

CONCEPT
3

Creating and Realizing the Regional Transit Vision

Final Technical Report

DECEMBER

2008

Creating and Realizing the Regional Transit Vision

Final Technical Report

CONCEPT

3

TABLE OF CONTENTS

- Section 1 – Introduction and Context
- Section 2 – Developing Concept 3
- Section 3 – Presenting Concept 3
- Section 4 – The Adopted Concept 3
- Section 5 – Making Concept 3 A Reality
- Section 6 – Next Steps

Appendices

- Appendix A: List of Previous Studies
- Appendix B: Evaluation Criteria
- Appendix C: Evaluation Results
- Appendix D: Corridor Travel Pattern and Projects Information
- Appendix E: Board Resolution
- Appendix F: Public Engagement Strategy
- Appendix G: Transit Fact Sheets
- Appendix H: Summary Brochure
- Appendix I: Public Engagement Report Executive Summary
- Appendix J: Telephone Survey Results
- Appendix K: Peer Review Funding White Paper
- Appendix L: Existing Funding Sources White Paper
- Appendix M: Funding Plan Recommendations
- Appendix N: Governance White Paper
- Appendix O: TIB Resolutions
- Appendix P: Associated Reports

DECEMBER

2008



Transit Planning Board

WORKING TOGETHER – CONNECTING OUR REGION

Creating and Realizing the Regional Transit Vision

Final Technical Report

CONCEPT

3

TABLE OF FIGURES

Figure 1.1	TPB Study Area Map	page 1.1
Figure 1.2	Population Growth in Atlanta Region	page 1.2
Figure 1.3	Gas Prices in Metro Atlanta – December 2007 to December 2008	page 1.4
Figure 1.4	Share of Operating Budget Dedicated to Fuel and Power	page 1.6
Figure 2.1	Technical Work Program	page 2.2
Figure 2.2	Framework System	page 2.5
Figure 2.3	Mode by Service Level	page 2.6
Figure 2.4	Concept 1 Map	page 2.7
Figure 2.5	Concept 2 Map	page 2.7
Figure 2.6	Concept 3 Map	page 2.9
Figure 3.1	Groups Reached Through Public Engagement	page 3.1
Figure 3.2	Public Engagement Response	page 3.3
Figure 4.1	Norcross HRT Extension	page 4.2
Figure 4.2	Regional Rail Network	page 4.3
Figure 4.3	Inner Streetcar Network	page 4.4
Figure 4.4	Madison Commuter Rail Line	page 4.4
Figure 4.5	Henry County Network	page 4.5
Figure 4.6	Bus Extension to Snellville	page 4.6
Figure 4.7	Southwest Transit Way	page 4.6
Figure 4.8	Adopted Concept 3	page 4.7
Figure 5.1	ARTIB Functional Framework	page 5.3
Figure 5.2	Regional Context and Constituents	page 5.4
Figure 5.3	ARTIB Board Function	page 5.5
Figure 5.4	Existing Costs and Revenues	page 5.8
Figure 5.5	Fast Tracks Costs vs. Remainder of the Concept 3 Program	page 5.8

DECEMBER



Transit Planning Board

WORKING TOGETHER - CONNECTING OUR REGION

Creating and Realizing the Regional Transit Vision

Final Technical Report

CONCEPT

3

TABLE OF FIGURES

Figure 5.6	Cost by Concept 3 Program Component (in millions)	page 5.10
Figure 5.7	Percent of Costs by Program Component	page 5.10
Figure 5.8	Total Cost by Mode: 2008 dollars and YOE dollars (in millions)	page 5.11
Figure 5.9	Annual Operating and Capital Costs and Existing Revenues	page 5.14
Figure 5.10	Potential Revenue from Local Sources	page 5.15
Figure 5.11	Sales Tax Levels Compared to Concept 3 Costs	page 5.16
Figure 5.12	Annual Existing and Concept 3 Costs and Proposed Region-Wide Sales Tax	page 5.17
Figure 5.13	Annual Costs, Existing Revenues, and Potential Revenues	page 5.18
Figure 5.14	Annual Costs, Existing and Potential Revenues, and Debt Financing	page 5.19
Figure 5.15	Total Bonds Issued: Cost Growth Increase	page 5.20
Figure 5.16	Total Bonds Issued: Cost Increase and Sales Tax Revenue Reduction	page 5.21
Figure 5.17	Sensitivity Test: Grant Revenue	page 5.22
Figure 5.18	Sensitivity Tests: Changes in Bond Interest Rates	page 5.23
Figure 5.19	Sensitivity Tests Summary Results	page 5.24

DECEMBER

2008



Transit Planning Board

WORKING TOGETHER – CONNECTING OUR REGION

Creating and Realizing the Regional Transit Vision

Final Technical Report

CONCEPT

3

TABLE OF TABLES

Table 2.1	2007 Activity Center HBW Trips	page 2.6
Table 2.2	Order of Magnitude Capital Costs for Concept 3	page 2.14
Table 2.3	Order of Magnitude Operations and Maintenance Costs	page 2.15
Table 5.1	Cost by Concept 3 Program Component (in millions)	page 5.9
Table 5.2	Assumed Implementation Schedules by Mode (in months)	page 5.11
Table 5.3	Comparison of Concept 3 Costs - 2008 dollars vs YOE dollars	page 5.12
Table 5.4	Annual O&M Costs by Implementation Phase	page 5.13
Table 5.5	Concept 3 Sources and Uses of Funds Summary	page 5.28

DECEMBER

2008



Transit Planning Board

WORKING TOGETHER – CONNECTING OUR REGION

Introduction and Context

This report documents the development of the conceptual metro Atlanta regional transit plan ("Concept 3") developed by the Transit Planning Board (TPB). This report details the process by which the plan was created, including the evaluation of existing and planned transit projects and an analysis of corridor travel demands throughout the region. Included within this report are the means through which public engagement strategies developed the regional transit network and the process of identifying potential sources to fund and govern the plan.

1.1 THE TRANSIT PLANNING BOARD

The TPB was established in 2006 to create and maintain a seamless, regional transit system for the metro Atlanta region and is a partnership of the Atlanta Regional Commission (ARC), Metropolitan Atlanta Rapid Transit Authority (MARTA), and the Georgia Regional Transportation Authority (GRTA).

The TPB is led by a 19-member board of directors, made up of the County Commission Chairpersons for counties that make up the TPB study area, the DeKalb County CEO, the Mayor of Atlanta, the Chairpersons of the Boards of MARTA, Georgia Department of Transportation (GDOT), and GRTA, the MARTA General Manager / CEO, and three Governor appointees. The study area includes Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, Rockdale, and Spalding counties. Figure 1.1 shows the study area.

In 2004 and 2005, the ARC conducted the Regional Transit Institutional Analysis (RTIA). The key purpose of the study was to examine how to organize the Atlanta region to plan, build, fund, and operate transit service and to recommend strategies to provide a more cohesive regional transit system. Several key challenges that were noted included:

- Lack of service coordination
- Lack of standard fare and schedule
- Lack of funding from all levels of government.

A key RTIA recommendation was to establish an entity to move the Atlanta region towards a seamless regional transit system by bringing all constituents and key decision-makers to the table. Through joint

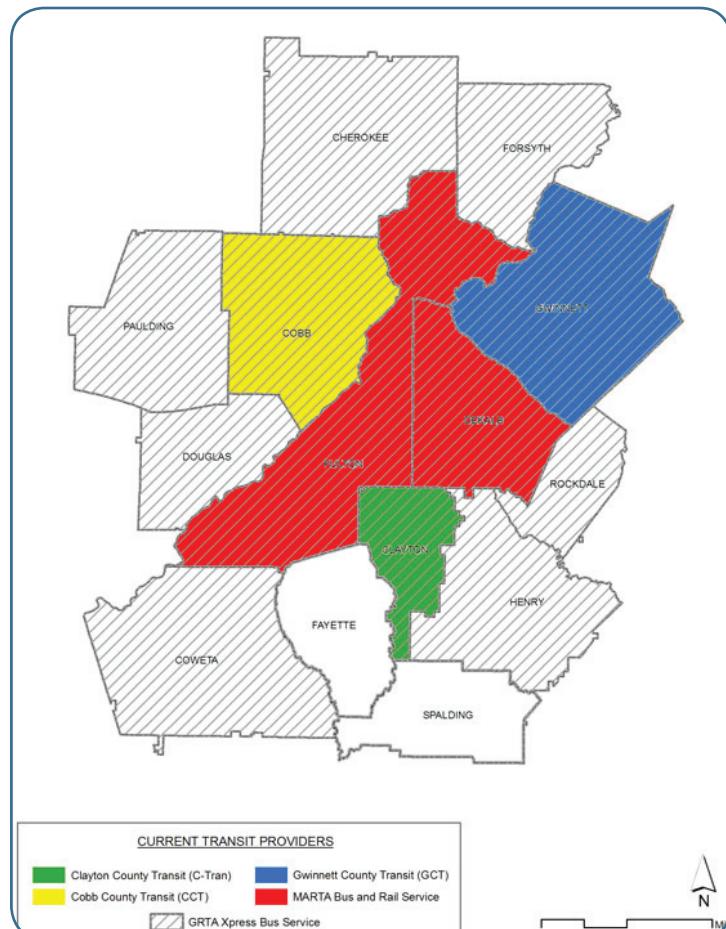


Figure 1.1: TPB Study Area Map

partnership with the transit agencies, cities, and counties in the region, TPB was formed to accomplish the following initial goals:

- Advocate for additional regional transit funding.
- Oversee an integration of fares, marketing, and customer information.
- Improve regional service coordination.
- Develop and evaluate a regional transit plan.
- Begin to measure system performance.
- Perform the necessary planning, financial analysis, and public outreach to begin seeking additional funding sources.

The RTIA process anticipated that the TPB would perform these functions for approximately two years before transitioning to its long-term role as the Transit Services Board (TSB), responsible for streamlining transit in the region.

1.2 THE CONTEXT

The metro Atlanta region has wrestled with the role of transit for well over 50 years. During this time, the region has grown significantly in population and employment. Figure 1.2 shows the significant population growth of the region and projected growth to 2030.

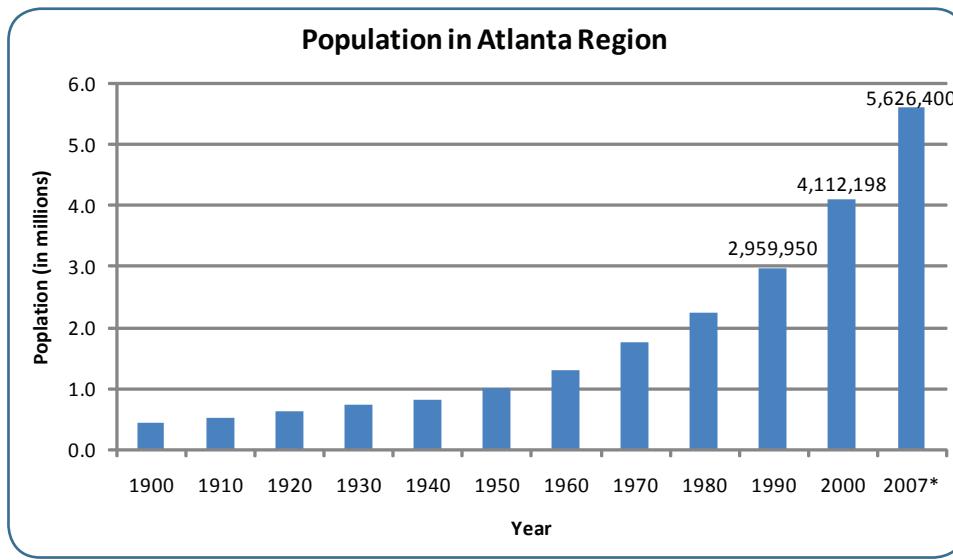


Figure 1.2: Population Growth in Atlanta Region

Source: www.census.gov

In recent years, numerous transit studies and plans for service feasibility have been sponsored by TPB partners including MARTA, ARC, GRTA, GDOT as part of the Georgia Passenger Rail Program, county and local governments, various Community Improvement Districts (CIDs), and business interests.

