Office of Inspector General
Audit Report

Baseline Review of the

St. Clair Extension
Federal Transit Administration

Report No. RT-2000-025
Date Issued: December 21, 1999

Memorandum

U.S. Department of Transportation
Office of the Secretary Of Transportation
Office of Inspector General

Subject: ACTION: Report on the Baseline Review of the St. Clair Extension Federal Transit Administration Report No. RT-2000-025

Date: December 21, 1999

From: Alexis M. Stefani
Assistant Inspector General for Auditing

Reply to Attn. of: JA-1

To: Acting Federal Transit Administrator

This is our report on the Baseline Review of the St. Clair Extension of the St. Louis MetroLink Transit System. The purpose of our baseline reviews is to track the progress of planned fixed guideway systems receiving New Starts funding from Section 5309 of the Federal Transit Act. The specific objectives of this review were to determine the current status, estimated cost, funding sources, and completion schedule, and to identify major issues that may affect the project.

We consider your December 8, 1999 comments to be responsive to our recommendation. However, please provide a target date for completing the evaluation and rating of the second phase of the extension. Additional follow-up action may occur as authorized by Department of Transportation Order 8000.1C.

We appreciate the cooperation and assistance provided by your staff during the audit. If I can answer any questions or be of further assistance, please contact me at (202) 366-1992 or Francis P. Mulvey, Deputy Assistant Inspector General for Rail, Transit, and Special Program, at 366-0477.

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BASELINE REVIEW OF THE ST. CLAIR EXTENSION OF THE ST. LOUIS METROLINK SYSTEM

Report No. RT-2000-025 December 21, 1999

The following is a baseline review of the St. Clair Extension of the St. Louis MetroLink System in southern Illinois. The purpose of our baseline reviews is to track the progress of planned fixed guideway systems receiving Section 5309 of the Federal Transit Act, New Starts Funding. The specific objectives of this review were to determine the current status, estimated cost, funding sources, and completion schedule, and to identify any major issues that may affect the project. See Exhibit for a discussion of the scope of our review and the methodology used.

Results

The St. Clair Extension was intended to extend the current St. Louis MetroLink light rail system approximately 26 miles to Mid-America Airport. Due to funding constraints, the Bi-State Development Agency (Bi-State) [1] decided to design and construct an interim operating segment to Belleville Area College. The second phase was to run from Belleville Area College to the Mid-America Airport.

The plan is to build the extension in two phases, for a total cost currently estimated at $460 million (see Table 1). The first phase presents no significant cost, funding, or scheduling issues. The low ridership forecast for the second phase poses a risk about the economic viability of the proposed project. The second phase should be rated and evaluated prior to the decision to commit Federal funds.

<u>Status of Cost, Funding, and Schedule</u>

The first phase consists of 17.4 miles of light rail in St. Clair County, Illinois, extending from East St. Louis to Belleville Area College and has been under construction since March 1998. The first phase is estimated to cost $339.2 million, of which the Federal share is $244 million. The second phase is 8.6 miles and will extend the system to Mid America Airport (see Figure 1). Bi-State plans to begin construction of the second phase in March 2000 and estimates that the cost will be $120.8 million. Federal funding of $60 million is being sought and has not yet been approved by the FTA.

[1] Bi-State is the local transit agency serving the St. Louis metropolitan area in Missouri and Illinois.

