the tunnel on the West Side of the airport and continue south with four proposed stations in Bloomington, including a station in the vicinity of the Mall of America. MetroTransit is planning to restructure existing bus routes to provide feeder service to the LRT. The estimated capital cost for the 12.2-mile Hiawatha Avenue LRT, including 18 proposed stations, totals \$446 million (1997 dollars). The project is expected to serve 24,800 average weekday riders by the year 2020. In addition, 19,300 daily riders are projected in the opening year.

### Hiawatha Avenue Corridor Summary Description

<b>Proposed Project</b>	Light Rail Transit Line 12.2 miles, 18 stations
<b>Total Capital Cost (\$1997)</b>	\$446.00 million
<b>Section 5309 Share (\$1997)</b>	\$223.00 million
<b>Annual Operating Cost (\$1997)</b>	\$9.90 million
<b>Ridership Forecast (2020)</b>	24,800 daily boardings 8,300 daily new riders

<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

A Final Environmental Impact Statement (FEIS), including a Record of Decision (ROD) for the Hiawatha Avenue Corridor, was completed in February 1985. The preferred alternative documented in the 1985 FEIS included the reconstruction of the roadway to a four-lane, divided at-grade arterial, with an LRT line adjacent to the roadway and extending north to the Minneapolis CBD and south to the Minneapolis-St. Paul International Airport. Since the completion of the 1985 FEIS, improvements have been implemented on the roadway elements of the preferred alternative. The LRT line did not proceed into project development due to a lack of funding. MetroTransit is currently completing a re-evaluation of the 1985 FEIS, scheduled for completion in early 1999. The FEIS re-evaluation will include updated cost and ridership estimates, a final route alignment in the downtown Minneapolis portion of the project, and alignment options at the airport as well as options for service south to Bloomington. The Hiawatha Avenue LRT is included in the region's 1997-2000 Transportation Improvement Program.

Section 3030(a)(91) of TEA-21 authorizes the "Twin Cities – Transitway Corridors" for final design and construction. Through FY 1999, Congress has appropriated \$27.33 million in Section 5309 New Starts funds for the "Twin Cities Transitways" project, which includes the Hiawatha Avenue Corridor.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Since the completion of the 1985 FEIS, technical information has been periodically updated and a systematic re-evaluation of the Hiawatha Avenue Corridor has been underway since 1997. The re-evaluation is scheduled for completion in early 1999.

## Justification

### Mobility Improvements

#### Rating: Low

MetroTransit estimates the following annual travel time savings for the Hiawatha Avenue LRT line:

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	decrease of 0.80 million hours	increase of 0.40 million hours

Based on 1990 census data, there are an estimated 3,351 low-income households within a ½ mile radius of the 18 proposed stations. This represents 20 percent of the total number of households within a ½ mile radius of the proposed stations.

#### Environmental Benefits

##### **Rating: Medium**

The Minneapolis-St Paul metropolitan area is an attainment area for ozone and a moderate non-attainment area for carbon monoxide (CO) and particulate matter (PM<sub>10</sub>). MetroTransit estimates that in the year 2020, implementation of the Hiawatha Avenue LRT would result in the following emissions reductions:

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	decrease of 361 annual tons	decrease of 159 annual tons
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	decrease of 62 annual tons	decrease of 29 annual tons
<b>Hydrocarbons (HC)</b>	decrease of 37 annual tons	decrease of 17 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	decrease of 1 annual ton	decrease of 1 annual ton
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 8,312 annual tons	decrease of 6,284 annual tons

MetroTransit estimates that the proposed project will result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	decrease of 93,297 million annual BTU	decrease of 64,690 million annual BTU

#### Operating Efficiencies

##### **Rating: Medium**

MetroTransit estimates the following systemwide operating costs per passenger mile, reporting an increase in the new start compared to the no-build alternative.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.34	\$0.35	\$0.35

Values reflect 2020 ridership forecast and 1997 dollars.

### Cost Effectiveness

**Rating: Low-Medium**

MetroTransit estimates the following cost effectiveness indices:

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$17.23	\$18.57

Values reflect 2020 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The *Medium* rating reflects the diversity of the existing land use and densities along the corridor (which range from transit-supportive to non-supportive), as well as the establishment of progressive parking and other transit-supportive policies in downtown Minneapolis. The proposed Hiawatha Avenue light rail project links some of the largest activity centers in the region. These include Downtown Minneapolis, the Minneapolis-St. Paul International Airport, related employment centers (e.g., Veterans Administration, General Services Administration, and an existing medical facility) as well as the Mall of America, the largest retail complex in the nation. Proposed station areas reflect a mix of land use densities and pedestrian environments. The Minneapolis Central Business District (CBD) is generally a pedestrian friendly, mixed use, and high-density environment. However, industrial and low-density commercial and residential areas are predominate elsewhere in the corridor. Existing parking policies in the proposed corridor are mixed related to transit-supportiveness. For example, developers located in the CBD are allowed to build less parking than required in exchange for transit-supportive commitments. Minneapolis is having some success with this policy, as developers are taking advantage of the opportunity to build less parking: currently sixteen anticipated projects would add 30,000 new jobs, but include just 5,000 new parking facilities. Outside of the CBD, however, it is unclear what types of transit-supportive policies are in place.

### Other Factors

**Regional Initiatives:** The Twin Cities region is known nationally for its regional governance structure. Adopted policies reflect a desire to focus new development in the Hiawatha Avenue Corridor, and to pursue growth management policies in general. In addition, the region has several incentives for transit-supportive development, including Livable Communities Demonstration Funding, a property tax reduction for businesses within a ¼ mile of high-frequency transit, and a Livable Communities Tax Base Revitalization Account. The region has also adopted a Metro 2040 Growth Strategy with a goal of accommodating and guiding the location of 330,000 new households and 650,000 additional people the Metropolitan Council has forecasted over the next 25 years.

## Local Financial Commitment

### **Proposed Non-Section 5309 Share of Total Project Costs: 50%**

The proposed financial plan for the proposed Hiawatha Avenue light rail project assumes \$223 million (50 percent) of Section 5309 New Start funds and \$223 million (50 percent) in state, local, and Federal flexible funds.

### Stability and Reliability of Capital Financing Plan

#### **Rating: Medium-High**

The capital plan is rated *Medium-High* based primarily on local stakeholders' financial commitment to the project. The current financial capacity of the Metropolitan Council, which acts as a component unit of the State of Minnesota, has been demonstrated. Funding for MetroTransit is provided through the Metropolitan Council. In 1998, a \$100 million request in state bonding authority was made to the Minnesota Legislature for the Hiawatha Avenue light rail project. The Legislature subsequently appropriated \$40 million for the proposed project in the 1998 session, with the understanding that the remaining \$60 million will be appropriated in the next state bonding cycle in the year 2000. Hennepin County has acquired right-of-way valued at \$30 million for the project. In addition, Hennepin County, the Metropolitan Airports Commission, and the cities of Minneapolis and Bloomington will make local contributions of approximately \$70 million. All partners to the funding plan have bonding authority. The shares among local partners, however, will need to be decided, and the public entities will then have to appropriate the funds. A combination of TEA-21 flexible funds (i.e., CMAQ, STP) and other local funds will finance the remainder of project costs (approximately \$23 million).

### Stability and Reliability of Operating Finance Plan

#### **Rating: Medium**

The *Medium* operating plan rating reflects a solid state and local commitment to provide operating support to the project, but acknowledges that MetroTransit needs to complete work on the operating plan and financial requirements. The State of Minnesota has a history of financially assisting MetroTransit. The State of Minnesota makes a direct appropriation which accounts for approximately 19 percent of Metro Transit's operating revenues and which also has been growing at about 12.5 percent over the last three years. Over 40 percent of Metro Transit's operating revenues come from a regional dedicated property tax levy, which is growing at approximately 5-6 percent per year. Based on past financial performance, increases in property tax revenues have generated approximately \$3 million in added funds per year. The remainder of operating revenues comes from contract revenues and miscellaneous sources. The current Metro Transit system-wide farebox recovery ratio is 32.5 percent. About 40 percent of the anticipated \$9.9 million (1997 dollars) in operating and maintenance costs of the proposed project are estimated to be recovered from farebox revenues.

Locally Proposed Financing Plan  
(Reported in \$1997)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal: Section 5309 New Starts</b>	\$223.00	\$27.33 million appropriated through FY 1999
<b>Federal: Flexible Funds (CMAQ, STP)</b>	\$15.00	
<b>State and Local:</b>	\$208.00	
<b>Total:</b>	<b>\$446.00</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Hiawatha Avenue Corridor Map \(PDF\)](#)**

# New York, New York/Long Island Rail Road Access to Manhattan's East Side (East Side Access)

## Long Island Rail Road Access to Manhattan's East Side (East Side Access)

**New York, New York**

(November 1998)

### **Description**

The proposed Long Island Rail Road (LIRR) East Side Access would provide increased capacity for the commuter rail lines of the Long Island Rail Road and direct access between suburban Long Island and Queens and a new passenger terminal in Grand Central Terminal in east Midtown Manhattan. The Metropolitan Transportation Authority (MTA) is the lead agency for this project.

At this time, the overall rating for this project is "not recommended," based primarily on the "low" rating for the Capital Financing Plan. The "low" financial rating is due in turn to the fact that a final capital plan has not yet been developed by the MTA (see below). In addition, FTA's measures for the statutory project justification criteria may not fully reflect the benefits of a project such as this, which provides an improved level of service for existing transit users. MTA is continuing project development activities to better define the benefits and costs of the project and to complete the development of the capital plan.

The East Side Access (ESA) connection would be achieved by constructing a 4,600-foot tunnel from the LIRR Main Line in Sunnyside, Queens to the existing tunnel under the East River at 63rd Street. LIRR trains would use the lower level of this bi-level structure. A second 5,000-foot tunnel would carry LIRR trains from the 63rd Street Tunnel under Park Avenue and into a new LIRR terminal in the lower level of Grand Central Terminal. As part of this project, a passenger station would be constructed at Sunnyside Yard to provide access to the growing Long Island City business district; this station would not provide a direct connection to Grand Central Terminal.

Overall, more than 178,000 daily customers would benefit directly from the LIRR ESA project by the year 2020. There would be 172,000 daily trips to and from the new LIRR Grand Central Terminal; 6,000 daily trips to the proposed Sunnyside Yard Station; and 56,200 trips by Penn Station-bound LIRR passengers who will no longer have to travel in overcrowded train conditions during the morning and evening peak hours.

Total capital costs are projected to be approximately \$4.3 billion (escalated dollars). This sum includes \$2.7 billion for construction and right-of-way and \$0.8 billion for rolling stock (1997 dollars). Construction is scheduled to begin in 2000 and to be completed in 2010.

### LIRR East Side Access Summary Description

<b>Proposed Project</b>	Commuter Rail Extension 4 miles, 2 stations
<b>Total Capital Cost (\$YOE)</b>	\$4,289.40 million
<b>Section 5309 Share (\$YOE)</b>	To Be Determined (TBD)
<b>Annual Operating Cost (\$1997)</b>	\$98.50 million (East Side Access)
<b>Ridership Forecast (2020)</b>	178,000 average weekday boardings 26,000 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

#### Status

A Major Investment Study (MIS) on the Long Island Rail Road East Side Access was completed in March 1998. In June 1998, the New York Metropolitan Transportation Council (NYMTC), the Metropolitan Planning Organization, passed a resolution endorsing the recommended extension of the LIRR into Grand Central Station. In September 1998, FTA approved preliminary engineering and preparation of an Environmental Impact Statement EIS for the project. MTA has designated \$42 million for the LIRR ESA preliminary engineering and Draft EIS.

TEA-21 Section 3030(a)(54) authorizes the Long Island Railroad East Side Access for final design and construction. Through FY 1999, Congress has appropriated \$43.94 million in §5309 new starts funds for this project.

#### Evaluation

TEA-21 Section 3030(c)(3) exempts the East Side Access project from the New Starts criteria; however, MTA provided FTA considerable data on the project. MTA estimated the following criteria in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. The following information reflects a consolidation of materials MTA submitted for the *FY 1999 and FY*

2000 New Starts Reports. The land use assessment is based primarily on land use around Grand Central Terminal in Manhattan and the new Sunnyside Station in Queens. MTA did not provide specific information about land use at existing station areas served by the Long Island Railroad. N/A indicates that information is not available for specified measures.

## Justification

### Mobility Improvements

#### Rating: Low-Medium

MTA provided the following information on annual travel time savings. See Other Factors below for additional discussion on mobility improvements.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	5.30 million hours	3.90 million hours

Based on 1990 census data, there are an estimated 3,700 low-income households within a ½ mile radius of Grand Central Terminal, approximately 15 percent of the total households within ½ mile of the Terminal. MTA estimates that there are 74,000 low-income households within a ½ mile radius of the existing LIRR stations.

### Environmental Benefits

#### Rating: Medium

The U.S. Environmental Protection Agency designates the New York City area as "severe" nonattainment for ozone and "moderate" nonattainment for carbon monoxide. New York County is designated as "moderate" nonattainment for Particulate Matter-10. The Emissions Model for the NYMTC region is undergoing an update. The results below are based on the interim model which has been accepted by the U.S. Environmental Protection Agency and the U.S. Department of Transportation.

MTA provided the following information on emissions reduction savings. There is a projected increase in volatile organic compounds for the New Start vs. the No-Build.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 633 annual tons	decrease of 495 annual tons
Nitrogen Oxide (NOx)	decrease of 61 annual tons	decrease of 81 annual tons
Volatile Organic Compounds (VOC)	increase of 254 annual tons	decrease of 110 annual tons
Particulate Matter (PM <sub>10</sub> )	decrease of 4.30 annual tons	decrease of 11 annual tons
Carbon Dioxide (CO <sub>2</sub> )	decrease of 80,927 annual tons	decrease of 92,663 annual tons

MTA estimates that the LIRR ESA would result in the following increases in regional energy consumption (measured in British Thermal Units—BTU). MTA notes that the increase stems from the fact that the LIRR ESA is primarily aimed at providing needed capacity for existing and future transit riders, not removing existing auto riders from the highways.

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	increase of 1,320,000 million annual BTU	increase of 1,470,000 million annual BTU

#### Operating Efficiencies

**Rating: Not Rated**

MTA did not provide information on operating efficiencies.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile</b>	N/A	N/A	N/A

#### Cost Effectiveness

**Rating: Low**

MTA provided the following information on cost effectiveness. See Other Factors below for additional discussion of the cost effectiveness data.

<b>Cost Effectiveness</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Incremental Cost per Incremental Passenger</b>	\$47.10	\$44.80

Values reflect 2020 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: High**

The *High* land use rating reflects the exceptionally high density and mixed land use in Manhattan and the strong transit-orientation of the more outlying areas served by LIRR. Grand Central Terminal is in Midtown Manhattan, the nation's largest central business district (CBD). There are over 220 million square feet of office space and over one million jobs within a one-mile radius of Grand Central Terminal. The Queens end of the project is developed at lower densities, but is still transit-oriented. Suburban Long Island's older economic centers have developed around MTA LIRR stations. In 1993, the New York City Planning Commission prepared a report which outlined a vision for Long Island City to become an additional component of New York City's CBD network.

Zoning regulations in Manhattan are generally supportive of transit, usually with no parking requirements. The Midtown area has high floor area ratio allowances and special purpose district overlays to encourage urban design features that promote transit use. Developers are working closely with MTA to promote accessibility between their properties and the proposed new LIRR passenger terminal in Grand Central Terminal. Zoning around the Queens end of the project allows medium density development with some parking requirements. The Long Island City CBD area has high density zoning to encourage commercial and residential development.

## **Other Factors**

**Cost Effectiveness/Mobility Improvements:** MTA commented that FTA's measures for cost effectiveness (incremental cost per incremental passenger) and mobility improvements (travel time savings) do not adequately reflect the purpose or capture the benefits of the East Side Access project. The East Side Access project is intended to improve service for a large base of current transit riders; traditional new starts attract new transit ridership by opening new corridors or extending existing systems. The East Side Access project would relieve transit overcrowding in a heavily transit-dependent corridor where alternative mobility options are virtually impossible. MTA suggested an alternative cost effectiveness measure for this project, incremental cost per *benefiting* passenger, reporting a cost of \$5.20 per benefiting passenger compared to the no-build alternative and \$4.50 compared to the TSM.

## **Local Financial Commitment**

### **Proposed non-Section 5309 Share of Total Project Costs: N/A**

MTA did not provide a breakdown of funding sources for the East Side Access. MTA will be submitting its new five-year Capital Program to the State review board by October 1, 1999. This plan will cover the years 2000 through 2004 and will detail capital financing for the East Side Access in the five-year-period.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Low**

As explained above, FTA is unable to assess the stability and reliability of the LIRR ESA Capital Financing Plan until MTA develops such a plan as part of the agency's Capital Program. This Program will be ready in Fall 1999, when it will be submitted to the State legislature for approval. MTA has demonstrated its ability to fund significant percentages of major capital projects over the last twenty years from non-Federal sources by providing 68 percent of its capital budgets from State, local and MTA sources. The Federal share of the area's previous New Starts Investment, the 63<sup>rd</sup> Street Connector, was 55 percent. In MTA's 1995-96 Capital program, the agency funded 72 percent of its \$12 billion budget through a combination of State, local and MTA resources. MTA was able to self-generate 60 percent of the funding for the 1995-1999 Capital Program. MTA also used pay-as-you-go capital, developer contributions and asset sales and leases to help fund its share of the Capital Program. MTA has allocated \$49.00 million in local funds to the East Side Access for planning and preliminary engineering funds to date, which overmatches the \$44.00 million in Federal funds allocated for these purposes. The Low rating for this criteria reflects the absence of a capital plan for the project.

### **Stability and Reliability of Operating Financing Plan**

**Rating: Medium-High**

The *Medium-High* operating plan rating reflects MTA's strong overall financial operating condition, but acknowledges lack of information about MTA's contingency plans. The 1997 MTA Annual Report shows that fares and operating revenues covered 52 percent of agency operations. Bridge and tunnel tolls covered an additional 15 percent. The agency has undertaken cost-cutting measures and, with the adoption of its 1998 operating budget, had achieved all but \$66 million of its goal to reduce expenses by \$3.3 billion. For year 2020, the increase in operating and maintenance costs for the East Side Access project, compared to the no-build alternative, is only 2 percent of the total projected MTA operating budget.

MTA's potential sources of operating funds (passenger revenues and bridge and tunnel surpluses) are reliable. MTA also receives dedicated tax funding for operations from the Metropolitan Mass Transportation Operating Assistance. This includes a ¼ percent sales and use tax, a legislatively allocated portion of the business privilege tax imposed on New York State petroleum businesses and a portion of the taxes levied on certain transportation and transportation and transmission companies. MTA did not submit a 20-year cash flow summary, nor identify how the agency would cover unanticipated cost overruns, ridership decreases or unavailability of proposed funding sources.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts</b>	N/A	\$43.94 million appropriated through FY 1999
<b>State:</b>	N/A	
<b>Local:</b>	N/A	
<b>Total:</b>	<b>\$4,289.40</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding. Dollars escalated by FTA.

**[[Long Island East Side Access Map \(PDF\)](#)]**

# Norfolk, Virginia/Norfolk-Virginia Beach Corridor

## Norfolk-Virginia Beach Corridor

Norfolk, Virginia

(November 1998)

### Description

The Tidewater Transportation District Commission (TTDC) is planning an 18.3-mile double track Light Rail Transit (LRT) line from the Oceanfront area in Virginia Beach to Downtown Norfolk. The proposed LRT alignment generally follows 14 miles of existing Norfolk Southern railroad right-of-way. The project is the first phase of a 30-mile alignment that includes an extension to the Norfolk Naval Base and the cities of Chesapeake and Portsmouth. This corridor serves an area of significant growth for the region including a large number of people who commute into Norfolk and Virginia Beach from outside those communities. Virginia Beach Boulevard and Route 44/I-264 are at or over capacity at many locations. In addition to capacity concerns, there are other important issues within the corridor, such as potential economic development opportunities and increased mobility for the residents of Hampton Roads.

TTDC estimates that the LRT will cost \$524.6 million (escalated dollars) to construct, and will carry 14,740 new riders in the year 2018.

### Norfolk Beach Corridor Summary Description

<b>Proposed Project</b>	Light rail line 18.3 miles, 13 stations
<b>Total Capital Cost (\$YOE)</b>	\$524.60 million
<b>Section 5309 Share (\$YOE)</b>	\$288.60 million
<b>Annual Operating Cost (\$YOE)</b>	\$51.30 million
<b>Ridership Forecast (2018)</b>	14,740 boardings
<b>FY 2000 Financial Rating:</b>	<b>Low</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings**

**and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The TTDC completed a Major Investment Study (MIS) to evaluate transit/transportation improvements in the 30-mile corridor extending from Virginia Beach to Downtown Norfolk and the Norfolk Naval Base. TTDC selected the Light Rail Transit Alternative for the 18.3-mile segment from Virginia to Downtown Norfolk as the locally preferred alternative (LPA), which was endorsed by the Metropolitan Planning Organization on January 15, 1997. Development of the segment connecting to the Norfolk Naval Base will be considered in a later phase.

Approval from the Federal Transit Administration to enter Preliminary Engineering/ Environmental Impact Statement (PE/EIS) was granted in April 1997. TTDC anticipates that the PE/EIS will be completed in February 1999.

TEA-21 Section 3030(a)(58) authorizes the Norfolk-Virginia Beach Corridor for final design and construction. Through FY 1999, Congress has appropriated \$9.93 million in Section 5309 New Start funds to this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Criteria have been submitted for the 18.3-mile segment from Virginia Beach to Norfolk. N/A indicates that data are not available for this specific measure.

## Justification

### Mobility Improvements

**Rating: Low**

TTDC estimates the following annual travel time savings for the Norfolk – Virginia Beach Corridor.

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	0.60 million hours	0.30 million hours

Based on 1990 U.S. census data, there are an estimated 1,447 low-income households within a ½ mile radius of the proposed 13 stations, representing 12.6 percent of all households within the corridor.

### Environmental Benefits

**Rating: Medium**

Hampton Roads is currently classified as a maintenance area for both VOC and NO<sub>x</sub>. TTDC only provided information on estimated changes in carbon dioxide emissions.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxide (NOx)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Carbon Dioxide (CO <sub>2</sub> )	decrease of 5,705 annual tons	decrease of 9,724 annual tons

TTDC estimates the proposed project will result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	decrease of 64,639 million annual BTU	decrease of 115,716 million annual BTU

#### Operating Efficiencies

**Rating: High**

TTDC estimates the following systemwide costs per passenger mile.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2018)	\$0.68	\$0.70	\$0.51

Values reflect 2018 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Medium**

TTDC estimates the following cost effectiveness indices.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$12.03	\$11.59

Values reflect 2018 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Low-Medium**

The *Low-Medium* land use rating reflects the relatively low-density development and only marginally supportive transit corridor policies and zoning regulations within the corridor. Although the proposed alignment passes through the central business districts of Norfolk and Virginia Beach, much of the existing land use consists of low-density commercial (strip mall) and residential development. Both Norfolk and Virginia Beach have implemented limited supportive zoning regulations near transit stations. Except for city-led revitalization projects in downtown Norfolk and a proposed CBD for Virginia Beach, development proposals have not yet been affected by or oriented toward transit stations. With the exception of the Oceanfront area, the jurisdictions have not identified parking policies.

The City of Virginia Beach promotes urban redevelopment while also protecting agricultural land. The city has established a "Green Line", or growth boundary, and has started a 30-year, \$87 million program to purchase development rights outside the boundary. Master plans for Virginia Beach and Norfolk do not specifically emphasize concentrating growth in light rail station areas.

## **Other Factors**

**Economic Development:** The MIS estimated the economic impacts (through the year 2015) of implementing the LRT alternative including: a net new employment payroll of \$88.2 million (1995 dollars) from jobs in LRT development; an increase of \$56.4 million in retail sales, an increase in property values of \$245.7 million, an increase in gross receipts of \$303.4 million; an increase in convention expenditures of \$5.9 million; and a net growth (by 2015) of 3,900 jobs.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 45%**

TTDC proposes that \$288.6 million (55 percent) in Section 5309 New Start funds, \$118.0 million (22.5 percent) in State funds, and \$118.0 million (22.5 percent) in local funds be applied to the project.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Low**

The *Low* capital financing plan rating reflects the lack of committed local funding sources for the project. Although the TTDC's present capital position appears to be healthy, the project's financial plan does not include a cash-flow analysis of the sources and uses of agency (or project) capital and operating funds, or the cost of other significant proposed capital projects. The capital financing plan indicates that State funds would provide \$118 million for the project and local funds would provide an additional \$118 million, but no proposed State or local sources of funds currently exist and each would require state legislative approval for their creation. Potential sources include a motor fuels sales tax, local option sales tax, recordation taxes, and joint development and other innovative sources. Capital cost estimates appear reasonable, but do not include inflation assumptions.

### **Stability and Reliability of Operating Finance Plan**

#### **Rating: Low**

The *Low* operating financing plan rating reflects the uncertainty of operating funding sources. An estimated \$12 million will be needed annually to support operation and maintenance of the light rail system. No proposed local sources of funds currently exist and state legislative approval would be needed to create State and local funds. Insufficient information was provided to determine the ability of these proposed sources in covering potential cost overruns. In recent years, TTDC has experienced increasing ridership, a 35 percent farebox recovery ratio, and zero operating balances (on average).

**Locally Proposed Financing Plan**  
(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts</b>	\$288.60	\$9.93 million appropriated through FY 1999
<b>State:</b>	\$118.00	
<b>Local:</b>	\$118.00	
<b>Total:</b>	<b>\$524.62</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[\[Norfolk-Virginia Beach Corridor Map \(PDF\)\]](#)**

# Northern New Jersey/Hudson-Bergen Waterfront Light Rail Transit System Minimum Operable Segment-2 (MOS-2)

## Hudson-Bergen Waterfront Light Rail Transit System Minimum Operable Segment-2 (MOS-2)

(A New Jersey Urban Core Project)

**Northern New Jersey**

(November 1998)

### **Description**

The New Jersey Transit Corporation (NJ Transit) is proposing to construct a second Minimum Operable Segment (MOS-2) for the Hudson-Bergen Waterfront Light Rail Transit (LRT) System. The proposed MOS-2 would run north from Hoboken Terminal to the Tonnelle Avenue Park-and-Ride in North Bergen and south from 34<sup>th</sup> Street to 22<sup>nd</sup> Street in Bayonne. The total cost of MOS-2 is estimated at \$989.32 million (escalated dollars), including borrowing costs. MOS-2, like the initial Minimum Operable Segment (MOS-1) now nearing completion, would be a design/build/operate/maintain project. NJ Transit is seeking \$622.35 million (escalated dollars) in Section 5309 New Starts funds. With completion of the second phase of the Hudson-Bergen LRT, NJ Transit expects the system to become self-sufficient and not require any operating subsidies.

The full Hudson-Bergen LRT is a \$2.0 billion (escalated dollars), 20.1-mile, 30 station at-grade LRT line from the Vince Lombardi Park-and-Ride lot in Bergen County to West Fifth Street in Bayonne in Hudson County. It will carry 94,500 passengers daily. When completed, the project will pass through Port Imperial in Weehauken, Hoboken and Jersey City. The outer ends will provide 8,800 park-and-ride spaces. The core of the system will serve the high density commercial and residential centers in Jersey City and Hoboken and connect to ferries, PATH, and NJ Transit commuter rail lines.

The 9.6-mile MOS-1, currently under construction, will connect the Hoboken Terminal to 34th Street Bayonne and Westside Avenue in Jersey City. MOS-1 is expected to cost \$992.14 million (escalated dollars) and to carry 31,300 riders per day. The revenue operation date is scheduled for July 2000.

### **Status**

The Final Environmental Impact Statement for the full Hudson-Bergen Waterfront LRT was issued in August 1996. The Federal Transit Administration (FTA) issued a Record of Decision in October 1996. Later the same month, FTA signed an FFGA committing \$604.09 million of Section 5309 New Start funds to support the 9.6-mile MOS-1. The Hudson-Bergen LRT project is one of eight elements eligible for funding as part of the New Jersey Urban Core Project. Through

FY 1999, Congress has appropriated \$228.31 million in Section 5309 New Starts funds to the Hudson-Bergen MOS-1.

In January 1997, the Governor of New Jersey, in conjunction with the Mayor and City Council of Hoboken, agreed to alter the alignment of the Hudson-Bergen LRT in Hoboken to the west side of the city. An Environmental Assessment (EA) was completed on this re-alignment and was submitted to FTA in August 1998. Public review of the EA is expected to be completed in February 1999.

### **Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts</b>	\$622.35	No appropriations to date
<b>Federal: Section 5307</b>	\$70.00	
<b>State: Transportation Trust Fund</b>	\$296.97	
<b>Total:</b>	<b>\$989.32</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Hudson - Bergen Waterfront LRT System Map \(PDF\)](#)**

# Orange County, California/Orange County Transitway Project

## Orange County Transitway Project

Orange County, California

(November 1998)

### Description

The Orange County Transportation Authority (OCTA) is developing a 28-mile Transitway Corridor in central Orange County between Fullerton and Irvine. The proposed Transitway will connect major activity centers within the Corridor, including downtown Fullerton and the Fullerton Transportation Center, downtown Anaheim, the Anaheim Resort Area (including Disneyland, the Anaheim Convention Center, Edison Stadium and the Arrowhead Pond) downtown Santa Ana (and the county government center), John Wayne Airport, El Toro Marine Base (which is being converted to civilian use), and several hospitals and regional shopping, employment, cultural, and entertainment centers. The diversity of attractions throughout the corridor is expected to generate a significant number of bi-directional and non-peak trips.

A preferred rail technology has not yet been specified. Several alternatives are being examined in Preliminary Engineering. Assuming a rail system which is 94 percent at-grade and 6 percent elevated, the project is estimated to cost \$1.92 billion (escalated dollars) and to carry 55,800 riders per day.

### Orange County Transitway Summary Description

<b>Proposed Project</b>	Rail Fixed Guideway 28.0 miles, 27 stations
<b>Total Capital Cost (\$YOE)</b>	\$1.92 billion
<b>Section 5309 New Starts Share (\$YOE)</b>	\$959.1 billion
<b>Annual Operating Cost (\$YOE)</b>	\$23.0 million
<b>Ridership Forecast (2020)</b>	55,800 average weekday boardings
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

OCTA completed a Major Investment Study (MIS) for the Corridor in June 1997. The MIS led to the selection of a rail/bus project consisting of a 28-mile transitway and a 49% increase in bus service. The Transitway is included in the financially constrained and conforming regional transportation plan and transportation improvement program. In February 1998, FTA approved entry into the Preliminary Engineering (PE)/Draft Environmental Impact Statement (DEIS) phase of project development. The DEIS effort is expected to conclude in December 1999 with the selection of a Locally Preferred Alternative (LPA), at which point OCTA will focus its remaining PE effort on the LPA.

The Transitway project is included in the metropolitan planning organization's financially constrained and conforming Regional Transportation Plan and Transportation Improvement Program. TEA-21 Section 3030(a)(59) authorizes the Fullerton-Irvine Corridor for final design and construction. Through FY 1999, Congress has appropriated \$7.45 million in Section 5309 New Starts funds.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*.

## Justification

### Mobility Improvements

**Rating: Medium-High**

OCTA estimates the following travel time savings for the New Start compared with the No-Build and TSM alternatives.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
<b>Annual Travel Time Savings (Hours)</b>	23.0 million hours	5.4 million hours

Based on the 1990 US Census, OCTA estimates that there are 20,141 low-income households within ½ mile of 25 of the 27 proposed stations (44 percent of all households located within ½ mile of stations).

### Environmental Benefits

**Rating: Medium**

Orange County lies within the South Coast Air Basin and is currently classified as an "extreme" nonattainment area for ozone, a "serious" nonattainment area for carbon monoxide, a "serious" nonattainment area for PM-10, and a nonattainment area for NOx.

OCTA estimates the following changes in annual regional emissions.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	decrease of 66 annual tons	decrease of 162 annual tons
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	increase of 78 annual tons	decrease of 84 annual tons
<b>Hydrocarbons (HC)</b>	increase of 11 annual tons	decrease of 26 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	0	0
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 9,516 annual tons	decrease of 6,277 annual tons

OCTA estimates the following reduction in regional energy consumption (measured in British Thermal Units - BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	decrease of 111,831 million annual BTU	decrease of 57,209 million annual BTU

#### Operating Efficiencies

**Rating: Medium**

OCTA estimates a decrease in the systemwide operating cost per passenger mile, compared to the No-Build, and a slight increase for the New Start compared to the TSM.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.51	\$0.35	\$0.36

Values reflect 2020 ridership forecast and 1998 dollars.

#### Cost Effectiveness

**Rating: Medium**

OCTA estimates the following cost effectiveness indices:

<b>Cost Effectiveness</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Incremental Cost per Incremental Passenger</b>	\$6.99	\$14.65

Values reflect 2020 ridership forecast and 1998 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The *Medium* Land Use rating reflects the varied densities and transit-supportive conditions found along the corridor, but acknowledges the proactive role of OCTA and several local jurisdictions in encouraging transit-oriented development around proposed station areas. The 28-mile corridor serves several single and multi-family residential neighborhoods, some office park and retail development, several industrial areas, and Disneyland, Anaheim Stadium, and other entertainment attractions. The corridor contains over one-half of the county's employment, although more growth is forecast outside of the corridor than inside. Net densities are moderate to high in a number of areas in the north of the corridor, but tend to decrease in the southern portion of the corridor. The corridor is auto-oriented, with a significant supply of parking in most employment centers, shopping areas, and attractions. Pedestrian friendliness in the corridor varies; however, most of the seven communities traversed by the corridor have adopted policies and plans which support redevelopment and pedestrian access around station areas. OCTA has been working with these communities during PE to promote and facilitate transit-oriented development. In addition, OCTA has conducted education and outreach on transit-oriented land use planning, and is investigating joint development opportunities.