MARTA, the ninth largest transit system in the United States, provides core service in the City of Atlanta and Fulton and DeKalb Counties. Other efforts have resulted in significant initiatives, such as the establishment of Cobb, Gwinnett, and Clayton Counties' transit systems, the GRTA Xpress bus service, and numerous activity center shuttle services such as the Buc in Buckhead, Georgia Tech's Stinger System, and Emory's robust system. Still, an integrated transit network serving the entire region has eluded Atlanta.

Despite good planning and lofty aspirations, transit remains an underutilized and underinvested part of the region's mobility picture. Increasing competition for limited public capital and operations and

maintenance (O&M) funds for transportation intensifies the need for an effective transit network as part of the complete transportation network to support the region's economy and quality of life.

Congestion in all the major transportation corridors is choking the regional movement of both people and goods. With such mobility constraints, the region's economic engine may start to stumble, falter, and, perhaps, fail. Yet even with congestion and mobility issues, regional transit still lacks credibility as a part of the solution. In recognition of the important role transit could play in solving these problems, TPB was chartered by regional leadership to identify the appropriate steps the region can take before mobility reaches crisis proportions.

Congestion Threatens Atlanta's Economy

Congestion is the greatest threat to Atlanta's continued economic growth. Congestion costs Americans nearly \$200 billion a year, including hours and fuel wasted idling in traffic. In March 2007, it was estimated that Atlanta's congestion costs the region nearly \$2 billion per year, roughly \$1,127 per commuter, the fourth highest in the nation. In April 2008, Forbes Magazine named Atlanta the worst commute in the country, ahead of Los Angeles, California; Dallas, Texas; Washington D.C.; and Detroit, Michigan.

In a forum entitled "Is Metro Atlanta's Economic Future Stuck in Traffic?" in December 2007, the Metro Atlanta Chamber of Commerce (MACOC) spoke to relocation experts in Dallas, Texas, and Charlotte, North Carolina, on the challenges faced by businesses looking to move to congested cities like Atlanta. As one relocation expert put it:

"When Fortune 500 companies contact me about where to relocate their companies, Atlanta is often a top choice because of its incredible strengths -- the world's busiest airport, a rich talent pool, research universities that are the envy of the nation and good weather all year," Donovan said. "Unfortunately, in too many cases those strengths are being overshadowed by one big weakness -- traffic."

In order to overcome our traffic woes, Atlanta must turn away from its roads and focus on alternatives to driving to work. Georgia has the lowest percentage of investment in infrastructure in the nation, with less than one percent of gross domestic product (GDP) spent on infrastructure. On average, infrastructure expenditures are about 1.4% of GDP in other states².

At a Council for Quality Growth luncheon in November 2008, Lieutenant Governor Casey Cagle reiterated Georgia's need to catch up on its infrastructure investments. He announced that Georgia needs 4,000 new road miles and \$50 billion to fund these projects, money that can be raised through a proposed Transportation Special Local Option Sales Tax (T-SPLOST) to be discussed in the 2009 legislative session. Dick Anderson, executive director of GRTA, stated that Georgia could miss out on an estimated 320,000 jobs and \$515 billion in economic investment if it continues to hold back on transportation investments.

"What we're seeing is that a lot of cities are recognizing that the tremendous amount of traffic congestion in our cities becomes a burden on employees," says Frank Moretti of The Road Information Program (TRIP), a Washington, D. C.-based transportation interest group. "Companies realize that it becomes more difficult to keep employees in areas with spectacular traffic congestion." – USA Today, October 17, 2002³

Meanwhile, Atlanta's sister city, Charlotte, North Carolina, is investing in a robust, high-frequency transit system composed of several modes in the hopes that increased transportation options will provide more incentive for companies looking to headquartered in the Southeast. Charlotte also recently extended a half-penny sales tax to continue its investment in transit. In the December 2007 MACOC forum, Bob Morgan, President of Charlotte's Chamber of Commerce, told attendees that "combining land-use planning and transit-oriented development has to be a part of any plan for a successful metro region...Being aggressive on transportation policy definitely strengthens your competitive advantage."¹

Changing Attitudes Towards Transit

A number of events occurred during TPB's existence which may have influenced the public's receptivity towards TPB, its work, and overall support for a regional transit network:

- 1. Following record gas prices in early and mid-2008, motorists turned to transit for a cost-effective alternative.** After a steady climb in price, which began in February 2008 and peaked in the early fall, Georgia drivers experienced gas prices above \$4 a gallon, with the highest average per gallon price for regular unleaded at \$4.11 on September 18, 2008. These prices enraged cash-strapped motorists and many commuters turned to alternative forms of transportation, including transit, to battle the rising cost of their commute. Interestingly, even when gas prices began their decline in October 2008, transit ridership continued to rise suggesting that many motorists who had made the switch to transit continued to use transit for their commute.



Figure 1.3: Gas Prices in Metro Atlanta - December 2007 to December 2008

Source: www.gasbuddy.com

- 2. Transportation funding became an important topic of discussion for the Georgia legislature, reaching its peak during the final minutes of the 2008 legislative session.** At the close of the 2008 legislative session, Senate Resolution 846 failed by three votes in the Georgia Senate. SR 846 would have enabled regions throughout the state to fund additional transit and roadway expansion through a one-cent sales tax, a T-SPLIST. SR 846's near passage triggered a wave of public dialogue that kept transit and transportation at the forefront of the public agenda. Every indication throughout the fall of 2008 suggested that passage of this or a similar funding mechanism in the 2009 legislative session will be a priority.
- 3. Metro counties' interest in transit continues to grow.** In the July 2008 primary election, Gwinnett County had a measure on both the Democratic and Republican tickets to expand transit into metro Atlanta. In 1965 and 1990, the same issue failed overwhelmingly, with a large majority voting down the expansion. In 2008, the issue missed passage with a marginal split of 53 percent against and 47 percent in favor. This vote suggests that counties once thought hostile to transit might be more willing to embrace transit today.

The North American Transit Industry

Increased Funding & Ridership for Transit

In the November 2008 election, 23 initiatives for increasing transit funding across the United States passed. The Wall Street Journal reported that, through these initiatives, an additional \$75 billion in transit funding would be available to agencies nationwide⁴. These initiatives included:

- \$10 billion in bonds to start a high-speed rail network in California between San Francisco and Los Angeles⁵
- \$18 billion to expand transit in Seattle, Washington
- Approval of a light-rail line in Hawaii
- Approval of tax-allocation districts for development in Georgia that can be used for transit

Further, transit ridership is up across the country. In an American Public Transportation Association (APTA) survey conducted in July 2008, 86 percent of transit agencies noted an increase in ridership as a result of the rise in gas prices in early to mid 2008, ranging from two to 30 percent. These increases did not decline with the return of lower gas prices in October and November 2008. Many riders chose to continue using transit and commute alternatives, rather than return to their vehicles.

Increased Ridership and Costs Squeeze Agencies' Budgets

However, with the increased ridership, most agencies do not have adequate room to grow, nor available funds in their budgets to purchase additional capacity, and are therefore turning passengers away. Eight-five percent are experiencing capacity constraints on their existing service, and nearly two-thirds of the agencies who responded to the APTA survey said that their biggest concern with increasing service is a lack of available funding⁶.

Across the United States, transit agencies are feeling the pinch on their funding, while seeing an increase in operating costs due to increased ridership and interest in transit:

- In California, Governor Schwarzenegger proposed a half billion dollar cut in public transit funds for the 2009 budget⁷.
- In Minneapolis, Minnesota, revenues collected through a motor vehicle sales tax are declining as prices rise, the national recession takes hold, and fewer individuals are buying vehicles⁸.
- In Chicago, Illinois, the Regional Transportation Authority (RTA) has not received state capital funding dollars since 2004 and is seeing a reduction in sales tax revenues because of the economy⁹.
- In New York City, the Metropolitan Transportation Authority (MTA) is facing a \$1.2 billion deficit and is considering a fare increase to \$3¹⁰.
- In Denver, Colorado, fuel prices are up, together with transit ridership, placing a severe crunch on available funding for transit in the system. The Denver Regional Transportation District recently locked in diesel price of \$3.20 per gallon, almost \$0.60 higher than budgeted costs.

Rising fuel costs are further affecting the transit industry. Diesel fuel prices have risen nearly 166 percent since 2004 to over \$3.30 per gallon. In APTA's May 2008 survey of transit agencies, findings show that transit agencies are spending almost 11 percent of their budgets on fuel and electricity costs, up from just over 6 percent in 2004.

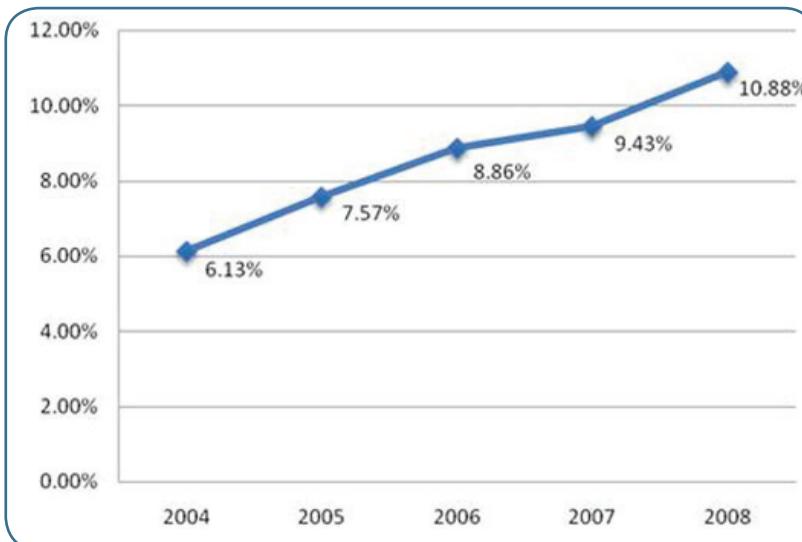


Figure 1.4: Share of Operating Budget Dedicated to Fuel and Power

Further, AIG recently lost its AAA rating, putting over two dozen transit agencies in a financial crisis who depend on AIG, and similar agencies, for Sale-in/Lease Out and Lease-In/Lease Out (SILO/LILO) leasing transactions. These transactions were encouraged by the Federal Transit Administration (FTA) in the late 1980's to 2003 as a way for transit agencies to find additional revenues. To secure these transactions, sale proceeds in the form of Treasury securities were placed into an account that insurers, such as AIG, guaranteed. The requirement, however, is that insurers participating in these deals must have a AAA rating. The collapse of AIG means that there is a possibility that the banks might request that the transit agencies pay off the lease in full – in other words, requesting that the transit agencies pay banks amounts sometimes larger than a transit agency's annual budget. APTA and the transit agencies are working on a legislative resolution at the federal level.

Overall, at the national level, transit agencies around the nation are dealing with increased demand for their services at a time when financial pressures are hurting their ability to deliver those services.

1.3 CONCLUSION

Concept 3 was developed during this period of increasing congestion, declining economy, and rising costs. In a time of economic unrest and continuing uncertainty over transit budgets and ridership, Atlanta is in desperate need of additional mobility solutions. The city is choking on its own congestion, and transit is a solution to decreasing traffic and increasing mobility. Concept 3 provides choices for all lifestyles, from all parts of the regions, and in all densities. Section 2 of this report details the methods through which Concept 3 was created, along with a detailed description of the plan and its mobility options.