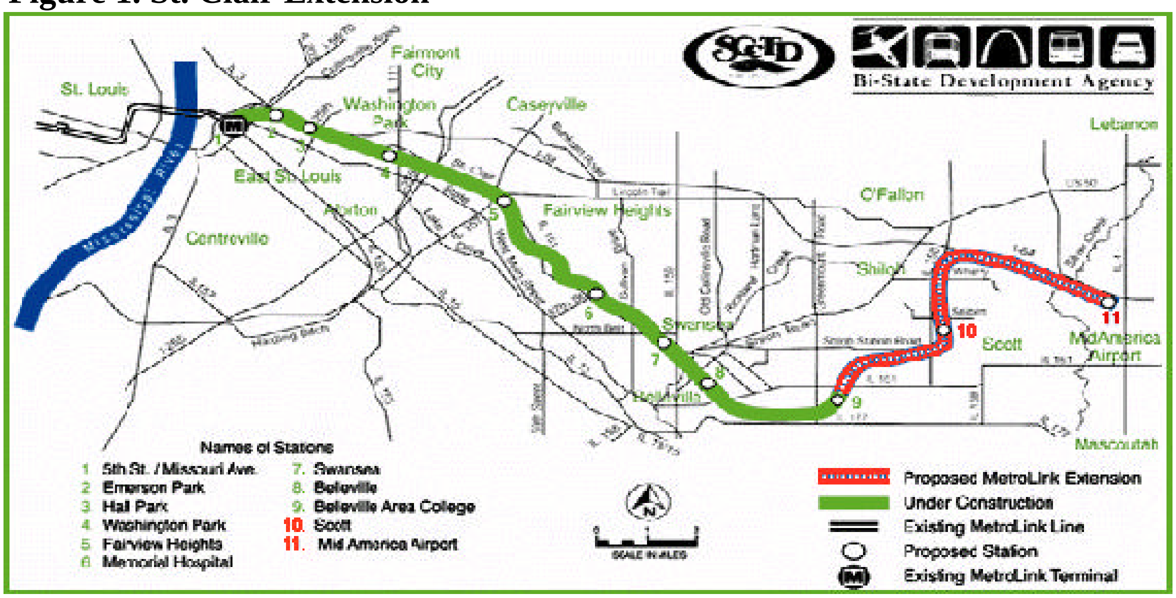
Table 1 – Baseline Data for Both Phases of the St. Clair Extension		
	First Phase	Second Phase
Miles of Track	17.4 miles	8.6 miles
Construction Schedule Start End	 March 1998 April 2001	 March 2000 March 2003
Planned start of service[1]	September 2001	June 2003
Cost	$339 million	$121 million
Funding[2] Federal Local	 $244 million $95 million	 $60 million $61 million
Additional Weekday Ridership expected by 2010[3]	16,000	1,931

[1]The planned start of service in the grant agreement is September 2001. Current Bi-State Development Agency projections expect the first phase to be in operation by May 2001.

[2]In an October 1999 request to amend the funding grant agreement, Bi-State has sought to recharacterize $27.4 million in excess of the statutory minimum contribution on the first phase and to use this for the second phase. Total project cost, funding, and schedule remain approximately the same, only the respective percentages of Federal and local contributions to the different phases will have changed.

[3]The current one-way fare is $1.25 per trip.

Figure 1. St. Clair Extension



As reported by Bi-State, the system operator, $142 million has been spent through September 1999 for the first phase, of which $104 million is from Federal funds. This does not include $8.45 million of Federal funds awarded for preliminary engineering and analysis of alternatives. The most recent cost report from Bi-State shows that 41.8 percent of the first phase's construction work and equipment purchases, including 20 light rail vehicles, has been completed.[2] To date, the project has experienced a net cost increase of $37.6 million. Cost increases of $59.3 million have been offset by $21.7 million in reductions. The net cost increase of $37.6 million has been covered out of a $51.3 million contingency fund. Project delays experienced to date have been mitigated by a recovery plan. Current projections are for operations on the first phase to begin May 2001, 4 months ahead of the originally scheduled start date.

Sufficient funding is in place for the first phase. On August 4, 1999, Bi-State requested that FTA amend the funding grant agreement to include the second phase. The State of Illinois has made local funding in the amount of $60 million available for the project.

Subsequent to completing our audit work in October 1999, Bi-State requested FTA to further amend the funding grant agreement to limit Federal involvement in the project to Scott Air Force Base. The Scott Air Force Base, 3.5-mile segment, of the project would cost $77 million. However, the Federal funding remains the same, $60 million. The remaining 5.4-mile segment to Mid-America Airport would be constructed with local funds. Total project cost, funding, and schedule remain approximately the same, only the respective percentages of Federal and local contributions to the different phases will have changed. The apparent discrepancy between the 3.5-mile segment costing $77 million and the 5.4-mile segment costing $42.2 million results from the construction of 14 bridges in the 3.5-mile segment and only 3 bridges in the 5.4-mile segment. The cost of four light rail vehicles and a more elaborate station and parking structure at Scott Air Force Base also explains the higher cost of the shorter segment.

Ridership Projections for the Second Phase Are Low

Projected ridership for the second phase of the extension to Mid America Airport is very low and raises questions about whether this phase should receive Federal funding over competing transit projects based on its current assessment. While the second phase would increase the trackage of the extension by 49 percent (8.6 miles) for an incremental cost increase of 36 percent ($121 million), the projected increase in ridership is only 12.1 percent. In February 1999, Bi-State

[2] Bi-State Development Agency, Concise Cost Report, Month Ending August 1999, October 27, 1999.

submitted its ridership forecasts information to FTA. This document shows that extending the system to Mid America Airport is expected to increase average weekday ridership by only 1,931 passengers in 2010. The future of the second phase depends heavily on economic development at Mid America Airport. At present, that facility has no major airlines serving the airport. In addition, a planned $2 billion expansion at Lambert-St. Louis International Airport, the principal airport serving the St. Louis metropolitan area, would directly compete for passengers with Mid America Airport. Projected ridership for the Scott Air Force Base station is about 800 riders per day in 2010. Recently 1,300 new National Guard personnel were assigned to Scott Air Force Base. It is unknown whether these people would result in a significant increase in ridership.