### Other Factors

**Santa Ana Enterprise Zone:** The city of Santa Ana has three sites designated by the State of California as Enterprise Zones, and within the boundaries of these zones are three Transitway stations. Santa Ana is also designated as a Federal Empowerment Zone. OCTA has been involved with the city in development activities and is committed to supporting Enterprise/Empowerment Zone initiatives.

### Local Financial Commitment

**Proposed Non-Section 5309 Share of Total Project Costs: 50%**

The OCTA financial plan proposes \$959.1 million (50 percent) in Section 5309 New Start funds and an additional Federal contribution of \$273.5 million (14.3 percent) in Federal flexible funds. The plan includes \$504.5 million (26.3 percent) in State funding and \$179.4 million (9.4 percent) in local funds.

### Stability and Reliability of Capital Financing Plan

**Rating: Medium-High**

The Transitway has received a *Medium-High* capital plan rating because 100 percent of proposed local funding for the project is committed from existing sources; however, OCTA has yet to identify a specific alignment type or rail technology. Capital cost estimates are consistent with

light rail. One proposed local funding source is the County's Measure M sales tax, which is expected to generate \$450 million for both capital improvements and ongoing operations. The capital plan provides coverage for cost contingencies.

**Stability and Reliability of Operating Finance Plan**

**Rating: Medium-High**

The *Medium-High* operating plan rating reflects the existing dedicated revenue stream for operating the Transitway. OCTA proposes that operation of the completed Transitway would be funded with an interest-bearing operating fund comprised of Measure M (\$250 million) and CMAQ (\$49 million) funds. This resource is estimated to yield sufficient funds to operate the completed 28 mile system through FY 2030. OCTA has similar funding in place for both its bus and commuter rail operations. Annual O&M costs estimates appear reasonable given the proposed size of the system.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$959.1	\$7.45 million appropriated through FY 1999.
STP/CMAQ	\$273.5	
<b>State:</b>		
STIP	\$504.5	
<b>Local:</b>		
Measure M	\$179.4	
<b>Total:</b>	<b>\$1,916.2</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Any errors are due to rounding.

**[[Orange County Transitway Project Map \(PDF\)](#)]**

# Orlando, Florida/Central Florida Light Rail System

## Central Florida Light Rail System

Orlando, Florida

(November 1998)

### Description

The Central Florida Regional Transportation Authority (LYNX) is planning development of a light rail transit (LRT) system generally paralleling Interstate-4 along CSX right-of-way in Orlando, FL. The Locally Preferred Alternative (LPA) is a 16.3-mile, 20-station system from Loch Haven/Princeton in the north to Central Florida Parkway in the south, with expanded local and circulator bus service in the corridor. The 14.6 mile southern segment of the corridor is being advanced as the project's first Minimum Operable Segment (MOS). The MOS extends from downtown Orlando south to an interim terminus and station located southeast of the interchange of I-4 and the Central Florida Parkway. Estimated capital costs for the MOS total \$600.1 million (escalated), with estimated daily ridership totaling 103,700.

The northern segment of the proposed LRT corridor would extend from the interim terminus at Loch Haven/Princeton to Sanford in north Seminole County. A future extension of the south corridor would extend from the Central Florida Parkway to southeast of I-4 and SR 417 in Osceola County.

### Central Florida Light Rail Summary Description

<b>Proposed Project</b>	Light Rail Transit 14.6 miles, 17 stations
<b>Total Capital Cost (\$YOE)</b>	\$600.1 million
<b>Section 5309 New Starts Share (\$YOE)</b>	\$330.0 million
<b>Annual Operating Cost (\$YOE)</b>	\$31.5 million
<b>Ridership Forecast (2020)</b>	103,700 average weekday boardings 29,500 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>

**FY 2000 Overall Project Rating:**

**Highly Recommended**

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new start projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

FDOT and LYNX completed the I-4 Multimodal Master Plan Major Investment Study (MIS) in the Fall of 1995, which included both light rail and highway improvements along the I-4 corridor in Orlando. In December 1995, the Orlando and Volusia County MPOs adopted the I-4 MIS design concept and scope improvements as part of the Year 2020 Long Range Transportation Plans.

The highway and transit components of the preferred alternative are being analyzed in separate Preliminary Engineering (PE) and Environmental Impact Statement (EIS) efforts. FTA is designated as the lead Federal agency on the light rail PE/EIS, while the Federal Highway Administration (FHWA) is the lead agency on the highway PE/EIS. LYNX, in cooperation with FDOT, completed the PE/FEIS for the Central Florida Light Rail Transit System in November 1998. The FEIS addressed both the 16.3 mile LPA and the 14.6 mile MOS. A Record of Decision (ROD) on the project is expected January 1999.

TEA-21 Section 3030 (a) (60) authorizes the Orlando I-4 Central Light Rail System for final design and construction. Through FY 1999, Congress has appropriated \$51.0 million in Section 5309 New Starts funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Information is presented for the proposed 14.6 mile MOS. N/A indicates that data are not available for a specific measure.

## Justification

### Mobility Improvements

#### Rating: Low

LYNX estimates that the MOS will result in the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	0.9 million hours	0.5 million hours

Based on 1990 census data, there are an estimated 523 low-income households within a ½ mile radius of the proposed 17 stations.

### Environmental Benefits

#### Rating: Medium

The Orlando area is currently classified as an attainment area for both ozone and carbon monoxide. LYNX estimates that in the year 2020, the project would result in the following annual changes in emissions.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	decrease of 1,605 annual tons	increase of 591 annual tons
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	decrease of 119 annual tons	decrease of 33 annual tons
<b>Hydrocarbons (HC)</b>	decrease of 178 annual tons	increase of 30 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	N/A	N/A

LYNX estimates that in the year 2020, the project would result in the following savings in regional energy consumption (measured in British Thermal Units - BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	decrease of 700,000 million annual BTU	N/A

#### Operating Efficiencies

**Rating: Medium**

LYNX estimates the following systemwide operating cost per passenger mile for the No-Build, TSM, and New Start in the year 2020.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (1997)</b>	\$0.41	\$0.42	\$0.42

Values reflect 2020 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Medium-High**

LYNX estimates the following cost-effectiveness indices for the project compared to the No-Build and TSM alternatives.

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$9.26	\$9.72

Values reflect 2020 ridership forecast and 1997 dollars.

## Transit-Supportive Existing Land Use and Future Patterns

### **Rating: Medium-High**

The *Medium-High* Land Use rating reflects existing conditions within the corridor (major attractions anchor each end of the project) as well as the positive steps that local jurisdictions and the private sector have taken to better integrate transit in planned development along the corridor. The MOS connects two major trip generators (the Orlando CBD and the International Drive tourist area--includes Universal Studios, Sea World, and other attractions). Population in the South Florida Light Rail System corridor was 349,000 (29% of the region) in 1996, while corridor employment was 452,000. Orlando and Orange County have both adopted specific policies (management of parking, policies for infill development and redevelopment) which will serve as incentives for transit development to foster high growth, and numerous private sector developments.

The corridor is expected to sustain high growth, and numerous private sector developments are planned which will result in infill and redevelopment opportunities in the corridor. LYNX is working with several property owners and developers to coordinate new development plans with the LRT. In addition, the City of Orlando and LNYX are exploring joint development opportunities in the CBD. New developments within the International Drive area are expected to include extensive parking. Orlando and Orange County have both adopted specific policies and incentives for transit development and managing the supply of parking.

## Local Financial Commitment

### **Proposed Non-Section 5309 Share of Total Project Costs: 45%**

LYNX proposes a \$330.0 million Section 5309 New Start share (55 percent) of total project capital costs. The financial plan includes \$135.1 million (22.5 percent) in State funds and \$135.0 million (22.5 percent) from a variety of local sources including private sector investments.

## Stability and Reliability of Capital Financing Plan

### **Rating: High**

LYNX's financial plan for the Central Florida Light Rail System is rated High for demonstrating strong state, local, and private sector financial support for the MOS. All local funding sources for the project are committed and currently in place. FDOT's contribution to the project is committed and includes an up-front grant to fund construction and a 20-year light rail car and capital equipment lease financing program. Innovative financing covers about 19 percent of total MOS project costs. Both the Orange County Convention and the International Drive Master Transit and Improvement District (MSTU) - a special taxing district established by Orange County on behalf of property owners along the corridor - are contributing significant resources to the project. A State Infrastructure Bank funding mechanism is in place, although the city of Orlando and Orange County have not yet identified revenues for loan repayment. Capital cost estimates appear reasonable.

## Stability and Reliability of Operating Finance Plan

### **Rating: Medium**

The *Medium* operating plan rating reflects both the local commitment to financially support operations of the project and the uncertainty of a regionwide dedicated revenue source proposed to replace local operating subsidies. LYNX estimates annual operating cost for the MOS at \$18.6 million (escalated dollars) in 2003, and \$31.5 million (escalated) in 2020. The City, County, and State have each committed to fund approximately 17 percent of LRT operations (totaling 50 percent). Farebox revenues are assumed to cover 39 percent of costs. Universal Studios has committed to provide 7.4 percent of annual operating costs. The financial plan assumes that City and County contributions would eventually be replaced by a dedicated regionwide ½ cent sales tax, which is included in the adopted regional long range transportation plan. The tax would require voter approval, and a referendum on the tax may be pursued for 2003. If such a referendum fails, the City and County have committed to continue to financially support the project's operations, and have the financial capacity to do so.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$330.0	\$51.0 million appropriated through FY 1999.
<b>State:</b>		
FDOT	\$135.1	
<b>Local:</b>		
County/City (SIB Loan)	\$22.0	
Orlando Downtown Development Board	\$16.4	
Orange County Convention Center	\$73.6	
International Drive MSTU	\$23.0	
<b>Total:</b>	<b>\$600.1</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Any errors are due to rounding.

**[\[Central Florida Light Rail System Map \(PDF\)\]](#)**

# Phoenix, Arizona/Central Phoenix/East Valley Corridor

## Central Phoenix / East Valley Corridor

Phoenix, Arizona

(November 1998)

### Description

The Regional Public Transportation Authority (RPTA) is planning a 22-mile at-grade light rail system to connect the cities of Phoenix, Tempe, and Mesa. A 13-mile minimum operating segment (MOS) from downtown Phoenix to the east side of Tempe including a 1.75-mile spur to serve the Rio Salado development along the Salt River in Tempe is proposed to be built first. The Locally Preferred Alternative also includes an expanded bus and park-and-ride system. The MOS LRT is estimated to cost approximately \$390 million (escalated) and serve 18,600 daily riders. The improved regional bus system portion of the project includes a doubling of the RPTA's current bus revenue miles and is estimated to cost approximately \$480 million (\$1998).

### East Valley Corridor Summary Description

<b>Proposed Project</b>	Light Rail Transit 13-mile MOS, 19 stations
<b>Total Capital Cost (\$YOE)</b>	\$390.0 million
<b>Section 5309 Share (\$YOE)</b>	\$195 million
<b>Annual Operating Cost (\$YOE)</b>	\$15.0 million
<b>Ridership Forecast (2020)</b>	18,600 daily boardings
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The Regional Public Transportation Authority (RPTA) completed the Central Phoenix/East Valley (CP/EV) Major Investment Study (MIS) in the Spring of 1998. In September 1998, FTA granted RPTA permission to enter the Preliminary Engineering/Environmental Impact Statement (PE/EIS) phase on 20 miles of the corridor. Approval to enter PE on the remainder of the corridor is anticipated in December 1998. It is anticipated that PE/EIS will be completed in November 2000.

The Maricopa Association of Governments (local MPO) adopted the CP/EV Corridor as a fixed guideway corridor and included the CP/EV LRT project in the Long Range Transportation Plan and the current Regional Transportation Improvement Plan (TIP). Section 3030(a)(62) of TEA-21 authorizes the Phoenix Fixed Guideway project for final design and construction. Through FY 1999, Congress has appropriated \$8.9 million for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Information reflects the 13-mile Minimum Operable Segment.

## Justification

### Mobility Improvements

#### Rating: Low

The Maricopa Association of Governments (MAG) estimates the following travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	15.6 million hours	1.0 million hours

Based on the 1990 census data, there are 4,734 low-income households within a ½ mile radius of the proposed LRT stations, roughly 22 percent of total households within ½ mile of proposed stations.

### Environmental Benefits

#### Rating: Medium

The Phoenix Metropolitan region is a serious non-attainment area for ozone, carbon monoxide, and particulates (PM10). RPTA projects the following emission reductions for the Central Phoenix/East Valley LRT.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 5 annual tons	No change
Nitrogen Oxide (NOx)	No change	No change

<b>Hydrocarbons (HC)</b>	decrease of 1 annual ton	decrease of 4 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	No change	No change
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 50,473 annual tons	decrease of 31,560 annual tons

RPTA estimates the following increases in regional energy consumption (measured in British Thermal Units - BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	increase of 676,779 million annual BTU	increase of 455,037 million annual BTU

#### Operating Efficiencies

**Rating: Low**

RPTA estimates an increase in systemwide operating cost per passenger mile in year 2020 for the 13-mile CP/EV LRT project compared to the No-Build and TSM alternatives.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.30	\$0.39	\$0.42

Values reflect 2020 ridership forecast and 1998 dollars.

#### Cost Effectiveness

**Rating: High**

RPTA estimates the following cost effectiveness indices.

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$4.23	\$5.08

Values reflect 2020 ridership forecast and 1998 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The *Medium* Land Use rating reflects the diversity of land uses along the proposed alignment and evidence of local efforts to facilitate transit-supportive land uses in the corridor. The corridor passes through moderate to high density central business districts in Phoenix and Tempe as well as low density residential, industrial, commercial, and recreational/cultural centers, ending at the City of Mesa. The corridor serves several major trip generators. Local land use plans in Phoenix and Tempe support the LRT and there exists potential to provide economic and joint

development opportunities. Transit-oriented design plans are underway in Tempe to integrate LRT with Downtown and the 7 million square foot Rio Salado development. The City of Phoenix has a downtown overlay district that allows new office and retail with no parking requirements. The City of Tempe has eliminated free public parking in the downtown area. The State of Arizona recently passed a Smart Growth initiative that provides \$20 million each year for 11 years to preserve land from development. The Governor of Arizona has appointed a Growing Smarter Committee to study the establishment of urban growth boundaries among other issues.

## Local Financial Commitment

### Proposed Non-Section 5309 Share of Total Project Costs: 50%

The financial plan for the 13-mile Minimum Operable Segment for the Central Phoenix/East Valley LRT includes \$195 million (50 percent) in Section 5309 New Start funds, and \$195 million (50 percent) in state and local funds from the Cities of Phoenix, Tempe, and Mesa.

### Stability and Reliability of Capital Financing Plan

#### Rating: Low-Medium

The *Low-Medium* capital plan rating reflects uncertainties associated with local funding for the project at this time. The 20-year finance plan is reliant on local sales tax to cover the local share of project costs. Tempe and Mesa have ½ cent sales taxes that can be used for transit; however Phoenix - which would contribute 54 percent of local funding for the project - has no local sales tax for public transportation at this time. Phoenix plans to return to the voters with a new sales tax proposal in the near future. The financing plan identifies a contribution of state sources such as the state funded Local Transportation Assistance Fund (LTAF) but does specify a dollar amount committed to the project. Capital funding from the City of Phoenix must be secured for this project to move forward. It is unclear whether the participating jurisdictions have the financial capacity to address shortfalls and cost overruns.

### Stability and Reliability of Operating Finance Plan

#### Rating: Low-Medium

The *Low-Medium* operating plan rating reflects the need for a new revenue source to operate the proposed project. Local support for transit operations is provided through the City of Phoenix general fund and the City of Tempe's ½ cent sales tax dedicated to transit. Tempe's sales tax currently generates approximately \$23 million per year for transit operations. Funds equal to a ½ cent sales tax are required for the City of Phoenix to pay for its share of the proposed system's operating costs. Operating revenues are based on the assumption that a referendum extending a Maricopa County sales tax of ½ cent beyond 2006 will pass and that future revenues would be split 50-50 between transit and highways. Farebox recovery is projected to be 40 percent of operating costs for the LRT and 25 percent of operating costs for the enhanced bus system.

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Start	\$195.00	\$8.9 million appropriated through FY 1999

<b>Local: City of Phoenix</b>	\$121.0	
<b>Local: City of Tempe</b>	\$74.0	
<b>Total:</b>	<b>\$390.00</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Central Phoenix / East Valley Corridor (PDF)]**

# Pittsburgh, Pennsylvania/Martin Luther King, Jr. East Busway Extension - Phase I

## Martin Luther King, Jr. East Busway Extension - Phase I

Pittsburgh, Pennsylvania

(November 1998)

### Description

The Port Authority of Allegheny County (PAAC) plans to extend the Martin Luther King, Jr. East Busway. The first 6.8 miles of the East Busway was completed in 1983, and carries nearly 30,000 riders each weekday from downtown Pittsburgh to Wilkinsburg, serving a corridor with the highest transit ridership in Allegheny County. Phase I of the proposed extension of the East Busway is a 2.3-mile segment directly serving the adjacent communities of Edgewood, Swissvale and Rankin, with extending bus services via the Busway to serve the redeveloping Monongahela River Valley. The extended busway will include park-and-ride lots, a feature which does not exist on the existing East Busway. PAAC estimates the capital cost of the project to total \$62.8 million (in escalated dollars).

### Martin Luther King, Jr. East Busway Extension Summary Description

<b>Proposed Project</b>	Busway Extension 2.3 miles - Phase I
<b>Total Capital Cost (\$YOE)</b>	\$62.8 million
<b>Section 5309 Share (\$YOE)</b>	\$8.6 million
<b>Annual Operating Cost (\$1996)</b>	\$1.6 million
<b>Ridership Forecast (2005)</b>	13,600 daily boardings 3,800 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings**

and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.

**Status**

A Finding of No Significant Impact was issued in early 1996 for the East Busway extension. Preliminary Engineering (PE) is currently underway, and will be completed in early 1999.

Section 3030(a)(65) of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorizes the "Pittsburgh – MLK Busway Extension" for final design and construction. Through FY 1999, Congress has not appropriated any funds for this project.

**Evaluation**

This project is exempt from the New Starts criteria, as the section 5309 Federal share is less than \$25 million. However, PAAC submitted several criteria which have been estimated in conformance with FTA’s *Technical Guidance on Section 5309 New Starts Criteria*. N/A indicates that no data are available for a specific measure.

**Justification**

Mobility Improvements

**Rating: Low**

PAAC estimates the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	N/A	0.1 million

Environmental Benefits

**Rating: Not Rated**

Metropolitan Pittsburgh is a moderate non-attainment area for ozone.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxide (NOx)	N/A	N/A
Hydrocarbons (HC)	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Carbon Dioxide (CO <sub>2</sub> )	N/A	N/A

No energy consumption data were provided.

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	N/A	N/A

**Operating Efficiencies**

**Rating: Medium**

PAAC estimates the following systemwide operating costs.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (YOE)</b>	\$2.08	\$2.08	\$2.07

Values reflect 2005 ridership forecast and 1992 dollars.

**Cost Effectiveness**

**Rating: High**

PAAC estimates the following cost effectiveness index for the new starts to no build comparison. No data were provided for the new starts to TSM comparison.

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$4.00	N/A

Values reflect 2005 ridership forecast and 1995 dollars.

**Transit-Supportive Existing Land Use and Future Patterns**

**Rating: Medium**

The *Medium* land use rating reflects local municipal commitment to transit-supportive development along the corridor. The Martin Luther King, Jr. East Busway links downtown Pittsburgh with the inner suburb of Wilksburg and various eastern Allegheny County suburbs. Transit ridership in the corridor is high with service to high employment densities and other major trip generators. The current transit mode share for CBD employees is roughly 50 percent, with significant employment growth and ridership projected. Additionally, population growth is forecast for the corridor and station areas within older residential urban (rail era) neighborhoods. Local governments have emphasized attracting new growth and redeveloping older neighborhoods due to recent declines in both city and regional populations. The Pittsburgh Downtown Plan recommends specific policies and actions to increase varied development uses and to improve the pedestrian streetscape. Pedestrian access improvements are planned for station areas, and joint development opportunities are being marketed. High intensity transit-supportive development is called for in the CBD, with child care and parking incentives for transit proximity locations. The City has provided various financial incentives for redevelopment projects near the

East Busway, with a number of such projects having been undertaken, most within 1500 feet of transit stations. Public and private investment is strongly encouraged in the regional core, and infill development and reinvestment is encouraged in transit priority areas. The Downtown Plan calls for increasing the mix of retail and entertainment use to sustain 24-hour activity, as well as increasing residential development in the CBD and removing excess railroad trackage. Station design will be integrated with community activities. Parking, pedestrian and infrastructure needs will continue to be examined. PAAC will construct hike/bike trails adjacent to the extension, and rehabilitate an existing pedestrian tunnel and a former railroad station building along the right-of-way.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 86%**

PAAC proposes that the Federal share of project funding be 50 percent: \$8.58 million (13.7 percent) in Section 5309 New Starts funds, \$21.17 million (33.7 percent) in ISTEA Section 1108 Highway funds, and \$1.65 million (2.6 percent) in TEA-21 Title I funds. The remaining \$31.4 million (50.0 percent) would be provided by State funds.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Low-Medium**

The *Low-Medium* capital finance plan rating reflects a potential financial overextension by PAAC due to a considerable pipeline of capital projects. The Commonwealth of Pennsylvania would be the source of local-match funding for this PAAC project. The State has approved \$31.4 million in its 12-year transit plan for the 50 percent local match. Pennsylvania's financial condition is very strong, with low debt levels and budget surpluses. The State's general obligation bonds have been rated AA by Fitch. PAAC is a financially strong and conservatively managed transit agency, with long term debt representing only about 5 percent of total assets. The ISTEA Section 1108 Highway Funds of \$21.17 million have already been received, representing 33.7 percent of the total project cost. The \$1.65 million (2.6 percent) in TEA-21 Title I Highway Funds have been authorized but not appropriated. A low 5.3 percent contingency factor has been incorporated into capital cost estimates, with a 4 percent annual inflation rate. Reprogramming of Federal funds would provide a potential modest source of additional contingency funding. Although PAAC has the financial and technical capacity to see this and other capital projects to their successful conclusion (i.e., Stage II LRT and Airport Busway/Wabash HOV Facility Phase I), it is unclear whether PAAC could handle additional capital projects planned for the near term future. The atypical high percentage local match from the State is an indication that Pennsylvania is highly committed to seeing this project completed.

### **Stability and Reliability of Operating Finance Plan**

#### **Rating: Medium-High**

The *Medium-High* operating finance plan rating reflects the reliable State support of transit operating subsidies. PAAC's operations are financially sound, with the agency running a small surplus for two of the past three years. Twenty-one percent of total expenses are covered by farebox revenues. Pennsylvania has recently approved enhanced funding for transit operating subsidies in the State, resulting in 14 percent of total expenses being covered by dedicated State

formula funds, and an additional 9.5 percent being covered by non-dedicated State operating assistance. Allegheny County must also match the fixed percentage of total State operating assistance directly appropriated annually from the State budget at a 1 to 3 ratio. The remainder of PAAC's operating expenses are expected to be covered by a combination of other State and Federal funding sources. The MLK Busway Extension project is estimated to have minimal impact on both system revenues and system operating costs.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)
<b>Federal:</b>	
Section 5309 New Starts	\$8.58
ISTEA Sec 1108 Hwy	\$21.17
TEA-21 Title I	\$1.65
<b>State:</b>	
Commonwealth of Pennsylvania	\$31.40
<b>Total:</b>	<b>\$62.80</b>

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Martin Luther King, Jr. East Busway Extension - Phase I Map (PDF)]**

# Pittsburgh, Pennsylvania/Pittsburgh Stage II Light Rail Transit

## Pittsburgh Stage II Light Rail Transit

Pittsburgh, Pennsylvania

(November 1998)

### Description

The Port Authority of Allegheny County (PAAC) has undertaken reconstruction of the 25-mile Pittsburgh rail system to modern light rail standards. The Stage I Light Rail Transit (LRT) project resulted in the reconstruction of a 13-mile system to light rail standards during the 1980s. The Stage II LRT project proposes reconstruction of the remaining 12 miles of the system consisting of the Overbrook, Library, and Drake trolley lines.

The Stage II LRT project would reconstruct these three lines to modern LRT standards, double track the single track segments, reopen the closed Overbrook Line, replace antiquated trolleys with new light rail vehicles, and add approximately 2500 park and ride spaces and 28 new light rail vehicles.

The estimated cost of this project is \$512.5 million (in escalated dollars). In 2015, the estimated daily ridership for Stage II is expected to be 25,000 with over 49,000 riders for the entire light rail system.

### Pittsburgh Stage II Light Rail Transit Summary Description

<b>Proposed Project</b>	Light Rail Line; reconstruction of former rail (trolley) lines; 12 miles
<b>Total Capital Cost (\$YOE)</b>	\$512.50 million
<b>Section 5309 Share (\$YOE)</b>	\$162.60 million
<b>Annual Operating Cost (\$1997)</b>	\$25.60 million
<b>Ridership Forecast (2015)</b>	25,000 daily boardings 9,000 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Low- Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The Federal Transit Administration issued a Finding of No Significant Impact for the project in February 1996. Environmental documentation for the park and ride lots, which was not included in the Environmental Assessment, is under review. Preliminary Engineering was substantially completed in April 1998 and is being finalized. Some elements of the project have proceeded into final design. The drafting of vehicle specifications is being completed. The project is included in the financially constrained long range plan adopted by the Southwest Pennsylvania Regional Planning Commission, the Pittsburgh area MPO.

Section 3030(a)(98) of the Transportation Efficiency Act for the 21<sup>st</sup> Century (TEA-21) authorize the "Pittsburgh – Stage II Light Rail" for final design and construction. In FY 1999, Congress appropriated \$3.97 million of Section 5309 New Starts funds for the project. Through FY 1999, \$102.7 million in Section 5309 Fixed Guideway Modernization funds, including local match, have been appropriated to this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. N/A indicates that the data are not available for a specific measure.

## Justification

Mobility Improvements

**Rating: Medium-High**

PAAC estimates the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	2.7 million	1.3 million

Based on 1990 Census data, there are an estimated 650 low-income households within a ½ mile radius of stations of the proposed Stage II Light Rail project.

Environmental Benefits

**Rating: Medium**

The Pittsburgh Metropolitan Area is a moderate non-attainment area for ozone. PAAC estimates that in 2015, the Stage II LRT would result in the following annual emissions reductions.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 82 annual tons	decrease of 55 annual tons
Nitrogen Oxide (NO <sub>x</sub> )	decrease of 10 annual tons	decrease of 6 annual tons
Volatile Organic Compounds (VOC)	decrease of 11 annual tons	decrease of 7 annual tons
Particulate Matter (PM <sub>10</sub> )	decrease of 1 annual ton	No change
Carbon Dioxide (CO <sub>2</sub> )	decrease of 921 annual tons	decrease of 1,096 annual tons

In 2020, the Stage II LRT project is estimated to result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	decrease of 9,395 million annual BTU	decrease of 13,662 million annual BTU

#### Operating Efficiencies

**Rating: Not Rated**

Information is not available on the systemwide operating cost per passenger mile.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile	N/A	N/A	N/A

#### Cost Effectiveness

**Rating: Medium-High**

PAAC estimates the following cost effectiveness indices.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$10.50	\$7.00

Values reflect 2015 ridership forecast and escalated dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Low-Medium**

The *Low-Medium* Land Use rating reflects the low residential and employment densities in most of the corridor. The Stage II LRT alignment traverses older small communities, as well as

massive forest and agricultural lands, in outlying areas and a compact and relatively dense CBD. The CBD contains a high amount of employment as well as other major trip generators and growing residential and entertainment uses. CBD zoning allows high-density development and parking incentives for transit proximity businesses, with consideration underway for further residential and other non-office uses. In contrast to the CBD, there are no major employment centers or trip generators, except for a shopping mall, elsewhere in the corridor, and only limited opportunities exist for additional residential and neighborhood commercial development. The number and location of stations for the Stage II LRT has not yet been determined.

The Pittsburgh Downtown Plan recommends specific policies and actions to increase commercial, retail, and residential development downtown and to improve the pedestrian streetscape, including implementation of a TIF district for new office development to support a new rail station. The Port Authority has identified several, although relatively minor, joint development opportunities along the corridor. However, no other specific policies supportive of transit-oriented development in the Stage II LRT corridor have been established, nor is there any indication of local municipal interest in significantly changing the nature or scale of development in the corridor or adjacent to transit stations.

## **Other Factors**

The Stage II LRT involves reconstruction of an existing line to improve the level of transit service for existing users in the corridor. Land uses along the parallel Stage I corridor are more supportive of transit, but this route is slower for commuters from the southern half of Allegheny County. The Stage II LRT is in part a response to service issues created by the existing high intensity of land uses, and resulting high number of stops and trips, along the Stage I line.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 68%**

The Port Authority proposes \$162.60 million (31.7 percent) in Section 5309 New Starts funds for the project. A major component of proposed project funding is \$111.7 million (21.8 percent) in Section 5309 Fixed Guideway formula money. PAAC has banked about 65 percent of its 5309 Fixed Guideway formula funds over the last seven years for Stage II LRT (totaling \$102.7 million, including the 20 percent local match), as it is rebuilding and extending an existing rail system. PAAC has earmarked another \$56.3 million in future Fixed Guideway funds for the Stage II LRT, which also includes the 20 percent local match. PAAC also proposes use of \$125.70 million (24.5 percent) in Federal flexible funds. In sum, the Stage II LRT project costs would be 78 percent Federally funded, with \$112.50 million or 22 percent funding from State and local sources.

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Low**

The capital financing plan is rated *Low* based on the uncertainties associated with the proposed funding strategies, as well as financing the projected short term deficits. Although the PAAC is a very strong, financially conservatively run transit agency, nearly ¼ of the proposed project financing, \$125.7 million, relies on Federal flexible funds. PAAC is assured of getting only \$5.07 million of these flex funds, or 1.0 percent of project funding. For about 90 percent of the remaining flex funds, PAAC is looking to new flex funds apportioned by the State under TEA-21

to try to bypass the MPO (requiring a veto by the MPO if the State approves), and about 10 percent directly from the MPO. The MPO has been reluctant to provide this level of funding in the past. Therefore, the ability of PAAC to obtain the needed flex funds is uncertain.

Additionally, PAAC has projected an unfunded deficit for years 2001-2003 totaling \$81 million (15 percent of project cost). To finance these shortfalls, PAAC proposes to get the State or Allegheny County to advance funding (an action for which there is precedent in recent past), or to temporarily borrow some of the Section 5309 Fixed Guideway Modernization or Section 5307 formula block grant monies received annually. It is reasonable to expect that PAAC could procure \$11 million short term, but PAAC would have to issue tax exempt commercial paper for two years to fund approximately \$30 million shortfall in 2002 and 2003. Interest and underwriting costs for such an issuance could add about \$2 million to project costs.

Local funding is considered secure based on an earmark in the State's budget and the past performance of Allegheny County providing its share of project capital costs.

However, the integration of the Stage I and Stage II projects has resulted in a 4 percent (\$19.60 million) increase of project costs over the past year, while an additional \$30 million worth of new cost items have been added to the Stage II project. Further, PAAC has reduced its capital cost contingency factor by 2 percent, while allowing less margin for overrun. A range of \$50 to \$90 million in additional Stage I project costs are expected to be financed with Section 5309 Fixed Guideway Modernization funds, substantially reducing the availability of these funds as a reserve for capital funding of Stage II LRT for Federal shortfalls or project cost overruns.

**Stability and Reliability of Operating Finance Plan**

**Rating: Medium-High**

The *Medium-High* operating finance plan rating reflects the reliable State support of transit operating subsidies. PAAC's operations are financially sound, with the agency running a small surplus for two of the past three years. Twenty-one percent of total expenses are covered by farebox revenues. Pennsylvania has recently approved enhanced funding for transit operating subsidies in the State, resulting in 14 percent of total expenses being covered by dedicated State formula funds, and an additional 9.5 percent being covered by non-dedicated State operating assistance. Allegheny County must also match the fixed percentage of total State operating assistance directly appropriated annually from the State budget at a 1 to 3 ratio. The remainder of PAAC's operating expenses are expected to be covered by a combination of other State and Federal funding sources. The Stage II LRT project is estimated to have minimal impact on both system revenues and system operating costs.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		

Section 5309 New Starts	\$162.60	\$3.97 million appropriated through FY 1999
Flexible Funds	\$125.70	\$102.70 million appropriated through FY 1999
Section 5309 Fixed Guideway Modernization	\$111.70	
<b>State:</b>		
Commonwealth of Pennsylvania	\$85.42	
<b>Local:</b>		
Allegheny County	\$17.08	
City of Pittsburgh	\$10.00	
<b>Total:</b>	<b>\$512.50</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[\[Pittsburgh Stage II LRT Map \(PDF\)\]](#)**

# Portland, Oregon/South-North Corridor

## Portland (South-North Corridor)

Portland, Oregon

(November 1998)

### Description

A 16-mile South-North Light Rail Transit (LRT) line is being proposed by the Tri-County Metropolitan Transportation District of Oregon (Tri-Met) to connect the Clackamas Regional Center, the Portland Central Business District (CBD) and North Portland. Transfers to the 33-mile east/west line will be possible on both sides of the Willamette River. A future phase of the project will connect to Vancouver, Washington.