¹"Forum: Is Metro Atlanta's Economic Future Stuck in Traffic?" Press Release, December 17, 2007, www.garprail.org/documents/MetroATLEconomyStuckinTraffic.pdf.

²Evans, Gena. "State Transportation Status." January 8, 2009.

³Copeland, Larry. "Traffic nightmares beginning to cost cities." USA Today. October 17, 2002. http://www.usatoday.com/news/nation/2002-10-17-traffic_x.htm.

⁴Conkey, Christopher and Paul Glader. "Mass-Transit Projects Fared Well at Polls." The Wall Street Journal. November 12, 2008. <http://online.wsj.com/article/SB122645311762919469.html>

⁵Hymon, Steve. "Measure R projects won't get rolling soon." The Los Angeles Times. November 5, 2008. <http://www.latimes.com/news/local/la-me-transit6-2008nov06,0,7506753.story>

⁶Rising Fuel Costs: Impacts on Transit Ridership and Agency Operations. American Public Transportation Association. September 2008.

⁷Mills, Casey. "Without Transit Funding, California's Smart Growth Efforts Not Enough." California Progress Report. 9-4-2008. http://www.californiaprogressreport.com/2008/09/without_transit.html

⁸"Region faces transit funding challenge in 2009." <http://www.metrocouncil.org/directions/transit/transit2008/MVSTFundingJan08.htm>

⁹2009 Service Board Proposed Budget, Two-Year Financial Plan and Five-Year Capital Program. http://rtachicago.com/CMS400Min/uploadedFiles/BudgetBook_Draft_web.pdf

¹⁰Chan, Sewell and William Neuman. "M.T.A. Faces \$1.2 Billion Deficit." The New York Times. November 11, 2008. <http://cityroom.blogs.nytimes.com/2008/11/10/mta-faces-12-billion-deficit/>

Developing Concept 3

This chapter describes the visioning and technical strategy leading to the development of Concept 3. The plan development process was comprehensive, involving review of existing data collected by TPB staff, synthesizing of data with respect to potential transit markets and existing/future conditions, and computation of other performance metrics developed as part of the technical and stakeholder engagement activities associated with the overall TPB work program.

The TPB Board's focus was not to do more planning; rather, to review and use the tremendous amount of planning accomplished to date. With this focus in mind, the TPB staff reviewed transit and transportation plans and studies dating back to the original 1972 MARTA System Plan, including:

- ARC Downtown Midtown Bus Circulation Study
- ARC FTA Section 5307 Urbanized Area Formula Program Funding
- ARC Regional Transit Institutional Analysis Study
- Marietta-Lawrenceville Transportation Study
- I-285 Transit Feasibility Study
- South DeKalb-Lindbergh Major Investment Study
- MARTA Westline (Alternatives Analysis and Environmental Impact Study)
- MARTA I-20 East Corridor (Alternatives Analysis)
- MARTA Inner Core Transit Feasibility Study (Beltline and C-Loop)
- MARTA North Line Transit Oriented Development Study
- MARTA Memorial Drive Bus Rapid Transit (BRT) Study
- GRTA Regional Transit Action Plan
- GRTA Northwest Connectivity Study
- GRTA/GDOT Northwest I-75/I-575 High Occupancy Vehicle/BRT Study
- Northwest Transit Corridor Study
- C-Tran Service Review
- Cobb Community Transit Development Plan
- Gwinnett County I-85 Corridor and Transit Study
- Peachtree Streetcar Study
- Clifton Corridor Study
- Georgia Passenger Rail Program
- Maglev Study
- CID Circulator Studies

From these studies, the team identified a number of transit projects, narrowed to 63 "regional" projects, to be reviewed and considered as part of this effort. These projects range in complexity and size from local bus routes to BRT to major rail extensions. A critical component in the work effort was to, for the first time, organize information from the previous studies so the TPB Board could better understand the original intent of the recommendations and determine each project's regional cost/benefit in Concept 3.

This technical process required a number of iterations, and also fostered continuous education, refinement, and communication with the TPB Board about trade-offs, system performance, and project benefits.

The development of Concept 3 required significant coordination and compromise among the TPB Board members and their respective political jurisdictions. Various needs, expectations, and priorities were factored into the technical and visioning process. Through the TPB forum, other interested stakeholder groups including, but not limited to, business interests, environmental groups and transit riders, were also engaged.

Led by the TPB staff and consultant team, with significant input from the TPB Board members, the TPB developed the preliminary Concept 3. The goal of Concept 3 is to provide a regional transit system within 30 years, with full system build-out by 2030. Concept 3 will establish consistent, thorough, and reliable transit service throughout the region by way of a comprehensive network of transit modes, including commuter rail, heavy rail, light rail, and bus systems designed to provide efficient connections within and between the region's major activity centers. To get to Concept 3, the TPB undertook a visioning and technical process involving both "bottom-up" and "top-down" analytical approaches.

The bottom-up approach focused on leveraging the work of almost 40 years of previous transit and transportation planning efforts, while the top-down approach provided analysis of travel needs and demands for the region's major corridors. This regional travel information helped the team qualify the magnitude of trip-making patterns into the development of Concept 3. The travel data was taken from ARC's state-of-the-art Travel Forecasting Model Set for the Atlanta region. Together, the bottom-up and top-down approaches led to the creation of Concept 3.

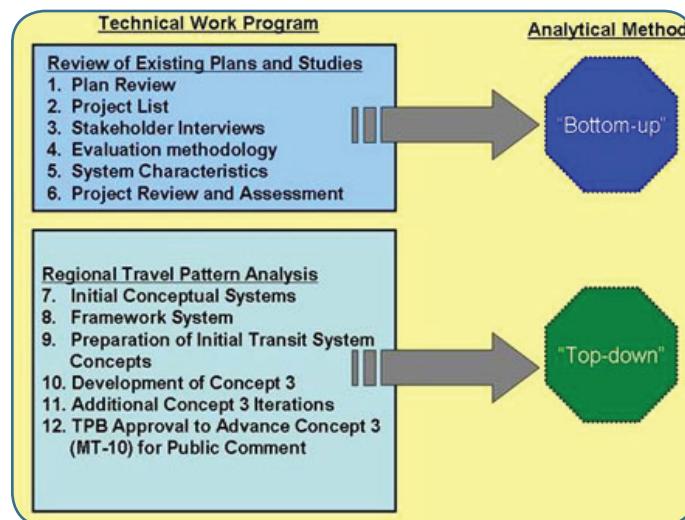


Figure 2.1: Technical Work Program

2.1 BUILDING ON 30 YEARS OF PLANNING, OR THE "BOTTOM-UP" APPROACH

The focus of the bottom-up analysis was to review and utilize the tremendous amount of planning accomplished to date. To create a basis for review, the TPB staff, the Technical Committee (made up of appointed professional staff from each TPB Board member and the regional transportation agencies), and the consultant team crafted project review guiding principles. The guiding principles fall into five categories:

- Cost effectiveness
- Performance effectiveness
- Land use linkages
- Environmental considerations
- Sponsorship and financial viability

The initial task in the plan development process was to review existing transportation and land use plans to understand the current framework and projects that are planned throughout the region. Key findings with respect to travel/mobility, land use, economic development, demographic trends, and transportation projects were inventoried. The previous studies that were reviewed and inventoried for strategies and proposed projects are provided as Appendix A. Collectively, this comprehensive review of studies and

plans established a baseline of information used to provide technical guidance that would eventually help create Concept 3. The section below provide more details on the analysis tasks completed in developing the plan.

Completing Initial “Bottom-Up” Analysis (Fall 2006 – April 2007)

1. Plan Review. As directed by the Board, the team initiated a review of major planning efforts stretching back to 1972 when MARTA took over the Atlanta Transit System. With the assumption that the Atlanta region has spent years planning and that this work should be used as a short-cut to developing a regional vision, this effort was designed to cull a list of projects that became the “Universe of Projects.” With the Board’s directive in mind, the team began a review of every major study conducted, including the 1976 Regional Development Plan, various Livable Center Initiatives Reports, the MARTA Commuter Rail Study for North Georgia, various GDOT rail plans, Mobility 2030, the Regional Transit Action Plan, and many more. The recommended projects in these studies were then placed into a project database. There were several themes running through nearly all of the plans, including:

- Transit appropriate to the area
- Fixed guideway investment in northwest and southeast corridors
- Fixed guideway/high capacity link to Emory/Clifton Road corridor

2. Project List. Out of well over 100 projects identified as part of the plan review step, 63 major projects of regional significance were finally selected for evaluation. The projects that were not included in the list of 63 were set aside for inclusion during later phases of analysis, and therefore were considered as supporting projects. Examples of such projects include activity center circulators, maintenance facilities, and infill heavy rail stations. It should be noted that these projects are vitally important to overall system functionality and were considered as key system components during the conceptual system development phase.

Once the plan review and project list were complete, the next step was to figure out how to make sense of the information now available. To this end, an evaluation methodology and a description of system characteristics were developed. Additionally, the team conducted one-on-one interviews with each of the Board members and continuously met with various other partners, including the Technical Committee, county staff, and transit operators, as part of the outreach process.

Developing Desired System Characteristics (April 2007 – July 2007)

3. Stakeholder Interviews. An aggressive program to conduct one-on-one and small group interview/review sessions with the TPB Board members was employed to discuss system characteristics, evaluation methodology, and regional needs. In these meetings, Board members stressed the importance of developing a system that connects the entire region, while identifying transit solutions that are appropriate to the diversity of areas that make up the region.

4. Evaluation Methodology. The evaluation methodology was used to assess the 63 projects in the project list. With special attention given to crafting a process that did not bias specific types of projects, the evaluation process was designed to allow independent review of each of the projects. Standard criteria such as ridership, estimated project cost, and other criteria informed through the plan review and stakeholder interviews were organized into an overall evaluation framework. The evaluation framework consisted of 17 criteria divided into five themes. The criteria development was based on the following themes:

- Cost Effectiveness and Performance Effectiveness, including an evaluation of project cost effectiveness, overall project costs, potential transit market, auto availability, ridership

effectiveness, congestion relief, travel time benefits, and connectivity to regional transit network;

- Land Use Linkage, including an evaluation of consistency with the ARC Regional Development Plan and Atlanta Regional Unified Growth Policy Map, economic development/redevelopment potential, and connectivity to activity centers;
- Environmental Considerations, including an evaluation of community impacts and compatibility, and cultural and natural resources impacts; and
- Sponsorships and Financial Viability, including factors such as project readiness, demonstrated local commitment and priority, funding source availability, and opportunity to bundle with other transportation projects.

A detailed description of the evaluation criteria is provided in Appendix B. The results of the evaluation of the aforementioned 63 projects are provided in Appendix C.

5. System Characteristics. The system characteristics were developed to provide guidelines as to the type of transit system the region desires. Rather than specifying projects, the guidelines characterize how the entire system should function. The guidelines were developed through the plan review and the stakeholder interviews and refined over the course of plan development. The system characteristics include:

- Activity center focus
- Regional mobility and congestion mitigation
- Cost effectiveness and cost/benefit
- Customer focus
- Land use synergy
- Existing transit investment

6. Project Assessments. Using the evaluation methodology, a series of project assessments were performed. Due to the relatively large number of criteria and themes, the planning team compared different weightings schemes to reflect different approaches to priorities. This allowed the team to identify projects that consistently assessed well across the approaches to priorities. Additionally, the project assessment tool made possible the formation of initial cost estimate and ridership ranges associated with a regional system. It also provided the team with a process for developing generalized and consistent cost assumptions for different transit types, which could be employed to generate rough cost estimates for new services considered as part of the regional system.