In the August 4, 1999 request to amend the funding grant agreement, Bi-State is relying on Section 3009(e)(8)(D) of TEA-21 that waives the evaluation and rating process for projects that have funding grant agreements. However, the grant agreement defined the project as ". . . an interim operating segment to Belleville Area College." The second phase to Mid America Airport was not a part of the approved scope of the funding grant agreement.

The Transportation Equity Act for the 21st Century (TEA-21) authorized the final design and construction of the project to Mid America Airport along with 113 other fixed guideway transit projects.[3] The act requires all new, fixed guideway transit projects or extensions to existing systems to have "full funding grant agreement(s) based on the evaluations and ratings."[4] TEA-21 also requires that grants and loans for new transit systems or extensions of existing systems may be approved only if the proposed project is ". . . justified based on a comprehensive review of its mobility improvements, environmental benefits, cost effectiveness, and operating efficiencies. . . ."[5]

In our opinion, amending the first phase funding grant agreement to include the second phase would be inappropriate without the evaluation and rating process. FTA has developed criteria for evaluating projects proposed for Federal funding.[6] The process takes into account factors such as "cost-effectiveness" and "operating efficiency" and assigns a rating to each project. Given the ridership projected for the extension to the airport, FTA should evaluate the second phase based on its New Starts evaluation and rating process on the same footing and in the same

[3] Section 3030(a).
[4] Section 3009(e)(7).
[5] Section 3009 (e)(1)(B).
[6] The final rule for the New Starts evaluation and rating process is scheduled for issuance in the spring of 2000. Since the final rule has not been published, FTA has completed project evaluations and funding recommendations based on FTA's existing New Starts criteria and evaluation process found at 61 Federal Register 67093-106 and 62 Federal Register 60756-58 and further modified to account for TEA-21 changes in July 1999.

manner as all other proposed New Start projects rather than approving changes in the project's scope and committing $60 million in Federal funding.

Recommendation

We recommend that the FTA Administrator base the final decision to award $60 million of Federal funds for the second phase of the extension on an evaluation and rating of the second phase under its New Starts criteria.

Management Comments

On December 8, 1999, FTA concurred with our recommendation that the FTA Administrator base the final decision to award $60 million of Federal funds for the second phase of the extension on an evaluation and rating of the second phase under its New Starts criteria. FTA also sent a letter to the Senate Committee on Banking, Housing and Urban Affairs on December 8, 1999 that describes the intent to execute an amendment to the funding grant agreement and provide an additional $60 million for the extension to Scott Air Force Base. This letter advises the Senate that FTA "will make this Federal commitment of New Start funds no earlier than sixty days from the date of this letter.

Office of Inspector General Response

Limiting Federal participation to the second phase terminating at Scott Air Force Base does not alter the question of whether FTA should participate in this project given the low ridership projections. Proceeding with the extension in a re-designated financial format still poses the same problems as discussed in this report. FTA needs to ensure that an impartial evaluation and rating are performed prior to finalizing any commitment of funding.

Project Description

The St. Clair Extension of the St. Louis MetroLink system will be owned and operated by the Bi-State Development Agency. The extension is to be built in two phases, comprising a 26-mile, at-grade light rail network in St. Clair County, Illinois, extending from East St. Louis to Mid America Airport. The Extension would include 10 at-grade stations, a new maintenance facility in East St. Louis, Illinois, and 9 park-and-ride facilities. It would connect to, and be fully compatible with, the existing 17-mile, 19-station MetroLink light rail system in Missouri that opened on July 31, 1993. This system connects the downtowns of St. Louis and East St. Louis with the Lambert-St. Louis International Airport, the principal airport serving the St. Louis metropolitan area.

The extension is designed to relieve congestion on bridges over the Mississippi River during the morning and evening rush hour commutes, and at the same time reduce automobile pollution in an area that has been designated as a moderate non-attainment area. Twenty light rail vehicles will be added to the current fleet to serve this extension. Each light rail vehicle has a peak service capacity for 256 passengers (72 sitting and 184 standing).

Figure 2. Construction of the First Phase

Source: Bi-State Development Agency

The project's first phase is 17.4 miles, includes 8 stations, and will run from the 5th and Missouri Avenue Station in downtown East St. Louis to a station on the campus of Belleville Area College. During this phase, a maintenance facility will be built in East St. Louis; modifications will be made to the existing yard, shops, and central control facility in Missouri; and 20 light rail vehicles will be purchased. When the first phase of the extension begins operations in May 2001, weekday ridership is expected to start at 4,000 and reach 16,000 by 2010.