The South-North project is proposed to be constructed in two segments. The 12-mile, minimum operable segment (MOS), connects the Clackamas Regional Center, downtown Portland, and the Rose Quarter and is estimated to cost \$1.2 billion in year of expenditure (YOE) dollars. The second segment is a four-mile extension to North Portland. The cost for the extension is estimated to be \$425 million in escalated dollars.

### Portland South-North Corridor Summary Description

<b>Proposed Project</b>	Light Rail Line (MOS-1); 12 miles, 20 stations
<b>Total Capital Cost (\$YOE)</b>	\$1,186.3 million
<b>Section 5309 Share (\$YOE)</b>	\$636.3 million
<b>Annual Operating Cost (\$1997)</b>	\$18.3 million (Clackamas to Kenton)
<b>Ridership Forecast (2020)</b>	42,700 average daily boardings 30,700 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings**

**and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The Federal Transit Administration (FTA) approved the initiation of preliminary engineering on the South-North LRT project in April 1996. In February 1998, the Draft Environmental Impact Statement was completed. The Final Environmental Impact Statement is scheduled for publication in April 1999. The project is included in the Metropolitan Transportation Plan for both Portland and Vancouver.

In November 1998, voters rejected an affirmation of a \$475 million General Obligation bond measure previously approved to fund construction of the South-North LRT. Tri-Met is currently evaluating alternative funding strategies to implement the system.

TEA-21 Section 3030(a)(66) authorizes the Portland South-North Corridor LRT project for final design and construction. TEA-21 Section 3030(c)(1)(A)(xxxvii) makes available \$25 million in Section 5309 funding for the Portland South-North Corridor LRT. Through FY 1999, Congress has appropriated \$ 9.0 million in Section 5309 New Start funds for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Most of the criteria are presented for the proposed 16-mile South/North LRT. Assessments and ratings of the Land Use and Financial criteria are based on the 12-mile MOS.

## Justification

### Mobility Improvements

#### Rating: Medium

Tri-Met estimates the following travel time savings for the LRT project, compared to the No-Build and TSM alternatives.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	4.8 million	1.7 million

Based on 1990 U.S. Census data, there are an estimated 5,492 low-income households within a ½ mile radius of the proposed 20 stations, representing 19.4 percent of all households within the corridor.

### Environmental Benefits

#### Rating: Medium

The Portland/Vancouver Metropolitan region is currently in attainment for both ozone and carbon monoxide. South-North LRT and related land use densities are a major component of the region's air quality maintenance plan. N/A indicates that data are unavailable for this specific measure.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 424 annual tons	decrease of 269 annual tons
Nitrogen Oxide (NOx)	decrease of 113 annual tons	decrease of 45 annual tons
Volatile Organic Compounds (VOC)	decrease of 48 annual tons	decrease of 32 annual tons
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Carbon Dioxide (CO <sub>2</sub> )	decrease of 4,884 annual tons	decrease of 6,792 annual tons

Tri-Met estimates that the South-North LRT would result in the following reductions in regional energy consumption (measured in British Thermal Units -- BTU).

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	decrease of 61,950 million annual BTU	decrease of 75,677 million annual BTU

#### Operating Efficiencies

**Rating: Medium**

Metro estimates an increase in the systemwide operating cost per passenger mile compared to the No Build scenario and a decrease compared to the Transportation System Management (TSM) alternative.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2020)	\$0.42	\$0.46	\$0.43

Values reflect 2020 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Medium-High**

Metro estimates the following cost effectiveness indices.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger (1997)	\$8.25	\$10.18

Values reflect 2020 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

## **Rating: High**

The *High* land use rating reflects the range of high density trip generators in the corridor. These include the Portland CBD and several Regional and Town Centers, which Metro, the region's Metropolitan Planning Organization, designates as locations for high density commercial and residential activity. Several other high trip generators within the corridor include two clusters of medical facilities, Portland State University, the Oregon Museum of Science and Industry, the Rose Garden Arena, the Oregon Convention Center, and the Portland Metropolitan Exposition Center. Regionally, approximately two-thirds of jobs and 40 percent of households are planned to be in existing centers of development and along corridors served by bus and light rail.

The Oregon Transportation Planning Rule requires local jurisdictions to establish subdivision and development ordinances which promote transit and walking, and requires a 10 percent reduction in both parking and driving per capita over twenty years. Transit supportive land use controls, including growth boundaries to constrain sprawl, are in place in both the Washington and Oregon portions of the corridor. There are transit supportive plans and station area planning activities in all jurisdictions along the corridor. The Urban Growth Management Functional Plan, which relies on maximum parking ratios to encourage compact development, is a specific example of transit supportive activity.

In May 1995, FTA awarded Tri-Met a \$1.6 million Livable Communities Initiative grant for the Sunnyside Village Project. The funds were used to design and construct a transit plaza and other features as part of a mixed use, neotraditional land development. The Village is located on the Southeast edge of the South-North LRT Corridor.

## **Other Factors**

**Light Rail to the Portland International Airport:** The City, Port, and Tri-Met entered into a formal public/private funding agreement with Bechtel, Inc. to extend the existing LRT system six miles to the airport by Fall 2001. The \$125 million design-build project requires no Federal funding and is currently in Final Design.

**Project Management Capabilities and Experience:** During the past two decades the region has completed nearly \$1.5 billion of light rail construction on time and within budget. Since September 1998, the Westside-Hillsboro project has been operating and serving more riders than projected.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 47%**

The Tri-Met financial plan proposes \$636.3 million (53 percent) in Section 5309 New Start funds, and \$550 million (47 percent) in State, local, and Federal flexible funds for the project.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Low**

This *Low* rating reflects the lack of committed non-Federal funds for the project. In November 1994, Portland region voters approved a \$475 million General Obligation (GO) bond measure for the project. Voters did not re-approve the GO bonds in a November 1998 referendum. Tri-Met is

re-examining project financing alternatives, such as segmenting the project into shorter interim operating segments and developing a revised financial plan. Clackamas County has committed \$10 million in tax-increment financing charges to the MOS-1 project. Flexible funds (STP) are still committed to the project.

**Stability and Reliability of Operating Finance Plan**

**Rating: Medium-High**

The *Medium-High* operating financing plan rating reflects Tri-Met's stable operating revenue stream. The projected operating cash flow analysis indicates an ability to maintain service with the expansion of the transit system. The future growth rate of 6.6 percent for employer payroll tax proceeds - the source of 63.7 percent of operating revenue - appears realistic and conservative given historical trends and the regional economic outlook. Projected farebox recovery ratios are comparable to ratios for the existing Eastside MAX (Metropolitan Area Express) LRT service (projected 30 percent compared to 35 percent for Eastside service). The combination of the projected growth rate of the employer payroll tax and the farebox recovery ratio would support the annual operating cost of \$18.3 million for the Clackamas to Kenton segment. The loss of the GO bond measure in November 1998 does not affect the operations and maintenance financial plan.

**Locally Proposed Financing Plan (MOS-1)**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal:</b>		
Section 5309 New Starts	\$636.30	\$9.00 million appropriated through FY 1999
STP Funds	\$55.00	
<b>Local:</b>		
G.O. Bonds	\$475.00	
Tri-Met Funds	\$10.00	
Regional Compact	\$10.00	
<b>Total:</b>	<b>\$1,186.30</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Portland South-North Corridor Map (PDF)]**

# Raleigh, North Carolina/Regional Transit Plan Phase I Regional Rail-- Durham to North Raleigh

## Regional Transit Plan Phase I Regional Rail - Durham to North Raleigh

Raleigh-Durham-Chapel Hill MSA, North Carolina

(November 1998)

### Description

The Phase I Regional Rail project is the proposed initial segment of a three-phased regional transit plan for linking the three counties -- Wake, Durham, and Orange -- in the Triangle Region of North Carolina. In Phase I, the Triangle Transit Authority (TTA) intends to initiate regional rail service from Durham to downtown Raleigh and from downtown Raleigh to North Raleigh. TTA proposes to use Diesel Multiple Unit (DMU) rail vehicles to serve the 16 anticipated Phase I stations.

Phase I of the Regional Rail Project will use the existing North Carolina Railroad and CSX rail corridors to connect Duke University, downtown Durham, Research Triangle Park, RDU Airport, Morrisville, Cary, North Carolina State University, downtown Raleigh, and North Raleigh. Phase I is estimated to carry an estimated 14,000 riders a day by the year 2020. The capital cost estimate for Phase I totals \$284 million (escalated dollars). The cost estimate includes final design, acquisition of right-of-way and rail vehicles, station construction, park and ride lots, and construction of storage and maintenance facilities.

### Regional Transit Plan Summary Description

<b>Proposed Project</b>	Commuter Rail (Diesel Multiple Units) 35 miles, 16 stations (Phase I)
<b>Total Capital Cost (\$YOE)</b>	\$284.0 million
<b>Section 5309 Share (\$YOE)</b>	\$111.0 million
<b>Annual Operating Cost (\$1997)</b>	\$9.4 million
<b>Ridership Forecast (2020)</b>	14,000 daily boardings 6,000 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium</b>

<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In 1995, TTA completed the Triangle Fixed Guideway Study, which was funded with \$750,000 from FTA's Section 5313 planning program. The Authority's Board of Trustees has adopted the study's recommendations to put into place a regional rail system, and resolutions of support have been received from all major units of local government, chambers of commerce, universities, and major employers in the Triangle.

The two metropolitan planning organizations within whose jurisdiction the rail service will operate have incorporated the study recommendations into their fiscally constrained long-range plans. Phase I of the regional rail project is included in the two local 1998-2004 TIPs and the STIP. In January 1998, TTA initiated Preliminary Engineering and the preparation of an Environmental Impact Statement. Negotiations with the railroads for access and station location planning are underway. TTA anticipates completion of Preliminary Engineering and a Record of Decision by January 2000.

TEA-21 Section 3030 (a) (68) authorizes the project for final design and construction. Through FY 1999, Congress has appropriated \$23.87 million in Section 5309 New Starts funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. TTA's FY 2000 criteria submittal did not include a comparison to a No-Build alternative. N/A indicates data are not available for a specific measure.

## Justification

### Mobility Improvements

**Rating: Low-Medium**

TTA estimates the following annual travel time saving under the Phase I Regional Rail Plan Alternative compared to the TSM Alternative.

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	N/A	1.3 million

Based on 1990 census data, there are an estimated 1,325 low-income households within a ½ mile radius of the proposed 16 stations of Phase I, approximately 13 percent of the total households within ½ mile of stations.

**Environmental Benefits**

**Rating: Medium**

The Raleigh-Durham Metropolitan Area is designated a moderate maintenance area for ozone and a maintenance area for carbon monoxide. TTA estimates that in 2020, Phase I of the Regional Rail project will result in the following emissions reductions for CO and VOC. However, TTA projects an increase in NOx emissions.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	N/A	decrease of 1,168 annual tons
<b>Nitrogen Oxide (NOx)</b>	N/A	increase of 95 annual tons
<b>Volatile Organic Compounds (VOC)</b>	N/A	decrease of 69 annual tons
<b>Hydrocarbons (HC)</b>	N/A	N/A
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	N/A	N/A

TTA did not provide information on annual energy savings.

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	N/A	N/A

**Operating Efficiencies**

**Rating: High**

TTA projects a decrease in a systemwide operating cost per passenger mile in the year 2020 for the Phase I Regional Rail Plan compared to the TSM.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (1996)</b>	N/A	\$0.58	\$0.44

Values reflect 2020 ridership forecast and 1996 dollars.

**Cost Effectiveness**

**Rating: Medium**

TTA estimates the following cost-effectiveness index for the Regional Rail alternative compared to the TSM alternative.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	N/A	\$11.62

Values reflect 2020 ridership forecast and 1996 dollars.

**Transit-Supportive Existing Land Use and Future Patterns**

**Rating: Medium**

The project's *Medium* rating reflects the positive recent efforts of the TTA and local jurisdictions to better integrate surrounding land use with proposed station areas. Each major municipality along the corridor has established policies in its comprehensive plan for promoting transit-oriented development. In addition, TTA has developed conceptual plans for station areas and distributed transit-oriented guidelines. Jurisdictions in the corridor are using these guidelines to develop local area plans and revise zoning ordinances. Durham, out of the three counties, is the most advanced in transit-oriented planning and has drafted an overlay district with transit supportive guidelines/requirements. Three reuse/redevelopment projects are proposed in Raleigh and Durham within station areas. Adjacent to the proposed rail stations are a variety of land uses: moderately high density employment in downtown Raleigh and the medical center in Durham; low to medium density by the university and in the residential areas. In addition, commercial development is also adjacent to the station areas. A number of special event destinations; a large, high employment research and development park are all in the heart of the Triangle. Growth in the corridor through 2025 is expected to be significant (roughly 50 to 75 percent); however, this growth represents a declining share of regional population and employment.

**Local Financial Commitment**

**Proposed Non-Section 5309 Share of Total Project Costs: 61%**

TTA proposes that the State of North Carolina will provide \$71.0 million (25 percent) to construct Phase I of the Regional Rail project. The local commitment to the project is estimated at \$71.0 million (25 percent). FTA participation is proposed to include \$111.0 million (39 percent) in Section 5309 New Starts funds and \$31.0 million (11 percent) in Federal Section 5307 funds.

**Stability and Reliability of Capital Financing Plan**

**Rating: Medium**

The *Medium* capital plan reflects the demonstrated local financial commitment to the project, but acknowledges the potential risk with some funding sources and the overall magnitude of the investment, relative to other capital projects undertaken by the TTA. TTA's current financial condition is healthy and in balance; there are strong cash and investment reserves. The State of North Carolina has committed to providing a 25 percent share of the project costs through a combination of state grants, designation of flexible Federal funds, and a donation of existing right-

of-way owned by the state. While the current financial plan fully identifies the sources of all Federal, state, and local capital funds, it does not identify specific details on the project's future revenues. In addition, the agency's planned investments over the next 5 to 7 years total \$340 million, greatly exceeding the replacement value of TTA's existing asset base. The local project share will be funded using a combination of dedicated TTA sources including TTA's dedicated Vehicle Registration revenue and a 5 percent tax on rental vehicles (effective January 1, 1998). The capital financing plan assumes a 7.5 percent annual growth rate in these revenues, which are intended to cover 25 percent of debt servicing costs for a bond financed Rail Car procurement for the project. Failure to attain the projected 7.5 percent rate of growth for this source represents a potential risk to the financial plan. There is an additional 17 percent contingency built into the project's capital cost estimates.

**Stability and Reliability of Operating Finance Plan**

**Rating: Low-Medium**

The *Low-Medium* operating finance rating reflects the project's dedicated operating revenue stream but considers uncertainties regarding the final operating plan and lack of rail experience. TTA's operating plan assumes increases in ridership and service with planned bus expansions in 1999, 2000, and 2004. Annual O&M costs for Phase I total \$9.4 million. These estimates appear realistic given the proposed project's size and assumed ridership and service levels. TTA plans to use an innovative 5 percent tax on rental vehicles as part of the proposed project's operating costs. The current financial plan assumes a 5.3 percent annual increase in bus ridership. In FY 1996 and FY 1997, TTA's farebox recovery ratio increased from 9 percent to 11 percent, respectively. Fare revenues from rail operations of the proposed project are assumed to cover 20 percent of operating costs.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Starts</b>	\$111.0	\$23.87 million appropriated through FY 1999
<b>Federal: Section 5307 Urbanized Area Formula Funds</b>	\$31.0	
<b>State:</b>	\$71.0	
<b>Local:</b>	\$71.0	
<b>Total:</b>	<b>\$284.0</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Regional Transit Plan Map \(PDF\)](#)**

# Salt Lake City, Utah/Downtown Connector

## Downtown Connector

Salt Lake City, Utah

(November 1998)

### Description

The Utah Transit Authority (UTA) has proposed the implementation and operation of light rail transit (LRT) along a 10.9 mile corridor extending from the Salt Lake City International Airport (SLCIA) east through downtown Salt Lake City and terminating at the University of Utah. Initially, the UTA will construct an approximately one mile LRT segment which will complete the connection between the UTA's North South LRT line (currently under construction) and several destinations in downtown Salt Lake City, including the planned Salt Lake City Gateway Intermodal Terminal and related development in the Gateway District of the CBD.

Preliminary capital cost estimates for the Downtown Connector total \$74.8 million (escalated dollars), with annual operating costs estimated at \$400,000. The total capital cost estimate of the 10.9 mile West-East LRT line equals \$492.0 million (escalated dollars), with annual operating costs projected at \$8.0 million (escalated dollars). UTA's preliminary estimates for daily ridership on the Downtown Connector is 2,500 passengers. Ridership is estimated at 16,939 riders per day in 2020 on the entire 10.9 mile West-East LRT line.

### Downtown Connector Summary Description

<b>Proposed Project</b>	Light Rail Line; 1.0 mile Downtown Connector; (Ratings on 10.9 mile West-East light rail line)
<b>Total Capital Cost (\$YOE)</b>	\$74.8 million
<b>Section 5309 Share (\$YOE)</b>	\$59.8 million
<b>Annual Operating Cost (\$YOE)</b>	\$0.4 million
<b>Ridership Forecast (2020)</b>	2,500 daily boardings
<b>FY 2000 Financial Rating:</b>	<b>Low</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The Wasatch Front Regional Council (WFRC) completed a Major Investment Study and Draft Environmental Impact Statement in July 1997 on the West-East Corridor. FTA approved entry into preliminary engineering on the 10.9 mile West-East LRT in January 1998. The Final Environmental Impact Statement on the project will be published in early 1999, with a Record of Decision anticipated shortly thereafter.

TEA-21 Section 3030(a)(72) authorizes the Salt Lake City – Light Rail (Airport to the University of Utah) for final design and construction. Section 3030(c)(2)(B) authorizes \$640 million in non-guaranteed Section 5309 New Starts funding for several projects supporting the Salt Lake City Winter Olympic Games, including the Airport to University of Utah Light Rail. Section 1223 authorizes the provision of assistance to States and local governments in carrying out transportation projects relating to the Olympic Games. Through FY 1999, Congress has appropriated \$5.0 million in Section 5309 New Starts funds for the West-East LRT project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria* for the entire 10.9-mile West-East corridor. *FTA's evaluations and ratings apply to the full 10.9-mile corridor.* The UTA does not yet have specific New Starts criteria for the Downtown Connector.

### Mobility Improvements

#### Rating: Low-Medium

The UTA estimates the following changes in travel time. Note that the West-East LRT line demonstrates a travel time savings compared with the No-Build alternative, and results in a travel time increase compared with the TSM alternative.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings	decrease of 0.5 million hours	increase of 0.3 million hours

Based on the 1990 US Census, the UTA estimates that 4,540 low-income households are located within ½ mile of the proposed 15 stations of the West-East LRT line. This figure represents 27.3 percent of all households located within ½ mile of proposed stations.

### Environmental Benefits

#### Rating: High

Salt Lake City is designated as nonattainment for carbon monoxide and PM<sub>10</sub>, and Salt Lake and Davis Counties are designated as maintenance areas for ozone. The UTA estimates the following annual emissions reductions between the West-East LRT line and the TSM and No-Build alternatives.

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	decrease of 51 annual tons	decrease of 31 annual tons
<b>Nitrogen Oxide (NOx)</b>	decrease of 37 annual tons	decrease of 22 annual tons
<b>Hydrocarbons (HC)</b>	decrease of 303 annual tons	decrease of 166 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	decrease of 38 annual tons	decrease of 21 annual tons
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 16,719 annual tons	decrease of 18,688 annual tons

The UTA estimates the following savings in regional energy consumption (measured in British Thermal Units – BTU) for the West-East LRT.

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	decrease of 163,768 million annual BTU	decrease of 188,761 million annual BTU

#### Operating Efficiencies

**Rating: Medium**

UTA estimates the following systemwide operating costs per passenger mile following implementation of the West-East LRT:

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.26	\$0.26	\$0.26

Values reflect 2020 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Low-Medium**

The UTA estimates the following cost effectiveness indices for the West-East LRT compared to the No-Build and TSM alternatives.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$9.95	\$16.81

Values reflect 2020 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

#### Rating: Low-Medium

The *Low-Medium* Land Use rating reflects the entire 10.9 mile West-East LRT, and is based on the low densities found in the West of the corridor and the lack of strong transit-supportive and managed growth policies regionwide. The West-East corridor connects three major employment centers: the airport, the CBD, and the University of Utah. Development between the airport and downtown is generally low in density, and intensifies towards the CBD. East of downtown and towards the University is primarily medium density residential and commercial development. The Downtown Connector will serve the Salt Lake City CBD, which contains approximately 50,000 jobs, or 13% of regional employment. The City is pursuing higher density development downtown, most notably with the mixed-use Gateway District development on the western edge of the CBD. In addition, the City has adopted parking policies to reduce parking requirements downtown and encourage shared parking. The region has begun examining growth management strategies, but no policies have yet to be adopted. The majority of future employment and residential growth in the region is forecast to occur outside of Salt Lake City.

### Other Factors

2002 Olympic Games: The East-West corridor Downtown Connector is proposed to be completed prior to the 2002 Olympic Games, and will serve to improve mobility and access to downtown events and to the North-South LRT line. The plan for the Olympics is that all ticket holders will travel to venues and events by transit.

### Local Financial Commitment

#### Proposed Non-Section 5309 Share of Total Project Costs: 20%

Preliminary financial estimates for the Downtown Connector propose to use \$59.8 million (80 percent) in Section 5309 New Starts funds and \$15 million (20 percent) in local resources to fund the capital costs of the project.

### Stability and Reliability of Capital Financing Plan

#### Rating: Low

The *Low* capital plan rating reflects the 10.9 mile West-East LRT line, and is based on the lack of local financial commitment to constructing the project. The UTA is currently developing a financial plan for the Downtown Connector project. UTA proposes that the \$15 million local match for the Downtown Connector would be provided through a combination of leveraged lease funds, bonding, local cash reserves, and sale of excess UTA property.

### Stability and Reliability of Operating Finance Plan

**Rating: Low**

The *Low* operating plan rating reflects the 10.9 mile West-East LRT, and is based on the lack of a committed revenue source for operating the line. The UTA estimates annual operation and maintenance costs for the Downtown Connector at \$400,000. UTA believes that these costs can be absorbed within the current UTA revenue stream. UTA receives a dedicated ¼ percent sales tax to support transit operations.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Start</b>	\$59.8	\$4.96 million appropriated to the West-East LRT through FY 1999
<b>State/Local:</b>	\$15.0	
<b>Total:</b>	<b>\$74.8</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Downtown Connector Map \(PDF\)](#)**

# San Diego County, California/Mid Coast Corridor

## Mid Coast Corridor

San Diego, California

(November 1998)

### Description

The Metropolitan Transit Development Board (MTDB) is planning to construct a 10.7-mile light rail line and improve two commuter rail stations in the Mid-Coast Corridor. The corridor extends approximately 12 miles along I-5, from I-8 near Old Town, north to the vicinity of the University of California at San Diego, University City, and Carmel Valley. The proposed light rail extension includes 9 stations. The line would connect the existing Blue LRT line serving Mission Valley, Downtown San Diego, South Bay communities and the border with Mexico, as well as with the Coaster Commuter Rail line at the Old Town Transit Center. MTDB is pursuing Section 5309 New Starts funding on an initial 3.4-mile phase, the Balboa Extension from Old Town to Balboa Avenue. The estimated project cost is \$104.6 million (escalated). The commuter rail improvements consist of the construction of a new station and the implementation of pedestrian enhancements to the existing Sorrento Coaster Commuter Rail Station.

### Mid Coast Corridor Summary Description

<b>Proposed Project</b>	Light rail extension and commuter rail improvements 3.4 initial phase, 3 stations
<b>Total Capital Cost (\$YOE)</b>	\$104.6 million
<b>Section 5309 Share (\$YOE)</b>	\$54.7 million
<b>Annual Operating Cost (\$YOE)</b>	\$4.4 million
<b>Ridership Forecast (2015)</b>	22,599 average daily boardings 10,256 daily new riders
<b>FY 2000 Financial Rating:</b>	High
<b>FY 2000 Project Justification Rating:</b>	Medium-High
<b>FY 2000 Overall Project Rating:</b>	Highly Recommended

The overall project rating applied to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings**

**and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

**Status**

The Mid Coast Locally Preferred Alternative was selected in October 1995. FTA approved the MTDB’s request to enter Preliminary Engineering (PE) for the 3.4-mile initial phase of the LRT extension in September 1996 and for the Coaster commuter rail station improvements in May 1997. The Mid Coast projects were included in the Long Range Plan and Transportation Improvement Plan in 1996.

The Coaster stations and the Phase I Balboa Light Rail Transit Extension are being combined into one initial project, and are proceeding through PE and the Final Environmental Impact Statement (FEIS) together, scheduled to be completed in January 1999. An Environmental Assessment is being prepared for the addition of parking to the existing commuter rail station and is also scheduled for completion in January 1999. TEA-21 Section 3030(a)(75) authorizes the Mid Coast LRT Corridor for final design and construction. Through FY 1999, Congress has appropriated \$7.06 million in Section 5309 New Start funds to the project.

**Evaluation**

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Information reflects both the 3.4 mile initial phase of the Mid Coast LRT and the Coaster commuter rail station improvement projects. The MTDB did not provide criteria on a TSM alternative. N/A indicates that data are not available for a specific measure.

**Justification**

**Mobility Improvements**

**Rating: Medium-High**

MTDB estimates that the Mid Coast light rail extension and the Coaster station rail improvements will attract 10, 256 daily new riders by 2015 and would result in the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	1.1 million	N/A

Based on 1990 Census data, there are an estimated 258 low-income households within a 1/2 mile radius of the proposed 3 stations, or roughly 8 percent of total households within 1/2 mile of proposed stations.

**Environmental Benefits**

**Rating: High**

The San Diego region is a "serious" non-attainment area for ozone, and a moderate non-attainment area for carbon monoxide. MTDB estimates the following annual emissions reductions.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	decrease of 179 annual tons	N/A
<b>Nitrogen Oxide (NOx)</b>	decrease of 23 annual tons	N/A
<b>Volatile Organic Compounds (VOC)</b>	decrease of 15 annual tons	N/A
<b>Particulate Matter (PM<sub>10</sub>)</b>	decrease of 2 annual tons	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 13,425 annual tons	N/A

MTDB estimates that in 2010, the LRT extension and the Coaster station rail improvements will result in the following savings in regional energy consumption (measured in British Thermal Units - BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	decrease of 175,016 million annual BTU	N/A

#### Operating Efficiencies

**Rating: Medium**

MTDB estimates the following costs per passenger mile for the LRT extension and the Coaster station rail improvements.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2015)</b>	\$0.22	N/A	\$0.22

Values reflect 2015 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: High**

MTDB estimates the following cost effectiveness indices.

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$3.58 million	N/A

Values reflect 2015 ridership forecast and 1997 dollars.

## Transit-Supportive Existing Land Use and Future Patterns

### **Rating: Medium**

The *Medium* land use rating reflects some supportive land uses along parts of the corridor, but acknowledges the proactive land use planning efforts of the MTDB and the City of San Diego. The corridor contains two distinct land use patterns. Interstate 5 and the recreational facilities of Mission Bay encompass most of the area to the west of the proposed rail alignment. The eastern portion of the corridor contains residential, commercial, and industrial development. Residential multiple family housing development is planned around the proposed light rail stations. The Nobel Drive Coaster Station serves the University Towne Center, a dense multi-use area containing 1 million square feet of retail space, office buildings, high density residential space, and hotels. Extensive pedestrian paths, pedestrian amenities, and pedestrian-oriented street design are incorporated in the University Community Plan. The City of San Diego adopted transit-oriented development design guidelines to provide a framework for redevelopment strategies, street and circulation system design, and transit facility design. The Regional Growth Management Strategy produced by the San Diego Association of Governments (SANDAG) encourages more intense residential and commercial development around rail stations. The MTDB has established joint development policies for all of its properties. An extensive community planning process forms the basis for land use planning in San Diego.

The City of San Diego has made steps to reduce the supply of parking around transit. City policy allows developers to reduce parking supply for multi-family dwellings and commercial areas near transit by 15% and for mixed-use developments based on shared parking ratios.

## Local Financial Commitment

### **Proposed Non-Section 5309 Share of Total Project Costs: 48%**

The financial plan for the 3.4 mile initial phase of Mid Coast LRT and the Coaster Stations includes \$54.7 million (52 percent) in Section 5309 New Start funds, \$0.6 million in Section 5307 funds, \$6.8 million (7 percent) in State funds, and \$42.9 million (41 percent) in local funds.

## Stability and Reliability of Capital Financing Plan

### **Rating: High**

The *High* rating reflects the fact that all non-Federal funds proposed for the project have been formally committed by state and local decisionmakers. The proposed Federal share has decreased from 63 percent of total project cost to 52 percent since last year's Annual New Starts Report. The high rating reflects the fact that all non-Federal funds proposed for this project have been committed by state and local decision makers. The largest single source of local funds originates from a 1/2 cent Transnet sales tax. This source has the financial capacity to fund the Mid Coast project as well as Mission Valley East and Oceanside-to-Escondido Commuter Rail projects for the Region. State funding sources are estimated to contribute approximately 7 percent of project capital costs and these funds are programmed in the current State Transportation Improvement Program (STIP). Cost estimates appear realistic given the project size. MTDB notes that the Federal contribution to the total San Diego Light Rail system since the

first line opened in 1981 will total 32 percent, including both the proposed Mission Valley East and the Mid Coast corridor projects.

**Stability and Reliability of Operating Finance Plan**

**Rating: High**

The *High* operating plan rating reflects the project’s dedicated operating revenue stream and the availability of reasonable and sound contingency funds to cover the project’s operations. The overall operating financial condition of MTDB appears strong. A proposed annual operating budget is estimated to be \$4.4 million. Approximately 54 percent of the operating funds are expected to come from farebox revenues. MTDB has been experiencing an increasing farebox recovery ratio and increasing ridership. Other sources of operating funds includes the state Transportation Development Act (TDA) funds and local Transnet sales tax; both of these funds are committed, reliable, and offer sufficient capacity to operate and maintain the existing system while implementing the Mid Coast projects.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$54.7	\$9.05 million appropriated through FY 1999
Section 5307 Funds	\$0.6	
<b>State:</b>		
TCI	\$1.8	
STIP	\$5.0	
<b>Local:</b>		
TransNet Tax	\$42.5	
<b>Total:</b>	<b>\$104.6</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Mid Coast Corridor Map (PDF)]**

# San Diego County, California Oceanside-Escondido Passenger Rail Project

## Oceanside-Escondido Passenger Rail Project

**North San Diego County, California**

(November 1998)

### **Description**

The North County Transit District (NCTD) is planning the conversion of an existing 22-mile freight rail corridor into a commuter rail transit system running east from the coastal City of Oceanside, through the Cities of Vista, San Marcos, and unincorporated portions of San Diego County, to the City of Escondido. A proposed new alignment will serve the California State University San Marcos (CSUSM), including an additional 1.7 miles of new rail right-of-way. The proposed project is situated along the State Route 78 corridor, which connects Interstate Highways 5 and 15, the principal east-west corridor in Northern San Diego County. The proposed rail system would serve fifteen stations; four of these stations would be located at existing transit centers. Average daily weekday ridership in the year 2015 is projected to total 15,100 and daily new riders are projected to be 8,590.

### **Oceanside-Escondido Summary Description**

<b>Proposed Project</b>	Light Rail Line 22 miles, 15 stations
<b>Total Capital Cost (\$YOE)</b>	\$213.7 million
<b>Section 5309 Share (\$YOE)</b>	\$124.0 million
<b>Annual Operating Cost (\$YOE)</b>	\$3.2 million
<b>Ridership Forecast (2020)</b>	15,100 daily boardings 8,590 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Highly Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed

through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

**Status**

An Environmental Impact Report (EIR) for the Oceanside-Escondido Rail Project and an EIR for the CSUSM alignment were published and certified in 1990 and 1991 respectively. A Major Investment Study was not required based on concurrence from FTA, FHWA, the San Diego Association of Governments (SANDAG), Caltrans, the City of San Marcos, and NCTD.

Advanced planning for the Oceanside-Escondido Rail Project, which resulted in 30 percent design, was completed in December 1995. The Environmental Assessment/Subsequent Environmental Impact Report (EA/SEIR), was completed in early 1997. The San Diego County Transit Development Board certified the SEIR in March 1997. FTA issued a Finding of No Significant Impact in October 1997.

Section 3030 (a)(77) authorizes the Oceanside-Escondido Rail Corridor for final design and construction. Through FY 1999 Congress has appropriated \$6 million in Section 5309 New Start funds and for this project.

**Evaluation**

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. N/A indicates that data is not available for a specific measure.

**Justification**

Mobility Improvements

**Rating: Medium-High**

NCTD estimates the project will result in the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings	decrease of 1.4 million hours	decrease of 0.7 million hours

Based on 1990 Census data, there are an estimated 1,706 low-income households within a ½ mile radius of the proposed 15 stations, approximately 12 percent of total households within ½ mile of proposed stations.

Environmental Benefits

**Rating: Medium**

The San Diego region is a "serious" non-attainment area for ozone, and a moderate non-attainment area for carbon monoxide. This project will help to eliminate the heavy congestion of northern San Diego County along the State Route 78 corridor. NCTD estimates that the project would result in the following annual emissions reductions.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	decrease of 96 annual tons	decrease of 43 annual tons
Nitrogen Oxide (NOx)	decrease of 1 annual ton	decrease of 12 annual tons
Volatile Organic Compounds (VOC)	decrease of 5 annual tons	decrease of 4 annual tons
Particulate Matter (PM <sub>10</sub> )	0	0
Carbon Dioxide (CO <sub>2</sub> )	decrease of 4,070 annual tons	decrease of 2,113 annual tons

NCTD estimates that in 2015, the project will result in the following savings in regional energy consumption (measured in British Thermal Units-BTU).