2.2 A LIST OF PROJECTS DOES NOT A REGIONAL SYSTEM MAKE, OR THE “TOP-DOWN” APPROACH

Transitioning to the “Top Down” Approach (Fall 2007)

The guiding principles and system characteristics allowed TPB to identify the likely transit corridors, potential transit modes, and initial project costing. The results from the bottom-up approach were presented to the TPB Board at its June and July 2007 meetings. From these meetings, along with Technical Committee input, it became clear that the information derived after review of the 63 projects previously studied was not sufficient enough to serve as the primary basis for developing Concept 3. Thus, in response to TPB Board direction, the planning team expanded the technical work program to include the top-down approach.

7. Initial Conceptual Systems. Starting with the initial project list, a preliminary set of major travel corridors was identified. However, per the direction of the TPB Board, the team transitioned from using

only information derived from the 63 previously studied projects to gathering further information concerning major regional travel patterns and travel demand. This effort involved confirming and/or updating the initial set of major travel corridors identified, as well as creating a better understanding of the level of demand associated with each corridor. As part of the work effort, regional travel patterns were studied. The travel pattern analysis served as the centerpiece of the top-down analytical approach. Travel data was taken from ARC travel forecasting model to include 2030 trip tables for home-based work (HBW) trips to and from regional activity centers. The final step in developing the conceptual system was to identify various transit modes appropriate to each corridor.

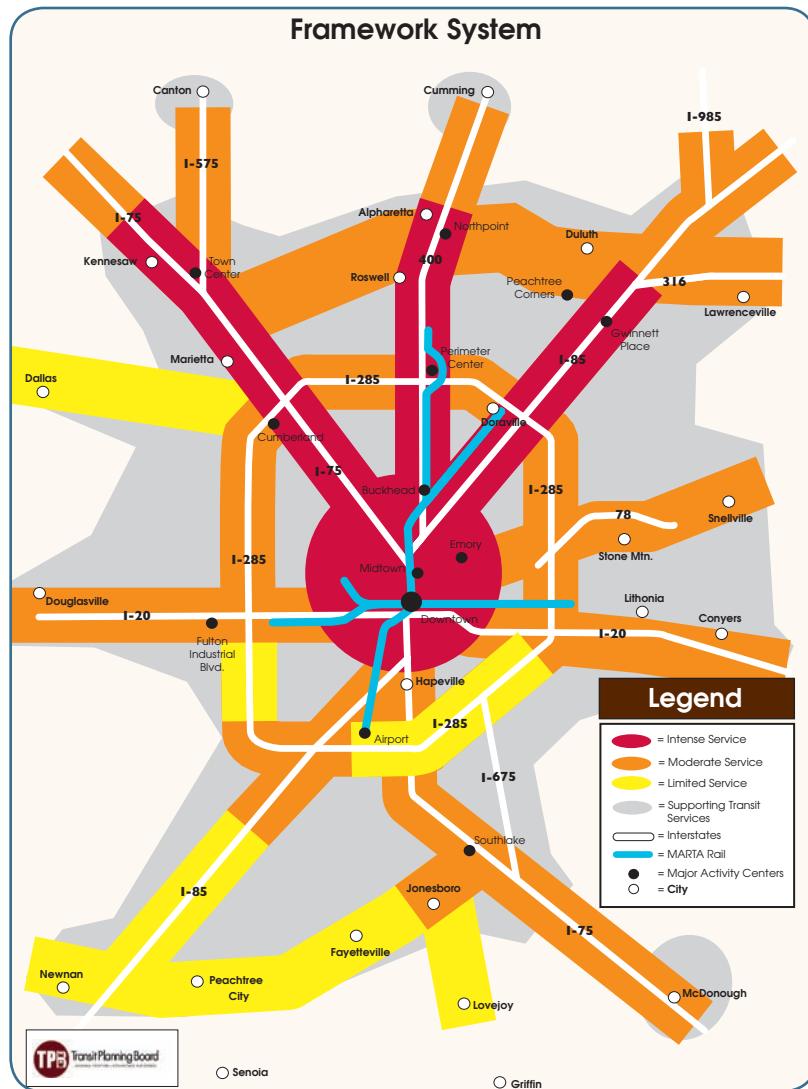


Figure 2.2: Framework System

8. Framework System. Using the results of the earlier analyses, the planning team instructed three of its technical members to independently develop three initial conceptual systems using the established system characteristics. These initial conceptual systems were presented to the Technical Committee. At that time however, the general consensus was to focus on creating a framework for the regional system based on corridors and service levels. This led to the creation of the Framework System (Figure 2.2).

The Framework System was developed as a precursor to Concept 3 by analyzing HBW trips to and from regional activity centers via the region's major corridors. It was concluded that the greatest potential to shift trips from auto to transit (and thus, reduce highway congestion levels) is to focus transit service on the HBW travel market, in particular HBW trips that occur within and between activity centers with high employee densities. From this work, the team found that the 13 regional activity centers accounted

for over 20 percent of the region's total HBW trips, while covering only 1.5 percent of the region's land area.

Furthermore, trip distribution characteristics to and from each of these regional activity centers was assessed. The travel pattern analysis, combined with a review of findings from the prior transportation studies, led to a confirmation of the key regional travel corridors, both radial and non-radial. ARC 2030 trip tables (taken from the currently available Travel Forecasting Model Set) were then used to determine the amount of regional travel occurring within each corridor.

Specifically, a buffer was defined along each regional corridor to determine the level of regional travel that occurs within each corridor. Travel patterns for the region's 13 major employment activity centers are shown in Table 2.1. This allowed for a determination of corridors with intense and moderate levels of regional travel and provided a means to start matching appropriate transit modes to corridors.

<i>Activity Center</i>	<i>Daily Trips</i>	<i>Home-to-Work Trips</i>
<i>Downtown Atlanta</i>	478,400	197,000
<i>Midtown Atlanta</i>	227,200	90,600
<i>Atlanta Airport area</i>	142,600	90,500
<i>Perimeter Center area</i>	300,100	88,500
<i>Buckhead</i>	255,900	63,300
<i>Cumberland/Galleria</i>	240,100	58,500
<i>Gwinnett Place/Discovery Mills</i>	239,200	51,800
<i>Emory University</i>	142,600	46,600
<i>Peachtree Corners/Norcross</i>	144,600	41,100
<i>North Point Mall area</i>	141,300	39,100
<i>Fulton Industrial Boulevard</i>	132,200	37,000
<i>Town Center Mall area</i>	169,200	31,800
<i>Southlake Mall area</i>	154,500	22,800

Table 2.1: 2007 Activity Center HBW Trips

The Framework System illustrates 2030 corridor trip demands matched to potential transit mode with appropriate capacity to serve each corridor. Corridors that were identified with moderate to intense levels of regional travel warranting medium- to high-capacity transit services were:

- I-85 North from Atlanta to SR 20
- GA 400 from Atlanta to SR 20
- I-75 North from Atlanta to SR 20
- Northern I-285 from I-20 East to I-20 West
- I-75 South from Atlanta to McDonough
- US 78 East from Atlanta to Snellville
- I-75 South/Tara Boulevard from Atlanta to Jonesboro

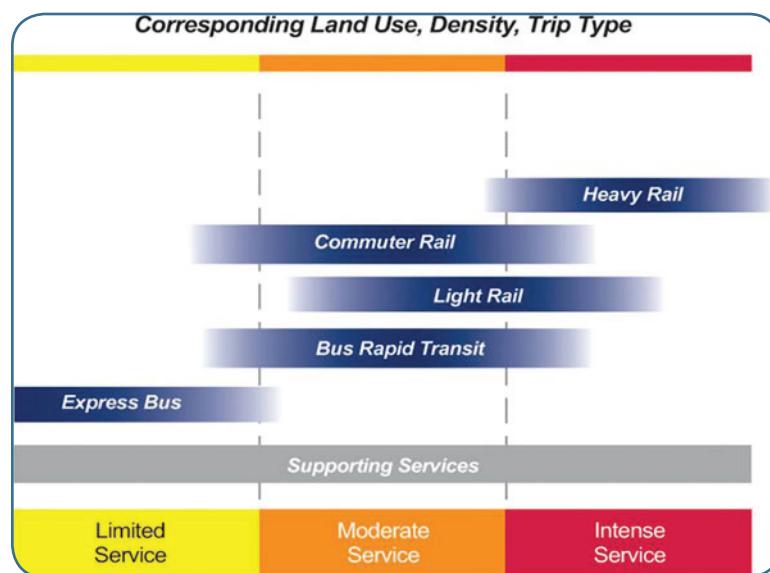


Figure 2.3: Mode by Service Level

- I-20 East from Atlanta to Conyers
- I-20 West from Atlanta to Douglasville
- SR 120 from Marietta to Lawrenceville
- I-85 South from Atlanta to Palmetto

Full analysis for these corridors can be found in Appendix D.

9. Preparation of Initial Transit System Concepts. After development of the Framework System, the team proceeded to refine the three initial concept systems into two systems that were presented at the September 2007 TPB Board Retreat. The TPB Board reviewed the travel demand, transit modes, and the two suggested concepts. The Board provided specific comment as to what parts of each they preferred. Figures 2.4 and 2.5 provide maps of the two system concepts presented during the Board Retreat.