The second phase, approximately 8.6 miles, includes two stations and two park-and-ride lots. This phase, scheduled to open in June 2003, would extend the system from Belleville Area College to Mid America Airport, but it is expected to add only 1,931 weekday riders by 2010.

Although the first phase of the project is funded in the current full funding grant agreement, the second phase is not. On August 4, 1999, Bi-State submitted a request to FTA to amend the funding grant agreement to include the second phase.

Project History

The metropolitan planning organization for the St. Louis region, the East-West Gateway Coordinating Council, began planning for the extension in 1991, when it first defined the St. Clair Corridor.[7] In January 1991, FTA provided $450,000 to Bi-State to undertake an alternatives analysis.[8] The system plan for MetroLink is part of a long-range regional transportation plan, Transportation Redefined, adopted by the Council in 1994. A total of nine corridors were identified and assigned three priority groupings. The highest priority was given to the St. Clair Corridor.

The major investment study[9] and draft environmental impact statement were completed in 1995. FTA furnished technical and procedural guidance to Bi-State and participated in the preparation of the Final Environmental Impact Statement (FEIS) prior to its approval and adoption. In September 1995, FTA provided $8.0 million in New Starts funds to perform preliminary engineering work and to complete the FEIS. The FEIS was completed for the entire 26-mile extension in August 1996. FTA issued a record of decision on September 23, 1996. In October 1996, FTA awarded a full funding grant agreement for the first phase of the extension, committing $243.9 million of New Starts funds. Actual construction began in March 1998. Due to Federal funding constraints, Bi-State was requested by FTA to identify an interim terminus that shortened the project commensurate with the amount of Federal funding available to construct it.

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[7] East-West Gateway Coordinating Council was incorporated in 1965 to provide a forum for cooperative and coordinated development of regional policy. The Board of Directors has 21 voting members, 7 chief elected officials from Illinois local governments, 7 chief elected officials from Missouri local governments, 6 citizens representing both states, and the Chair of the Bi-State Development Agency.

[8] FTA Circular 9300.1A defines alternative analysis as a multimodal system planning study required for certain new start projects. The local agency initiates an analysis and evaluation of several alternative improvements to determine which improvement best meets the local needs.

[9] A major investment study is the planning process required by the Federal Transit Act to identify alternatives for transit projects.

Bi-State used a competitive, low-bid procurement process to award contracts for the project. Eleven of the planned 12 construction contracts have been awarded to date. Six of the 11 contracts are for major components of the project. These six contracts include three contracts for the construction of line sections and one contract each for trackwork, signaling, and a maintenance facility.[10]

Current Status of the First Phase

In its funding grant agreement with FTA, Bi-State estimated that the cost of the first phase would be $339.2 million ($243.9 million in Federal funds and $95.2 million in local funds). Construction has begun on the three line sections of the first phase. In its most recent cost report, Bi-State noted that the first line section from the existing station at 5th and Missouri Avenue through East St. Louis to Washington Park was 85 percent complete.[11] The second line section to West Belleville was 72 percent complete and the third line section ending at Belleville Area College was 86 percent complete. Contracts have been awarded for the 20 light rail vehicles needed for the extension, none have been delivered. They are currently scheduled to be delivered on time.

Cost Increases on the First Phase Are Covered by Contingency Funds

As shown in Table 2, there are significant cost increases expected in several budget categories that will be covered by funds budgeted for contingencies. Contingency funds are set up because of the uncertainty of overall project costs. Transit construction projects have considerable uncertainty because funding grant agreements generally are awarded when projects are roughly only 30 percent designed. Bi-State budgeted $51.3 million for project contingencies in line with FTA guidance. By using $37.6 million of the contingencies, Bi-State has been able to cover cost increases without requesting additional state or local funds. Bi-State has a current balance of $13.7 million in budgeted contingency funds.

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[10] Line section contracts consist of site preparation, protection and coordination of utility relocation, civil/facility work, station construction, and installation of catenary pole foundations.

[11] Bi-State Development Agency, Concise Cost Report, Month Ending August 1999, October 27, 1999.