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	decrease of 54,464 million annual BTU	decrease of 29,045 million annual BTU

#### Operating Efficiencies

**Rating: Medium**

NCTD estimates the following systemwide operating cost per passenger mile in the year 2015.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (1997)	\$0.10	\$0.10	\$0.10

Values reflect 2015 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: High**

NCTD estimates the following cost effectiveness indices.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$3.77	\$5.36

Values reflect 2015 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The *Medium* land use rating reflects both the existence of low and moderate density along the corridor and the progress in the corridor to promote transit-supportive land use. The Oceanside-Escondido Corridor contains a dispersed mix of commercial, industrial, single, and multiple residential developments. Major activity centers include the central business districts in each of the incorporated cities in the corridor (Oceanside, Vista, San Marcos, and Escondido), several industrial complexes, two hospitals, two community colleges, a regional shopping mall, and the California State University at San Marcos (CSUSM). Ongoing corridor land use studies are identifying opportunities for pedestrian-oriented, mixed use development around the proposed stations. Several large scale mixed use developments are planned at the Oceanside Transit Center, including a large Oceanside Beach resort, convention center, entertainment center, retail, and affordable housing. The Oceanside downtown redevelopment district contains a Transit District Overlay Zone encouraging mixed use development and reduced parking requirements. The Escondido general plan includes infill development to improve existing neighborhoods and reduced parking requirements in the downtown area. The City of Escondido has adopted density bonuses to developers in exchange for the provision of affordable housing. Redevelopment plans in the Cities of Vista and San Marcos provide pedestrian design guidelines and propose major intensification of land use at the rail station. The NCTD has already made two joint development agreements with adjacent property owners for station access, off-site improvements, and parking.

## **Other Factors**

**Environmental Justice:** According to the 1990 Census data, 62% of the households within the project corridor are minority and low income residents.

**Multimodal Emphases:** This project was initially conceived as part of a multimodal corridor study of the State Route 78 corridor. This three-phase study evaluated a range of transportation alternatives in the 20-mile corridor including freeway, arterial, and transit improvements.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 42%**

The financial plan includes \$124 million (58 percent) in Section 5309 New Start funds, \$34.4 million (16 percent) in State funds, and \$55.3 million (26 percent) in local funds.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Medium-High**

The *Medium-High* capital plan rating reflects that local funding commitments are in place for the non-Federal share of project costs; however, there is little evidence of a reasonable contingency plan. The Oceanside-Escondido Rail project was approved by the San Diego County voters in 1987 as part of Proposition A. The local Transnet sales tax will contribute approximately \$26.8 million for implementation of the project. All other NonFederal funding sources are committed funds and projections indicate in the 20- year cash flow analysis that there will be sufficient funds to adequately fund the project. The railroad right-of-way and land acquisition was funded with state and local resources. In 1995, the North County Transit District (NCTD) completed the Coaster Rail project, a \$150 million, 42-mile commuter rail service, solely with state and local funds.

## Stability and Reliability of Operating Finance Plan

### Rating: Medium

The *Medium* operating plan rating reflects the stability of proposed operating funding sources, but concerns with O & M cost estimates and lack of contingencies. NCTD obtains operating funds from Transnet, a dedicated local sales tax created in 1971 to fund transit operations; Transit Development Act (TDA) funds; and the State Transit Assistance Fund (STAF). These state and local funds represent approximately 60 percent of NCTD's current operating expenses. Much of the operating revenues for the rail systems is derived from the users of the right-of-way. Through shared use agreements, NCTD receives approximately \$5 million per year from Burlington Northern Santa Fe and Amtrak. Other lease revenue is derived from the right-of-way and leases at transit centers and NCTD's administration building. Funds received from farebox revenues, advertising revenues, and other sources account for 25 percent of the operating budget. NCTD has an operating agreement for exclusive passenger rail use of the Escondido-Oceanside corridor during its defined operational schedule, while freight will have exclusive use outside this schedule. Annual O & M costs assume average annual inflation of 3 percent, which may be optimistic. Insufficient information was provided by the NCTD to determine the effectiveness of proposed sources in covering potential cost overruns.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$124.00	\$6.00 million appropriated through FY 1999
<b>State:</b>		
State 108	\$17.6	
State STIP	\$16.8	
<b>Local:</b>		
Transnet	\$55.3	
<b>Total:</b>	<b>\$213.7</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Oceanside-Escondido Passenger Rail Map \(PDF\)](#)**

# San Francisco, California/Third Street Light Rail Project

## Phase 1

### Third Street Light Rail Project Phase 1

San Francisco, California

(November 1998)

#### Description

The San Francisco Municipal Railway (MUNI) proposes the Third Street Light Rail Project which includes construction of a new light rail line located in the southeast sector of San Francisco and additional transportation improvements in the corridor. The 7.1-mile LRT line would operate at the surface from the Caltrain Bayshore Station at the south, connect to the existing LRT system in downtown San Francisco via Third Street, and extend into a subway terminating in Chinatown. The project would provide regional connections to BART and CalTrain at multimodal stations. Third Street Light Rail operations would include exclusive (subway) as well as semi-exclusive (street median) rights-of-way, using MUNI's existing high floor light rail vehicles.

Capital costs for the complete Third Street Light Rail Project total \$914.8 million in 1997 dollars, to be constructed in two phases. Phase 1, a minimum operable segment (MOS), would operate as a surface extension of the J-Church MUNI Metro line between the Market Street Subway and the Bayshore CalTrain Station, with an estimated construction cost of \$445.7 million (escalated dollars). Phase 2, the New Central Subway, would extend the line underground to a terminal in Chinatown, and is estimated to cost \$505.9 million (1997 dollars) to construct. The San Francisco County Transportation Authority (SFCTA) has identified at least \$347 million (1997 dollars) in local sales tax funds for the construction of Phase 1. MUNI is currently developing a financial plan to fully fund Phase 1.

#### Third Street Light Rail Summary Description

<b>Proposed Project</b>	Light Rail Transit Line (MOS); 5.6 miles, 19 stations
<b>Total Capital Cost (\$YOE)</b>	\$445.7 million
<b>Section 5309 Share (\$YOE)</b>	\$0.0 million
<b>Annual Operating Cost (\$YOE)</b>	\$11.0 million
<b>Ridership Forecast (2015)</b>	80,054 average weekday boardings 2,000 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium-High</b>

<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In October 1996, FTA authorized the initiation of Preliminary Engineering and the preparation of a Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR). In November 1997, MUNI began Preliminary Engineering for Phase 1 of the light rail alignment as well as the Metro East Maintenance Facility. In June 1998, the San Francisco Public Transportation Commission, which governs MUNI, designated a 2-phase light rail project as the Locally Preferred Alternative. Phase I Preliminary Engineering is expected to be complete by December 1998, with a Record of Decision anticipated by early 1999.

The Third Street Light Rail project is included in the current regional long-range plan, with the caveat that the first phase will be 100 percent locally-funded. Maintaining eligibility for future Federal participation is a high priority for the City. The project (Phases 1 and 2) would leverage approximately \$500-650 million in federal funds with an equal amount of local funds (in escalated dollars). From that amount of local funds, approximately \$404 million in local sales tax proceeds (in escalated dollars) is available and would be programmed for the first phase of this project. The SFCTA has asked the Metropolitan Transportation Commission (the region's MPO) to include the full Third Street Light Rail Project in the regional transportation plan.

TEA-21 Section 3030(a)(79) authorizes the San Francisco Bayshore Corridor for final design and construction. To date, no Federal funds have been appropriated for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Criteria are presented only for the 5.6-mile Phase 1 MOS. In agreement with FTA, the project is not evaluating separate No Build and TSM alternatives; these have been merged into a single alternative for the purposes of the environmental analysis. As a result, New Start criteria are reported for the comparison of the New Start (Phase 1) to the TSM alternative, and not for the comparison to the No Build alternative. N/A indicates that data are not available for a specific measure.

## Justification

Mobility Improvements

**Rating: Medium**

MUNI estimates that Phase 1 would result in the following annual travel time savings. (MUNI estimates that the Central Subway results in even greater travel time savings due to LRT extension into Chinatown, which will decrease travel times from the southern end to the northern end of the corridor.)

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	N/A	2.4 million

Based on 1990 census data, there are an estimated 5,988 low-income households within a 1/2 mile radius of the MOS corridor (representing 16.4 percent of all households located within 1/2 mile of the corridor).

#### Environmental Benefits

##### **Rating: Medium**

The San Francisco Area is a maintenance area for ozone, and in attainment for carbon monoxide, nitrogen oxides and particulate matter. MUNI estimates that in 2015, Phase 1 would result in the following emissions reductions.

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	N/A	decrease of 8 annual tons
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	N/A	decrease of 19 annual tons
<b>Volatile Organic Compounds (VOC)</b>	N/A	decrease of 1 annual ton
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	0
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	N/A	decrease of 3,503 annual tons

MUNI estimates that in 2015, Phase 1 would result in the following increase in regional energy consumption (measured in British Thermal Units - BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	N/A	increase of 16,661 million annual BTU

#### Operating Efficiencies

##### **Rating: Medium**

MUNI estimates that systemwide operating costs per passenger mile remain constant when comparing Phase 1 to the TSM alternative.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2015)	N/A	\$0.55	\$0.55

Values reflect 2015 ridership forecast and 1997 dollars.

#### Cost Effectiveness

**Rating: Low**

MUNI estimates the following cost effectiveness index.

Cost Effectiveness	New Start vs. No-Build	New Start vs. TSM
Incremental Cost per Incremental Passenger	N/A	\$34.82

Values reflect 2015 ridership forecast and 1997 dollars.

#### Transit-Supportive Existing Land Use and Future Patterns

**Rating: High**

The *High* Land Use rating reflects the urban character of the corridor and the role of local agencies in encouraging transit-supportive development. The entire Third Street LRT Corridor is densely populated and links central San Francisco with several transit dependent communities. Planned future development includes commercial and mixed use revitalization, housing, retail, recreation facilities, and the addition of the University of California at San Francisco (UCSF) research campus. MUNI and the City of San Francisco continue to encourage high-density development that is transit oriented and pedestrian friendly and that restricts parking. Detailed planning processes for new development along the corridor will develop specific design guidelines for both public improvements and private development to maximize the City's transit infrastructure.

#### Other Factors

**Criteria for Full Corridor:** MUNI also submitted to FTA New Starts criteria on the full 7.1 mile Third Street Light Rail project, including the New Central Subway. As compared to the TSM alternative, MUNI estimates improved cost-effectiveness (\$28.11) and travel time savings (2.4 million hours) for the full project.

**Economic Development:** One of the primary goals of the Third Street Light Rail Project is to serve as a catalyst to support the revitalization of San Francisco's Bayview Hunters Point community. MUNI's light rail planning and project development activities included the development of an Economic Revitalization Strategies Report. In addition, the San Francisco Redevelopment Agency is working with both MUNI and the community to produce a Revitalization Concept Plan.

**MTC Transportation for Livable Communities Grant:** MUNI was awarded a \$50,000 "Transportation and Livable Communities" planning grant in October 1998 by the MTC to address

pedestrian connections between transit and neighborhood retail, services and cultural facilities in the Bayview Town Center, and to explore opportunities for using public-private partnerships to achieve development objectives.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 100%**

The current financial plan for the Phase 1 MOS project does not include Federal Section 5309 New Starts funds. The financial plan includes \$7.6 million (2 percent) of Federal STP/CMAQ funds flexed at the State level.

### **Stability and Reliability of Capital Financing Plan**

#### **Rating: Medium-High**

The *Medium-High* capital plan rating reflects the high level of local funds committed and in place for the Third Street Light Rail Project. The primary source of funding for the project is the Proposition B one-half cent sales tax program administered by the San Francisco County Transportation Authority. Sales tax revenues are estimated at \$1.3 billion (\$1997) over the 20 year period ending in 2010 when the tax will sunset. This represents a significant increase over previous revenue estimates. Sixty percent of these revenues are dedicated to MUNI projects over the 20 year period. The plan shows capital and operating expenditures from the tax dedicated to MUNI to be \$665.3 million. Up to \$404.6 million (escalated dollars) in these revenues are committed to the Third Street LRT project. Remaining funding is proposed to come from State regional improvement program resources, Federal flexible funds, and tax increment funds. Only the tax increment funds are yet committed. MUNI will request future FTA funds for later project phases to begin in FY 2009.

### **Stability and Reliability of Operating Finance Plan**

#### **Rating: Medium-High**

The *Medium-High* operating plan rating reflects the City of San Francisco's ongoing financial support of MUNI transit operations. MUNI estimates the operating and maintenance costs for the MOS at \$5.3 million in FY 2003 and \$11.0 million in 2015. Fare revenues are estimated to cover 35 percent of operating expenses; the remainder of operating revenues are proposed to be derived from an increased transfer of MUNI's dedicated parking tax revenues and general appropriations from the City of San Francisco. The City has historically been a strong financial supporter of MUNI. MUNI is exploring the use of transit impact development fees along the corridor to help offset system operating expenses.

**Locally Proposed Financing Plan**  
(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$0.0	No Section 5309 New Starts funds have been appropriated through FY 1999
STP/CMAQ	\$7.6	
<b>State:</b>		
State Regional Improvement Program	\$25.0	
<b>Local:</b>		
Tax Increment Financing	\$8.5	
Proposition B Revenue	\$404.6	
<b>Total:</b>	<b>\$445.7</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Bayshore - Third Street LRT Map \(PDF\)](#)**

# San Juan, Puerto Rico/Minillas Extension

## Minillas Extension

San Juan, Puerto Rico

(November 1998)

### Description

The Puerto Rico Department of Transportation and Public Works (PRDTPW), through its Highway and Transportation Authority (PRHTA), is proposing an extension of its heavy rail rapid transit system, known as Tren Urbano Phase I, which is currently under construction. The proposed investment would extend Tren Urbano Phase I approximately one mile from its current terminus at Sagrado Carazon to the Minillas area of Santurce. The alignment is a subway of approximately one mile in length under Ponce de Leon Avenue.

The capital costs of the Minillas extension are estimated at \$468 million (escalated dollars). Ridership estimates for the extension forecast an increase in Tren Urbano ridership by 14,400 new riders per day in 2015.

### Minillas Extension Summary Description

<b>Proposed Project</b>	Heavy Rail Line; 1 mile, 2 stations
<b>Total Capital Cost (\$YOE)</b>	\$468.0 million
<b>Section 5309 Share (\$YOE)</b>	\$374.4 million
<b>Annual Operating Cost (\$YOE)</b>	\$3.4 million
<b>Ridership Forecast (2015)</b>	14,400 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Not Rated</b>
<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Rated</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In 1993, the Federal Transit Administration (FTA) selected Tren Urbano as one of the Turnkey Demonstration Projects under the Intermodal Surface Transportation Efficiency Act (ISTEA). A Full Funding Grant Agreement (FFGA) was signed in March 1996 for the Phase I 10.7-mile (17.2-kilometer) section of Tren Urbano. Phase I is currently under construction.

The Minillas Extension has been included in previous planning studies as part of the rail system planned for metropolitan San Juan and has been included in the regional Land Use and Transportation Plan since 1982. Minillas is located in the Santurce area of San Juan, which is home to government offices of the Commonwealth, the Luis A. Ferre Fine Arts Centers, four major hospitals, and is one of the main commercial and residential districts on the Island.

In May 1997, a Memorandum of Understanding (MOU) was signed by FTA and PRHTA stating that the planning process undertaken for the Minillas Extension satisfied the requirements of a Major Investment Study. Further, PRHTA was authorized to proceed with development of a DEIS for the extension of Tren Urbano Phase I to Minillas. In August 1997, a Notice of Intent to prepare a DSEIS was published in the Federal Register. The Draft Supplemental Environmental Impact Statement (DSEIS) was published in July 1998 and identified the subway alignment beneath Ponce de Leon Avenue as the preferred extension alternative. A Final SEIS is now being prepared to examine in more detail the impacts of the Ponce de Leon extension.

TEA-21 Section 3030(a)(82) authorized the San Juan Tren Urbano Extension to Minillas for final design and construction. Through FY 1999, Congress has not appropriated any funds for the Minillas Extension.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Data are presented for the comparison of the New Starts to the TSM alternative (since the No-Build analyzed in the EIS closely resembles a TSM alternative). Most of the following evaluation criteria, unless noted, reflect conditions which include the Tren Urbano, Phase I project and the Minillas Extension along Ponce de Leon Avenue. N/A indicates that data are unavailable for this specific measure.

## Justification

### Mobility Improvements

#### Rating: Medium

PRHTA estimates that the Minillas Extension will result in the following annual travel time savings.

Mobility Improvements	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Annual Travel Time Savings (Hours)	N/A	1.0 million

Based on 1990 US census data, there are an estimated 24,008 low-income households within a ½ mile radius of the proposed 18 stations of the Tren Urbano Phase I and Minillas Extension (4,350 low-income households estimated for the two Minillas Extension stations).

**Environmental Benefits**

**Rating: High**

The San Juan area is currently in compliance with all National Ambient Air Quality Standards (NAAQS). PHRTA estimates the following annual emissions reductions for the Tren Urbano I and Minillas Extension.

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	N/A	decrease of 13,802 annual tons
<b>Nitrogen Oxide (NOx)</b>	N/A	decrease of 699 annual tons
<b>Hydrocarbons (HC)</b>	N/A	decrease of 1,515 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	decrease of 11 annual tons
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	N/A	decrease of 48,564 annual tons

PRHTA estimates the proposed project will result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	N/A	decrease of 488,977 million annual BTU

**Operating Efficiencies**

**Rating: Low**

PHRTA estimates an increase in systemwide operating cost per passenger mile (New Start including Tren Urbano Phase I and Minillas Extension).

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2015)</b>	N/A	\$0.17	\$0.23

Values reflect 2015 ridership forecast and 1997 dollars.

**Cost Effectiveness**

**Rating: High**

PHRTA estimates the following cost effectiveness indices (New Start including the Tren Urbano Phase I and Minillas Extension).

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger (1997)	N/A	\$6.99

Values reflect 2015 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

#### Rating: Medium-High

The *Medium-High* land use rating reflects the compact development and promotion of mixed use developments in the area. The proposed extension traverses the district of Santurce, which is the traditional center of government and commerce densely arranged in a fine-grained street system. The Puerto Rico Planning Board's Land Use Plan Objectives and Public Policies promote mixed use developments to support greater accessibility among various land uses. The plan also discourages urban sprawl by limiting development where public facilities do not already exist. Development of specific plans and policies for stations along the proposed Manillas Extension awaits the selection of the line alignment and the determination of station locations. Pedestrian amenities are addressed in the Special Zoning Regulation for Santurce as well as the Governor's Guide for the Regulation of Public Space Infrastructure. The Transportation Plan of Puerto Rico proposes parking management and regulation to adjust parking prices and supply to encourage transit use.

### Other Factors

**Multimodal Planning:** Tren Urbano Phase I and the proposed Minillas Extension are being integrated with bus and public improvements. The Commonwealth is implementing a phased restructuring of AMA and Metrobus routes as a feeder for Tren Urbano as well as transit centers and intermodal transfer stations.

**Turnkey Construction:** Tren Urbano Phase I is one of the FTA designated Turnkey Demonstration Projects. Phase I is being constructed and will be operated under a turnkey procurement which has expedited the implementation of the project. The Minillas Extension would also employ turnkey procurement.

### Local Financial Commitment

#### Proposed Non-Section 5309 Share of Total Project Costs: 20%

The financing plan for the Minillas Extension is interrelated with funding for Phase I and the highway program for the Commonwealth. PRHTA has indicated a total of 80 percent Federal share for the Minillas Extension, including preliminary engineering and design of the Extension. This would bring the total federal discretionary share for Tren Urbano Phase I and the Minillas Extension to \$681.8 million or roughly one-third of the total project cost.

### Stability and Reliability of Capital Financing Plan

**Rating: Not Rated**

The project's capital financing plan has not been rated because the financial assessment requires additional review. An updated review will be provided in the supplemental New Starts Report to Congress.

**Stability and Reliability of Operating Finance Plan**

**Rating: Not Rated**

The project's operating financing plan has not been rated because the financial assessment requires additional review. An updated review will be provided in the supplemental New Starts Report to Congress.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Start</b>	\$374.4	\$0.0 million appropriated through FY 1999 for the Minillas Extension
<b>Local: Various Sources</b>	\$93.6	
<b>Total:</b>	<b>\$468.0</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[\[Minillas Extension Map \(PDF\)\]](#)**

# Seattle, Washington/Seattle Link Light Rail

## Seattle Link Light Rail

Seattle, Washington

(November 1998)

### Description

Sound Transit (Central Puget Sound Regional Transit Authority) is planning a 24-mile Central *Link* light rail transit (LRT) project running north to south from Northgate, through downtown Seattle, Southeast Seattle and the cities of Tukwila and SeaTac. At least 21 stations are planned, with six additional stations along the corridor under consideration. The system would utilize new right-of-way, except in the existing 1.6 mile Downtown Seattle Transit Tunnel. Sound Transit estimates a total of 155,200 daily riders, including 57,000 daily new riders, on the 24-mile system in 2020. Capital costs for the entire project are \$2.9 billion (escalated dollars), with annual operating costs estimated at \$44.4 million (1997 dollars). Sound Transit is requesting a 50% Section 5309 share of project costs. Sound Transit will break the system into a series of minimum operable segments as a means of implementing the project.

The *Link* LRT system is one element of Sound Transit's voter-approved ten year, \$3.914 billion (\$1995) *Sound Move* regional transit plan, which also includes implementation of a 2-mile LRT line in downtown Tacoma; an 82-mile Sounder commuter rail system operating between Lakewood and Everett; 20 new regional express bus routes; 14 High Occupancy Vehicle (HOV) direct access ramps (providing access to over 100 miles of existing HOV lanes); 14 new park and ride lots and 9 transit centers; and other service improvements.

### Seattle Link Light Rail Summary Description

<b>Proposed Project</b>	Light Rail Line; 24 miles, 21 stations
<b>Total Capital Cost (\$YOE)</b>	\$2.92 billion
<b>Section 5309 Share (\$YOE)</b>	\$1.46 million
<b>Annual Operating Cost (\$1997)</b>	\$44.4 million
<b>Ridership Forecast (2020)</b>	155,000 average weekday boardings 57,000 daily new riders
<b>FY 2000 Financial Rating:</b>	High
<b>FY 2000 Project Justification Rating:</b>	Medium-High

<b>FY 2000 Overall Project Rating:</b>	<b>Highly Recommended</b>
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The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

### Status

The RTA Board adopted the *Sound Move* regional transit plan in May, 1996. Voters approved \$3.914 billion in local funding for implementation of the plan in November, 1996. A Major Investment Study of *Sound Move's* services was completed in March 1997. *Sound Move* is included in the Puget Sound Regional Council's (the area's MPO) Transportation Plan and Regional Transportation Improvement Program (TIP).

FTA approved initiation of preliminary engineering on the Link LRT in July 1997. A Draft Environmental Impact Statement is scheduled for publication in December 1998. Sound Transit will examine minimum operable segments (MOS) of the project in the final design phase of project development.

TEA-21 Section 3030(a)(85) authorizes the Seattle Sound Move Corridor, of which *Link* is one element, for final design and construction. Through FY 1999, Congress has appropriated \$16.91 million for the *Link* light rail project.

### Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Information was provided by Sound Transit comparing the New Start to the TSM alternative for the 24-mile LRT project. N/A indicates that data are not available for a specific measure.

### Justification

#### Mobility Improvements

#### Rating: Medium-High

Sound Transit estimates the following travel time savings for the New Start compared with the TSM alternative.

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	N/A	21.1 million

Based on 1990 US Census data, Sound Transit estimates that 11,081 low-income households are located within a ½ mile radius of the 21 proposed stations (representing 21 percent of total households located within a ½ mile radius of stations).

**Environmental Benefits**

**Rating: High**

The Central Puget Sound Area is classified as a maintenance area for carbon monoxide and ozone. Spot areas in the region are designated as non-attainment for PM<sub>10</sub>. Sound Transit estimates the following reductions in emissions for the *Link* light rail.

Criteria Pollutant	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Carbon Monoxide (CO)	N/A	decrease of 307 annual tons
Nitrogen Oxide (NOx)	N/A	decrease of 2,274 annual tons
Volatile Organic Compounds (VOC)	N/A	decrease of 362 annual tons
Particulate Matter (PM <sub>10</sub> )	N/A	decrease of 24 annual tons
Carbon Dioxide (CO <sub>2</sub> )	N/A	decrease of 57,178 annual tons

Sound Transit estimates the following changes in regional energy consumption (measured in British Thermal Units - BTU).

Annual Energy Savings	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
BTU (millions)	N/A	decrease of 526,176 million annual BTU

**Operating Efficiencies**

**Rating: Medium**

Sound Transit estimates a decrease in the systemwide operating costs per passenger mile in 2020 for the *Link* light rail compared to the TSM alternative.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2020)	N/A	\$0.46	\$0.44

Values reflect 2020 ridership forecast and 1997 dollars.

**Cost Effectiveness**

**Rating: Medium-High**

Sound Transit estimates the following cost-effectiveness indices.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
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<b>Incremental Cost per Incremental Passenger</b>	N/A	\$10.39
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Values reflect 2020 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

**Rating: High**

The 24-mile *Link* Central LRT project is rated *High* for the strong transit-supportive policies in place along the corridor and the region's commitment to growth management and transit-oriented development. The corridor links the Seattle CBD with surrounding neighborhoods to the east, south, and north, and is characterized by high density mixed uses (commercial, retail, residential) in a pedestrian friendly environment. The proposed alignment serves several high trip generators. Current bus transit ridership along the corridor totals 140,000 daily riders. Strong growth management policies are in place supported by the State's Growth Management Act, the Puget Sound Regional Council's *Vision 2020* land use plan, and locally adopted comprehensive plans which concentrate growth into urban centers served by high capacity transit. Local jurisdictions along the corridor have demonstrated a strong commitment to station area planning aimed at supporting transit-oriented development, and several communities have prepared transit-oriented development plans and programs. Zoning adjacent to stations generally support mixed-use, high-density development. Station area planning is underway, with significant community involvement. Parking policies in Seattle promote reduced parking supply in the vicinity of transit.

### Other Factors

**Multimodal Emphasis with Regional Integration:** Sound Transit's *Sound Move* is a multimodal program of commuter rail, light rail, bus, and HOV systems connected to a network of park and ride lots and transit centers. Forty percent of projected riders will be on modes other than light rail. Sound Transit intends to integrate its services with the region's five other existing bus operators, the State ferry system, the operation of the State's HOV system, and other regional, interstate, and international services. By 1999, Sound Transit projects that the region's public transit riders will be able to ride regionwide on a single fare/pass.

**Independent Review and Citizen Oversight:** The cost and ridership projections and financial methodology for the project were reviewed by an independent State-appointed Expert Review Panel.

### Local Financial Commitment

**Proposed Non-Section 5309 Share of Total Project Costs: 50%**

Sound Transit proposes to fund the *Link* light rail system with equal shares of Federal Section 5309 funds (\$1.46 billion) and local resources, consisting of a combination of motor vehicle excise tax revenues, a sales and use tax, and local issue bonds (\$1.46 billion).

### Stability and Reliability of Capital Financing Plan

**Rating: High**

The *Link* capital financial plan demonstrates a very high degree of local financial commitment to the project. Sound Transit's *Sound Move* program, which includes the *Link* light rail project, is supported by two local tax sources: a 0.4% sales and use tax, and a 0.3% motor vehicle excise tax (MVET), approved by the region's voters in November 1996. The taxes continue in perpetuity with no sunset provisions and are dedicated solely to Sound Transit projects. In 1998, Sound Transit expects to receive \$175.1 million from the sales and use tax, and \$44.5 million from the MVET. Growth in tax revenues from these sources has outpaced inflation, reflecting positive regional economic growth. Conservative forecasts of local economic growth and inflation were used to project funding from local tax sources. Capital cost estimates are reasonable given the size and proposed design of the project, and adequate contingencies exist to cover unanticipated cost overruns.

The financial plan calls for a \$1.46 billion in Section 5309 New Starts funds. Sound Transit plans to examine a series of MOS alignments to best reflect potential Federal participation in the project.

### Stability and Reliability of Operating Finance Plan

#### Rating: High

The *Link* operating finance plan rating of *High* reflects the dedicated operating revenues available to operate the entire *Sound Move* transit plan. Sound Transit has a dedicated revenue stream that is available in its entirety to finance Sound Transit projects; no revenues will be drawn from sources that are used to support existing transit services (local bus operators independently collect their own transit-dedicated sales taxes which are matched by locally collected motor vehicle excise taxes). Sound Transit's financing plan fully covers all operating costs, debt service and capital replacement costs following completion of the construction program. Sound Transit has stated that if no major capital programs are undertaken (beyond the *Sound Move* transit plan), it will be possible to reduce Sound Transit's local tax rate and still meet all on-going financial requirements.

### Locally Proposed Financing Plan

(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$1,458.0	\$16.91 million appropriated through FY 1999
<b>Local:</b>		
Sales and Use Tax	\$706.7	
MVET	\$187.8	

Bonds	\$564.5	
<b>Total:</b>	<b>\$2,917.0</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Seattle Link Light Rail Map \(PDF\)](#)**

# Tampa, Florida/Tampa Bay Regional Rail System

## Tampa Bay Regional Rail System

Tampa, Florida

(November 1998)

### Description

The Hillsborough Area Regional Transit Authority (HART), in cooperation with the Hillsborough and Polk Counties metropolitan planning organizations (MPO) and the cities of Lakeland and Tampa, are proposing to implement the Tampa Bay Regional Rail System. The first stage of the project is a 28.5-mile minimum operable segment (MOS), and is one component of a multimodal "Early Action Plan" to implement the locally preferred strategy. The MOS would provide rail service along an 18.5-mile, 19-station Northeast/Southwest Corridor and a 10-mile, 6-station West Corridor. Capital cost estimates for the 28.5-mile segment total \$575 million (in 1997 dollars). *HART has estimated total project costs in year of expenditure (YOE) at \$726.3 million; a corresponding YOE Section 5309 share is \$363.15 million.* Annual operating costs are estimated at \$15.3 million (in 1997 dollars). HART estimates 22,000 daily boardings in 2015 on the proposed 28.5-mile segment.

The complete proposed project is a 39-station, 71-mile system and is part of a \$4 billion locally preferred strategy for implementing a regionwide package of multimodal transportation investments. The Regional Rail System would utilize both Diesel Multiple Unit (DMU) rail technology commuter rail service (25 miles) throughout Hillsborough County and a portion of Polk County, including the cities of Tampa, Lakeland, and Plant City. HART estimates 44,000 total daily boardings for the complete 71-mile Regional Rail System in 2015. Current capital cost estimates for the system total \$1.09 billion, while annual operating and maintenance costs are estimated at \$40.0 million (both in 1997 dollars). HART is planning for completion of the full 71-mile Regional Rail System by 2015.

### Tampa Bay Regional Rail Summary Description

<b>Proposed Project</b>	Diesel Multiple Unit (DMU) Rail; 28.5 miles, 25 stations
<b>Total Capital Cost (\$YOE)</b>	\$726.3 million
<b>Section 5309 Share (\$YOE)</b>	\$363.15 million
<b>Annual Operating Cost (\$1997)</b>	\$15.3 million
<b>Ridership Forecast (2015)</b>	22,000 daily boardings
<b>FY 2000 Financial Rating:</b>	<b>Low-Medium</b>

<b>FY 2000 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

### Status

A Major Investment Study (MIS) to address alternatives for enhancing mobility throughout Tampa, Hillsborough County, Lakeland, and Polk County was completed in April 1998, with the selection by local stakeholders of the multimodal Locally Preferred Strategy, including the 71-mile Regional Rail System. The MIS also identified 28.5 miles of rail investment in the Northeast/Southwest and West Corridors to be included in the regional Early Action Plan. The Year 2020 Long-Range Transportation Plan, which incorporates both the Early Action Plan and Locally Preferred Strategy, was formally adopted by the Hillsborough Metropolitan Planning Organization Board in November 1998. FTA has approved (in January 1999) initiation of the Preliminary Engineering/Environmental Impact Statement phase for the two corridors in the Early Action Plan.

TEA-21 Section 3030(a)(89) authorized the Tampa Regional Rail System for final design and construction. Through FY 1999, Congress has appropriated \$4.97 million in Section 5309 New Starts funds for this project.

### Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. Criteria are reported for the 28.5 MOS contained in the Early Action Plan. This includes a significant expansion of bus service (a projected doubling of the existing fleet) included in the Transportation Systems Management (TSM) alternative.

### Justification

#### Mobility Improvements

#### Rating: Medium-High

HART estimates the following annual travel time savings for the Early Action Plan compared with the No-Build and Transportation System Management (TSM) alternatives.

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings</b>	decrease of 2.4 million hours	increase of 2.0 million hours

Based on the 1990 census data, there are estimated 5,479 low-income households within ½ mile radius of the proposed 25 stations, or 9.3 percent of the total households within ½ mile of proposed stations.

**Environmental Benefits**

**Rating: High**

The Tampa area is currently classified as an attainment area for ozone, and is in attainment for carbon monoxide. HART estimates the following changes in annual regional emissions for the Early Action Plan.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	decrease of 176 annual tons	decrease of 188 annual tons
<b>Nitrogen Oxide (NOx)</b>	decrease of 28 annual tons	decrease of 42 annual tons
<b>Volatile Organic Compounds (VOC)</b>	N/A	N/A
<b>Hydrocarbons</b>	decrease of 22 annual tons	decrease of 25 annual tons
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	decrease of 45,027 annual tons	decrease of 68,460 annual tons

HART estimates the following changes in regional energy consumption (measured in British Thermal Units-BTU) for the Early Action Plan.