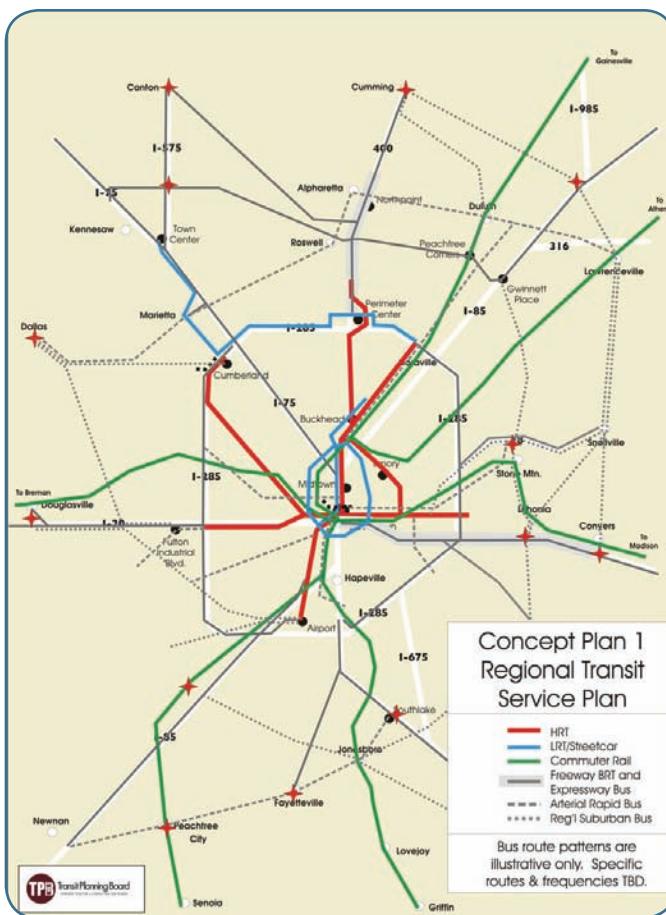


Figure 2.4: Concept 1 Map

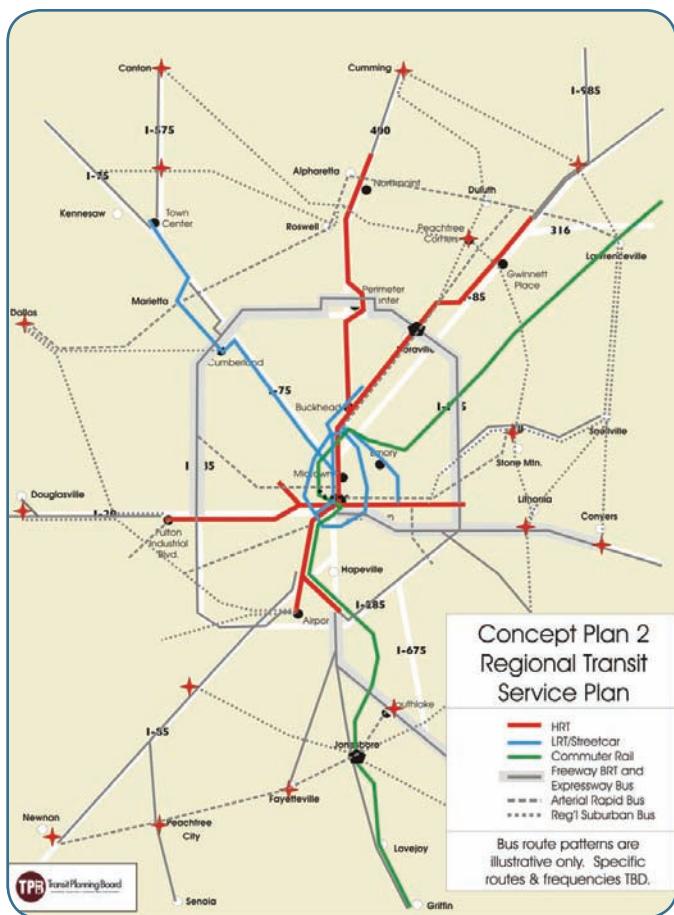


Figure 2.5: Concept 2 Map

2.3 ARRIVING AT CONCEPT 3

Based on input received from the Technical Committee and TPB Board during the Retreat concerning the initial concepts, the team developed Concept 3. Concept 3 was first presented to the TPB Board during the October 2007 meeting. In developing Concept 3, the planning team focused on serving major travel patterns to employment activity centers, fixed guideways and separation from traffic, expand local bus and activity center circulators, and ensuring a truly multi-modal transit network. Additionally, the Board directed that the following specific factors be addressed by Concept 3. These include:

- Move people throughout the region to concentrated employment centers.

- Create an interconnected regional network.
- Identify opportunity for implementing heavy and light rail to ensure auto competitive and reliable travel time.
- Identify opportunity for implementing commuter rail for dispersed populations traveling to employment centers.
- Expand express bus service for new transit corridors.
- Capture, by 2030, 15 to 25 percent of activity center trips.
- Create supporting local / circulator bus networks.
- Create supporting land use and other policies.

Minor iterations were made to Concept 3 to address concerns expressed by TPB Board members. The iterations involved revisions including the I-20 West heavy rail extension to I-285, identification of future “transit ways” for areas where additional study is necessary to develop better defined transit project concepts (e.g., I-575 corridor to Canton, South Fulton Boulevard in South Fulton County, Clayton County connector to Airport), addition of east-west arterial bus in the south Metro area, and the addition of I-675 express bus.

The TPB Board authorized staff to release Concept 3 to the public for review and input during its November 2007 meeting. Appendix E provides a copy of the approved Board Resolution.

2.4 CONCEPT 3 COMPONENTS

The proposed Concept 3 consists of a mix of the following transit services:

- MARTA heavy rail extensions
- Light Rail Transit (LRT) and/or streetcar lines
- Commuter rail lines
- High capacity (freeway) BRT lines
- Arterial rapid transit service
- Express and intercity regional service
- Expanded local and activity center service

Concept 3 attempts to match modes and transit capacities to projected corridor demands, based on a 2030 travel demand analysis that was completed in an earlier phase of this project. Figure 2.6 presents the proposed Concept 3.

Below is an analysis of the modes in the proposed Concept 3 and where they can be found:

Heavy Rail Extensions

The following MARTA rail extensions were proposed as part of the regional concept plan:

- MARTA North Line rail extension to Windward Parkway
- MARTA West Line rail extension to I-285/I-20
- MARTA Southeast branch from East Point to the proposed Southern Crescent Transportation Center

These three projects are in corridors that were identified in need of high-capacity transit services because of intensive volumes of regional travel. All three projects expand high-capacity radial transit service to and from the Downtown and Midtown travel markets. The North Line extension also provides expanded

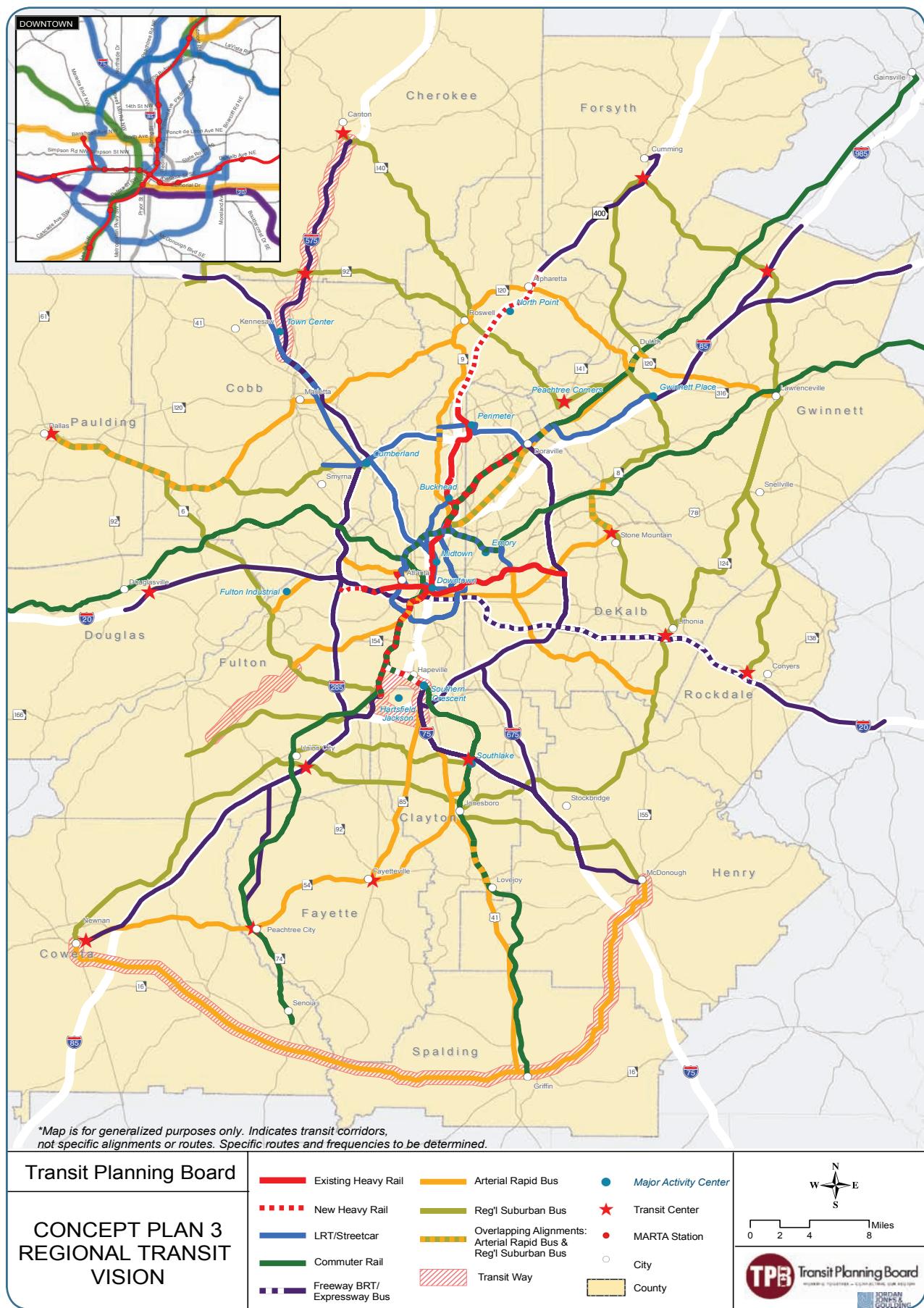


Figure 2.6: Concept 3 Map

high-capacity transit service to the Windward/North Point, Perimeter and Buckhead activity centers. The Southeast branch provides expanded high-capacity transit service to the Airport activity center via a proposed Airport-Southern Crescent transit connection.

Commuter Rail Service

The following commuter rail lines are proposed as part of the Concept 3.

- Athens to Atlanta, all-day service
- Griffin to Atlanta, all-day service
- Senoia to Atlanta, peak-period service
- Bremen to Atlanta, peak-period service
- Gainesville to Atlanta, peak-period service

Commuter rail is often used to meet long distance travel needs from low density suburban or exurban areas to the urban core. All proposed commuter rail lines provide medium- to high-capacity radial transit service to and from the Downtown and Midtown travel markets. All-day rail service is proposed on the Athens and Griffin lines because of higher demands (including reverse peak direction demands) within these corridors. The Griffin and Athens lines could be interlined to provide a one-seat (non-transfer) ride between the two corridors. The three peak-period lines could also be through-routed to the Southern Crescent Transportation Center to provide service to the Airport via a proposed Airport-Southern Crescent transit connection.

Light Rail and Streetcar Service

The following LRT and streetcar lines are proposed as part of Concept 3:

- Beltline
- Peachtree Streetcar
- I-75 North Light Rail from Town Center to Midtown / Downtown
- I-285 North Light Rail from Smyrna to Doraville
- I-85 North Light Rail from Doraville to Gwinnett Place Mall
- Emory-Lindbergh-Decatur Light Rail

LRT can serve both longer distance trips as well as activity center circulation. There is considerable flexibility with LRT's operating environment. It can be located on freeways, major arterials, or even local streets. It can serve as a seamless link between regional and local movements because of its inter-operability / compatibility with streetcar systems.

The Beltline and Peachtree Streetcar projects provide medium- to high-capacity circulation and distribution service within the central core. The I-75 North project provides needed high-capacity service in an important radial corridor that is presently underserved by transit. I-85 North LRT also provides high-capacity service in a radial corridor. I-285 North LRT provides needed high-capacity service in the region's most congested non-radial corridor.

An important element of this regional concept plan is the assumed interlining of train service between corridors. Transfers have a negative impact on ridership potential. The specific line configuration for LRT service requires further analysis. For purposes of this concept plan, however, the following train service patterns have been assumed:

- Town Center to Midtown or Downtown via I-75
- Town Center to Indian Trail via I-75, I-285, and I-85

- Smyrna to Gwinnett Place Mall via I-285 and I-85
- Marietta to East Lake via I-75, the Beltline, and the Lindbergh/Emory Decatur line.

Freeway Bus Rapid Transit

Several freeway BRT projects are proposed as a means to provide medium- to high-capacity transit along key freeway corridors where rail does not exist or is not proposed. BRT can be accommodated on exclusive lanes or in HOV lanes. This service is considered to be a significant step above express bus service, which shares a lane with regular traffic. Frequent service, enhanced customer amenities, and capital improvements that improve travel time reliability are required. Freeway BRT has the advantage of serving high-demand corridors with variable capacity that can respond to increasing demand. In addition, by reserving exclusive corridors for BRT, the region has the bonus of preserving the option for eventual conversion to LRT (if both vertical and horizontal standards are met). An advantage of freeway BRT is the flexibility to tailor bus service to demand levels and to have the means to operate buses off the BRT facility for circulation and distribution within nearby activity centers and residential areas. Proposed freeway BRT projects are:

- I-20 East from Conyers to Atlanta CBD
- I-285 West from I-20 West to Cumberland
- I-285 East from I-20 East to Doraville
- I-75 South from Southern Crescent to McDonough
- I-20 West from H.E. Holmes to Fulton Industrial Boulevard

Exclusive bus lanes are proposed for the I-20 East project, with the potential future conversion to LRT. The other freeway BRT projects are assumed to reflect bus service operating in HOV lanes, with capital improvements that improve travel time reliability such as bus-only access ramps to and from the HOV lanes.