Table 2 – Cost Data for the First Phase of the St. Clair Extension			
	Funding Grant Agreement Baseline Budget	August 1999 Estimate to Complete	Difference
Construction	$175,579,653	$190,610,666	$15,031,013
New Starts Rolling Stock	49,869,085	52,688,337	2,819,252
Property Acquisition, In-house Labor, Project Administration and Other Project Costs	62,399,381	82,159,472	19,760,091
Total Baseline Estimate	**$287,848,119**	**$325,458,475**	**$37,610,356**
Contingency	**51,321,737**	**13,711,381**	**(37,610,356)**
Total Project Costs	**$339,169,856**	**$339,169,856**	

Sources: St. Clair County MetroLink Extension Full Funding Grant Agreement, October 1996 and Bi-State Development Agency Concise Cost Report, Month Ending August 1999, October 27,1999.

Significant Cost Increases Have Occurred

Total project cost increases of $59.3 million have been offset by $21.7 million in reductions. The net cost increase of $37.6 million has been covered out of a $51.3 million contingency fund. Examples of these increased costs include:

- Construction costs. By project completion, the three line segment contracts are projected to increase from the baseline budget estimate of $58 million to $94 million or $36 million higher (62 percent). Reductions in other construction and equipment contracts, when combined with contingency accounts, result in a net increase of $15 million. According to a Bi-State official, the bids received were higher than the budget estimates because of design changes made after the estimate was prepared. Budget estimates are based on construction requirements when 30 percent of the system was designed.

- Real estate acquisition costs. The current $15 million cost estimate for real estate acquisition is $9 million higher (150 percent) than the $6 million estimate in the grant agreement budget and is one of the major sources of cost growth in the "other project costs" category. A Bi-State official stated that the original estimate was based on a draft appraisal of properties along the alignment. That estimate did not include any expenses related to real estate acquisition, such as relocation, replacement housing, appraisal, and title costs.

- Management consultant costs. The current estimate for final design and project/construction management costs is $7 million more than the baseline budget of $34 million and is the other major source of the cost growth in the "other project costs" category. According to a Bi-State official, consulting costs included in the baseline budget were estimated based on the experience with the original MetroLink project from St. Louis to Lambert-St. Louis International Airport. During the original project, all consultants were under contract to, and controlled by Bi-State. However, on this project, Bi-State issued just one contract for an overall project/construction management consultant with all other design consultants as subcontractors. Bi-State claims this change in contract administration and responsibilities caused increases in consulting costs.

The above examples account for $31 million of the $37.6 million in cost increases. The remaining increases are spread across a variety of smaller cost increases in other categories.

Funding Sufficient for the First Phase

The Federal government has committed to a maximum contribution of $243.9 million in New Starts funding for the first phase from fiscal year 1996 through fiscal year 2002. In addition, in prior grant awards, FTA provided Bi-State $8.45 million in grant funds for the preliminary engineering study and analysis of alternatives performed for the two extension phases.

Bi-State will provide $30.9 million to meet its matching share from the proceeds of a $48.5 million, 20-year fixed-rate bond issue. The balance of the $95.2 million local matching share requirement comes from St. Clair County sales taxes, cash, and donated assets from local municipalities. In addition, Bi-State issued a second bond to provide gap financing of $112 million until the full amount of FTA funds are received. Through September 1999, $104.4 million in Federal funds have been appropriated for the first phase, of which $104 million have been spent (see Table 3). In addition, to the expenditure of Federal funds, Bi-State spent $38 million from the proceeds of the second bond issued as gap financing for project costs.

Table 3- Source of Funds and Expenditures for the First Phase			
Source of Funds	Authorized Funds[1]	Appropriated Funds	Funds Expended
Federal New Starts	**$243,930,961**	**$104,350,013**	**$104,015,615**
Local:[2]			
St. Clair County Transit District, Series A Bonds	$30,900,000	$30,900,000	0
County Sales Taxes	56,538,895	9,841,774	0
Public Entities and Municipalities	7,800,000	0	0
Subtotal Local	**95,238,895**	**40,741,774**	**0**
Total	**$339,169,856**	**$145,091,787**	**$104,015,615**

[1]In September 1995, FTA provided an additional $8 million to Bi-State to perform a preliminary engineering study for the extension. These costs were excluded from the full funding grant agreement.
[2]The funding grant agreement allows Bi-State to draw down available Federal funds and to defer contribution of its proportionate share of local funds.

Sufficient funding is in place for constructing the first phase. FTA has hired an accounting firm, Deva & Associates, to assess Bi-State's ability to perform under its funding grant agreement. The assessment is a projection of Bi-State's fiscal capability to fulfill its existing grant obligations and those that could be required for the second phase of the expansion project if approved. The assessment also analyzed Bi-State's ability to maintain and operate its entire bus and transit system. The draft report of the assessment, dated August 1999, concluded that Bi-State has the financial capability to construct and operate the two phases of the extension, when the funding sources identified by Bi-State are finalized.