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (millions)</b>	decrease of 117,791 million annual BTU	decrease of 191,749 million annual BTU

**Operating Efficiencies**

**Rating: Medium**

HART estimates an increase in systemwide operating costs per passenger mile for the Early Action Plan compared to the No-Build and a decrease compared to the TSM alternatives.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (1997)</b>	\$0.62	\$0.65	\$0.64

Values reflect 2015 ridership forecast and 1997 dollars.

**Cost Effectiveness**

**Rating: Medium**

HART estimates the following cost effectiveness indices for the Early Action Plan in the year 2015.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$13.64	\$12.90

Values reflect 2015 ridership forecast and 1997 dollars.

**Transit-Supportive Existing Land Use and Future Patterns**

**Rating: Low-Medium**

The *Low-Medium* land use rating reflects existing low to moderate densities along the corridor, with some credit given for emerging local efforts to address future land use patterns. The MOS will serve a number of major regional activity centers, including Downtown Tampa, the University of South Florida, the Westshore District, the Tampa Bay Center/Stadium area, and the Tampa International Airport. The Southwest and West Corridors include some dense residential uses and extensive commercial development. The Northeast Corridor is primarily medium density with some commercial development, and the Southwest is largely residential in character. HART is currently working towards facilitating the implementation of transit-supportive land use policies and urban design strategies, including developing transit-oriented planning and design guidelines and other materials. Implementation of such strategies has not yet occurred; however, transit-supportive parking policies are encouraged in the Tampa Bay Regional Planning Council's Strategic Regional Policy Plan.

**Other Factors**

**Regional Mobility Vision:** The MIS involved the general public in a broad examination of alternative land use scenarios and strategies as a means of reaching consensus on desired regional transportation and land use improvements. HART believes this participatory visioning process has led to an increased awareness of the desirability of land use planning and managed development among both the public and their elected decisionmakers.

**Local Financial Commitment**

**Proposed Non-Section 5309 Share of Total Project Costs: 50%**

HART estimates a total cost for the 28.5-mile rail component of the Early Action Plan of \$575 million (1997 dollars), and proposes to fund it with \$287.5 million (50 percent) in Section 5309 New Starts funding and \$287.5 million (50 percent) in local funds.

**Stability and Reliability of Capital Financing Plan**

**Rating: Low-Medium**

The *Low-Medium* capital plan rating reflects the lack of committed local funding to the project at this time. The preliminary financial plan for the 71-mile, \$1.09 billion Locally Preferred Strategy, completed for the MIS, identifies capital and annual operating/maintenance financial

requirements and a range of funding options for highway, bus and rail transit, bicycle and pedestrian improvements, TDM/TSM, and ITS elements. The plan identifies total unmet capital needs for all multimodal elements of the Locally Preferred Strategy from FY 1996 to FY 2015 (after accounting for all Federal, State and local existing and committed sources) equal to \$1.5 billion (1997 dollars).

The preliminary financial plan also outlines--but does not demonstrate commitment of---a range of funding options for the 28.5-mile, \$575 million Early Action Plan including both existing and new sources. To meet the capital needs of the Early Action Plan, a public referendum to establish a new dedicated funding source is being pursued for November 2000. Financial information to cover unanticipated costs overruns and/or unavailability of proposed funding was unavailable.

**Stability and Reliability of Operating Finance Plan**

**Rating: Low**

The *Low* operating plan rating reflects the lack of committed operating revenues for the project at this time. HART utilizes its designation as an independent special district to support its current operating needs. This title allows HART to levy an ad valorem tax on personal property within the jurisdiction. O & M costs for the MOS have been estimated at \$15 million in a preliminary financial plan. The preliminary financial plan outlines a range of new operating revenue funding options which could be used to support for the MOS, assuming a 35 percent farebox recovery. HART indicates that a public referendum to establish an additional local funding source to support operations of the Early Action Plan is being pursued for November 2000. No information was submitted for the FY 2000 New Starts report regarding contingencies for unanticipated operating costs or funding shortfalls.

**Locally Proposed Financing Plan**

(Reported in \$1997)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Start</b>	\$287.5	\$4.97 million appropriated through FY 1999
<b>State:</b>	\$143.7	
<b>Local:</b>	\$143.7	
<b>Total:</b>	<b>\$575.0</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[Tampa Bay Regional Rail System Map \(PDF\)](#)**

# Washington, D.C. Metropolitan Area/Largo Metrorail Extension

## Largo Metrorail Extension

Washington, DC

(November 1998)

### Description

The Maryland Mass Transit Administration (MTA) is the lead local agency planning a proposed 3.1 mile heavy rail (surface, below- and above-grade segments) extension of the Washington Metrorail Blue Line from the existing Addison Road Station to Largo Town Center in Prince George's County, Maryland. The project is a joint effort between the MTA and the Washington Metropolitan Area Transit Authority (WMATA), which will operate the system. The project serves the metropolitan Washington, DC region, and follows an alignment in central Prince George's County that has been preserved as a rail transit corridor in the County's Master Plan. Two new stations will be provided: the Summerfield Station, just west of Summerfield Boulevard and north of MD-214 (Central Avenue); and the Largo Town Center Station, located just beyond the Capital Beltway within Largo Town Center. The stations will provide 500 and 2,200 park-and-ride spaces, respectively, plus a hundred or more kiss-and-ride spaces and 11 bus bays each. A number of WMATA bus routes and Prince George's County local bus routes will connect to the two new stations; shuttle bus service is proposed between the Jack Kent Cooke Stadium and both stations. The project will also directly serve the USAirways Arena. MTA will manage the project through final design, with WMATA undertaking construction. The project is estimated to open for service in 2005, at a cost of \$397 million (in escalated dollars).

### Largo Metrorail Extension Summary Description

<b>Proposed Project</b>	Heavy Rail Extension; 3.1 miles, 2 stations
<b>Total Capital Cost (\$YOE)</b>	\$397.1 million
<b>Section 5309 Share (\$YOE)</b>	\$316.1 million
<b>Annual Operating Cost (\$1997)</b>	\$755 million
<b>Ridership Forecast (2020)</b>	28,540 average weekday boardings 15,300 daily new riders
<b>FY 2000 Financial Rating:</b>	<b>Medium</b>

<b>FY 2000 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2000 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 1998**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

### Status

The proposed Largo Extension was approved as an addition to the 103-mile Metrorail Adopted Regional System in February 1997, contingent on completion of the FEIS and FTA issuance of a ROD and financial plan approval. The project is included in the National Capital Region's Constrained Long Range Plan.

Preliminary engineering was initiated in February 1996. The Draft Environmental Impact Statement (DEIS) was completed and approved by FTA in October 1996. The Final Environmental Impact Statement (FEIS) is anticipated to be completed in January 1999; a Record of Decision (ROD) is expected by early Spring 1999.

Section 3030(a)(93) of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorizes the "Washington, DC – Largo Extension" for final design and construction. Congress appropriated \$1 million for this project in FY 1999.

### Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria* for the 3.1 mile extension. N/A indicates that data are not available for a specific measure.

### Justification

#### Mobility Improvements

**Rating: Medium**

MTA estimates the following annual travel time savings.

<b>Mobility Improvements</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Annual Travel Time Savings (Hours)</b>	1.7 million	1.1 million

Based on 1990 Census data, there are an estimated 46 low-income households within a ½ mile radius of the proposed 2 new stations, equivalent to approximately 5 percent of total households within ½ mile radius of the proposed stations.

#### Environmental Benefits

**Rating: Medium**

The Washington, DC Metropolitan area is a serious non-attainment area for ozone, and a moderate non-attainment area for carbon monoxide. MTA estimates that in 2020, the Largo Metrorail Extension would result in the following annual emissions reductions. Note that an increase in carbon dioxide is estimated compared to the No-Build alternative.

<b>Criteria Pollutant</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>Carbon Monoxide (CO)</b>	decrease of 94 annual tons	N/A
<b>Nitrogen Oxide (NOx)</b>	decrease of 722 annual tons	N/A
<b>Volatile Organic Compounds (VOC)</b>	decrease of 39 annual tons	N/A
<b>Particulate Matter (PM<sub>10</sub>)</b>	decrease of 34 annual tons	N/A
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	increase of 2,740 annual tons	N/A

MTA estimates that in 2020, the Largo Metrorail Extension would result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. <i>No-Build</i></b>	<b>New Start vs. <i>TSM</i></b>
<b>BTU (millions)</b>	decrease of 19,499 million annual BTU	N/A

**Operating Efficiencies**

**Rating: Medium**

MTA estimates no change in the systemwide operating cost per passenger mile in the year 2020 for the Largo Metrorail Extension compared to the No-Build alternative.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.36	N/A	\$0.36

Values reflect 2020 ridership forecast and 1997 dollars.

**Cost Effectiveness**

**Rating: Medium-High**

MTA estimates the following cost effectiveness index for the new start to no build comparison. No data were provided for the new start to TSM comparison.

Cost Effectiveness	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$7.87	N/A

Values reflect 2020 ridership forecast and 1997 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

#### Rating: Medium-High

The *Medium-High* Land Use rating reflects the extension's connection to the Washington metropolitan area CBD and local efforts to foster transit-oriented development around proposed station areas. The proposed Largo Metrorail Extension serves the suburban towns of Landover and Largo-Lottsford, Maryland, and traverses medium-density single-family suburban residential development interspersed with multi-family housing, office parks, civic uses, two major professional sports/entertainment facilities, recreational parks, and undeveloped land. Regionally, population and employment growth is forecast at 44 percent to 2020, whereas a 58 percent population growth rate and a 140 percent employment growth rate are forecast for the extension study area. Under a June 1998 Prince George's County planning study, existing and future transit station areas are designated as "targeted growth areas" with attendant revisions in zoning and public facilities ordinances in the context of Maryland's "Smart Growth Initiative" to accomplish this objective. Both Town Plans call for increased residential densities in station areas, as well as mixed-use and transit-oriented activity centers. Future development will be integrated with the transit stations, with office components oriented towards the stations. These plans also call for enhanced pedestrian amenities and streetscape elements to improve overall access and safety. The Largo Station will serve as the new terminus for the Metrorail Blue Line, serving the Washington, DC CBD, and will provide 2200 parking spaces. The County's General Plan includes provisions for parking reductions, use of structured parking, and incentives for development near transit. Several joint development opportunities are being considered, including shared parking with the Capital Centre.

### Local Financial Commitment

#### Proposed Non-Section 5309 Share of Total Project Costs: 20%

MTA proposes \$316.1 million (80 percent) in Section 5309 new starts funds and \$81 million (20 percent) of State funds.

### Stability and Reliability of Capital Financing Plan

#### Rating: Medium

The capital plan is rated *Medium* based on the absence of an approved State financial commitment to the project, although the proposed local source --- the Maryland Transportation Trust Fund (MTTF) --- provides a stable revenue source for capital projects throughout the State. The Maryland Transportation Trust Fund (MTTF) would be the source of local-match funding for this MTA-sponsored project, as it is for all State transportation capital projects. The Maryland Department of Transportation (MDOT) has an overall debt limit of \$1.2 billion, with \$868 million outstanding as of January 1, 1998, and receives the second highest bond rating in the capital

market. Revenues allocated to the MTTF exceed \$2 billion annually, with stable and reliable --- but not inflation sensitive --- revenue streams from its two largest sources, motor fuel and titling taxes. Historically, significant revenue growth only results from statutory increases in specific user fees. Bonding capacity exists, and MDOT/MTA intends to reprogram funds for transit to leverage the Federal share. Capital cost estimates have been updated based on the continuing development of Preliminary Engineering plans and the Final Environmental Impact Statement. A 10 percent cost contingency is built into the cost estimate, which will be reevaluated as the project advances through stages requiring more rigorous engineering. The MTTF has additional capability to issue debt should the need arise.

**Stability and Reliability of Operating Finance Plan**

**Rating: Medium-High**

The *Medium-High* rating reflects the history of the WMATA Compact financial support and the State’s statutory requirement to fully fund the WMATA operating costs attributed to Maryland jurisdictions. The Maryland Department of Transportation and the MTA have committed to support the WMATA system through continued financing of WMATA operations over the past decades. These operations are secured by the Maryland Transportation Trust Fund (MTTF), with annual revenues exceeding \$2 billion. The projected farebox recovery ratio of 71 percent is consistent with the Metrorail system average of 70 percent. Several joint development and value capture strategies, which have been successfully employed by WMATA for the Metrorail system, have been identified to generate revenue streams for the Largo Extension. Section

10-205 of the Annotated Code of Maryland requires the State of Maryland to pay the full share of operating deficits related to the project upon WMATA assuming operations of the Largo Metrorail Extension. The MTTF has sufficient financial capacity to fund this and any other Metrorail operating deficits allocated to the Maryland jurisdictions.

**Locally Proposed Financing Plan**

(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal: Section 5309 New Start</b>	\$316.1	\$1.0 million appropriated through FY 1999
<b>State:</b>	\$81.0	
<b>Total:</b>	<b>\$397.1</b>	

**Note:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

**[\[Largo Metrorail Extension Map \(PDF\)\]](#)**

# Authorized for Final Design and Construction

## Greater Albuquerque Mass Transit Project

### **Albuquerque, New Mexico**

The City of Albuquerque's Transit Department in coordination with the City of New Mexico's Highway and Transportation Department, the Middle Rio Grande Council of Governments are proposing to undertake a High Capacity Transportation System (HCTS) Study. The study is anticipated to respond to Albuquerque metropolitan planning area needs and the opportunity to develop a transportation system, which will help to ensure the quality of life and economic vitality for the people of New Mexico, in the 21<sup>st</sup> Century. Planning for the proposed HCTS will be completed in two phases. Phase I will develop a conceptual high capacity transportation system plan, which is anticipated to be completed in December 1999. Phase II will identify a set of corridors from which approximately three alternatives will be chosen for detailed analysis. A Locally Preferred Alternative (LPA) will be selected and a Draft Environmental Impact Statement (DEIS) will be prepared. The DEIS is anticipated to be completed in December 2001. Alternatives that are being studied include: No-build, roadway improvements, new roadways, Travel Demand Management/Transportation System Management (TDM/TSM), including Intelligent Transportation System (ITS) applications, bus service improvements, express bus and park-and-ride service, High Occupancy Vehicle (HOV) lanes, busways, commuter rail, light rail, automated guideway, personal rapid transit, and a combination of modes. The High capacity corridors have been incorporated into the region's Metropolitan Transportation Plan. It is anticipated that HCTS will be adopted in the Transportation Improvement Program in early 1999. Through FY 1999, Congress has appropriated \$4.96 million in Section 5309 new starts funds for this effort

## Atlanta-Athens Commuter Rail

### **Atlanta-Athens, Georgia**

The Georgia Rail Passenger Authority (GRPA) is conducting a Major Investment Study (MIS) to examine the feasibility of various transportation improvements in the 70-mile transportation corridor between downtown Atlanta and downtown Athens, Georgia. The options under evaluation include a No-build option, Transportation Systems Management (TSM) options, including commuter bus service on existing roads, and commuter rail service on the existing CSX line between Athens and Atlanta. The GRPA has submitted a preliminary draft of the MIS for review by the public, the Georgia Department of Transportation (GADOT), the Atlanta Regional Commission (ARC), the Athens-Clarke Metropolitan Planning Organization, and the transit operators in the Atlanta and Athens areas. It is recognized that an additional analysis of ridership, capital and operating costs and financing will be conducted as part of the MIS.

## Griffin Commuter Rail

### **Atlanta-Griffin-Macon, Georgia**

The Georgia Rail Passenger Authority (GRPA), in coordination with the Georgia Department of Transportation (GDOT), is advancing the 1997 Intercity Rail Plan with its program of combined intercity/commuter rail service in North and Middle Georgia. The plan calls for commuter rail service to Griffin and intercity services beyond to Macon, Georgia. The proposed line will serve seven counties (Bibb, Monroe, Lamar, Spalding, Henry, Clayton, and Fulton). The GRPA has

undertaken a study to update the 1997 GDOT Intercity Rail Plan in preparation for completing a Major Investment Study (MIS) in the corridor. Plans for the initial service outline the utilization of over 102 miles of an existing Norfolk Southern commercial freight line. Total capital costs for the initial service from Atlanta-Griffin-Macon is estimated at \$163.12 million. The Georgia General Assembly has appropriated approximately \$4 million to continue with the MIS and follow-up activities.

#### **Atlanta (South DeKalb - Lindbergh Corridor)**

##### **Atlanta, Georgia**

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is conducting a Major Investment Study (MIS) to examine transportation options in a proposed 15-mile corridor extending from the South campus of the Georgia Perimeter College, north to the Emory University area. The proposed corridor also includes the Centers for Disease Control and medical center complex, and continues on to the existing Lindbergh Center Station on MARTA's North Line. Phase I of the MIS is projected for completion in May 1999. Through FY 1999, Congress has appropriated \$2.65 million in Section 5309 new starts funds for this effort.

#### **Central Light Rail Transit Extension to Glen Burnie**

##### **Baltimore, Maryland**

The Maryland Mass Transit Administration (MTA) has decided not to pursue this effort at this time. The most cost-effective alignment is not acceptable to the public, or locally elected officials.

#### **MARC - Commuter Rail Improvements (MARC Maintenance Facility)**

##### **Baltimore, Maryland-Washington, D.C.**

The Mass Transit Administration of the Maryland Department of Transportation (MD DOT) is conducting a Conceptual Planning, Site Selection and Economic Feasibility Study for the Maryland Commuter Rail (MARC) maintenance facility. This study is one of several recommendations resulting from the MARC Master Plan completed in 1995. The purpose of the study is to locate, plan, and design a centralized maintenance facility for the MARC system. Currently, maintenance and storage activities are performed in multiple facilities owned and operated by Amtrak and CSXT in the Baltimore and Washington metropolitan area. A preferred site has been selected and the results of the Economic Feasibility Study will determine when the environmental documentation and preliminary engineering work will be conducted. The proposed site is located in the southwest area of Baltimore City along the MARC Penn-Camden Connection. The first phase of the project was funded by the MD DOT.

#### **MARC - Commuter Rail Improvements (MARC Mid-day Storage Facility)**

##### **Baltimore, Maryland-Washington, D.C.**

The Maryland Mass Transit Administration (MTA) is in need of a mid-day storage facility for MARC commuter trains. Presently, these vehicles are stored at platforms at Washington, D.C.'s Union Station. Once Amtrak begins operating its new high speed trains in late 1999, the current storage area will no longer be available to MARC. In addition, once MARC service to Frederick begins, mid-day storage for three additional train sets will be necessary. MTA has identified a

five-acre site owned by Amtrak, which could potentially be a suitable alternative location for their mid-day storage needs. Environmental studies on the proposed site have been initiated

#### **MARC - Commuter Rail Improvements (MARC Penn-Camden Connection)**

##### **Baltimore, Maryland-Washington, D.C.**

The Mass Transit Administration of the Maryland Department of Transportation (MD DOT) is conducting a Conceptual Planning, Environmental Documentation and Preliminary Engineering Study for the Maryland Commuter Rail (MARC) Penn-Camden Rail Connection. This study is one of several recommendations resulting from the MARC Master Plan completed in 1995. The Penn-Camden Connection is a proposed six-mile connection between MARC's Camden Station and Amtrak's NEC using mostly existing railroad right-of-way owned by CSXT, Conrail and Amtrak. The study is evaluating the feasibility of connecting the CSXT Capital subdivision (Camden Line) and Amtrak's Northeast Corridor (NEC) - Penn Line - to provide access to the planned MARC maintenance facility. The proposed project is also anticipated to provide a new route for the MARC Camden Line reverse peak service, and allow Camden Yard Sport trains to resume service. This connection will not include any passenger service. It will provide a means for MARC trains to access the planned maintenance facility, which will be built within the right-of-way, and the mid-day storage facility. It will also permit easy access to both the Penn and Camden lines. A preferred alignment was selected in 1995 during the MARC Master Plan Study. The preferred alignment is located in southwest Baltimore City. Subsequent to the Federal Transit Administration's (FTA) approval of the environmental analysis, final design, right-of-way acquisition and construction will be initiated. The proposed project is expected to begin service in the year 2002.

#### **MARC - Commuter Rail Improvements (Silver Spring Intermodal Transit Center)**

##### **Baltimore, Maryland-Washington, D.C.**

The Maryland Mass Transit Administration (MTA) is currently in Phase 2 of an environmental analysis and early engineering effort on the proposed Silver Spring Transit Intermodal Center (SSITC). The proposed site is located on an existing bus and Metrorail station and is included in the approved Silver Spring Central Business District (CBD) Master Plan. The recommended alternative of the SSITC will create a full service intermodal transit center at the site of the existing transit operations in downtown Silver Spring. The purpose of the proposed project is to meet existing and future transit needs and to allow for the safe and convenient passenger transfers from one mode of travel to another. The varying modes of travel located at the proposed site include commuter rail, heavy rail, commuter and transit bus, automobile, taxi, bicycle and pedestrians. The total site proposed for the SSITC is a 9.7-acre parcel of land located at the southwest corner of Colesville Road (US Route 29) and Wayne Avenue in the CBD of Silver Spring. The site is comprised of parcels owned by Montgomery County and the Washington Metropolitan Area Transportation Authority (WMATA). The project is scheduled for completion in the spring of 1999. Total capital costs for the SSITC are estimated at \$36 million.

#### **Airport Intermodal Transit Connector**

##### **Boston, Massachusetts**

The Massachusetts Port Authority (Massport), in coordination with the Massachusetts Bay Transportation Authority (MBTA), conducted a Major Investment Study/Draft Environmental

Impact Statement (MIS/DEIS) on transportation improvements to enhance the intermodal connection between Logan International Airport and the Boston regional transit system and ease airport roadway and curb congestion. The study included bus as well as People Mover alternatives. During the MIS process, Massport determined that improvements to the bus system at Logan Airport and the addition of bus service to South Station would be more cost-effective than a People Mover. Massport suspended work on the MIS/DEIS and further developed the bus alternative now known as the Airport Intermodal Transit Connector (AITC) under an environmental assessment (EA). The project involves two routes: one connecting South Station in Boston to the airport via the South Boston Transitway and the new Ted Williams Tunnel (Central Artery) and the second connecting the MBTA's Blue Line to airport terminals. Massport will operate dual mode buses (electric trolley/diesel) on the South Station to Logan International Airport route and alternative fueled buses on the Blue Line/Terminals route. The Federal Transit Administration has approved the EA for the AITC and Massport is now prepared to move ahead with the project which is programmed in the Massachusetts State Transportation Improvement Program and Boston Transportation Improvement Program. The estimated cost to design and implement the AITC is approximately \$40 million.

#### **North Shore Corridor & Blue Line Extension to Beverly Project**

##### **Boston, Massachusetts**

The Massachusetts Bay Transportation Authority (MBTA) has previously conducted a series of feasibility studies for improvements to the North Shore transportation system. These studies evaluated extensions of the Blue Line; improved commuter rail and express bus services; and the connection of the Blue Line and North Shore commuter rail service in Revere. Area officials now intend to further evaluate these alternatives for the corridor by focusing on operational impacts to the MBTA system, ridership analysis, capital and operating costs, community impacts, environmental impacts and cost/benefit analyses. This project is not in the Boston area Long Range Transportation Plan. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

#### **North-South Rail Link**

##### **Boston, Massachusetts**

The Massachusetts Bay Transportation Authority (MBTA) is conducting a Major Investment Study/Draft Environmental Impact Statement (/MIS/DEIS) to examine transit options in the corridor between North Station and South Station in downtown Boston. The alternatives under consideration include a bus shuttle system as a transportation systems management (TSM) option and various configurations of a rail tunnel. The tunnel would be constructed under the Central Artery alignment and would permit through commuter rail transit to serve both downtown stations. Currently, MBTA commuter rail service is split into two completely separate services, one serving the North Station and the other serving the South Station. The project is included in the "future projects" section of the Boston area Long Range Transportation Plan, but is not in the financially constrained plan. Through FY 1999, Congress has appropriated \$0.496 million in Section 5309 new starts funds for this effort.

## Boston-Providence Commuter Rail

### **Boston, Massachusetts**

This project involves the construction of a commuter rail layover facility in Pawtucket, Rhode Island. The project is a joint Rhode Island Department of Transportation (RIDOT/Massachusetts Bay Transportation Authority (MBTA) venture for the design and construction of 6-9 track commuter rail yard for the purpose of overnight layover/storage and future light maintenance of commuter rail equipment. This project is to serve both the existing Providence-Boston service and Rhode Island's future Providence-Westerly service. The twelve-acre parcel is situated adjacent to and east of the Amtrak Main Line. As part of the existing agreement with the MBTA, RIDOT will fund the design and construction of the yard in exchange for ten years of commuter rail service to the Providence Station. The total project cost is estimated at \$10 million. The project is included in Rhode Island's Transportation Plan, and Transportation Improvement Program (TIP).

## North-South Corridor Transitway

### **Charlotte, North Carolina**

The North-South Corridor extends approximately 36.4 miles from Davidson in North Mecklenburg County through Center City Charlotte to Pineville in southern Mecklenburg. This corridor was identified in the Centers and Corridors Plan adopted by the Charlotte Council and Mecklenburg County Board of Commissioners in 1994 and reaffirmed through inclusion in the approved 2015 Long Range Transportation Plan. The scoping meeting for the Phase I environmental analysis is scheduled for January 1999. Several alternatives will be considered as part of the study. These include: No-build; Transportation Systems Management (TSM), bus rapid transit, light rail transit, High Occupancy Vehicle/bus lanes on Interstate 77 and widening of I-77. The City of Charlotte, Mecklenburg County and the six other municipalities in the County have developed a Countywide Transit/Land Use Plan for 2025. Transit options and possible land use actions for the North-South Corridor were analyzed. The 2025 Plan built upon earlier transit studies and land use plans for the Charlotte-Mecklenburg area. The Plan was also the basis for obtaining support for the recently approved county-wide referendum for a ½ cent sales and use tax dedicated to public transportation. The tax, which is anticipated to yield approximately \$50 million during the first year, will provide local capital and operating funds to support a county-wide public transportation system. Through FY 1999, Congress has appropriated \$3.97 million in Section 5309 new starts funds for this effort.

## Douglas Branch [CTA]

### **Chicago, Illinois**

The Douglas Branch project is a complete reconstruction of the Douglas Branch of the Chicago Transit Authority's (CTA) Blue Line. The line runs for six miles from a point just west of downtown Chicago to the terminus of the line at Cermak Avenue. The Douglas Branch includes 11 stations. CTA has completed the necessary planning and engineering work. The Douglas Branch was built between 1912 and 1985. The line currently carries approximately 27,000 daily riders. Because of its age, the line is seriously deteriorated and has resulted in high maintenance and operating costs. The Douglas Branch serves one of the most economically distressed areas in Chicago.

Total project costs are currently estimated at \$394 million. Through FY 1999, Congress has appropriated \$1.5 million in Section 5309 new starts funds for this project.

#### **Navy Pier-McCormick Place Busway**

##### **Chicago, Illinois**

The City of Chicago is proposing to design and construct the Lakefront Busway project. The proposed project consists of a two-lane, two-way bus road to shuttle McCormick Place attendees between the convention center located along the Navy Pier, and their hotels to the north. The proposed roadway, which would be separate from general traffic in and adjacent to Grant Park, is anticipated to allow faster trips to and from McCormick Place, and thereby reduce the convention center's transportation costs, and traffic congestion in Grant Park.

#### **Ravenswood Line Extension [CTA]**

##### **Chicago, Illinois**

The Chicago Transit Authority (CTA) is proposing to lengthen existing platforms and expand stations on the existing CTA Brown Line to accommodate 8-car trains. The Brown Line runs for 9.2 miles from the north side of Chicago to the Loop elevated in downtown Chicago and includes 19 stations. Most of the Line is operated on elevated structure except for a portion near the northern end of the line, which operates at-grade. The Brown Line was built between 1900-1907. The Line currently carries approximately 104,000 daily riders. Ridership has been steadily increasing and current station and platform size prohibits CTA from increasing capacity on the line to handle increased demand. The proposed project would expand stations and platforms and straighten curves to allow CTA to operate longer trains, which would increase the capacity of the line. Selected yard improvements would also be undertaken. CTA has completed the necessary planning and engineering work. Total project costs are currently estimated at \$310 million. Through FY 1999, Congress has appropriated \$1.5 million in Section 5309 new starts funds for this project.

#### **Berea Metroline Extension**

##### **Cleveland, Ohio**

The Northeast Ohio Areawide Coordinating Agency (NOACA) is conducting a Major Investment Study (MIS) to determine transportation options to provide a direct link between downtown Cleveland, Hopkins International Airport, the International Exposition Center, and Baldwin College. The proposed Berea Rapid Transit Extension, approximately three miles from the Greater Cleveland Regional Transit Authority's Airport station, is directly aligned with the local transit operator's Red Line rapid rail system. The MIS is also considering adequate walk-up access and park-n-ride facilities to encourage more usage of the Red Line Light Rail Transit System (LRT). The Berea Rapid Transit Extension MIS was programmed in the NOACA FY 1997 Unified Work Program. Through FY 1999, Congress has appropriated \$2.9 million in Section 5309 new starts funds for this effort.

## Cleveland-Akron-Canton Commuter Rail

### **Akron, Canton, Cleveland, Ohio**

The METRO Regional Transit Authority (METRO), in cooperation with local metropolitan planning organizations, regional transit authorities, and the Ohio Department of Transportation, is conducting a Major Investment Study (MIS) to assess the costs and benefits of new passenger rail service, Transportation System Management (TSM), and/or capacity improvements for the Canton-Akron-Cleveland (CAC) Corridor. The 70-mile corridor follows a path along Interstate 77 (I-77) between Canton and Akron. Between Akron and Cleveland, the corridor widens to include both I-77 and State Route 8 (SR-8). The SR-8 alignment utilizes Interstate 271 and Interstate 480, returning to I-77 and continues into the Central Business District of Cleveland. The corridor frequently experiences traffic congestion and related safety problems on major transportation facilities. The study is currently in the primary scoping stage. The proposed project is included in the Akron Metropolitan Area Transportation Study's Long Range Needs Plan. In addition, several miles of rail right-of-way have been purchased for passenger rail use. Federal, State and local sources have allocated nearly \$15 million to the project. Through FY 1999, Congress has appropriated \$11.88 million in Section 5309 new starts funds for this effort.

## Cleveland Blue Line Extension

### **Cleveland, Ohio**

The Greater Cleveland Regional Transit Authority (GCRTA) is conducting a Major Investment Study (MIS) to examine transportation options in a corridor extending from the terminus of GCRTA's Blue Line at the intersection of Van Aken Boulevard and Warrensville Road in Shaker Heights to Highland Hills. One of the alternatives under consideration is a potential extension of the Blue Line. Through FY 1999, Congress has appropriated \$0.8 million in Section 5309 new starts funds for this effort.

## Interstate 90 Corridor to Ashtabula County

### **Cleveland, Ohio**

The Northeast Ohio Areawide Coordinating Agency (NOACA), the local Metropolitan Planning Organization for the Cleveland area, is examining the feasibility of initiating commuter rail service in a proposed corridor between Cleveland and Ashtabula County. The proposed corridor is one of seven found to be feasible for commuter rail under Phase I of the Northeast Ohio Commuter Rail Feasibility Study (NEOrail) being conducted by the NOACA. Currently, no commuter rail service operates in the corridor. Prior to a decision to implement commuter rail service, NOACA will conduct Phase II of the NEOrail study. Phase II will complete the feasibility analysis, including implementing planning for all seven corridors, as input to the regional decision making process necessary to select, program and fund a proposed project.

## North - South (Waterfront Line Extension)

### **Cleveland, Ohio**

The Greater Cleveland Regional Transit Authority (GCRTA) is conducting a Major Investment Study (MIS) to examine transportation options to the North-South transportation corridor in the eastern portion of the Central Business District (CBD) in Cleveland, Ohio. One option under consideration includes providing Light Rail Transit (LRT) service to the proposed corridor. One of

the alternatives under consideration includes a potential extension of the Waterfront Line LRT south from the existing North Coast terminus through the eastern portion of the CBD. Another potential alternative is Phase II of the Waterfront Line LRT. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

## Hollis-Ketchikan Ferry

### **Craig, Alaska**

The State of Alaska relies on ferries to connect many of the State's coastal islands and towns. The State operates the Alaska Marine Highway, a system of 17 vessels, primarily in the Southeast portion of the State. This system has limited funding available and is unable to introduce additional, needed services or routes. In addition, there are isolated communities in the remainder of the State, which rely on access by water or air transport, as a road system is simply not developed. There are several settings where local communities are attempting to institute ferry services of their own, in light of the State's limited resources. The City of Craig has combined with other communities on Prince of Wales Island to study the feasibility of replacing an existing ferry service operated by the Alaska Highway between the island and the City of Ketchikan with more frequent and reliable service. The proposed project has been included in the Southeast Alaska plan and was adopted in the State Transportation Improvement Program in 1998. Through FY 1999, Congress has appropriated \$6.3 million in Section 5309 new starts funds for this effort.

## East Corridor (Airport)

### **Denver, Colorado**

The Denver Regional Council of Governments (DRCOG), in cooperation with the Colorado Department of Transportation (CDOT) and the Regional Transit District (RTD), has completed the technical work for a Major Investment Study (MIS) to evaluate transportation improvements in its East Corridor, which links downtown Denver via Interstate 70 with Denver International Airport (DIA). The East Corridor MIS was coordinated with concurrent Major Investment Studies of the region's West and Southeast Corridors. The East Corridor MIS recommended a multimodal package of improvements in the corridor including a 23-mile single-track commuter rail line between Denver Union Station and DIA and a one-mile light rail extension from downtown to a proposed commuter rail station at East 40<sup>th</sup> Avenue and 40<sup>th</sup> Street. With the commuter and light rail improvements, DRCOG estimates an increase of 8,800 daily linked transit trips in the corridor by the year 2020. The capital cost for the commuter and light rail improvements is estimated at \$330 million, with annual operating costs estimated at \$31.2 million. DRCOG has officially adopted the Locally Preferred Alternative (LPA) by including it in the Long Range Transportation Plan.