Arterial Rapid Transit Projects

Several arterial rapid transit projects are proposed as a means to provide medium capacity transit service to key regional arterial corridors. These projects are proposed in identified non-radial arterial corridors (e.g., SR 120 and SR 34/54) and along radial arterial corridors (e.g., Memorial Drive, Buford Highway). The intent of these projects is to provide frequent transit service (e.g., 15-minute frequencies or better) with limited stops, enhanced passenger amenities, and low cost capital improvements that will improve the reliability of transit travel times, including partial signal preemption, queue jumper lanes, bus-only lanes where feasible. The determination of specific arterial rapid transit projects for the regional transit plan requires further analysis of travel demand forecasts and costs. Representative projects that have been assumed in Concept 3 are:

- SR 120 from Marietta to Lawrenceville
- SR 12 from Dallas to Marietta
- SR 34/54 from Newnan to Jonesboro
- Memorial Drive from Garnett to Avondale
- Memorial Drive from Avondale to Stone Mountain
- Buford Highway from Pleasant Hill to Lindbergh
- Fulton Industrial from I-20 to Camp Creek Parkway
- Piedmont Road/Roswell Road from Lindbergh to Alpharetta
- D.L. Holowell from North Avenue to I-285

- Campbellton Road from North Avenue to I-285
- Candler Road/Flat Shoals Road from I-285 to Decatur

Express Bus Service

Concept 3 requires an extensive express bus network in corridors where rail or freeway BRT is not proposed, and in corridors where travel demand sheds extend beyond proposed rail and freeway BRT alignments. Freeway corridors where express bus service is likely to be provided include:

- I-75 North north of Town Center Mall
- I-20 West west of I-285
- I-285 Southwest from I-20 West to the Airport
- I-285 Southeast from I-20 East to the Airport
- I-85 South from Newnan to College Park
- SR 316 east of Lawrenceville
- I-675 south of I-285
- I-985 north of I-85
- I-85 North north of Gwinnett Place Mall
- GA 400 north of Windward Parkway

Regional Suburban Bus Service

A network of regional suburban bus service is also proposed as part of Concept 3. These routes will provide suburb-to-suburb bus service with limited stops. Service levels will be tailored to demand, but is likely to be 30- to 60-minute frequencies. Minimal or no capital improvements are proposed. Further study is required to determine an appropriate route structure for a regional suburban bus network. Representative routes included in Concept 3 are:

- Canton to Roswell to Gwinnett Place
- Gwinnett Place to Stone Mountain to Lithonia
- Cumming to Mall of Georgia to Lawrenceville
- Lawrenceville to Snellville to Lithonia
- Lithonia to Southlake to Jonesboro
- Southlake to Union City
- McDonough to Jonesboro to Union City
- Airport to Fayetteville
- Newnan to Union City
- Douglasville to Airport
- Dallas to Fulton Industrial Boulevard
- Dallas to Cumberland
- Kennesaw to Woodstock to Roswell

Transit Ways

Given the changing nature of development patterns and the clear desire to provide high-capacity transit service where there is a fit, the TPB has developed a new category of “transit ways”. Transit ways denote areas within the region where there is a good likelihood for greater development than currently captured

by the ARC model and where there is a need for additional study to determine transit feasibility. These areas are currently identified as:

- Southwest Fulton
- Airport circulator serving Clayton County
- Southern metro from Newnan to McDonough
- I-575 from Town Center to Canton

During the public engagement effort (see Section 4), additional “transit ways” were identified. As high capacity transit in these areas has not been studied, they are denoted with a pink line on the map as future study areas. Costs noted in this report do not include any transit way costing.

Expanded Local and Activity Center Bus Service

An investment in medium- and high-capacity transit services will also require an investment in local and activity center bus service. This bus service is needed to provide mobility for shorter trips and to provide feeder service to the regional transit network. It is a critical element for supporting regional transit projects in Concept 3. This plan assumes new local bus service in counties that presently do not have service like Paulding and Henry Counties, and expanded local bus service in counties that do have bus service like Clayton and Fulton Counties. Bus circulator routes are also proposed in activity centers as a means to distribute trips from regional rail and bus lines to destinations within the activity centers.

2.5 COST ESTIMATES

Initial capital and O&M cost estimates were prepared for Concept 3 for purposes of providing a framework for discussing funding strategies. It is important to emphasize that the cost estimates presented in this report are “order-of-magnitude”. Many of the projects in Concept 3 require further definition and study.

Capital Cost Estimates

Capital costs for Concept 3 were estimated with planning documents when available (e.g., Beltline Alternatives Analysis Report). In other instances, typical national average costs per route-mile were used. Placeholder costs for an expanded bus fleet for expanded express, local bus, and activity center service, new Park-and-Ride facilities and transit centers, and new maintenance facilities were included. Table 2.2 presents an order-of-magnitude capital cost estimate for Concept 3. It is important to note that the commuter rail capital cost estimates do not include track usage agreements with the host railroad. Rather, commuter rail operating agreement costs are considered to be part of commuter rail’s annual operating and maintenance costs.

O&M Cost Estimates

Annual O&M costs for rail components of this plan were developed by first estimating train-hours of service and then applying a unit cost to the revenue train-hour estimate. Rail operating plan tables were prepared in order to estimate revenue train-hours. Unit costs per train-hour for each rail mode (e.g., LRT, Streetcar, HRT) were based on typical modal averages.

Bus O&M cost estimates reflect a significant expansion of regional bus service beyond what is assumed in ARC’s Envision 6 Plan. Concept 3’s bus O&M cost estimate includes costs for expanded express bus, intercity regional bus, arterial rapid bus, and activity center circulators. It also assumes new local bus services in areas where bus service does not exist and expanded local bus service in areas that presently are served by one of the existing local operators.

Mode	Project	Project Limits	Distance	Cost Estimate	Mode Total
HRT	West Line Ext. North Line Ext. SE Spur	H.E. Holmes to I-285/MLK North Springs to Windward East Pt. to Southern Crescent	1.7 11.8 4.2	\$370 \$2,540 \$690	\$3,600
LRT/ Streetcar	I-75 North I-285 I-85 NE Lindbergh-DeKalb Atlanta Beltline P'tree Streetcar Ph. 1 P'tree Stcar Ph. 2 N. P'tree Stcar Ph. 2 S.	Town Ctr. to Arts Ctr. Smyma to Doraville Doraville to Indian Trail Rd. Lindbergh to East Lake MARTA Full circle alignment Five Pts to Brookwood w/ CBD Circ. Brookwood to Club Dr. Ft. McPherson to 5 Pts.	22.4 16.2 10.8 6.8 23.8 15.2 8.0 9.2	\$1,680 \$1,215 \$810 \$510 \$840 \$390 \$90 \$80	\$5,615
Commuter Rail	South Line Ext. 1 South Line Ext. 2 Brennan Line Senoia Line Gainesville Line Athens Line	Atlanta to Lovejoy Lovejoy to Griffin Brennan to Atlanta Senoia to Atlanta Gainesville to Atlanta Athens to Atlanta	26.0 16.0 57.6 35.1 53.6 71.7	\$650 \$90 \$129 \$78 \$115 \$1,793	\$2,854
Freeway BRT	I-20 East I-20 East I-20 West I-285 West I-285 East I-75 South Suppital Support Facilities	Stonecrest Mall to Atlanta CBD Conyers to Stonecrest Mall H.E. Holmes to Fulton Ind. Blvd. I-20 West to Cumberland I-20 East to Doraville Southern Crescent to McDonough n/a	14.3 6.0 3.6 9.3 14.5 21.0 n/a	\$630 \$240 \$90 \$233 \$363 \$525 \$500	\$2,580
Arterial Rapid Bus (Representative Projects)	SR 120 SR 120 SR 34/54 Memorial Drive Memorial Drive Buford Highway Fulton Industrial Blvd. Metro. Pkwy/Northside Dr. Piedmont Rd/Roswell Rd. D.L. Holowell Carmelton Rd. Candler Rd./Flat Shoals Rd. SR 16	Marietta-Lawrenceville Dallas-Marietta Newnan-Jonesboro Garnett to Avondale Avondale to Stone Mtn. Pleasant Hill to Lindbergh I-20 to Camp Crk Pkwy. South. Crsc. to Paces Ferry/I-75 Lindbergh to Alpharetta North Ave. to I-285 Greenbriar to Oakland City Snapfinger Rd. to Decatur Newnan to I-75	39.0 23.0 29.3 7.5 7.0 17.0 3.8 15.0 20.4 6.9 4.6 10.0 45.0	\$200 \$120 \$150 \$22 \$20 \$28 \$10 \$50 \$60 \$20 \$10 \$30 \$70	\$790
Support Facilities/ Fleet	Expansion Vehicle Fleet Park-and-Ride Facilities Transit Centers Maintenance Facilities			\$100 \$100 \$100 \$200	\$500
TOTAL ORDER-OF-MAGNITUDE COST ESTIMATE FOR CONCEPT PLAN/Build-Out:					\$15,939

Notes:

1. Cost estimates in 2007 dollars.
2. Costs do not include undefined transitways.
3. Unit costs used when costs were not available from prior studies were:

HRT = \$215 million per mile; LRT = \$75 million per mile; All-Day, 2-Dir. Commuter Rail = \$25 million per mile.
Exclusive Lane BRT = \$40 million per mile; HOV BRT = \$25 million per mile; Arterial Rapid Bus = \$3 to 5 million per mile.

Table 2.2: Order of Magnitude Capital Costs for Concept 3

Table 2.3 presents order-of-magnitude annual O&M cost estimates for Concept 3. This cost estimate reflects costs at Build-Out.

Item	Mode	Concept 3
Service Hours	Add'l. Bus Hrs.	4,198,000
	Add'l. Streetcar Train-Hrs.	242,000
	Add'l. LRT Train-Hours	220,000
	Add'l. MARTA Rail Train-Hrs.	82,000
	Add'l. Commuter Rail Train-Hrs.	15,000
	Add'l. Regional Rail Train-Hrs.	50,000
O&M Costs	Add'l. Bus Costs	\$377,820,000
	Add'l. Streetcar Costs	\$35,000,000
	Add'l. LRT Costs	\$82,500,000
	Add'l. MARTA Rail Costs	\$61,500,000
	Add'l. Commuter Rail Costs	\$46,500,000
	Add'l. Regional Rail Costs	\$50,000,000
Total Add'l. Cost		\$653,320,000
Assumptions concerning unit costs:		
1. Bus costs = \$90/bus-hour.		
2. Streetcar costs = \$175/train-hour for Beltline, \$125/train-hour for P'tree		
3. LRT costs = \$375/train-hour.		
4. MARTA rail costs = \$750/hour.		
5. Commuter rail = \$3,100 per train-hour.		
6. Regional rail = \$1,000 per train-hour.		
<i>NOTE: Cost estimates in 2007 dollars.</i>		

Table 2.3: Order of Magnitude Costs for Operations and Maintenance Costs

2.6 CONCLUSION

After review of dozens of transportation and transit plans for the metro Atlanta region, Concept 3 was achieved through developing a system built around transit needs in the main corridors and arteries of the region. With an understanding of the movements in the region, mostly home-to-work-based trips into downtown Atlanta, a Framework System was developed to show high, moderate, and low travel patterns. Modes of transit were then fit to the varying travel levels to create Concept 3. Concept 3 utilizes a range of mode options to create a truly regional system that can get citizens and visitors of the area from the very northern areas, in Cherokee and Forsyth Counties to the southern areas, like Hartsfield-Jackson Atlanta International Airport and into Henry, Fayette, Clayton, and Spalding Counties, and to the east and west, from Douglas County to Rockdale County. For the first time, metro Atlanta had a draft, consensus based plan that would truly connect the region.