The First Phase Service Should Begin on Schedule

The funding agreement between FTA and Bi-State requires service on the first phase to begin on or before September 30, 2001. However, Bi-State officials believe that service would start on May 1, 2001. Bi-State reported that construction work and equipment purchases were 41.8 percent complete.

A 60-day delay was experienced in the construction of the first line section due to problems in constructing retaining walls associated with utility work and the submission of shop drawings. The trackwork contract also fell behind schedule because it depended on the completion of the first line section.

To mitigate the impact of these delays on the overall project schedule, the consultant for Bi-State negotiated a schedule-recovery plan with the contractors that included changes in the sequencing of construction. These changes included dividing each line section into smaller work segments and beginning the associated trackwork for each segment after completion of the line sections. Working on smaller segments would increase the concurrency of the tasks in the construction sequence. According to Bi-State and its consultant, the recovery plan supports the opening in May 2001. Based on our engineering review of the recovery plan, the May 2001-start date is achievable.

Status of Cost, Funding, and Schedule for the Second Phase

The second phase is not in the scope of the current full funding grant agreement. Bi-State wants to shift any Federal funds not spent on the first phase as a result of cost savings to the second phase, as stipulated in the Special Provision in the grant agreement. On August 4, 1999, Bi-State requested that FTA approve its request to change the scope of the funding grant agreement to include the second phase and to increase the number of light rail vehicles needed from 20 to 24.

In its August 4, 1999 request to amend the funding grant agreement, Bi-State estimated the cost for the second phase at $120.8 million. This consists of $72.3 million for construction and equipment; $30.6 million for real estate acquisition, final design, third-party project management and other costs; and $17.9 million for contingencies. The state of Illinois approved $60 million for the construction of the second phase in June 1999. The Federal share of the second phase, which is in the final design development stage, is estimated to be $60 million. Bi-State intends to exercise a provision in the funding grant agreement allowing the use of cost savings from the first phase. Bi-State plans to begin construction on this segment in March 2000 and to commence revenue operation by June 2003.

Subsequent to completing our audit work in October 1999, Bi-State requested FTA to further amend the funding grant agreement to limit Federal involvement in the project to Scott Air Force Base. The Scott Air Force Base, 3.5-mile segment, of the project would cost $77 million. However, the Federal funding remains the same, $60 million. Total project cost, funding, and schedule remain approximately the same, only the respective percentages of Federal and local contributions to the different phases will have changed.

Concerns about the Viability of the Second Phase

We identified two pending issues that could influence funding decisions on the project's second phase. This first issue is low ridership projections and the second issue is the application of FTA's New Starts evaluation and rating process, required under TEA-21 to the project's second phase.

Low Ridership Forecasted for the Second Phase

One factor that should influence FTA's decision to provide additional New Starts funds for the second phase is the expected ridership. Forecasted average weekday ridership from extending the system to Mid America Airport is only 1,931 passengers in 2010. In addition, the Mid America Airport terminal station of the second phase is projecting one of the lowest ridership levels for any station on the entire MetroLink. This is unusual for a terminal station. Typically, the last stop has a large ridership because it serves a relatively larger geographic area than on-line stations.

The future of the second phase depends heavily on economic development at Mid America Airport and at present that facility is virtually unused with little expectation of significant increases in commercial traffic in the near future. While $308 million has been spent on improving Mid America Airport, no major airlines plan to serve the airport in the near future. In addition, a planned $2 billion expansion at Lambert-St. Louis International Airport, the principal airport serving the St. Louis metropolitan area, would directly compete for passengers with Mid America Airport.

FTA Should Evaluate and Rate the Second Phase

FTA must decide in the near future, whether to provide funding for the second phase of the extension. As noted above, the second phase is in the final design stage. Bi-State wants to begin construction in March 2000 and to start revenue operations by June 2003. On August 4, 1999, Bi-State requested that FTA approve changes in the scope of the grant agreement to include the second phase. In requesting FTA to amend the funding grant agreement, Bi-State is relying on Section 3009(e)(8)(D) of TEA-21 that waives the evaluation and rating process for projects that have existing funding grant agreements.

While the Administrator has discretionary authority to amend the scope of an existing grant agreement, there is a question on whether the second phase of this project is clearly within the scope of the existing funding grant agreement and, therefore, exempt from the evaluation and rating process required under TEA-21.

The October 17, 1996 grant agreement describes the intent of Bi-State to extend the MetroLink to the new Mid America Airport. However, the grant agreement defined the project as ". . . an interim operating segment to Belleville Area College." The second phase to Mid America Airport was not a part of the project scope.