## West Corridor

### **Denver, Colorado**

The Denver Regional Council of Governments (DRCOG), in cooperation with the Colorado Department of Transportation (CDOT) and the Regional Transit District (RTD), has completed the technical work for a Major Investment Study (MIS) to evaluate improvements in the West Corridor, linking downtown Denver with the City of Golden at the intersection of US Routes 6 and 40, along West Colfax and Sixth Avenues. The West Corridor MIS was coordinated with

concurrent MISs of the region's East and Southeast Corridors. Included in the recommendations for the West Corridor is approximately 12.5 miles of light rail from Union Station to the Cold Spring Park-n-Ride, as well as some enhanced bus service. The capital cost of the recommended alternative is estimated at \$251 million, with annual operating costs of \$11 million. DRCOG has officially adopted the Locally Preferred Alternative (LPA) by including it in the Long Range Transportation Plan. It is possible that a Minimum Operable Segment may proceed prior to the rest of the corridor. The segment would be called the Central Platte Valley Connector and would run from the Colfax Avenue station on the existing Central Corridor LRT system to the Denver Union Terminal and would serve the Auraria Campus, the Pepsi Center, Mile High Stadium and Lower Downtown Denver. Project sponsors have proposed to fund the segment with a combination of Federal, State, local and private funds.

## **Trolley Extension**

### **Galveston, Texas**

The City of Galveston is conducting a Modified Investment Study and preliminary engineering report to determine the most suitable alignment and technology for extending the existing Galveston rail trolley system. The Galveston trolley has been operating successfully since 1985 and has been previously extended to serve the new Harborside development north of downtown. Preliminary feasibility studies have identified the potential benefits of extending the existing system to serve Galveston Island's largest employer, the University of Texas Medical Center (UTMB) on the east of downtown, and the Island's most important tourist destination, "Moody Gardens" on the west part of the Island. The proposed extension has been adopted as part of the Houston-Galveston area Council's Transportation Improvement Program (TIP) and the Long Range Transportation Plan. The study is scheduled for completion in 1999. Through FY 1999, Congress has appropriated \$1.9 million in Section 5309 new starts funds for this effort.

## **City Light Rail Connection to the Central Business District**

### **Hartford, Connecticut**

The City of Hartford is proposing to study the feasibility of a connection from the Central Business District in Hartford to the "North Meadows" area in cooperation with the Greater Hartford Transit District. This is an area adjacent to the Connecticut River, along the Interstate 91 (I-91) North Corridor. The I-91 corridor has experienced a variety of development including, suburban commercial, light manufacturing, sports and a music theater. The corridor will be further defined by the study and may include some elements of downtown circulation to maximize the efficiency of the transit connection. The alternatives being considered may include light rail and bus rapid transit as well as the potential for "fringe parking." The City, the Regional Planning Agency and the Transit District are still defining the final scope of the project. This project is in the Hartford area Long Range Transportation Plan. Through FY 1999, Congress has appropriated \$1.5 million in Section 5309 new starts funds for this effort.

## **Griffin Line**

### **Hartford, Connecticut**

The Greater Hartford Transit District (GHTD) has conducted a Major Investment Study (MIS) to examine transit options within a proposed 16-mile corridor extending from downtown Hartford and several city neighborhoods to suburban towns to the north, and on to Bradley International

Airport. The MIS resulted in a Light Rail Transit (LRT) option as the Locally Preferred Alternative (LPA) being adopted in July 1995 by the Capitol Region Council of Governments (CRCOG) - the local Metropolitan Planning Organization (MPO). Since that date, the State, CRCOG, GHTD and local officials have had extensive discussions on funding sources and local financial constraint, and have determined that the LPA is not a viable alternative and are currently exploring possible additional analysis of transit mode alternatives. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

## **Interstate 35 Commuter Rail**

### **Johnson County, Kansas**

Johnson County, Kansas, in conjunction with the Mid America Regional Council – the local Metropolitan Planning Organization for the Kansas City region, is evaluating the feasibility of implementing commuter rail service along a proposed corridor extending from the Olathe, Kansas area to downtown Kansas City. The proposed project has been adopted in the area's Long Range Transportation Plan. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

## **Metrolink (San Bernardino Line)**

### **Los Angeles, California**

The Southern California Regional Rail Authority (SCRRA) is proposing a series of improvements to its commuter rail service within an existing railroad right-of-way. These improvements include the construction of sidings in the Interstate 10 Corridor, an upgrade of siding at Marengo and the double tracking of a line between the existing Pomona and Montclair stations. These improvements will result in an increase in service frequency, a reduction of commuter rail train delays, and an improvement to the schedules of counter-flow trains on the San Bernardino Line. The San Bernardino Line has the highest ridership of all Metrolink lines. There are currently 26 daily train trips in the corridor serving 8,200 daily commuter rail trips. The estimated capital cost for the proposed project is \$31.4 million.

## **Metrolink (Union Station-Fullerton)**

### **Los Angeles, California**

The Southern California Regional Rail Authority (SCRRA) is proposing a series of multiple track improvements between the City of Fullerton and Los Angeles' Union Station. The proposed project is located on the existing Metrolink Orange County Line, which is part of the Los Angeles-San Diego Rail Corridor (LOSSAN) between San Diego and Los Angeles. The proposed corridor is the second busiest in the nation. Throughout the Fullerton to Los Angeles section of the corridor, there are 21 Amtrak intercity train trips, 22 commuter rail trips and 41 freight trips. Metrolink ridership on the Orange County Line has grown to over 5,400 daily trips. Local agencies have jointly contributed over \$400 million to purchase and upgrade the proposed corridor. Amtrak contributed approximately \$15 million of this amount. The portion of the LOSSAN corridor from Los Angeles to San Diego is owned entirely by public agencies, except the proposed 25-mile section between downtown Los Angeles and Fullerton. The Union Station-Fullerton segment is owned by the Burlington Northern Santa Fe Railroad (BNSF).

## Santa Monica Boulevard Transitway

### Los Angeles, California

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is studying a section of Santa Monica Boulevard (State Route 2) between the San Diego Freeway (Interstate 405) and Moreno Drive, the boundary line between the cities of Los Angeles and Beverly Hills. The purpose of the study is to examine multimodal options in the corridor, including improved operational efficiency of the roadway, priority treatments to improve bus transit flow, a bikeway and parkway, and the preservation of the right-of-way for future rail improvements in the Santa Monica Boulevard corridor. Caltrans (California Department of Transportation) approved a Project Study Report (PSR) in October 1994. The PSR outlined a one-way couplet project concept for each direction. In January 1996, the LACMTA initiated a Major Investment Study (MIS) to refine the alternative approved in the PSR. In June 1997, LACMTA initiated preliminary engineering and environmental clearance for the project.

## Jefferson County Corridor (South Central Corridor)

### Louisville, Kentucky

The Transit Authority of River City (TARC) recently completed the "Transportation Tomorrow (T-squared)" Major Investment Study (MIS) for a proposed corridor operating in an exclusive right-of-way extending south from downtown Louisville to an area just beyond the "Outer Loop," a distance of approximately 13 miles. The Locally Preferred Alternative (LPA) recommended a fixed guideway rapid transit system, with an enhanced bus element. Enhanced bus service will include augmented cross-county service, which will connect riders from neighborhoods to the proposed rapid transit line. Improvements to both the existing bus service as well as the proposed bus enhancements will be considered. Preliminary capital costs estimates for the enhanced bus element are approximately \$25 million. The fixed guideway portion of the LPA has not been determined. However, project sponsors have indicated the possibility of either an electrified Light Rail Transit (LRT) or Bus Rapid Transit (BRT) alternative. Buses would travel along an exclusive right-of-way in the Preston, Kentucky and Interstate 65 Corridor. Proposed station sites for the LPA are being considered at: Downtown, Medical Center, Smoketown, Shelby Park, University of Louisville (Student Center), University of Louisville (Papa John's Stadium), Kentucky Fair and Exposition Center (Southern Heights), Louisville International Airport, United Parcel Service, Ford Motor, Inc, and at a proposed park-n-ride lot/maintenance facility to be located between the "Outer Loop" and Gene Synder Freeway. Preliminary capital cost estimates range between \$300 - \$450 million, dependent upon the determination of the mode and alignment for the fixed guideway portion of the LPA. The proposed project is pending inclusion in the local Metropolitan Planning Organization's Long Range Transportation Plan.

## Palmetto Metrorail

### Miami, Florida

The Miami-Dade Transit Agency (MDTA) is proposing to extend Metrorail service westward from the existing Okeechobee Metrorail Station (northern terminus) to a new station west of the Palmetto Expressway (State Route 826). The MDTA has completed the necessary planning and engineering phases and is ready to begin construction of the 1.4-mile heavy rail extension of the Metrorail system. The proposed project is anticipated to facilitate auto access for the north

terminus station by its placement adjacent to the roadway facility and the construction of an over 700-vehicle at-grade parking facility. The proposed extension is projected to generate 1,900 new transit riders by 2015. Total capital costs for the proposed project are estimated at \$87.8 million. The 1999 Transportation Improvement Program (TIP) anticipates that the Federal Government will provide 57 percent of the total capital costs, while state and county sources are anticipated to provide 43 percent. The proposed project is scheduled for completion in December 2001.

## South Busway Extension

### **Miami, Florida**

The Florida Department of Transportation (FDOT) has completed a Project Development and Environmental (PD & E) Study and is in the design phase for the extension (Phase II) of the South Dade Busway, which opened in February 1997, and provides feeder services to Metrorail. The extension would be 11.7 miles from the current terminus at Southwest 112<sup>th</sup> Avenue, to Florida City along the U.S. Route 1 Corridor. The proposed project would utilize an abandoned railroad corridor for the busway facility. The project has been broken into three segments: Segment I extends from SW 112<sup>th</sup> Avenue to 264<sup>th</sup> Street; Segment II extends from SW 264<sup>th</sup> Street to SW 312<sup>th</sup> Street; and Segment III extends from SW 312<sup>th</sup> Street to 344<sup>th</sup> Street. Funding for segments I and II are included in the 1999 Transportation Improvement Program (TIP) and the entire project is included in the 2015 Long Range Transportation Plan. Construction costs for the total project are estimated at \$35 million. Phase I is scheduled for completion in 2003. The proposed project is being funded entirely through local sources. Various bus improvements are planned in the South Dade area to complement the proposed project, similar to the initial and presently operating South Dade Busway project. Ridership projections identify approximately 3,100 new transit trips by 2015.

## Kenosha-Racine-Milwaukee Rail Extension [Metra]

### **Kenosha, Racine, Milwaukee, Wisconsin**

The Southeastern Wisconsin Regional Planning Commission (SEWRPC) – local Metropolitan Planning Organization - plans to conduct a Major Investment Study (MIS) to examine the feasibility of extending Chicago-based Metra commuter rail service from Kenosha to Racine and Milwaukee. The study will focus on a proposed 33-mile corridor connecting the central business districts of Kenosha, Racine and Milwaukee in southeastern Wisconsin. SEWRPC has recently completed a feasibility study, funded entirely with local funds that concluded that the extension is feasible. The SEWRPC has adopted the project into the region's Long Range Transportation Plan. Through FY 1999, Congress has appropriated \$0.496 million in Section 5309 new starts funds for this effort.

## East-West Corridor

### **Milwaukee, Wisconsin**

The Wisconsin Department of Transportation (WisDOT) has conducted a Major Investment Study (MIS) to examine transportation alternatives in a proposed 9-mile corridor extending from Glendale and the University of Wisconsin-Milwaukee, southwest through the Central Business District and the northside of Milwaukee, to the western suburbs of the city of Waukesha. The study considered a range of alternatives, including Transportation Systems Management (TSM), exclusive High Occupancy Vehicle (HOV) lanes for buses and/or carpools, Interstate highway

modernization, and light rail transit (LRT). Several combination alternatives using different technologies in different parts of the corridor were also considered. In 1991, WisDOT conducted an alternatives analysis study. In 1994, this study was converted to a MIS, which included both highway and transit elements. WisDOT selected a Locally Preferred Alternative (LPA) which included improved bus transit with park-n-ride lots, LRT for Milwaukee County, the reconstruction of Interstate 94 with HOV lanes and the reconstruction of the Marquette Interchange in downtown Milwaukee. Total capital costs were estimated at \$1.8 billion, with the LRT component estimated at \$500 million. The Southeastern Wisconsin Regional Planning Commission (local Metropolitan Planning Organization) included the East-West Corridor in its Long Range Transportation Plan. The Milwaukee County and Waukesha County Boards passed resolutions supporting the LPA. However, the resolution passed by the Waukesha County Board stated that the LRT component would not be built in Waukesha County nor funded by Waukesha County residents. In addition, \$241 million in Interstate Cost Estimate (ICE) funds, which had previously been made available for transit, has since been reprogrammed to highway projects by a provision in Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). Local and State officials continue to examine implementation and funding options, and to address the financial constraint issues.

#### **Twin Cities - Transitway Corridors (Northstar Corridor) - Minneapolis-Anoka-St. Cloud**

##### **Downtown Minneapolis-Anoka-St. Cloud, Minnesota**

The Northstar Corridor Development Authority (NCDA), created by the Minnesota Department of Transportation, and acting as a joint powers board of 25 local government units with the cooperation of two metropolitan planning organizations (Metropolitan Council and the St. Cloud Area Planning Organization), is conducting a Major Investment Study (MIS) for a proposed 70-mile corridor between Minneapolis and St. Cloud, Minnesota. The proposed corridor includes the Burlington Northern Santa Fe railroad and Trunk Highway 10. The corridor is the fastest growing corridor in the state. The MIS will evaluate a range of transportation alternatives, including the feasibility of implementing commuter rail service with appropriate land use patterns along the corridor. The study is scheduled for completion in May 1999. Through FY 1999, Congress has appropriated \$0.35 million in Section 5309 new starts funds for this effort.

#### **Twin Cities - Transitway Corridors (Riverview Corridor)**

##### **Minneapolis-St. Paul, Minnesota**

The Ramsey County Regional Railroad Authority (RCRRA) of Hennepin County, in coordination with the Minnesota Department of Transportation (MnDOT), is conducting a Major Investment Study (MIS) to examine transportation options within a proposed corridor located on the lower east side of St. Paul to downtown St. Paul. The proposed corridor also includes connections to the Minneapolis-St. Paul International Airport, Mall of America in Bloomington - the largest retail complex in the nation, Phalen Corridor redevelopment area and the proposed Hiawatha Avenue Light Rail Transit (LRT) line. The corridor is also investigating potential connections to the Minnesota Science Museum, Ft. Snelling State Park and Ordway Theater, which combined have a total annual visitor patronage of approximately 2.7 million people. The study is considering a range of alternatives including No-build, an improved bus system, express buses operating in exclusive lanes and LRT. The study is scheduled for completion in April 2000. Through FY 1999, Congress has appropriated \$1.15 million in Section 5309 new starts funds for this effort.

## Monterey County Commuter Rail

### **Monterey County, California**

Monterey Salinas Transit is proposing the development and extension of two commuter rail lines in Monterey County. The first component involves the extension of the Caltrain peninsula rail corridor, as a partial commuter rail train, from San Francisco to Seaside/Salinas. The proposed "Express" line would operate on an existing rail line extending south approximately 110 miles. Monterey has applied for funding as part of the \$17 million California Rail Initiative, under State Proposition 116. The second component involves an extension of the Amtrak/Capitol Express to Monterey. This second component would allow Monterey County commuters to have regular access to San Francisco and Sacramento, California. It would also allow riders to access Caltrain and the Capitol Express to San Francisco and Sacramento, respectively, through transfers in the San Jose area.

## Monmouth/Ocean/Middlesex (MOM) Study

### **Monmouth/Ocean/Middlesex, New Jersey**

The New Jersey Transit Corporation (NJ Transit) is conducting a Major Investment Study (MIS) to consider transportation improvement options between Lakewood and Newark, New Jersey. Several alignment possibilities have been examined and the options have been narrowed to diesel powered commuter rail and/or highway alignments and an enhanced bus system. NJ Transit's Board of Directors subsequently endorsed the advancement of an enhanced bus system. However, in response to suggestions from one of the affected counties, analysis continues on potential rail options that would connect with Amtrak's Northeast Corridor. Information on the local financial commitment, mobility improvements, cost effectiveness, environmental benefits and operating efficiencies is being developed as part of the MIS. Through FY 1999, Congress has appropriated \$7.8 million in Section 5309 new starts funds for this effort.

## Personal Rapid Transit

### **Morgantown, West Virginia**

The University of West Virginia is planning an upgrade of the heating and on-board vehicle control system on the Morgantown Personal Rapid Transit (M-PRT) system. The system was originally developed as a research and demonstration project during the 1970s. The system consists of 8.2 miles of dedicated guideway with five passenger stations and a fleet of 71 fully automated vehicles. Through FY 1999, Congress has appropriated \$8.2 million in Section 5309 new starts funds for this effort.

## Nashua, New Hampshire/Lowell, Massachusetts Commuter Rail

### **Nashua, New Hampshire/Lowell, Massachusetts**

The Nashua Regional Planning Commission (NRPC) and the City of Nashua are in the process of evaluating transportation alternatives for the corridor between Nashua, New Hampshire and Lowell, Massachusetts. The NRPC is establishing a Steering Committee for public participation and is developing costs and ridership projections for the alternatives. The project is presently not included in the Transportation Improvement Program/State Transportation Improvement Program, but is included in the Nashua RPC's Long Range Transportation Plan.

## Nashville Commuter Rail

### **Nashville, Tennessee**

The Nashville Metropolitan Transit Authority (MTA) and the local Metropolitan Planning Organization (MPO) are examining the feasibility of implementing a commuter rail system connecting the Downtown Nashville area with other areas in the Southeast Tennessee region. The Nashville Chamber of Commerce has created a task force to evaluate the prospect of commuter rail deployment. The MPO has also created a commuter rail task force. The Northeast Corridor to Hendersonville and the East Corridor to Mt. Juliet, with a spur to Opryland, have emerged in both processes as leading candidates for commuter rail. Early planning for eight intermodal commuter rail stations is beginning. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

## Northwest New Jersey-Northeast Pennsylvania Rail Corridor

### **New Jersey and Pennsylvania**

The New Jersey Transit Corporation (NJ Transit) is conducting a Major Investment Study/Environmental Assessment (MIS/EA) for the restoration of passenger rail service on the former Delaware, Lackawanna and Western Main Line between Scranton, Pennsylvania and Port Morris Junction in Morris County, New Jersey. The study is scheduled for completion in December 1999. Through FY 1999, this effort has been provided \$0.64 million in Section 5303 (Metropolitan Planning) and Section 5307 (Surface Transportation Policy - STP) funds.

## Brooklyn-Staten Island Ferry

### **New York, New York**

The New York City Department of Transportation (NYCDOT) and the Port Authority of New York and New Jersey (PORT) recently performed a series of studies examining potential routes connecting Staten Island (SI) with Downtown Brooklyn, either directly, after a stop in Manhattan, or enroute to a Midtown-Manhattan landing. Currently, there is no ferry service from Staten Island to Downtown Brooklyn. However, there is ferry service serving the Brooklyn Army Terminal Pier at 60<sup>th</sup> Street enroute from Monmouth County, New Jersey to Manhattan. In 1997, NYCDOT solicited the business community's interest in operating these routes. The response to the request resulted in limited interest by private operators, in part due to the recent elimination of SI Ferry passenger fares, and the creation of the One City-One Fare free transfer between the New York Metropolitan Transportation Authority's buses and subways. NYCDOT has indicated that if a private ferry operator were to express interest, NYCDOT would consider constructing or enhancing existing docking space to support the service.

## 8<sup>th</sup> Avenue Subway Connection

### **New York, New York**

The Pennsylvania Station Building Redevelopment Corporation (PSRC) is proposing, as a component to the Pennsylvania Station/Farley Building Redevelopment project, a primary pedestrian connection between the existing Penn Station and the new Amtrak area in the Farley Building. The proposed project, located in the existing pedestrian passageway under 33<sup>rd</sup> Street (Midtown Manhattan) would connect Penn Station with the 8<sup>th</sup> Avenue IND Subway Station and the Long Island Rail Road West End Access. The existing passageway is currently overcrowded.

The proposed project includes the widening of the passageway, reducing the grade of the ramp, improving ADA (American with Disabilities Act of 1990) accessibility, and upgrading the lighting, ventilation and life safety components. Total capital costs for the proposed connection are estimated at \$10.8 million. The overall Farley Building Project is estimated at \$315 million, of which \$100 million is proposed for Federal funding. The 8<sup>th</sup> Avenue Subway Connection represents a portion of the \$100 million Federal share. The Federal Railroad Administration (FRA) has been the lead agency for the Federal share. A draft Environmental Assessment has been prepared by the FRA for the entire redevelopment project, including the passageway.

#### **Midtown West Ferry Terminal**

##### **New York, New York**

The proposed project consists of the development of a ferry terminal on Manhattan's West Side for a private ferry operator (New York Ferry Imperatore). The proposed terminal is located geographically on the West Side of Manhattan. However, New York Ferry's base of operations is located across the Hudson River in New Jersey. Currently, no project sponsor has been identified. However, either New Jersey Transit or the New Jersey Department of Transportation could be a potential candidate.

#### **St. George Ferry Intermodal Terminal**

##### **New York, New York**

The New York City Department of Transportation (NYCDOT) is proposing to modernize the Saint George Ferry Terminal. The terminal is located on Staten Island and functions as a termination point for ferry service between Staten Island and Manhattan. The terminal also provides intermodal connections for commuter rail (Staten Island Rapid Transit Operating Authority - SIROTA), New York City Transit bus, vans, automobiles, bicycles and pedestrians. The facility has not undergone significant reconstruction since it was built in 1950 after a fire destroyed the original terminal. Hence, there are areas in and around the terminal that need immediate improvements. In addition, portions of the terminal have been closed to public access due to unsafe conditions. The proposed modernization and reconstruction of facilities will include new entrances, a pedestrian plaza at the concourse level, new stairs, escalators and elevators, parking facilities that conform with the Americans with Disabilities Act of 1990 (ADA), a new pedestrian walk, and intermodal improvements to the bus complex. Funding for the proposed project will come from a combination of sources including the City of New York, NYCDOT, and the State.

#### **Staten Island Ferry-Whitehall Intermodal Terminal**

##### **New York, New York**

The New York City Department of Transportation (NYCDOT) is undertaking the reconstruction of the Staten Island-Whitehall Street Ferry Intermodal Terminal. The terminal, located at the southern tip of Manhattan was mostly destroyed by fire in 1991 and ferry service has been operating out of interim facilities since then. Reconstruction of the terminal will include improved connections with the New York City Transit subway system and several bus routes. The Staten Island to New York Ferry System moves over 60,000 riders daily. A draft Environmental Assessment has been developed and is currently under review. A Finding of No Significant Impact (FONSI) is anticipated to be issued in the Spring of 1999. Final design and engineering

are scheduled for completion shortly thereafter. The project is estimated to cost approximately \$100 million. Project sponsors have informed the Federal Transit Administration (FTA) that there is a potential shortfall in local funding of approximately \$30 million. Through FY 1999, Congress has appropriated \$11 million in Section 5309 new starts funds for this project.

#### **West Lake Commuter Rail Link (South Shore Commuter Rail)**

##### **Northern Indiana**

The Northern Indiana Commuter Transportation District (NICTD) is conducting a Major Investment Study (MIS) for the West Lake Corridor to examine the southern extension of the South Shore Line commuter rail service. The proposed corridor includes approximately 4.5 miles of unused former right-of-way purchased under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and jointly owned by the two towns of Munster and Hammond, Indiana and the NICTD. The right-of-way begins at Airline Junction in Munster, Indiana and ends at Dan Rabin Transit Plaza in downtown Hammond. NICTD has completed a sketch engineering study that would connect this corridor and the South Shore Line at Burnham Yards in Illinois. The proposed alignment would provide direct access via Metra's (commuter rail division of the Regional Transportation Authority of northeastern Illinois) Electric to Randolph Street Route in Chicago. The MIS will primarily build upon an extensive study done prior to ISTEA. Through FY 1999, Congress has appropriated \$7.47 million in Section 5309 new starts funds for this effort.

#### **New York, Susquehanna & Western Commuter Rail (Hawthorne-Warwick Corridor)**

##### **Northern New Jersey**

The New Jersey Transit Corporation (NJ Transit) has completed a Major Investment Study (MIS) resulting in a proposal to restore commuter rail service on the New York, Susquehanna and Western rail line (NYS&W) as far as Sparta, New Jersey. The service would connect to the NJ Transit Main Line at Hawthorne, New Jersey, where trains would serve the Secaucus Transfer Station and Hoboken. The proposed project would include track and signal improvements, new stations, parking facilities and equipment acquisition and rehabilitation of the Paterson, New Jersey Station on the NJ Transit Main Line. In addition, as part of the NYS&W rail line MIS, conceptual design, an environmental assessment, capital cost estimates, as well as preliminary design and engineering of the Paterson Station upgrade have been completed. Pending a Section 4(f) Report and a Section 106 Memorandum of Agreement with the New Jersey State Historical Preservation Office, the proposed Paterson Station upgrade component will be ready to proceed into final design and construction. In August 1996, a final Environmental Assessment Study was completed for the NYS&W rail line. Subsequently, in September 1996, the Federal Transit Administration (FTA) issued a Finding of No Significant Impact (FONSI). Through FY 1999, Congress has appropriated \$29.73 million in Section 5309 new starts funds for this effort.

#### **Schuykill Valley Metro**

##### **Philadelphia, Pennsylvania**

The Southeastern Pennsylvania Transportation Authority (SEPTA) and the Berks Area Reading Transportation Authority (BARTA) are conducting an Alternatives Analysis Study/Draft Environmental Impact Statement (AA/DEIS) for the Schuykill Valley Corridor. The proposed corridor extends approximately 62 miles and includes the City of Philadelphia, smaller cities of Reading, Norristown, Pottstown and Phoenixville. The corridor also includes suburban centers of

King of Prussia and Great Valley, as well as regional activity centers and attractions including Center City, Art Museum, Philadelphia Zoo, King of Prussia Malls, Valley Forge National Park and Reading outlets. The proposed corridor also encompasses three transit authorities: SEPTA, BARTA and Pottstown Urban Transit (PUT) and two metropolitan planning regions: Delaware Valley and Berks County. The corridor is located along existing rail freight or commuter rail right-of-way and parallels major congested expressways: the Schuylkill Expressway (Interstate 76), the US 422 Expressway and US Route 202. Alternatives currently under consideration include light rail and commuter rail. Total capital costs for the alternatives are estimated between \$401 million and \$717 million. In addition, the Philadelphia Metropolitan Planning Organization (the Delaware Valley Regional Planning Commission) is considering opportunities under the Transportation and Community and System Preservation Act (TCSP) to support a proposed Philadelphia Regional Transit Oriented Development Program. The TCSP effort, coupled with the proposed Schuylkill Valley corridor, is anticipated to provide opportunities for reverse commute and access to jobs activities with the areas of West Philadelphia, Norristown and Reading, Pennsylvania. Through FY 1999, Congress has provided \$2.97 million in Section 5309 new starts funds for the proposed Schuylkill Valley Corridor.

#### **Roaring Fork Valley (Aspen-Glenwood Springs Corridor)**

##### **Pitkin County, Colorado**

In 1995, the Colorado Department of Transportation (CDOT) completed a feasibility study of rail transit in the 40-mile Aspen to Glenwood Springs Corridor in the Roaring Fork Valley, about 160 miles west of Denver. The study estimated that a valley-wide rail system would cost approximately \$129 million. As a result, the City of Aspen is considering a locally-funded light rail transit (LRT) line in a four-mile segment of the corridor connecting Pitkin County Airport with downtown Aspen. This segment is dependent on the outcome of a local ballot initiative that is expected in November 1999. CDOT, meanwhile, is conducting a Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) to analyze transportation alternatives, alignments, and costs in the remainder of the valley, the 35-mile corridor to Glenwood Springs. The MIS/DEIS is scheduled for completion in June 1999. Through FY 1999, Congress has appropriated \$1.9 million in Section 5309 new starts funds for this effort.

#### **Airborne Shuttle System**

##### **Pittsburgh, Pennsylvania**

The Pittsburgh Airborne Shuttle System is a proposal, put forth by a private sector group, to design and construct a low-speed magnetic levitation project. The study area for the proposed project is also part of the North Shore-Central Business District Major Investment Study (MIS) – see project description below. The Federal Transit Administration (FTA) has not received any definitive information on the proposed Airborne Shuttle System project.

#### **North Shore-Central Business District**

##### **Pittsburgh, Pennsylvania**

The Port Authority of Allegheny County (PAT), in cooperation with the City of Pittsburgh and the Southwestern Pennsylvania Regional Planning Commission (SPRPC), is conducting a Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) for the North Shore-Central Business District (CBD) Corridor. The purpose of the MIS/DEIS is to assess potential

improvements in the North Shore's access to, and link with, the CBD and to enhance and support the private and public developments currently underway in the Allegheny River corridor. These developments include a new ballpark for the Pittsburgh Pirates, a new stadium for the Pittsburgh Steelers and a tripling of the size of the David L. Lawrence Convention Center. These three development projects are estimated at over \$800 million. The MIS/DEIS is considering the potential option of extending the existing light rail transit (LRT) system from the CBD across the Allegheny River to the North Shore. Other improvements being considered include roads, park-and-ride improvements, enhanced transit service or Transportation System Management (TSM), pedestrian/bikeway facilities, shuttle buses, reserved bus lanes, busways, LRT and people movers. In addition, other participants in the MIS/DEIS include the Pirates, Steelers, Allegheny Conference on Community Development, Pennsylvania Department of Transportation, the Carnegie Science Center, Pittsburgh Parking Authority and the Pittsburgh Cultural Trust. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

### Folsom Extension

#### **Sacramento, California**

The Sacramento Regional Transit District (RT) is proposing a series of multiple improvements to the existing Light Rail Transit (LRT) corridor between downtown Sacramento and the Mather Field station, with a potential extension of LRT from the current Mather Field station to downtown Folsom. The proposed project also includes a potential extension of the LRT line in downtown Sacramento. The majority of the needed right-of-way for the proposed project has already been acquired using State and local funds. A portion of right-of-way acquisition is required in downtown Folsom. Improvements to the existing LRT system in the Folsom corridor will include double-tracking two portions of the existing line at Bee Bridge and 65<sup>th</sup>-to-Watt. These improvements will allow the RT to operate limited-stop express rail service from downtown Folsom to downtown Sacramento.

### Placer County Corridor

#### **Sacramento, California**

The Federal Transit Administration has not received any information on this effort.

### Salt Lake City-Ogden-Provo Commuter Rail

#### **Salt Lake City, Utah**

The Wasatch Front Regional Council (WFRC) and Mountainlands Association of Governments (MAG) the two metropolitan planning organizations which oversee transportation planning for more than 85% of the State of Utah's population, along with the Utah Transit Authority and the Utah Department of Transportation, are conducting an Alternatives Analysis (AA) Study to evaluate transportation improvements in a proposed 120-mile corridor encompassing the Salt Lake City-Ogden-Provo urbanized areas. The study will evaluate highway, bus, and rail alternatives in the proposed corridor. WFRC and MAG completed a *Long Range Transit Analysis* in 1996, identifying commuter rail as an effective means of serving the transportation demands in the proposed corridor between Brigham City and Payson. Project sponsors are considering the option of implementing an interim commuter rail segment from Provo to Salt Lake City to mitigate the impacts to traffic flow of the reconstruction of I-15 and for the Olympic Games. Six to seven stations are anticipated for construction. Initial discussions with Union Pacific Railroad have

begun concerning acquisition of track for commuter rail and/or actual purchase of right-of-way to implement commuter rail, light rail or other transportation improvements. The September 1998 update of the region's Long Range Transportation Plan included commuter rail service in the proposed corridor. A more detailed feasibility study of commuter rail options and costs has substantiated the recommendation of the regional transportation plan. The study is scheduled for completion in 1999. Total capital costs are estimated at \$292 million. Through FY 1999, Congress has appropriated \$3.9 million in Section 5309 new starts funds for this effort.

## Cross County Corridor

### **St. Louis, Missouri**

The East-West Gateway Coordinating Council (EWGCC), the local Metropolitan Planning Organization, (MPO) and the Missouri Highway and Transportation Department (MoDOT) have completed a Major Investment Study (MIS) in the Cross County Corridor including St. Louis City and County. The east-west corridor connection is through Clayton, Missouri to the existing Metrolink system. The study evaluated transportation alternatives such as Light Rail Transit (LRT), busway, highway, Transportation Systems Management (TSM) and a No-Build alternative. Phase I of the MIS was completed in March 1997. A Locally Preferred Alternative (LPA), which included highway and transit improvements, was selected in September 1997. The transit component of the LPA is a 28.8-mile LRT line that extends Metrolink west in the City of St. Louis through downtown Clayton in St. Louis County, and then south from Clayton beyond the Interstate 55/Interstate 270 interchange in southeast St. Louis County and north from Clayton to beyond the Interstate 170/Interstate 270 interchange in North St. Louis County. Total estimated capital cost range from \$1 billion to \$1.2 billion.

## Regional Transit Corridor

### **San Joaquin, California**

The Altamont Commuter Express (ACE) Authority is proposing a series of service improvements to the existing commuter rail line operating in the Silicon and Tri-Valley areas. ACE serves eight cities and many of the major employers in the Silicon Valley, Central Valley and Tri-Valley areas. The proposed project includes the purchase of an additional trainset and associated track improvements, which are estimated to result in an approximately 50% increase in ridership and a corresponding increase in fare revenues.