Presenting Concept 3

This chapter describes the public engagement strategy implemented to educate citizens on the benefits and necessity of a coordinated regional transit plan for the Atlanta region. The strategy is a culmination of interviews with TPB board members, discussions with regional stakeholders, and the development of additional collateral. Together, these activities and strategies create the framework strategy to engage the public in the Concept 3.

3.1 THE APPROACH

There were three primary goals of TPB's public engagement effort:

- Raise awareness among key stakeholders and the general public about the need for a regional transit system
- Gather feedback in response to the vision for an expanded regional transit network and Concept 3
- Explore the public's willingness to pay for an expansion of the regional transit network

In developing the public engagement strategy, a nontraditional approach was taken. This approach focused on bringing the stakeholder engagement to the public whenever and wherever possible. This commitment was expressed by TPB Staff Director Cheryl King, who frequently stated her emphatic willingness "to meet with any one, any time, any place." This commitment was also expressed in activities of TPB's public engagement team during the study period. The nine town hall meetings, the special events that TPB staff attended on weekends, the 70 stakeholder meetings conducted throughout the region, and even the phone and online survey attempted to engage a diverse and comprehensive array of regional interests as extensively and as cost-effectively as possible. Figure 3.1 shows a sample of the groups that TPB reached in the public engagement process.

Environmental	Transportation
<ul style="list-style-type: none"> • Clean Air Campaign • Georgia Conservancy • Council for Quality Growth • Livable Communities Coalition • Sierra Club • Southern Environmental Law Center • Mothers & Others for Clean Air 	<ul style="list-style-type: none"> • Get Georgia Moving • Transit Riders Union • Atlanta Downtown Improvement District • Citizens for Progressive Transit • TMA Network • County Departments of Transportation
Citizen / Community Groups	Minority / Multicultural
<ul style="list-style-type: none"> • National Federation of the Blind • South Fulton Neighborhood Association • Concerned Transit Riders for Equal Access (CTREA) • East Cobb Civic Association • Atlanta Planning Advisory Board 	<ul style="list-style-type: none"> • NAACP • Cobb Latino Initiative • Concerned Black Clergy • 100 Black Men • Atlanta Business League

Figure 3.1: Groups Reached Through Public Engagement

A complete listing of the various public engagement tactics employed during the study period are listed below, along with a brief synopsis of each tactic's relative impact:

- **Phone Survey.** A telephone survey of 4,123 residents of the metro Atlanta region was conducted by Ayres McHenry and Associates from March 13 to 24, 2008. This survey and its findings informed

the regional dialogue on transit and positioned TPB as a thought leader on transit-related issues. By providing content on regional attitudes towards transit and transportation, TPB provided elected officials, regional decision makers, and the news media with content that continues to inform the regional conversation on transit. This phone survey was completed with support from the local CIDs and Transportation Management Agencies (TMAs).

- **Online Survey.** In addition to the phone survey, an online survey was also conducted by TPB. This survey, fielded from April 1 to May, 23 2008, generated 889 submittals, including specific input on Concept 3.

- **Town Hall Meetings.** TPB worked with local “hosts” to coordinate a total of 12 geographically-disbursed town hall meetings throughout the region. Through these town hall meetings, TPB reached a total of 569 residents. At the more widely-attended meetings in Cobb, Gwinnett, and downtown Atlanta, real-time voting technology was employed to allow staff to instantaneously aggregate responses to questions that gauged audience preferences and knowledge and to present the findings on-screen for all to see. Such technological tools aided in promoting greater dialogue and discussion in larger gatherings.

- **Special Events.** TPB staff set up booths at heavily-trafficked weekend destinations in an effort to connect with the average citizen. These efforts included weekend outings to Phipps Plaza, the Mall at Stonecrest, Lenox Square Mall, and Henry County’s Geranium Festival (sponsored by the McDonough Lions Club).

- **Regional Leadership Trip to Charlotte, North Carolina.** On March 27, 2008, a delegation of 50 regional leaders headed to Charlotte, North Carolina. On a whirlwind tour, the delegation met with regional leaders in Charlotte and toured Charlotte’s newly-opened light rail line, the Lynx Blue Line. An integral part of the Charlotte trip was participation by the local media. By engaging with regional leaders and by being provided full access to activities, media were encouraged to contribute to and experience the dialogue on transit. Such an approach helped gain the trust of media eager to assist the collective effort to raise the level of public discourse on regional transit.

- **Stakeholder and Board Briefings.** More than 70 stakeholder briefings reached 50 stakeholder groups and a combined total of 1,566 participants. Engagements ranged from large gatherings of 200 people, like Good Morning Cherokee, to smaller, more intimate gatherings. Groups included a wide range of interests, including business, government (local and state), environment, transportation, citizen/community groups, minority/multi-cultural groups, institutions of higher education, religious/faith communities, the elderly, and the disabled. The interaction and engagement of these stakeholders proved to be vital to the success of TPB’s efforts. Their advocacy and support was demonstrated through the sponsorship of public meetings, financial backing for TPB’s regional phone survey, and an outpouring of letters and emails in support of the plan.

In April 2007, before any work on Concept 3 was completed, the public engagement team met with each TPB Board member individually to gauge their priorities and opinions on regional transit and to gather their knowledge of the issues surrounding public transit within their respective jurisdictions. These thoughts were used in the initial concept work for the regional system and are reflected in Concept 3. The three primary questions were asked: 1) Define project success from your point of view; 2) Assess the Board’s level of commitment to regional transit on 1-to-10 scale; and 3) Share your views on regional transit.

- **State Legislature Briefings.** Since TPB began its public engagement process, the state legislature has been a priority and a valued stakeholder. Throughout this process, members of the legislature were kept abreast of TPB’s progress through one-on-one briefings, reports to various legislative committees, and an open-door policy for all TPB board and committee meetings. In preparation for the 2009 legislative

session, TPB is compiling a final report detailing its efforts and accomplishments over the past two years.

- **Partner Coordination.** TPB leveraged the expertise of the four agencies that created TPB: ARC, GRTA, MARTA, and GDOT. In addition, local government representatives that served on the Board greatly amplified TPB's message, serving as local ambassadors on TPB's behalf. Fulton County aired a 30-minute television interview between Chairman John Eaves and TPB Staff Director Cheryl King on its cable access station, FGTV. Cobb County co-branded marketing materials and went to great lengths to promote TPB's Cobb town hall meeting. These are just two examples of ways in which TPB's partners expressed their commitment and support.
- **Media Relations and Paid Advertising.** Extensive efforts were made to engage the media during TPB's public engagement effort. These efforts included drafting and distribution of press releases, fact sheets, and other materials, as well as the cultivation of relationships with key media personalities through one-on-one media briefings and other engagement efforts. The media was also educated on the various transit technologies and specifics of the plan, providing them with the resources to adequately inform the public. Town hall meetings, the leadership trip to Charlotte, and the release of survey information all positioned TPB's efforts as newsworthy. These efforts, in addition to targeted paid advertising in local newspapers, bolstered public engagement and helped channel additional respondents into TPB's feedback mechanisms.
- **Collateral and Web site Support.** TPB's web site has proven to be a repository of useful information related to Concept 3, the survey, and various outputs of the TPB. Flyers, fact sheets, and handouts created during this engagement period are included as part of this report.

In sum, TPB's public engagement effort directly engaged approximately 7,500 people across the geographic region in a six-month period. The efforts described above generated a database of more than 1,400 specific comments received via email, letters, phone calls, online survey responses, comment forms, and phone survey responses.

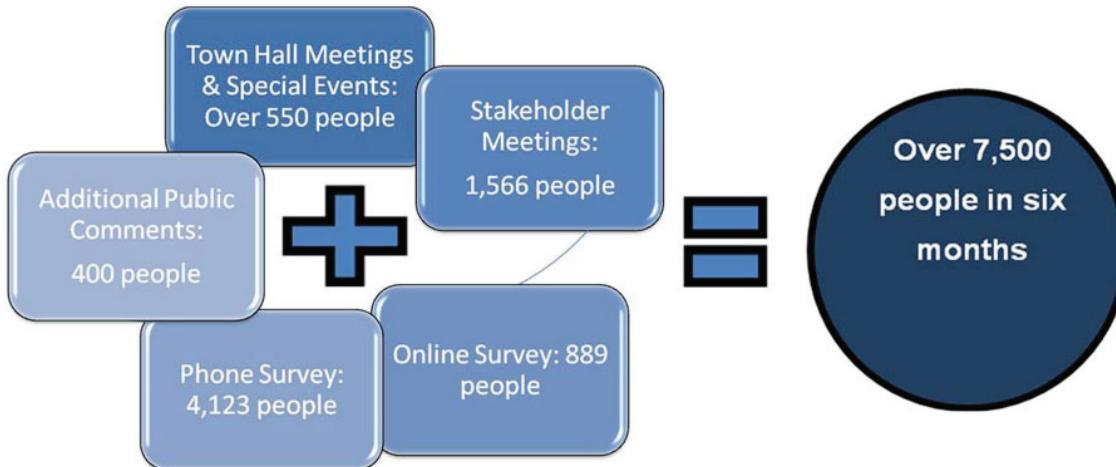


Figure 3.2: Public Engagement Response

3.2 THE RESPONSE

In analyzing TPB's public engagement effort based on the goals that were established for the project, a consistent picture emerges:

Goal#1: Raise awareness about the need for a regional transit system.

TPB's public engagement effort raised awareness through a range of public engagement tactics. The Public Engagement Final Report (found in Appendix O of this report) catalogues the extensive breadth of the tactics employed and reactions to those efforts. Responses include public comment and feedback (1,400 specific comments) in addition to news reporters, blog posts, and other communications generated as a result of TPB's public engagement effort.

Goal#2: Gather feedback in response to the Board's vision for an expanded regional transit network:

Through stakeholder briefings, public meetings, the TPB web site, online survey, phone survey, and media relations, TPB has a database of more than 1,400 comments received via email, letters, phone calls, online survey responses, comment forms, and phone survey responses. TPB solicited input from the public to ensure that the proposed vision accurately reflected the needs and desires of the region. This catalogue of public comments and feedback was essential in the revision of Concept 3 before its adoption by the Board.

Below are some of the findings from the statistically-valid survey that was conducted as a part of the public engagement effort¹:

- **Voters expressed strong support for increased investment in transit throughout the region.** Eight-five percent of registered voters in the 11-county area agreed with the statement, "*Increased investment in public transportation would strengthen metro Atlanta's economy, create jobs, reduce traffic congestion, air pollution, and fuel consumption.*" Three quarters of voters agreed with the statement, "*My community needs more transportation options like commuter rail service, light rail, buses, and trolleys.*" These findings suggest voters are attuned to the principal benefits of transit and would like to see more transit options in their communities.
- **Voters largely recognized that increased investment in transit is part of the solution to traffic congestion.** Eighty percent of metro Atlanta voters agreed with the statement, "*Metro Atlanta needs to continue funding road construction, but also needs to spend additional money on new public transportation options.*" In contrast, 56 percent of voters disagreed with the statement: "*Metro Atlanta can solve its transportation problems by building new and wider roads, without including new public transportation options.*" These findings suggest that a majority of voters disagree with roads as the only strategy to addressing the region's traffic congestion issues. Further, transit is not perceived to be the "silver bullet," either. Voters appear to favor a balanced approach that includes both roads and transit.
- **There is strong support throughout the region for Concept 3.** While the scientific, balanced phone survey was of great value in gathering insights into voter preferences, it was of limited use in gathering feedback specific to Concept 3. For this task, the public engagement team relied on staff reports from stakeholder briefings, responses to the online survey, and other feedback mechanisms. These efforts provided findings specific to the public's reaction to Concept 3:
 - *Online Survey (889 respondents)*

Eighty-six percent of online respondents agree that Concept 3 "*will dramatically increase the availability of transit choices in the metro Atlanta region.*"

Eighty-two percent of online respondents agree with the statement, "*I support Concept 3.*"

- *Town Hall Meetings Comment Forms (46 forms received)*

Eighty-one percent of respondents agree that Concept 3 "*will dramatically increase the availability of transit choices in the metro Atlanta region.*"

Seventy-four percent of online respondents agree with the statement, "I support Concept 3."