Section 3030(a) of TEA-21 authorized the final design and construction of the project to Mid America Airport along with 113 other fixed guideway transit projects. Section 3009(e)(7) of TEA-21 requires all new, fixed guideway transit projects or extensions to existing systems to have "full funding grant agreement(s) based on the evaluations and ratings." Therefore, the second phase should undergo the same process as the other authorized projects.

Section 3009 (e)(1)(B) of TEA-21 requires that grants and loans for new transit systems or the extension of an existing system may be approved only if the proposed project is ". . . justified based on a comprehensive review of its mobility improvements, environmental benefits, cost effectiveness, and operating efficiencies. . . ." The final rule for the New Starts evaluation and rating process is scheduled for issuance in the spring of 2000. Since the final rule has not been published, FTA has completed project evaluations and funding recommendations based on FTA's existing New Starts criteria and evaluation process[12] and further modified them to account for TEA-21 changes in July 1999. Regardless of whether the old or the new criteria are used to evaluate the cost-effectiveness of a proposed project, FTA considers the change in total capital and operating costs per additional passenger among other criteria in deciding whether to recommend the project for funding.

Bi-State calculated the additional cost for the second phase at about $35 per new rider.[13] FTA reports that, for the fiscal year 2000 project submissions, the cost-effectiveness indices ranged from $2.54 per new rider to $48.82 per new rider with a median cost of $10.39 per new rider. FTA would rank project submissions compared to the $10.39 median cost per rider and assign a rating of "high," "medium-high," "low-medium," or "low" based on its relative ranking compared to the other New Starts projects. Based on the $35 per new rider, it is likely the second phase of the extension rates "low" for cost-effectiveness. Bi-State's own document states that ending the project at Belleville Area College would be over 20 percent more cost-effective than the entire alignment to Mid America Airport.[14]

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[12] 61 Federal Register 67093-106 and 62 Federal Register 60756-58.

[13] Reported at $34.97 per rider when compared to the no-build alternative and $34.89 when compared to the transportation management system alternative. We noted that the $34.97 figure contains a mathematical error and should be $34.92.

[14] Bi-State Development Agency, "Section 5309 New Starts Criteria for the St. Clair County MetroLink Extension Phase IIB Belleville Area College to Mid America Airport," February 1999.

Operating efficiency is another criterion FTA uses in the evaluation and rating process. Operating efficiency measures the impact on system-wide costs. It is unclear whether there would be any genuine increase in system-wide ridership from extension to the airport or whether riders would merely be diverted from existing bus service. Bi-State's New Start plan calls for eliminating parallel bus service. In accordance with FTA's policy, the second phase likely would be assigned a "low" rating for operating efficiency.

Another criterion in the evaluation and rating process is mobility improvements. One factor in assessing mobility improvements is the number of low-income households served. Of the households within a one-half mile radius of the station boarding points for the entire St. Clair County extension, 26.6 percent, are low income. However, for the second phase, only 6.9 percent of the households are low income. The second phase consists of 8 miles in farm fields between small residential developments of only 3,100 households. As a result, few low-income households would be served and it is unclear how this factor would be rated.

Alternative Proposal to Scott Air Force Base

Subsequent to completing our audit work in October 1999, Bi-State requested FTA to amend the funding grant agreement to provide Federal funds for the project in a different distribution. The October 1999 request to amend the grant agreement would limit Federal involvement in the project to Scott Air Force Base. The Scott Air Force Base, 3.5-mile segment, of the project would cost $77 million. However, the Federal funding remains the same, $60 million. As a share of the project, FTA's participation increases from 50 percent to 78 percent while the local share decreases from 50 percent to 22 percent. The remaining 5.4-mile segment to Mid-America Airport would be constructed with local funds costing an estimated $42.2 million.

Of the $60 million now in place from the State of Illinois, $17 million would be used for the local share to extend to Scott Air Force Base. The remaining $43 million would provide the resources required for the extension to Mid-America Airport. The apparent discrepancy between the 3.5-mile segment costing $77 million and the 5.4-mile segment costing $44 million results from the construction of 14 bridges in the 3.5-mile segment and only 3 bridges in the 5.4-mile segment. The cost of four light rail vehicles and a more elaborate station and parking structure at Scott Air Force Base also explains the higher cost of the shorter segment. Total project cost, funding, and schedule remain approximately the same, only the respective percentages of Federal and local contributions to the different phases will have changed.

Recommendation

We recommend that the FTA Administrator base the final decision to award $60 million of Federal funds for the second phase of the extension on an evaluation and rating of the second phase under its New Starts criteria.