## Santa Cruz Fixed Guideway

### **Santa Cruz, California**

The Santa Cruz County Regional Transportation Commission, in coordination with the Santa Cruz Metropolitan Transit District, is conducting a Major Investment Study (MIS) to evaluate transportation improvements in the Watsonville to Santa Cruz Corridor. A State highway and an underutilized freight rail line run through the length of most of the corridor. The study is looking at seven different alternatives, including three fixed guideway options. The study is also considering the feasibility of initiating intercity weekend rail service between Santa Cruz and San Jose via Watsonville and Gilroy. The study is scheduled for completion in early 1999. The final project may include a combination of alternatives currently being studied.

## Southworth Highspeed Ferry (Trans-Puget Sound)

### **Seattle, Washington**

The Washington State Department of Transportation (WSDOT)-Marine Division is in the process of developing a 20-year plan for the current system. The plan has been carried through an extensive public involvement process and is currently being finalized. Alternatives for the system have been considered and several passenger-only ferry routes have been proposed in lieu of further expansion of the auto ferry capacity on these routes. Fiscal capacity to accomplish the \$2 billion program of improvements is being considered by the Washington State legislature. Recent passage of state transportation bonding authority may enable the WSDOT to carry out several of the projects proposed in this program. The Southworth Highspeed Ferry is a component of the overall 20-year plan.

## Southeastern North Carolina Corridor

### **Southeast North Carolina**

The North Carolina Department of Transportation (NCDOT) is proposing to implement commuter rail service along the Southeast Corridor, also known as the Piedmont High-Speed Corridor (PHSC) from Washington, D.C. to Charlotte, North Carolina. The PHSC was one of five national high-speed rail corridors designated for improvements to high-speed status under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The NCDOT conducted preliminary feasibility studies to examine the potential for utilizing high-speed rail along the PHSC. The section of the preferred PHSC in North Carolina is 236 miles in length and serves the urbanized corridor stretching between Raleigh, Greensboro, and Charlotte, North Carolina. The PHSC will connect with the existing high-speed service on the Northeast Corridor in Washington, D.C. North Carolina and Virginia are coordinating their efforts on the implementation of the PHSC. NCDOT will conduct an Environmental Impact Statement (EIS) for the entire 236-mile corridor. The EIS is scheduled to begin in early 1999 with completion scheduled for 2002.

## South Valley Corridor Light Rail

### **Spokane, Washington**

The Spokane Regional Transportation Council has conducted a Major Investment Study (MIS) to examine the impacts of high capacity transportation on a proposed 16-mile corridor between the central business district of Spokane, Washington and Liberty Lake. The proposed corridor would connect major residential and employment centers within the Spokane Valley. Spokane has been classified as a "serious" nonattainment area for carbon monoxide. Trips along the corridor nearly double based on the population and employment forecasts between the years 1990 and 2020. The MIS considered three alternatives including: High Occupancy Vehicle (HOV) lanes, express busways, and Light Rail Transit (LRT). Based on the results of the MIS, LRT was selected as the preferred alternative with strong public support. The MIS was included in the region's Long-Range Metropolitan Transportation Plan in November 1997. It is anticipated that the project sponsor(s) will complete an Environmental Assessment in early 1999 and will request to initiate Preliminary Engineering (PE) in mid 1999. The total estimated cost for the LRT, including local, State and Federal funding, ranges between \$200 and \$300 million. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

## Altamont Commuter Rail

### **Stockton, California**

The San Joaquin Regional Rail Commission (SJRRC), the Alameda Congestion Management Agency (ACCMA), and the Santa Clara Valley Transportation Authority (VTA) have proposed to implement a commuter rail system along an existing Union Pacific Railroad right-of-way operating between the three counties. A Joint Powers Board (JPA) comprised of members from each of the three agencies was also created to operate the proposed Altamont Commuter Express (ACE). The SJRRC would be the managing agency for the initial 36-month term of an agreement executed between the three agencies. In addition to identifying potential sources for capital and operating funds, the member agencies will define the methods for allocating future costs and the shares of future capital improvement contributions from the member agencies.

## Pinellas County - Mobility Initiative

### **Tampa-St. Petersburg, Florida**

The Pinellas County Metropolitan Planning Organization is conducting an Alternatives Analysis (AA) study to identify transportation solutions to mobility issues in multiple corridors. The study will consider alternatives to address congestion occurring along north-south roadways in the north and central portions of the county, east-west corridors in the mid-portion of the county, north-south and east-west corridors near downtown St. Petersburg, and on corridors between Pinellas County and Hillsborough County to the east. The study is scheduled for completion in the year 2000.

## West Trenton Line (West Trenton-Newark)

### **Trenton-Newark, New Jersey**

The New Jersey Transit Corporation (NJ Transit) conducted a study to examine the potential of restoring passenger rail service on an active freight rail line spanning central New Jersey, beginning in Ewing Township located along the Delaware River and traveling northeast to a connection with NJ Transit's Raritan Valley Line at Bound Brook. The study, which was completed in April 1994, examined the potential station sites and western terminus options along the proposed alignment. In January 1998, NJ Transit began a feasibility assessment, which is scheduled for completion in early 1999. An Environmental Assessment will be conducted depending on the results of the current feasibility study. Through FY 1999, Congress has appropriated \$1.49 million in Section 5309 new starts funds for this effort.

## Dulles Corridor Extension

### **Washington, DC Metropolitan Area**

In June 1997, the Virginia Department of Rail and Public Transportation (VDRPT) completed a Major Investment Study (MIS) which evaluated several transportation options in the Dulles Corridor. The corridor extends from the West Falls Church Metrorail Station to Dulles International Airport and continues into Loudon County. The study recommended that a 23-mile, \$1.45 billion rail system be constructed to alleviate congestion and facilitate future growth in the corridor. The study also called for the development of a funding plan and the implementation of enhanced bus service. In July 1998, the Virginia Secretary of Transportation assembled the Dulles Task Force to determine the steps necessary for phased implementation of rail service

along the Dulles Corridor. This includes a Bus Rapid Transit (BRT) system that will operate similar to a rail system with stations built in the median and access provided through pedestrian overpasses. These stations will be designed for conversion into rail stations during the next phase of the project. Through FY 1999, Congress has appropriated \$16.87 million in Section 5309 new starts funds for this effort.

## **Washington-Richmond Corridor Improvements**

### **Washington, DC Metropolitan Area**

Due to increased congestion throughout the Washington, D.C. metropolitan region, the Virginia Railway Express (VRE) is proposing to expand commuter rail service to include the entire Washington, D.C.-Richmond, Virginia corridor. VRE currently operates commuter rail service between Washington, D.C. and Fredericksburg, Virginia. The Virginia Department of Rail and Public Transportation (VDRPT) initiated the Washington, D.C.-Richmond - Rail Corridor Study to identify specific improvements required to increase the maximum speed of passenger trains and to reduce the running time between Washington, D.C. and Richmond, Virginia, thus making it feasible for commuter rail service. The Commonwealth's Corridor Study, completed in April 1996, recommended a six-phase rail improvement program along the existing CSX right-of-way. The improvements include, but are not limited to, straightening certain curve tracks, adding new signals, rail-crossing safety measures, constructing new track in several areas of the existing right-of-way, incrementally adding a third track, and purchasing new rolling stock and passenger facilities. To date, the Commonwealth has allocated \$13 million for the initial phase of the proposed project. Through FY 1999, Congress has appropriated \$6.95 million in Section 5309 new starts funds for this effort. In addition to the Commonwealth's initiative, the Federal Railroad Administration (FRA) will soon be initiating a congressionally requested study of the Washington-Richmond corridor. The study will focus on the capital requirements needed for commuter rail service and intercity passenger rail service along the corridor. The study, developed in coordination with VDRPT and VRE and other regional transportation agencies, is scheduled for completion in early 1999.

## **Authorized for Alternatives Analysis and Preliminary Engineering**

### **High Capacity Corridor [Light Rail]**

#### **Albuquerque, New Mexico**

See project description for the Greater Albuquerque Mass Transit Project. Project sponsors have informed the Federal Transit Administration that the two are identical.

### **Georgia 400 Multimodal Corridor (North Fulton Corridor)**

#### **Atlanta, Georgia**

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is conducting a feasibility study to examine transit options in a proposed 14-mile corridor extending from the North Springs Station (currently under construction) to McGinnis Ferry Parkway along the Georgia 400 corridor. High growth in office, commercial, and residential development has occurred within the corridor with significant additional growth planned.

## MARTA Interstate 285 Transit Corridor

### **Atlanta, Georgia**

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is conducting a feasibility study to examine transit infrastructure options within the Interstate 285 Corridor extending from the existing Kensington Rail Station in DeKalb County to the Medical Center Station and Perimeter Center area. The proposed corridor is highly congested and currently carries over 170,000 daily auto trips.

## MARTA Marietta-Lawrenceville Corridor

### **Atlanta, Georgia**

The Federal Transit Administration has not received any information on this effort.

## MARTA South DeKalb Comprehensive Transit Program

### **Atlanta, Georgia**

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is examining potential transit solutions to alleviate traffic congestion throughout South DeKalb County. The proposed area, located south of MARTA's existing East Line is currently experiencing rapid growth in residential development. The result has been heavy traffic congestion on all major streets and highways. A portion of the proposed study area was included in the South DeKalb-Lindbergh Corridor Major Investment Study (MIS). As a result, data collected from the South DeKalb-Lindbergh MIS will be incorporated into the South DeKalb Comprehensive Transit study.

## Metropolitan Rail Corridor

### **Baltimore, Maryland**

The Maryland Department of Transportation (MD DOT) is currently considering 17 transportation improvement options for the Baltimore and Washington Metropolitan Regions. The various projects under study for the region range in scope from a two-mile extension for a Baltimore-Washington International Airport Square Light Rail Transit (LRT) and a downtown Baltimore LRT "Loop" to 19 miles for a Metro (heavy rail) extension between Columbia and Silver Spring, Maryland. Total capital costs for the various options range between \$120 million (downtown Baltimore Loop) to \$1.9 billion (Baltimore Metro options to White Marsh Mall or Westminster).

## People Mover (Baltimore Central Downtown Major Investment Study)

### **Baltimore, Maryland**

The City of Baltimore has initiated a feasibility study to identify transportation improvements within the Baltimore Downtown area. The study area includes an east-west corridor that also encompasses the Inner Harbor. The study will examine transportation options for moving people in the downtown area to areas just east and west of the Harbor. Alternatives under consideration include, but are not limited to, a potential Light Rail Transit extension from the current Penn Station and a people mover. Through FY 1999, Congress has appropriated \$0.5 million in Section 5309 new starts funds for this effort.

## Cross County Light Rail

### **Bergen County, New Jersey**

The Bergen County, New Jersey, Cross County Light Rail Transit (LRT) line is one of the alternatives being considered in the West Shore Region Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) which is scheduled for completion in early 1999. The Cross County LRT is proposed to travel southeast from the Town of Maywood, New Jersey through the City of Hackensack down along the New York, Susquehanna, and Western Railroad (NYS&W) right-of-way and terminate at the Vince Lombardi park-and-ride lot, a distance of approximately seven miles. A second track and passing sidings for the LRT would be constructed in the right-of-way and would be separate from the current freight service. The potential stations include Maywood/Rochelle Park, Hackensack (Prospect Avenue), Hackensack (Main Street) and Bogota. The Vince Lombardi park-and-lot is the present terminus point for the Hudson-Bergen LRT (HBLRT). If the Cross County LRT line were selected, it would serve as an extension to the HBLRT. The HBLRT track and structures could be used for the operation of service from Hoboken to the Vince Lombardi park-and-lot in North Bergen. This would allow a one-seat ride from Hoboken to Maywood, a distance of 17 miles. Through FY 1999, Congress has appropriated \$3.97 million in Section 5309 new starts funds for the MIS/DEIS.

## Birmingham Transit Corridor

### **Birmingham, Alabama**

The Birmingham Metropolitan Planning Organization (MPO), in cooperation with local governments, the local transit authority, the Chamber of Commerce, and the Birmingham Regional Planning Commission, is conducting a light rail transit feasibility study as part of its Regional Multimodal Mobility and Long Range Transportation Plan. This effort constitutes Phase I of the Birmingham Transit Corridor and will result in the identification of feasible light rail alternatives with High Occupancy Vehicle (HOV) lane alternatives proposed within each selected corridor to determine which may be the most effective for addressing congestion management solutions. Phase I is being funded with Federal Highway Administration (FHWA) Metropolitan Planning funds and local funds. Phase I is scheduled to be completed in August 1999. Phase II will consist of an Alternatives Analysis Study (AA) for the primary corridor. Phase II will evaluate the alternative alignments and technologies identified in the primary corridor in the system plan and choose a Locally Preferred Alternative (LPA). This phase will also initiate the environmental review process (National Environmental Policy Act of 1969, as amended) – (NEPA) and include concept-level engineering and an environmental scan. Phase II is anticipated to take approximately 15 months and will be completed in November 2000. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds to implement Phase II of this effort.

## Urban Ring

### **Boston, Massachusetts**

The Massachusetts Bay Transportation Authority (MBTA) is conducting a Major Investment Study (MIS) to examine transportation alternatives to improve circumferential mass transit in a corridor surrounding the Boston central core. The proposed corridor, known as the Urban Ring and generally following a previously proposed inner belt highway alignment, includes regional trip

generators, beginning at the University of Massachusetts' Boston Campus at the southeast end and terminating at Logan International Airport at the northeast end. The corridor also includes many major public, private, and institutional activity centers located in Boston, Cambridge, Chelsea, Everett, Somerville, and Brookline. Currently, the alternatives under consideration include circumferential rail service, various combinations of rail and bus service to new station stops on the existing radial system, and enhanced bus service. These alternatives would connect with existing commuter rail and transit lines. The project is included in the "future projects" section of the Boston area Long Range Transportation Plan but is not in the financially constrained plan. Through FY 1999, Congress has appropriated \$0.74 million in Section 5309 new starts funds for this effort.

## **Burlington-Essex Commuter Rail**

### **Burlington, Vermont**

The Vermont Agency of Transportation (VAOT) is planning an extension of commuter rail service on 7.8 miles of existing right-of-way between Burlington and Essex Junction. This is Phase II of the VAOT Burlington Commuter Rail effort. The proposed project will extend the Burlington to Charlotte commuter rail service from the recently renovated Union Station in Burlington to connect with Amtrak and major employment centers in Essex Junction. The Burlington to Charlotte commuter rail service is scheduled to begin operation in FY 1999. The VAOT is preparing a corridor analysis for the proposed project with \$0.26 million from their \$4.98 million FY 1998 earmark prior to commencing preliminary engineering, environmental, design and construction work. The improvements in the corridor would include track, tunnel, signal, at-grade crossings and drainage improvements. Two intermediate stations are also being considered along this route. Through FY 1999, Congress has appropriated \$6.96 million in Section 5309 new starts funds (including an additional \$1.98 million in FY 1999) for this effort.

## **Monobeam Corridor**

### **Charleston, South Carolina**

The Charleston Area Regional Transportation Authority, in cooperation with the City of Charleston and the City of North Charleston, is examining the feasibility of implementing a proposed light rail or monobeam transit system from the Airport to the downtown Convention Center. The full-scale proposed monobeam prototype is a three-year \$35-\$40 million effort that is expected to be financed largely with private funds. An approximately 1.25-mile prototype will be erected on a site in Charleston to demonstrate the aesthetic, cost and environmental characteristics of the monobeam, as well as its safety and reliability. The prototype could become the first segment of a regional rail transit network. Through FY 1999, Congress has appropriated \$3.68 million in Section 5309 new starts funds for this effort.

## **Comiskey Park Station**

### **Chicago, Illinois**

Metra, the commuter rail agency for northeastern Illinois, has completed a preliminary study of a proposed commuter rail station near Comiskey Park, located within the City of Chicago. This is one of two proposed transfer stations between Metra and the Chicago Transit Authority (CTA). The Chicago Area Transportation Study (local Metropolitan Planning Organization) has recommended further study of these proposals.

## Inner Circumferential Commuter Rail

### **Chicago, Illinois**

Metra, the commuter rail agency for northeastern Illinois, has completed the first phase of a study examining the feasibility of implementing commuter rail service within the Chicago metropolitan area. The Chicago Area Transportation Study (local Metropolitan Planning Organization) has not included this effort in its Long Range Transportation Plan.

## Northwest Rail Transit Corridor

### **Chicago, Illinois**

The Regional Transportation Authority of northeastern Illinois is conducting a feasibility study to investigate the transit and transportation needs of the Interstate 90/Northwest Tollway Corridor. The study is evaluating a range of transportation options that will result in a set of viable, cost-effective alternatives for the proposed corridor. The Northwest Corridor Transit Feasibility Study (I-90/Northwest Tollway Corridor) area is bounded by Harlem Avenue on the east, the Kane/Cook County line on the west, Metra's (commuter rail agency for northeastern Illinois) Union Pacific Northwest Line on the north and Metra's Milwaukee West Line on the south. A final recommendation of a set of alternatives is expected by mid-1999.

## Lorain-Cleveland Commuter Rail

### **Cleveland, Ohio**

The Northeast Ohio Areawide Coordinating Agency (NOACA), the local Metropolitan Planning Organization for the Cleveland area, is examining the feasibility of initiating commuter rail service in a proposed corridor between Cleveland and Lorain County in northeast Ohio. The proposed corridor is one of seven found to be feasible for commuter rail under Phase I of the Northeast Ohio Commuter Rail Feasibility Study (NEOrail) being conducted by the NOACA. Currently, no commuter rail service operates in the corridor. Prior to a decision to implement commuter rail service, NOACA will conduct Phase II of the NEOrail study. Phase II will complete the feasibility analysis, including implementing planning for all seven corridors, as input to the regional decision making process necessary to select, program and fund a proposed project.

## Northeast Ohio Commuter Rail Study, Phase II

### **Cleveland, Ohio**

The Northeast Ohio Areawide Coordinating Agency (NOACA), the local Metropolitan Planning Organization for the Cleveland area, is examining the feasibility of initiating commuter rail service in the Cleveland metropolitan area. Phase I of the Northeast Ohio Rail Feasibility Study has been completed by NOACA. Seven corridors have been identified in Phase I as being potentially feasible for commuter rail service. Phase II will bring the analysis of commuter rail in northeast Ohio to a conclusion, providing regional decisionmakers with information necessary to select, program and fund potential commuter rail service. Completion of Phase II is anticipated during the year 2000.

## Dallas - Las Colinas Corridor (Northwest Corridor)

### Dallas, Texas

The Dallas Area Rapid Transit (DART) Agency is conducting a Major Investment Study (MIS) to examine transportation options in a proposed corridor extending approximately 19 miles north from the Dallas Central Business District. The proposed corridor also includes a new arena development in downtown Dallas, the Medical-Market Center, Love Field Airport, the cities of Farmers Branch and Carrollton, the Las Colinas Urban Center development, as well as developing areas northwest potentially including the Dallas-Ft. Worth International Airport. In addition, two rail lines and two major freeways are located within the corridor as alignment alternatives. The purposes of the study are to enhance mobility, provide additional capacity, reduce congestion, enhance transit, and maintain the environment. Alternatives under consideration include: No-build, Transportation System Management (TSM) including Congestion Management System applications, light rail, commuter rail, High Occupancy Vehicle (HOV) lanes and bus transit improvements. An extensive public involvement process is currently underway. The study is also being closely coordinated with two other MISs being conducted by the Texas Department of Transportation.

## DART Light Rail Transit Southeast Extension (Pleasant Grove Corridor)

### Dallas, Texas

The Dallas Area Rapid Transit (DART) Agency is conducting a Major Investment Study (MIS) to examine transportation options in a proposed corridor extending approximately 10 miles within the southeastern quadrant of DART's service area. The proposed corridor also includes the Dallas Central Business District (CBD), the Medical-Market Center area, Baylor Hospital, the Deep Ellum Planned Development District, the Buckner Boulevard commercial/retail area and Fair Park. The Dallas CBD and the Medical-Market Center are outside the proposed corridor. However, they anchor one end of the southeast-northwest travel pattern of the corridor. The purposes of the MIS are to increase mobility in the corridor, add capacity along heavily traveled routes, reduce congestion and strengthen economic development. Alternatives under consideration include No-build, Transportation System Management (TSM), High Occupancy Vehicle (HOV) lanes, busway, commuter rail and light rail. Alignment alternatives to the DART-owned railroad right-of-way are also being considered. The Pleasant Grove Corridor is identified as a committed element in the region's Long Range Transportation Plan. The MIS is scheduled for completion at the end of 1999.

## Regional Riverfront Corridor

### Dayton, Ohio

The City of Dayton, in cooperation with the Miami Valley Regional Transportation Authority (Miami Valley RTA) is proposing to revitalize the area along the Miami River in downtown Dayton. The proposed riverfront corridor revitalization effort includes a landscaped walkway, a plaza for community festivals, fountains, a small boat harbor and the redevelopment of an existing street into a pedestrian way lined with trees, benches and streetlights. In accordance with this, the City of Dayton, along with the Miami Valley RTA is also proposing to relocate the existing infrastructure of an electric trolley for one of Miami Valley RTA's electric trolley bus lines. In

addition, the proposed project includes the construction of pedestrian access facilities, bus shelters, benches and signage.

#### North Front Range (Ft. Collins-Denver)

##### **Denver, Colorado**

The Colorado Department of Transportation (CDOT) with the cooperation of local stakeholder agencies, are examining transportation options for the entire North Front Range, which extends 90 miles from the northern suburbs of Denver to the Wyoming border and includes the urbanized areas of Denver, Boulder, Longmont, Greeley and Fort Collins. Commuter rail is one of the alternatives being considered in the study. The North Front Range area demonstrated the highest ridership potential in a statewide commuter rail feasibility study completed in 1996. The feasibility study estimated ridership at 721,500 per year for an 85-mile Denver-Greeley-Ft. Collins line and 416,200 per year for a 74-mile Denver-Boulder-Longmont-Loveland-Ft. Collins line. Both of these segments, as well as shorter lines using the same alignments, are under consideration in the current study. Phase 1 of the study was completed in 1998 and recommended more detailed consideration of commuter rail, High Occupancy Vehicle (HOV) lanes and highway improvements. Phase 2 of the study is currently underway. Through FY 1999, Congress has appropriated \$0.5 million in Section 5309 new starts funds for this effort.

#### International Fixed Guideway (El Paso to Juarez)

##### **El Paso, Texas**

The City of El Paso, Texas is proposing to reestablish a fixed guideway public transportation system between the City of El Paso, Texas and Ciudad, Mexico. The El Paso-Juarez region has the largest population of any international border in North America. The initial phase of the proposed international fixed guideway system involves approximately 1.6-miles of fixed guideway in downtown El Paso, Texas and an approximately 0.75-mile segment in downtown Juarez, Mexico. Until 1974, a rail trolley system linked the downtown areas of both cities. Tremendous growth and increased traffic resulting from the North American Free Trade Agreement (NAFTA) have increased traffic congestion on the region's international bridges. Project sponsors are currently in the process of establishing an alignment, selecting the preferred technology, identifying stations and terminals, and developing an operational framework for the El Paso portion of the proposed system. The appropriate legal and international agreements will be pursued with local, State and Federal officials in Mexico to secure Mexico's financial participation in the capital development and operation of the system. The total capital cost of the proposed project is estimated at \$43.75 million.

#### South Bay Corridor

##### **Fremont, California**

The Santa Clara Valley Transportation Authority (SCVTA) is examining transportation options in a proposed corridor extending approximately 21 miles between the cities of Union and Fremont, including downtown San Jose. The corridor is located primarily in the southeast portion of the San Francisco Bay Area. The corridor is predominantly traveled by residents living in the East Bay area and beyond who work in Silicon Valley. The proposed corridor is the third most congested corridor in the Bay Area. Residential development in the East Bay area has been compounded by the significant job growth in the Silicon Valley area, which has resulted in very

high and increasing levels of traffic congestion. In 1994, building on several earlier planning efforts, the Metropolitan Transportation Commission, in conjunction with local jurisdictions and transit agencies, conducted a study to evaluate multiple transit options in the corridor, including an option of the extension of the Bay Area Rapid Transit and SCVTA's light rail systems. Capital costs for a potential extension ranged from \$390 million - \$1.14 billion, depending on preferred technology and route alignments. A longer-term rail project is included in the 1998 Regional Transportation Plan for the San Francisco Bay Area. Further analysis, regional consensus building and public involvement is needed to determine the specific technology and route alignments for a potential rail extension in the corridor.

#### **Cumberland/Dauphin County Corridor 1 Commuter Rail**

##### **Harrisburg, Pennsylvania**

The Cumberland-Dauphin-Harrisburg Transportation Authority (Capitol Area Transit – CAT) is conducting an Alternatives Analysis (AA) Study for a selected priority transportation corridor known as "Corridor One." The corridor was given priority status in June 1997 and extends approximately 55 miles in central Pennsylvania between Carlisle and Lancaster, via Harrisburg. The purpose of the Corridor One AA study is to provide a decision making process for determining transportation investments for the region. The AA study will reflect the policies and direction given by the Regional Growth Management Plan as developed by and for the Tri-County Regional Planning Commission. The AA study will also incorporate policies and elements of the Transportation Plan of both the Harrisburg region's Metropolitan Planning Organization (MPO) and the Lancaster MPO. The proposed corridor has been endorsed by the Harrisburg Area Transportation Study (HATS) – the local MPO, as well as through local funding from the Pennsylvania Department of Transportation and numerous county, township and municipal contributions. The private sector has also been an active participant in this effort. The results of the CAT Regional Transit Alternatives Study and the Long Range Plan will be used to develop alternatives. The AA study is scheduled for completion in mid 1999. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

#### **Washington County Corridor**

##### **Hastings-St. Paul, Minnesota**

The Minnesota Department of Transportation is considering the feasibility of implementing commuter rail service along a proposed 30-mile corridor located in Washington County. The proposed corridor would connect downtown St. Paul, Minnesota with Hastings, Minnesota in Dakota County, located southeast of St. Paul. The area under consideration extends approximately 30 miles along Canadian Pacific railroad tracks. Ridership estimates vary between 933 daily passenger trips with two proposed stations over the entire 30-mile corridor to 1,179 daily trips with ten proposed stations along the entire corridor. Total capital costs for the entire corridor are estimated at \$108.8 million.

#### **Advanced Transit Program (Central Business District to Astrodome)**

##### **Houston, Texas**

The Metropolitan Transit Authority of Harris County (METRO) is conducting a Major Investment Study (MIS) to examine advanced bus and light rail transit alternatives in the 7-mile Central Business District to (CBD) Astrodome Corridor. The proposed corridor extends south through

Houston's growing CBD, the rapidly redeveloping midtown area, and a major museum/park/zoo/university area, the Texas Medical Center and to the Astrodome event complex. The corridor experiences some of METRO's highest ridership levels in the region. Improvements are needed to improve mobility in the corridor to serve a wide range of travel needs, including employment, school, shopping, medical, recreational and special events. METRO is seeking to develop a transit improvement that will connect significant and diverse activity centers and redevelopment within the corridor and to reinforce the transit/development linkages. The MIS was initiated in September 1998, and is scheduled to be completed in September 1999. The region's 2020 Metropolitan Transportation Plan includes high capacity transit within the proposed corridor. Through FY 1999, Congress has appropriated \$1.49 million in Section 5309 new starts funds for this effort.

#### **Advanced Transit Program (West Loop Corridor)**

##### **Houston, Texas**

The Metropolitan Transit Authority of Harris County (METRO) is conducting a Major Investment Study (MIS) focusing on Interstate 610 from the Interstate 10 interchange on the north (with connections to the Katy High Occupancy Vehicle (HOV) Lane and Northwest Transit Center) to the vicinity of Westpark Drive on the south. The corridor exhibits congestion as a result of high demand, limited road capacity, and difficult freeway interchanges. The focus of the study is the identification and evaluation of transit and HOV modes and strategies to serve corridor needs. METRO is working closely with the Texas Department of Transportation (TxDOT) to ensure that any recommendation from the West Loop MIS is compatible with TxDOT's planned maintenance improvements to the West Loop. Preliminary alternatives include a No-Build, low-cost alternative, a north-south connection alternative, diamond HOV lane, and a barrier separated HOV lane alternative. Public involvement contributed to the range of alternatives being considered in the MIS. The study is scheduled for completion in December 1999. Through FY 1999, Congress has appropriated \$1.49 million in Section 5309 new starts funds for this effort.

#### **Northeast Indianapolis Corridor**

##### **Indianapolis, Indiana**

The City of Indianapolis, in cooperation with the Indianapolis Metropolitan Planning Organization, is conducting a Major Investment Study (MIS) to examine the feasibility of major transit investments within the northeast portion of Marion County and the Southeast portion of Hamilton County between U.S. Route 31 and Interstate 70. The study corridor also encompasses parts of Interstate 69/State Route 37 and Interstate 465. In previous years, I-69/SR 37, as well as U.S. 31, were identified for major highway investments. Traffic congestion, along with rapid commercial and industrial development have also been increasing within the study corridor. However, as a result of including improved transit service as a potential alternative, the Hoosier Heritage Port Authority purchased the Norfolk Southern rail line extending from 10<sup>th</sup> Street in Indianapolis to Tipton, Indiana. Through FY 1999, Congress has appropriated \$1.25 million in Section 5309 new starts funds for this effort.

## Jacksonville Fixed Guideway Corridor

### **Jacksonville, Florida**

The Jacksonville Transportation Authority and the Florida Department of Transportation are planning to conduct a corridor-level study for a single corridor in the Jacksonville urbanized area of Duval, Clay, and St. Johns' counties. The proposed study is a continuation of a systems planning effort known as the Jacksonville Long Range Corridor and Park and Ride Study (JLRCS) - Phase II. Phase II is scheduled to be completed in March 1999. The JLRCS will result in the selection of one corridor for study in a corridor-level analysis. The proposed study will consider all viable transportation alternatives for improving mobility in the selected corridor. The corridor-level effort will begin in April 1999 and will be based upon the Jacksonville Urban Area Transportation Study (JUATS) Update for 2020, nearing completion. The JUATS will also include a proactive, focused and citizen-led public involvement program. The corridor-level study is scheduled for completion in the year 2000.

## Electric Transit

### **Knoxville, Tennessee**

The City of Knoxville is proposing an innovative program to incorporate multi-modal linkages among and between downtown Knoxville destinations. The Downtown Knoxville Transportation Linkages Study is examining the feasibility of connecting numerous destinations in downtown Knoxville with a fixed guideway transit system. The proposed program addresses the linkages that will connect these downtown generators with trolleys and a dedicated trolley route around downtown Knoxville, as well as bus transit, bicycle and pedestrian ways, transfer stations and intermodal parking/transit facilities. Through FY 1999, Congress has appropriated \$1.49 million in Section 5309 new starts funds for this effort.

## Minimum Operable Segment 4 - East Side Extension (Phase 2)

### **Los Angeles, California**

The Los Angeles County Metropolitan Transportation Authority (LACMTA) has proposed an eastern extension of the Metro Red Line from its current eastern terminus at Union Station in the City of Los Angeles. The first 3.7-mile segment, from Union Station to First and Lorena, is covered in the Full Funding Grant Agreement (FFGA) for Los Angeles MOS-3. The second segment, from First and Lorena to Atlantic and Whittier Boulevards in East Los Angeles, constituted the East Side Corridor Extension (Phase 2). The proposed 3.1-mile East Side Corridor Extension was a 3.1-mile extension, including three stations, all in subway. The project was estimated to cost \$1,216 million. As a result of a November 1998 decision by the LACMTA Board, and following the review of the Draft Regional Transit Alternatives Analysis Report, the East Side Extension (Phase 2) project was suspended. LACMTA is currently examining the feasibility of implementing viable bus expansion alternatives with technological improvements such as Global Positioning System (GPS) tracking technology and automated fare collection. The LACMTA is also considering a rapid bus option with potential stops of between 1/8 (one-eighth)

to one mile apart and including off vehicle fare collection, signal prioritization, stations, and the operation of articulated buses.

#### Redlands-San Bernardino Transportation Corridor

##### **Los Angeles, California**

The San Bernardino Associated Governments (SANBAG) is proposing a complete reconstruction of a one-mile rail line previously purchased by the agency. The proposed rail line extends from the San Bernardino Metrolink station eastward to the site of a proposed intermodal bus terminal in downtown San Bernardino. The bus facility is currently in final design. If the proposed rail project is completed, it will allow many Metrolink trains to connect directly with the new bus facility. The proposed project will also provide for the design and construction of a signal system for the first mile. The proposed project is included in the State Transportation Improvement Plan (STIP).

#### Riverside-Perris Rail Passenger Service

##### **Los Angeles, California**

The Riverside County Transportation Commission (RCTC) is proposing to implement rail passenger service on the San Jacinto Line of the former Atchison, Topeka and Santa Fe railroad. The proposed project would result in the implementation of service on the entire 38-mile line between the communities of Riverside/Highgrove and San Jacinto. RCTC plans to implement Phase I of the project, which involves railbed improvements, Metrolink connections, track and signal improvements, and station construction for the first 19 miles between Riverside/Highgrove and Perris. The capital cost for Phase I is estimated at \$43 million. While the capital cost for the entire 108-mile project is estimated at \$108 million. The proposed project is included in the Southern California Association of Governments' Regional Transportation Plan. Through FY 1999, Congress has appropriated \$0.5 million in Section 5309 new starts funds for this effort.

#### San Fernando Valley (East-West)

##### **Los Angeles, California**

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is studying alternatives in a proposed 17-mile corridor extending from the San Diego Freeway (Interstate 405) to the Warner Center in the West San Fernando Valley. The proposed corridor also includes the current terminus of the Los Angeles Metro Rail Red Line at North Hollywood. Alternatives under consideration include bus rapid transit, light rail transit and signal priority technology.

#### High Speed Ferry Service

##### **Maine**

The Maine Department of Transportation (MEDOT) has conducted a Marine Highway Waterfront Assessment to study infrastructure needs to support highspeed ferry service connecting Maine's coastal communities. This effort supports the MEDOT's Strategic Passenger Transportation Plan and is in MEDOT's Twenty and Six-Year Plans and will be included in the State Transportation Plan (STIP), if funded. The Marine Highway Waterfront Assessment identified locations in Portland, Bath, Boothbay Harbor, Rockland and Bar Harbor for ferry infrastructure development. The Marine Highway will link Portland to Bar Harbor, a distance of approximately 72 nautical

miles and will provide an alternative for travelers on the congested Interstate 95/Route 1 corridor. The MEDOT estimates ridership for the marine network to be 87,000 a year (May to October). The proposed project is estimated to cost a total of \$12.5 million, of which MEDOT is anticipating \$10 million in Federal funds.

## **North Bay Commuter Rail**

### **Marin/Sonoma, California**

Sonoma and Marin Counties are exploring the possibility of implementing passenger rail service along an existing rail right-of-way. Some initial planning studies have been conducted, however, this effort has not yet entered into the alternatives analysis stage of planning. Currently, the Sonoma/Marin Area Rail Transit (SMART) Planning Group is considering the level at which the planning for this effort should proceed. Local funding is available for some initial planning work. However, the necessary funding for construction and operation of a potential rail line is currently not available. A local sales tax measure with the potential to fund a proposed project did not pass a November 1998 referendum.

## **Memphis Regional Rail Plan**

### **Memphis, Tennessee**

The Memphis Area Transit Authority (MATA) has completed a Long Range Plan which includes Light Rail Transit (LRT) in three proposed corridors by the year 2020. The plan has been adopted by the local Metropolitan Planning Organization (MPO). The first proposed corridor selected for more detailed analysis is the East Corridor extending a distance of approximately 24.8 miles, and encompassing Downtown, Midtown, East Memphis, Germantown, and Collierville. Total capital cost for the East Corridor is estimated at \$443 million. Daily ridership for the East Corridor is anticipated to be 34,300 by the forecast year 2020. The North Corridor constitutes the second proposed corridor and extends a distance of 17.6 miles and includes Downtown, North Memphis, Frayser, and Millington. Total capital costs for the North Corridor are estimated at \$304 million. Daily ridership for the North Corridor is estimated to be 6,900 in the year 2020. The South Corridor, extending a distance of approximately 19 miles, constitutes the third corridor proposed for detailed analysis. The South Corridor includes Downtown, South Memphis, Whitehaven, Southaven, and a spur to the Airport. Total capital costs for the South Corridor are estimated at \$330 million. Daily ridership is anticipated to be 21,200 by the year 2020.

## **Kendall-Airport Corridor**

### **Miami, Florida**

The Miami-Dade Transit Agency (MDTA), in cooperation with the Florida Department of Transportation (FDOT), is conducting an Alternatives Analysis Study (AA) to examine mobility improvements in the Kendall corridor to the Miami International Airport (MIA). The corridor would serve as a feeder to Metrorail and the proposed Miami Intermodal Center. The corridor spans approximately 15 miles with both east-west and north-south segments. The Kendall segment, from Southwest 147<sup>th</sup> Avenue to the Dadeland area, is centered along Southwest 88<sup>th</sup> Street or North Kendall Drive. The Palmetto/Airport segment, from the Dadeland area to the MIA, is centered along the Palmetto Expressway (State Route 826) corridor. Major generators along the study area include the MIA, Mall of Americas, Downtown Dadeland, Baptist Hospital and Miami-Dade Community College (Kendall Campus). The Kendall-Airport MIS commenced in July 1998

and is scheduled for completion during the summer of 1999. The study follows Miami-Dade's 2015 Long Range Transportation Plan, which identified the Kendall and Palmetto corridors as requiring premium transit treatment. Several prior studies have examined the feasibility of transitways in the study area and concluded that transitways were viable options. The Kendall–Airport MIS is being funded locally by the FDOT, and managed by the MDTA.

## Northeast Corridor

### **Miami, Florida**

The Miami-Dade Transit Agency (MDTA) is planning to conduct an Alternatives Analysis (AA) study for the area's Northeast Corridor. The proposed corridor extends approximately 13.6 miles from Miami's Central Business District to the Broward County line, serving the cities of Miami, Miami Shores, North Miami, North Miami Beach and Aventura. The Northeast Corridor AA will examine mobility enhancements generally along the Biscayne Boulevard alignment that includes a parallel railroad corridor. Transitway technologies that will be studied include both busway and rail options. The corridor was identified in the Miami-Dade's 2015 Long Range Transportation Plan as requiring premium transit improvements. It also has been studied as part of the Metropolitan Planning Organization's Miami-Dade Transit Corridors Transitional Analyses (1993), which concluded that the proposed corridor was viable for a transitway.

## Nassau Hub

### **Nassau County, New York**

An Alternatives Analysis (AA) is proposed by Nassau County, New York to examine transportation improvements within this 1.5 by 2-mile corridor area. The study will consider a range of alternatives, including light rail transit, a fixed guideway loop, and shuttle buses, that would connect existing facilities and new infill development into a pedestrian/transit-friendly environment. Potential circulator transit service would also connect with a LIRR commuter rail station. The primary site of the Hub will be located in the center of Nassau County, Long Island, New York, on the Mitchell Field (a former Air Force base), which has become an extensive mixed-use development. It already has major activity centers, including retail, office, recreation, college, museums and a sports arena. Nassau County will seek assistance from the New York Metropolitan Transportation Council (local Metropolitan Planning Organization), the Long Island Rail Road (LIRR) and Long Island Bus, along with the local business and development community. Through FY 1999, Congress has appropriated \$0.5 million in Section 5309 new starts funds for this effort.

## Newburgh Light Rail Transit System

### **Newburgh, New York**

The City of Newburgh is planning to initiate a feasibility study for a proposed Light Rail Transit (LRT) system linking its Hudson River waterfront to Stewart International Airport. There is currently no public transportation between the two sites. The proposed LRT corridor would run along Broadway (Route 17K) connecting Newburgh's waterfront, historic district and downtown commercial area with the Airport and the surrounding industrial facilities, a distance of approximately four (4) miles. A segment of the proposed corridor passes through the City's

federally designated Enterprise Community area. It would also serve a major portion of Newburgh's New York State Economic Development Zone (EDZ). The proposed LRT is anticipated to boost tourism in the City by creating a unique and direct link between its historic/waterfront area and the region's major entry point for outside visitors. In addition, it would provide job access to the Stewart vicinity industrial sites for Newburgh's underutilized work force. The feasibility study is anticipated to take approximately 12 months to complete, and include consultation with the Town of Newburgh, State of New York Department of Transportation, Stewart Airport Commission, and the Newburgh EDZ. It would also include consideration of alternative transportation systems.

#### **Airport-CBD Commuter Rail (East Jefferson Corridor)**

##### **New Orleans, Louisiana**

The Regional Planning Commission (local Metropolitan Planning Organization) has conducted a Major Investment Study (MIS) for an approximately 15-mile corridor extending from Interstate 310 and the New Orleans International Airport to Downtown New Orleans and the Union Passenger Terminal on the East Bank of the Mississippi River. The corridor also covers the Jefferson, St. Bernard, St. Tammany and Plaquemines Parishes area. The proposed corridor is also 2-3 miles wide between Jefferson Highway (US 90) and West Napoleon Avenue. The proposed corridor will also serve a variety of major trip generators including the Elmwood Office and Industrial Park and Zephyrs' Baseball Stadium. Some of the alternatives that were considered in the MIS included: No-build, Transportation System Management (TSM), an extension of Earhart Boulevard, fixed guideway, busway, a combination alternative, and a widening of US 61. The MPO has selected a Locally Preferred Alternative (LPA), which consists of both a fixed guideway element and an extension of Earhart Boulevard. Estimated costs for the LPA range between \$140 million to \$500 million.

#### **Desire Streetcar**

##### **New Orleans, Louisiana**

The Regional Transit Authority (RTA) is conducting a Major Investment Study (MIS) to evaluate transportation improvements in the Desire Corridor, defined as the area bound by Canal Street, N. Rampart Street/St. Claude Avenue the Industrial Canal, and the Mississippi River. The proposed corridor which is approximately one-half mile wide and three miles long, contains densely developed residential areas, including the French Quarter, Fauburg Marigny and Bywater. These neighborhoods are on the National Register of Historic Places. The proposed corridor also contains major trip generators including the F. Edward Hebert Defense Complex (home to the Navy Support Activity Center and Military Traffic Management Command), the New Orleans Center for the Creative Arts (currently under construction) and numerous other schools. It is also adjacent to the Louis Armstrong Park, which includes the Municipal Auditorium and the Mahalia Jackson Theater for the Performing Arts, and the St. Claude Medical Center. Ten transit lines currently serve the corridor. The lines have a total ridership of 40,000 passengers. Fifty percent of these passengers currently board within the proposed corridor. Alternatives under consideration include No-build, enhanced bus/Transportation Systems Management (TSM), busway/High Occupancy Vehicle (HOV) lanes and streetcar. The study is scheduled for completion in June 1999. The proposed corridor is also included in the Regional Planning Commission's (local Metropolitan Planning Organization) Long Range Plan and Transportation

Improvement Program. It is also included in the State Transportation Improvement Program. Through FY 1999, Congress has appropriated \$3.88 million in Section 5309 new starts funds for this effort.

#### **Astoria-East Elmhurst Extension**

##### **New York, New York**

The proposed project involves the construction of a new extension of the New York City Subway System into LaGuardia Airport, located in the Borough of Queens. Currently, a project sponsor has not been identified. However, the Astoria-East Elmhurst Extension is similar to the LaGuardia Airport Subway Access/Alternatives Analysis/Draft Environmental Impact Statement (LASA-AA/DEIS). The New York Metropolitan Transportation Authority, in conjunction with the Federal Transit Administration and the Federal Aviation Administration is conducting the LASA-AA/DEIS. The purpose of the LASA-AA/DEIS is to examine options to provide convenient and cost-effective subway service from Lower Manhattan to LaGuardia Airport. In addition, the study is considering the extension of the existing BMT Astoria (N) Line from its current terminus at Ditmars Boulevard in Queens, east to the LaGuardia Airport Terminal. The study is being financed with local sources.

#### **Broadway-Lafayette-Bleecker Street**

##### **New York, New York**

See project description for the Brooklyn-Manhattan Access project below. Project sponsors have informed the Federal Transit Administration that the two are identical.

#### **Brooklyn-Manhattan Access (formerly known as the East River Crossing MIS)**

##### **New York, New York**

The Metropolitan Transportation Authority (MTA) and New York City Transit (NYCT) have completed a Major Investment Study to examine the preliminary operating and engineering options for improving the capacity and flexibility of subway services crossing the East River. The distribution among the subway lines crossing the East River is uneven and some crossings are congested while others have unused capacity. One of the major goals of the study was to provide alternatives to current NYCT subway service over the aging Williamsburg and Manhattan bridges. The MIS reviewed approximately 68 strategies and ultimately recommended Manhattan Bridge Alternative 5 (MBA 5) as the preferred alternative to be advanced for further analysis. The full MBA5 Alternative has an estimated capital cost of approximately \$600 million, and an estimated operating cost of \$0.4 million. The MBA5 Alternative is comprised of five components. These include: Rutgers Street Tunnel-DeKalb Avenue Track Connection; Lawrence Street-Metro Tech to Jay Street Transfer; Broadway-Lafayette and Bleecker Street Transfer; Revise Existing Service Pattern on the D/Q/N lines; and lengthen the No. 3 line trains. The MBA5 Alternative also recommended adding approximately 12 additional passenger trains per hour. These components are important to NYCT system improvements. However, the Rutgers Street-DeKalb Avenue Track Connection provides the major benefits of the MBA5 Alternative and its ability to provide critically needed system flexibility and additional capacity. In addition, it should be noted that while the study has been completed and a recommended alternative identified, the MTA/NYCT is focusing on the engineering of the Broadway-Bleecker Street and Jay Street transfers as distinct components. These activities have been programmed into the MTA's FY 2000 Capital Program.

## Lower Manhattan Access Alternatives Study

### **New York, New York**

The New York Metropolitan Transportation Authority (MTA) is conducting a Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) to evaluate new transit services to Lower Manhattan from three commuter rail terminals: Grand Central Terminal in Midtown Manhattan, Penn Station on the West Side of Manhattan, and Flatbush Terminal in Brooklyn. The rebound of businesses in Lower Manhattan from the economic recession in the early 1990s has lagged behind the rest of the island and office vacancy rates remain high. Contributing factors include: the age of the buildings, most of which are more than 50 years old and lack power and ductwork for modern office systems; and the lack of direct access to commuter rail services requiring workers to travel on congested rapid transit lines at least fifteen minutes from the commuter rail terminals to reach their offices. The preliminary alternatives being considered include Transportation System Management (TSM); rail shuttle service; new subway service; and extension of current commuter rail services. No federal funds are involved in the MIS/DEIS.

## Manhattan East Side Access

### **New York, New York**

The Metropolitan Transportation Authority (MTA) and New York City Transit (NYCT) are completing a Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) for the Manhattan East Side Alternative Access (MESA). The study is examining options to improve the mobility in the north-south corridor of Manhattan's East Side from South Ferry to approximately 125<sup>th</sup> Street with potential connections in the Bronx. The East Side of Manhattan has only one rapid transit line (Lexington Avenue). In 1995, the line experienced significant overcrowding during peak periods, carrying approximately 288,000 inbound daily passenger trips on East 60<sup>th</sup> Street. Also, there is limited additional street capacity to expand bus service. The study has been refined and includes two build alternatives: Transportation System Management (TSM) and a No-build. The first build alternative (Second Avenue Subway) would provide express subway service on the existing Broadway line north from one of three termini (lower level of City Hall Station, Whitehall Street Station, or the 95<sup>th</sup> Street Station in Brooklyn) to 63<sup>rd</sup> Street. From there, the alignment would join a new subway line extending northward beneath Second Avenue to approximately 115<sup>th</sup> Street. From there it would transition via a curved tunnel alignment to a location adjacent to the east side of the 125<sup>th</sup> Street Station on the Lexington Avenue line. This alternative would include approximately 15 stations, of which five would be new stations. The estimated cost of the first build alternative is \$3.5 billion. The second build alternative (Subway with Light Rail on Lower East Side) would contain all of the elements of the first build alternative, but would add light rail transit (LRT) to serve the Lower East Side and Lower Manhattan. The proposed two-way LRT would begin near the intersection of Water and Broad Streets, proceed along Water and Pearl Street to Frankford Street, where it would descend into a new tunnel to the Chambers Street/Brooklyn Bridge Station. From there it would continue in an existing tunnel to Ludlow Street where it would surface and travel along East Broadway to Grand Kazan to Columbia and extend across 14<sup>th</sup> Street between Avenue D and Union Square. The LRT would serve 11 new stations between Water Street and Union Square on 14<sup>th</sup> Street. The total estimated capital cost for the LRT element of the second build alternative is \$700 million. It should be noted that this cost estimate is preliminary and will require further refinement as the project development process progresses. The New York Metropolitan Council (NYMTC) (local

Metropolitan Planning Organization), has included the development of the MESA MIS/DEIS in its Long Range Transportation Plan. The study is scheduled for completion in early 1999.

#### North Shore Railroad

##### **New York, New York**

The Rehabilitation of the North Shore Railroad Line project involves conducting an Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS) to examine the feasibility of re-establishing passenger rail service along the North Shore Rail line located on Staten Island, New York. Originally, the line went from Cranford, New Jersey to the St. George Ferry terminal on Staten Island. The current project only considers the section between the Arlington Rail Yards and St. George, Staten Island, a distance of approximately 5.2 miles. This effort is part of a larger project to improve intermodal connections between New York and New Jersey to transport freight from ocean-going ships and trucks as well as passengers to a new industrial work site, the Howland Hook Marine Terminal on Staten Island. This project is also expected to stimulate economic development on Staten Island. The study will evaluate a range of alternatives including No-build, bus rapid transit, commuter rail and diesel multiple unit technology. Phases 1 and 2 of the rehabilitation project have been completed. Phase 3 consists of revitalizing the remaining portion of the rail corridor for passenger service and implementing the AA/DEIS study. Currently, the project is not in the Transportation Improvement Program/State Transportation Improvement Program. However, the North Shore Railroad Line project is part of the Corridor Level Options discussion in the draft Regional Transportation Plan for the New York City urbanized area.

#### Queens West Light Rail Link

##### **New York, New York**

The proposed project involves the construction of a Light Rail Transit (LRT) line along the Long Island City (LIC) waterfront. The proposed LRT would connect the new Queens West development, currently under construction along the waterfront, with subway stations that are a substantial distance inland. The Queens West development is a large, residential and commercial project sponsored, in part, by the Port Authority of New York and New Jersey and the Empire State Development Corporation. The developer is also interested in enhancing existing New York City Transit (NYCT) bus service, possibly with improved bus stop signage, shelters and maps. A local Environmental Impact Statement (EIS) was developed and included analysis of an enhanced bus shuttle to the subway stations. The LRT was not proposed as part of the EIS. Presently, a project sponsor has not been identified. However, several years ago the New York City, Queens Borough President's Office made a similar proposal for a LRT along the LIC waterfront.

#### Second Avenue Subway

##### **New York, New York**

See project description for the Manhattan East Side Access. Project sponsors have informed the Federal Transit Administration that the two are identical.

## Trans-Hudson Midtown Corridor (Access to the Region's Core - ARC)

### **New York/New Jersey Metropolitan Area**

The Port Authority of New York and New Jersey, along with the New York Metropolitan Transportation Authority and New Jersey Transit (NJ Transit) are conducting a Major Investment Study (MIS) to examine the feasibility of establishing new transportation links from Westchester and Western Queens, New York through Midtown Manhattan to Northern New Jersey. This effort is known locally as the Access to the Region's Core (ARC) study. A draft Milestone Summary Report identified as the most promising alternative a commuter rail solution involving all three of the region's commuter railroads – NJ Transit, the Long Island Rail Road and Metro-North, which will allow all three railroads to gain access to New York's Penn Station and Grand Central Terminal. The alternative involves a new commuter rail tunnel under the Hudson River to an expanded Penn Station with a tunnel extension to Grand Central Terminal. Accordingly, project sponsors have indicated a need to proceed with more detailed analysis of this alternative as well as possible variants in order to reconsider the proposed Manhattan alignment between Penn Station and Grand Central Terminal, with an investigation of potential freight opportunities. There is also a need to identify capacity expansion strategies at Penn Station New York in the near term. A scope of work for Phase 3 of the study is being drafted.

## Union Township Station (Raritan Valley)

### **Northern New Jersey**

In 1995, Union County, along with New Jersey Transit (NJ Transit) initiated a study to determine the potential for establishing a new train station and for fostering development in the Townley section of the Township of Union, New Jersey. The proposed project is located at Morris Avenue on NJ Transit's Raritan Valley Line. The project consists of a bridge for the railroad tracks at Morris Avenue, realignment of existing railroad tracks and all signal and communications; installation of gauntlet tracks; construction of a rail station structure of approximately 3,000 feet; construction of a center island high-level platform; installation of vertical accessibility elements; construction of a pedestrian passageway under the tracks; construction of a commuter parking lot for 484 vehicles; installation of closed circuit security television and the installation of signage, among other commuter amenities. The proposed project is currently in the preliminary design and engineering phase. An Environmental Assessment is under review.

## Oakland Airport-BART Corridor

### **Oakland, California**

The Bay Area Rapid Transit District (BART) and the Port of Oakland are proposing a 3.2-mile transit link between a planned new passenger terminal at the Oakland International Airport and the Coliseum BART station. The proposed Airport Connector project will generally follow a route along Hegenberger Road from the BART Coliseum station to the Airport. Project sponsors are studying the feasibility of implementing automated guideway transit (AGT), bus transit on an elevated guideway, and enhanced surface bus transit. Existing bus service takes almost 30 minutes for a three-mile peak period trip. BART anticipates that a potential grade separated transit system would reduce travel time to approximately seven minutes. Planning for the proposed project has been included in the Regional Transportation Plan and State Transportation Improvement Program. Capital funding for the Connector was a priority in a narrowly defeated

county-wide ballot initiative in 1997 which would have provided approximately \$66 million in sales tax revenue for the estimated \$130 million project.

#### Broad Street Line Extension

##### **Philadelphia, Pennsylvania**

The Federal Transit Administration has not received any information on this effort.

#### Cross County Metro

##### **Philadelphia, Pennsylvania**

The Southeastern Pennsylvania Transportation Authority (SEPTA) is completing a Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) along a proposed 60-mile suburban corridor in a southwest to northeast direction, from Glenloch in Chester County, through Norristown in Montgomery County and terminating in Morrisville, Bucks County. The proposed corridor, almost all of which is located along an existing rail freight right-of-way, is roughly parallel to the US Route 202 Expressway and the Pennsylvania Turnpike. A final draft of the MIS/DEIS is currently circulating. The Locally Preferred Alternative (LPA) has been identified as electrically powered light rail, to be built in two phases. The first phase would include light rail from Glenloch to Norristown via King of Prussia, coupled with express bus service from King of Prussia to Oxford Valley via the Pennsylvania Turnpike. The second phase would extend the proposed light rail system from Norristown to Morrisville. Total capital costs for the first phase are estimated at \$396 million. Total capital costs for the entire corridor, including both the first and second phases, are estimated at \$742 million. Total daily ridership for the first phase is anticipated at 8,500. Ridership for the entire corridor is estimated at 14,700. Through FY 1999, Congress has appropriated \$2.19 million in Section 5309 new starts funds for this effort.

#### Lower Merion Township

##### **Philadelphia, Pennsylvania**

The Federal Transit Administration has not received any information on this effort.

#### Providence-Pawtucket Corridor

##### **Providence-Pawtucket, Rhode Island**

The Rhode Island Department of Transportation and the Rhode Island Public Transit Authority are in the process of defining the project. Currently, definitive information on a proposed project is not available.

#### San Jacinto-Branch Line

##### **Riverside County, California**

See project description for the Los Angeles, California – Riverside-Perris Rail Passenger Service. Project sponsors have informed the Federal Transit Administration that the two are identical.

## Draper Light Rail Extension

### **Salt Lake City, Utah**

The Utah Transit Authority (UTA) is conducting a feasibility study to examine the option of extending the North/South Light Rail Transit (LRT) line (currently under construction), approximately seven miles to the suburban communities of Draper and Sandy, Utah. The proposed project would be constructed on an extension of the existing railroad right-of-way owned by UTA and being developed for the North/South LRT. The proposed Draper extension would have six stations complete with park-and-ride lots and bus transfer facilities. The total capital costs for the proposed Draper Extension are estimated at \$156.3 million.

## West Jordan Light Rail Extension

### **Salt Lake City, Utah**

The Utah Transit Authority (UTA) is conducting a feasibility study to examine the option of extending the North/South Light Rail Transit (LRT) line (currently under construction) approximately seven miles through the City of Midvale to the City of West Jordan. It would be constructed at-grade and would have five stations with bus transfer facilities and park-and-ride lots. Total capital costs for the proposed West Jordan extension are estimated at \$187.5 million.

## CalTrain Extension to Hollister

### **San Francisco-San Jose, California**

The Council of San Benito County Governments is proposing an extension of Caltrain service approximately 13 miles south from the current terminus in Gilroy, along an existing rail line, to the City of Hollister located in the southeast portion of the San Francisco Bay Region. Hollister is the population center for San Benito County, the fastest growing county in California over the past five years. Hollister has grown in response to the increasing demand for affordable housing for Silicon Valley workers. Further planning, regional consensus building, and public involvement are needed to determine the specific technology and frequency of rail service for the proposed corridor. Total capital costs for upgrading the existing freight rail line is estimated at \$15 million.

## Santa Fe - El Dorado Rail Link

### **Santa Fe, New Mexico**

The City of Santa Fe, in cooperation with the Santa Fe Southern Railway, Santa Fe County, the New Mexico State Highway and Transportation Department is proposing to develop commuter rail service along an existing 13-mile rail line between El Dorado and Santa Fe. The proposed project was identified in the local Metropolitan Planning Organization's Long Range Transportation Plan and the City's proposed General Plan. The proposed undertaking resulted from a commuter rail demonstration project that established the need for providing public transportation services in the Santa Fe/El Dorado Corridor. Project sponsors anticipate that the proposed project will provide connections between Santa Fe and El Dorado to major employment centers in both cities, thereby removing automobile traffic from a highly congested roadway network. In addition, the proposed project is expected to meet the long range regional planning goals of reducing sprawl and concentrating future growth in areas that will be serviceable by existing infrastructure. The proposed Santa Fe/El Dorado Rail Link is included in the region's

Transportation Improvement Program (TIP) and is anticipated to be included in the State TIP. Total capital costs for the proposed project are estimated at \$10 million.

#### Laurel Line Intermodal Corridor

##### **Scranton, Pennsylvania**

Lackawanna County is proposing the restoration of historic trolley passenger service on an old interurban trolley line between Scranton and Wilkes-Barre with major destination points at Montage, Wilkes-Barre/Scranton International Airport and Wilkes-Barre, a total distance of approximately 16 miles. The proposed corridor is located along a right-of-way (ROW) that largely parallels Interstate 81 from Scranton to the vicinity of the Airport. Luzerne County owns approximately 11 miles of the ROW. Lackawanna County is negotiating with the owner of the ROW for the acquisition of 3-4 miles of ROW not currently under public ownership. Currently, there is light, but active freight service along most of the route. Lackawanna County is in the process of opening bids on the first phase of re-electrification on the first portion of the line. This work is being funded by the Federal Railroad Administration (FRA), which also provided support for the assessment of service restoration feasibility and requirements, including the necessary engineering.

#### SEATAC - Personal Rapid Transit

##### **Seatac, Washington**

The City of SeaTac, Washington in cooperation with other local agencies, has conducted a Major Investment Study (MIS) to examine the options to improve the mobility of the City's commercial core which includes the activity centers located around the International Boulevard area and the City of SeaTac International Airport. The MIS, completed in July 1997, resulted in a Locally Preferred Transportation Strategy recommending a Personal Rapid Transit (PRT) System. The total estimated capital cost for Phase I of the PRT system is \$307.5 million. Phase I of the proposed project includes the acquisition of 210 PRT vehicles, operating along 12.1 miles of "one-way" guideway and serving a forecasted ridership of 24,000 patrons, utilizing 21 PRT stations. The City of SeaTac has incorporated the proposed PRT system into its Municipal Comprehensive and Transportation Plans. The City is also proposing that the project be included in the Regional Plan for Seattle. Since the primary beneficiaries of the proposed PRT system are local businesses, a "Partnership Franchise" between the public and private entities was recommended as part of the implementation approach. The proposed project is included in the Puget Sound Regional Council's Long Range Transportation Plan. Through FY 1999, Congress has provided \$0.6 million in Section 5309 new starts funds for this effort.

#### Micro Rail Trolley System

##### **Sioux City, Iowa**

The City of Sioux is examining the feasibility of implementing a Micro Rail Trolley system in an as yet undefined corridor that could potentially include the city's downtown Central Business District. Through FY 1999, Congress has appropriated \$0.25 million in Section 5309 new starts for this effort.

## Williamsburg-Newport News-Hampton LRT

### **Tidewater, Virginia**

In September 1996, the cities of Newport News, Williamsburg and Hampton initiated a Major Investment Study (MIS) on a proposed 32-mile corridor along the CSX rail right-of-way. The Hampton Roads Metropolitan Planning Organization (MPO) identified the CSX Corridor, from Williamsburg to Newport News, as a priority transportation corridor for providing long range transportation alternatives to widening existing roadways. The Hampton Roads MPO determined that a MIS was needed to establish feasible alternatives leading to the development of a multimodal transportation system on the Virginia Peninsula. The CSX Corridor MIS evaluated six alternatives, ranging from the No-build to a fully automated fixed guideway system. The MIS, completed in December 1997, recommended Light Rail Transit (LRT) as the locally preferred alternative. The MIS also recommended a number of steps that would both prepare for the eventual introduction of LRT and immediately improve the current public transit system on the Peninsula. This included providing an enhanced bus system, developing transit-supportive land use, and protecting future right-of-way along the CSX Corridor, supporting regional transit initiatives, and developing a stronger funding base for transit in the Hampton Roads area. The Peninsula Transportation District Commission, in cooperation with local and state officials, is currently developing a plan to implement the recommendations of the MIS.

## Toledo - Central Business District to Zoo

### **Toledo, Ohio**

The Toledo Metropolitan Area Council of Governments (TMACOG) is planning to conduct an Alternatives Analysis (AA) study to examine transportation options in an approximately four-mile proposed corridor in Toledo. The study will examine the potential of a fixed guideway circulator in downtown Toledo to connect major activity centers including the Toledo convention center, science museum and Amtrak rail station. The study will also examine the potential of fixed guideway transit in radial corridors leading from downtown Toledo to the Toledo Zoo and Toledo art museum, which would connect with the downtown circulator. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.

## Georgetown-Ft. Lincoln

### **Washington, D.C. Metropolitan Area**

The Federal Transit Administration has not received any information on this effort.

## Maryland Route 5 Corridor (Waldorf Corridor Study)

### **Washington, D.C. Metropolitan Area**

The Maryland Mass Transit Administration (MTA) is currently conducting the Maryland Route 5/Waldorf Corridor study. The study is one of several recommendations resulting from the US 301 South Corridor Transportation Study, a Major Investment Study (MIS) that was completed in 1996. The study corridor extends approximately 19.5 miles from inside the Capital Beltway in Prince George's County, Maryland along Maryland Route 5 and continues along US 301 and the Pope's Creek Branch freight rail line to White Plains in Charles County,

Maryland. The alignment connects to the Washington Metrorail system at the Branch Avenue Metrorail Station, which is currently under construction. The purpose of the study is to identify a future light rail transit (LRT) alignment, station sites, and a maintenance yard, which can be reserved for development of an LRT system. Information on the environmental features, roadway improvements and utilities has been collected. Preliminary corridor ridership is projected at 25,000 total daily trips for the year 2020, based on the US 301 South Corridor Transportation Study. The proposed LRT is anticipated to provide access to jobs in downtown Washington, D.C., and its surrounding suburban areas by connecting to the regional Metrorail system.

## **Other Project Authorizations (§3030(c) of TEA-21)**

### **Albuquerque Alvarado Intermodal Center**

#### **Albuquerque, New Mexico**

The City of Albuquerque in coordination with the Advisory Council on Historic Preservation, and the State Historic Preservation Officer of New Mexico is constructing an intermodal transfer facility to serve the city's downtown core. This project will include a bus transfer site, and will also include retail and office space, bus circulation elements, taxi, a downtown bus circulator a passenger plaza for transit patrons, and a surface parking lot. The project will also serve to revitalize the area and create a positive atmosphere and a safe and clean environment for visitors and citizens. The facility is envisioned as a transportation hub for the metropolitan area and will also serve as a site for the current Amtrak rail service, intercity transport services and future modes of urban and regional rail services. The primary design concept behind the proposed project is to make the facility work as a transportation center and to further design the facility to include transit-oriented development, which will incorporate other transit-related amenities so that the facility becomes a major activity center within the Central Business District (CBD). The construction of the Alvarado intermodal facility is a key component in the City's plan to achieve and maintain National Ambient Air Quality Standards (NAAQS). The project is scheduled to begin construction in the Spring of 1999. The proposed project is scheduled for completion in the year 2000.

### **Intermodal Corridor**

#### **Bridgeport, Connecticut**

The proposed project involves the construction of an Intermodal Transportation Center in downtown Bridgeport. Through FY 1999, Congress has appropriated \$6.5 million in Section 5309 new starts funds for this effort.

### **Old Saybrook-Hartford Rail Extension**

#### **Hartford, Connecticut**

The proposed project involves the reconstruction of the existing rail line between Old Saybrook and Hartford. Future passenger uses, however, remain uncertain. The line is currently inactive except for a short tourist operation near Old Saybrook. No planning efforts have been undertaken

for this effort and it is not included in Hartford's Long Range Plan. Through FY 1999, Congress has appropriated \$0.49 million in Section 5309 new starts funds for this effort.

#### Waterfront Access

##### **New London, Connecticut**

Currently, there is no defined waterfront access mass transit project in the City of New London. Through FY 1999, Congress has appropriated \$0.49 million in Section 5309 new starts funds for this effort.

#### Philadelphia-Pittsburgh Highspeed Rail

##### **Philadelphia-Pittsburgh, Pennsylvania**

The Federal Transit Administration has not received any information on this effort.

#### Integrated Intermodal Transportation

##### **Rhode Island**

Currently, there is no defined new start intermodal mass transit project in Rhode Island. The Rhode Island Department of Transportation and the Rhode Island Public Transit Authority are in the process of defining the project and justifying its new start eligibility.

#### Fixed Guideway Connector

##### **Stamford, Connecticut**

The Stamford Fixed Guideway Corridor Project involves the reconstruction of roadways to improve access to the Stamford Transportation Center, which is currently being rehabilitated to accommodate high speed rail service and to provide additional commuter parking. A Brownfields area is adjacent to the Center. The specific roadway components include the Dock Street Connector, the Market Street Extension and the Jefferson Street reconstruction. The Connecticut Department of Transportation, the Southwestern Regional Planning Agency, the Metropolitan Planning Organization, and the City of Stamford have coordinated the development of the proposed project. The project is identified in the Long Range Transportation Plan. Through FY 1999, Congress has appropriated \$0.99 million in Section 5309 new starts funds for this effort.