Management Comments

On December 8, 1999, (see Attachment) FTA concurred with our recommendation that the FTA Administrator base the final decision to award $60 million of Federal funds for the second phase of the extension on an evaluation and rating of the second phase under its New Starts criteria. FTA also sent a letter to the Senate Committee on Banking, Housing and Urban Affairs on December 8, 1999 that describes the intent to execute an amendment to the funding grant agreement and provide an additional $60 million for the extension to Scott Air Force Base. This letter advises the Senate that FTA "will make this Federal commitment of New Start funds no earlier than sixty days from the date of this letter."

Office of Inspector General Response

Limiting Federal participation to the second phase terminating at Scott Air Force Base does not alter the question of whether FTA should participate in this project given the low ridership projections. Proceeding with the extension in a re-designated financial format still poses the same problems as discussed in this report. The Bi-State financial capacity assessment indicates a potential $300 million, 20-year operating deficit resulting from the second phase over and above a projected $1 billion operating deficit for the entire Metrolink system. While the financial assessment indicates the community currently has the capacity to fund these deficits, advancing the second phase of the project commits the locality to long-term deficits, the impact of which may not be apparent at the present time.

FTA needs to ensure that an impartial evaluation and rating are performed prior to finalizing any commitment of funding. An important predicate for a decision by FTA is whether the additional riders from the 1300 National Guard personnel assigned to Scott Air Force Base, referenced in the December 8, 1999 letter to the Senate, make a significant improvement in ridership projections. With less than 800 riders per day currently projected for the Scott Air Force Base station in 2010, the concerns regarding viability of this phase are not diminished.

FTA also suggested that the report be revised to describe the second phase ending at Scott Air Force Base. We made changes to the report to show that Bi-State now intends to complete a portion of the second phase at Scott Air Force Base with

Federal participation and then to complete the second phase to Mid-America Airport without any Federal funding.

Scope and Methodology

In determining the current cost, funding sources, and completion schedule, we evaluated supporting documentation from FTA and Bi-State. Specifically, we reviewed and analyzed the full funding grant agreement, "concise cost reports," financial records, engineering estimates, contractual documents, project management oversight reports, construction status reports, and other pertinent documents. Our review was conducted from February 1999 through September 1999. We met with officials from FTA headquarters and region VII, Bi-State, and St. Clair County, Illinois.

As we identified major issues in the areas of ridership and the application of FTA's New Starts criteria, we examined and analyzed legal and regulatory criteria, project management oversight reports, studies, and related documents. We discussed the project with officials of the Federal Aviation Administration to obtain statistics on cost data on Mid America Airport in addition to officials from FTA, Bi-State, and St. Clair County. We also discussed the project with officials of the Illinois Department of Transportation, Dulles Airport, and Mid America Airport.

This review was performed in accordance with Government Auditing Standards as prescribed by the Comptroller General of the United States.

ATTACHMENT

Memorandum

U.S. Department
of Transportation
Federal Transit
Administration

Subject: FTA Response to OIG Draft Report on the Baseline Review of the St. Clair Extension

Date: December 8, 1999

From: Dorrie Y. Aldrich
Associate Administrator for Administration

Reply to
Attn. of:

To: Francis P. Mulvey
Deputy Assistant Inspector General for Rail,
Transit and Special Programs

The Federal Transit Administration (FTA) has reviewed the Office of Inspector General (OIG) Draft Report: Baseline Review of the St. Clair Extension Project no. 99T-3013-R002, dated November 22, 1999. Included is FTA's response to the your recommendation as well as comments to the report.

OIG's Recommendation: We recommend that the FTA Administrator base the final decision to award $60 million of federal funds for the second phase of the extension on an evaluation and rating of the second phase under its New Starts criteria.

FTA's Response: FTA concurs with the OIG's recommendation. We agree with OIG that the project needs to be rated and FTA is rating the project from Belleview Area College to Scott Air Force Base.

The October 1999 FFGA amendment request from Bi-State identifies the desire to terminate the federal involvement in the project at Scott Air Force Base. Because of this, the description of the project and the project cost as identified in the draft report need to be revised.

The BSDA has requested an amendment to the FFGA to provide federal funds for Phase 2B of the project. Phase 2B would extend the MetroLink light rail from its current interim Phase 2A terminus at Belleville Area College to Scott Air Force Base. That portion of Phase 2B that extends from Belleville Area College (BAC) to Scott Air Force Base is now known as MOS 2B, and that portion of the project that extends from Scott Air Force Base to MAA is now known as MOS 2C.

Bi-State did not decide to design and construct an interim operating system - rather Federal-funding constraints required designation of a logical interim segment consistent with Federal funds available.

(AUDITOR'S NOTE: The remaining comments were technical in nature and addressed the October 1999 request. Where appropriate, we have revised the report to reflect these technical comments.)