Goal#3: Explore the public's willingness to pay to support an expansion of the regional transit network.

- **Voters support a regional one-cent sales tax referendum for transportation funds by a wide margin.** Voters heard the following statement: *"Some have proposed having a referendum in metro Atlanta to fund a specific list of transportation projects, including rail and bus service. Would you support or oppose a sales tax of one cent per dollar for the region, which would end after a specified time period unless renewed by voters, in another election?"* Fifty-eight percent of voters supported this proposal, 36 percent opposed it, and six percent of voters remained undecided. Strong levels of support were identified in each of the counties surveyed. Further analysis demonstrated consistent support within major demographic sub-groups of voters. Voters were largely supportive of the measure regardless of gender, race, age, or income levels.
- **To the extent that providing funding for MARTA expansion has an effect on voters' support for the referendum, it is positive.** Forty-eight percent of voters say that providing funding for MARTA expansion would have no effect on their support for a regional transportation referendum, 33 percent would be more likely to support the referendum, and only 15 percent were less likely to support the referendum if MARTA were the administrator of transit funds.
- **Voters also support raising local funds for transportation projects in their neighborhood.** Voters support *"raising local revenue in your local community that would fund specific transportation projects in your neighborhood, such as a circulator bus, or a shuttle that would connect to other regional public transportation systems"* by a wide 58 to 37 percent margin (58 percent support and 37 percent oppose), with five percent undecided.

3.3 CONCLUSION

TPB views its public engagement activities as an extremely successful effort that has moved the public dialogue forward on the need to expand the regional transit network. In revisiting the primary goals of this effort, it is clear that TPB has raised awareness among key stakeholders and the general public about the need for a regional transit plan. With respect to the Board's vision for Concept 3, it is clear that the vast majority of respondents and stakeholder groups reached are enthusiastically supportive of Concept 3 and see the benefits in making such a regional vision a reality. Lastly, TPB has identified that registered voters in the study area are willing to pay to support an expansion of transit and roads that could be seen as a first installment in building the expanded transit network in Concept 3.

In December 2008, ARC adopted Concept 3, the first step in linking the vision to the ARC's transportation planning process. This adoption will help to keep this vision moving forward to expand the region's transit network. We now move beyond the task of identifying a conceptual vision and on to the task of staging the construction of such a vision and traversing the political and financial obstacles in that vision's path.

¹As referenced above, references to "respondents" refer to a different data set than those that refer to "voters." Whereas references to "voters" refer to information that was obtained through TPB's statistically significant, scientifically-based telephone survey of registered voters in the 11-county TPB study area, references to "respondents," refer to data gathered from online surveys and comment forms that were provided and collected at town hall meetings. While the various data sets define the public in somewhat different terms, the data collected from all of these sources reinforced a consistent view that is further detailed in this document.

The Adopted Concept 3

This chapter provides an overview of the adopted Concept 3 network. The chapter begins by describing the changes made to the Concept 3 network as part of the public engagement process and other technical work, a full description of the final adopted Concept 3, and a brief discussion of the impacts of this network.

4.1 SUMMARY OF CHANGES TO INITIAL CONCEPT 3 NETWORK

In November 2007, the TPB authorized staff to take Concept 3 out for public comment. From December 2007 until June 2008, the TPB team conducted an extensive public engagement program, including individual meetings, electronic and regular correspondence, town hall meetings, and an online survey to obtain comments on Concept 3.

This effort yielded a large number of comments regarding suggested improvements to Concept 3, including online comments, spoken comments at public meetings, and direct correspondence. At the same time, the TPB team also worked closely with our partner staff at ARC to conduct a technical analysis of Concept 3 and its impact on the regional transportation network. This technical analysis also revealed some potential refinements to the plan.

This section presents recommended changes to Concept 3. Among the changes to the fixed guideway network are:

- » A high capacity regional rail network composed of:
 - The LRT Network from Concept 3
 - The I-20 East Corridor (changed from busway)
 - The GA 400 Corridor (changed from heavy rail)
 - The I-575 Corridor (changed from transit way)
- » Extension of Northeast rail line to Norcross
- » Addition of Madison commuter rail line
- » Extension of Memorial Drive BRT to Snellville

Additional changes to some of the supporting regional suburban express buses and inner core high frequency routes are also included. These proposed changes help reinforce the Concept 3 network as a whole through potential integration of services from an operational side as well as responding to specific input from the users of the transportation system.

After an initial presentation of these changes in July 2008, these changes were formally adopted by the TPB Board on August 28, 2008. The next few paragraphs describe the changes that were made to the proposed Concept 3 in the final adopted Concept 3.



Figure 4.1: Norcross HRT Extension

Norcross Heavy Rail Extension

This change is an extension of the Northeast heavy rail line to a station in Norcross across I-285. There are a couple of reasons this change occurred. First, the existing Northeast line has a bridge across I-285 with tail tracks extending north towards the proposed Norcross Station. Previous proposals envisioned an LRT or other connection would occur at the existing Doraville station. An LRT or other rail connection at Doraville would potentially have to construct two additional I-285 bridges to reach the Doraville station. Extending the heavy rail line to Norcross and using the existing bridge would eliminate this need. Secondly, a station in Norcross could be designed to be a northeastern suburban multi-modal station combining a new AMTRAK stop, commuter rail stop on the Gainesville line, and bus service to the station.

There are several major impacts to the Concept 3 network from this change. First, the high-speed/high-capacity rail network's (such as LRT) major interchange point with the Northeast line is envisioned to be located in Norcross instead of Doraville. This results in greater potential service to the Peachtree Industrial Boulevard corridor on the Gwinnett/DeKalb line because of the change in station interchange location. Additionally, the Norcross station potentially suggests a multi-modal station, similar to the Southern Crescent Transportation Center, as a major interchange point for the region. Finally, the extension allows a reduction in transfers for travelers traveling between the Norcross/Peachtree Corners area and various other activities centers, such as Emory and Fulton Industrial Boulevard, enhancing connectivity of the entire transit network.

Regional Rail Network Extension

The November Concept 3 released for public comment contained several regional rail lines that could be LRT. That system included a network integrated with the proposed Beltline and included the following elements:

1. A northwest line from central Atlanta to Town Center and Kennesaw State University via Cumberland
2. A northern East-West line from Smyrna to Gwinnett Place via Cumberland, Perimeter Center, and Doraville
3. A connection between the Lindbergh area and Decatur area via Emory

At the conclusion of the public comment and analysis effort a number of major changes were made to the regional rail network. Several comments were received regarding changes to specific corridors, in particular the I-20 East corridor, GA 400, and Canton Corridors. Many of the comments received on the GA 400 and Canton corridors specified a desired change to a rail mode in lieu of a full busway or

transit way, respectively. Additionally, there were some requests to extend rail to the Gwinnett Arena/Discover Mills/Mall of Georgia, indicating a desire for a northeast extension of the Gwinnett LRT line in the I-85 corridor. These changes, when combined with major elements of the LRT/Streetcar network, suggest a high-speed/high-capacity rail system capable of serving long distance trips.

The elements of the regional rail network include:

- Canton to Town Center
- Town Center to Cumberland
- Cumberland to Midtown
- Midtown/Downtown Connector
- Downtown to Lithonia/Stonecrest
- Smyrna to Norcross via Cumberland and Perimeter
- Norcross to Gwinnett Place
- Gwinnett Place to Gwinnett Arena
- Lindbergh/Emory/Decatur via the beltline
- Perimeter area to Windward (former heavy rail Extension)

This is a large, six-county system that could be served by existing vehicles on the market either non-Federal Railroad Authority (FRA) compliant diesel multiple units (DMUs) or regional light rail vehicles. Important points to note are that the system does not directly interact with the existing FRA regulated rail system like the commuter rail lines do, allowing for consideration of a variety of technical options. Additionally, high travel demand between these areas also suggests the need for all day services.

This system would allow a range of potential connections such as:

- Canton to Lithonia
- Smyrna to Gwinnett Arena
- Smyrna to Windward
- Windward to Gwinnett Arena
- Canton to Norcross
- Cumberland to Emory/Decatur
- Lithonia to Cumberland

These longer distance trips could also be interlined with some aspects of the inner core streetcar network allowing for trips such as Decatur to Cumberland or Lithonia to Downtown/Midtown using the streetcar route along Peachtree Street or the Beltline network. The change of the GA 400 corridor from heavy rail to light rail allows for direct service from Gwinnett County and Cobb County instead of Downtown and Midtown.

Overall, the changes to the regional rail network are envisioned to operate with some portion of the innercore streetcar network.

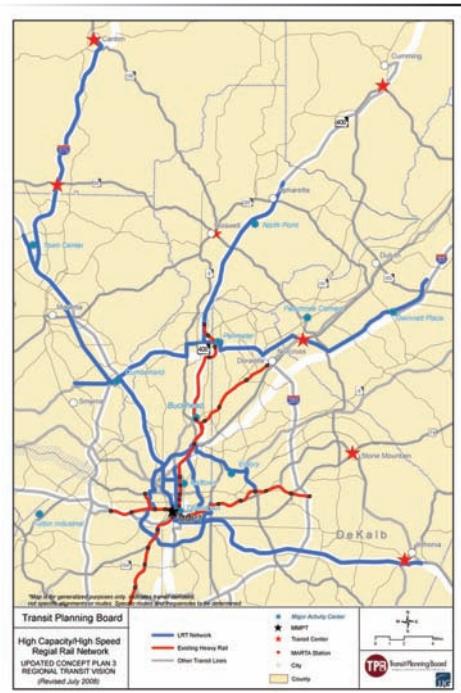


Figure 4.2: Regional Rail Network

Inner Streetcar Network

This network is a core of high-frequency services (10 minutes or less) comprised of either arterial BRT or streetcar technology. The primary elements of this network are:

- Beltline
- Peachtree Street
- Marietta Boulevard from downtown to Bolton Road
- Pryor/Capitol Corridor from Downtown to Lakewood
- Moreland Avenue from Inman Park to Thomasville
- D.L. Hollowell/North Avenue/Ponce de Leon Avenue
- Campbellton Road
- Edgewood/Auburn Avenue
- Memorial Drive



Figure 4.3: Inner Streetcar Network

This network forms the backbone of a high-frequency local transit network within the central core of the region, with a primary focus on the local nature of the trip. Technology on the different routes would be determined by network operational efficiencies or demand. For example, the East-West connections along D.L. Hollowell/North Avenue/Ponce de Leon Avenue, Edgewood Avenue, and Auburn Avenue are shown as streetcar since they provide an east-west connection between the eastern and western portions of the Beltline allowing for flexibility in Beltline routings. This enables Bankhead/North Avenue Station/City Hall East/Inman Park service or Centennial Olympic Park/Five Points/Auburn-Irwin Street/Lindbergh service.

The inner core high frequency network provides for circulation within the core. The streetcar elements, such as the Beltline and the downtown circulator, could be integrated with the high-capacity regional rail network, similar to the tram systems and regional rail networks in some European cities, such as the Wiener Lokalbahn in Vienna, Saarbrucken, Kassel, and the Netherlands. This network represents the method for getting to major destinations in the core or the “last mile” from the regional network of heavy rail, regional rail, commuter rail, and express bus networks.

Madison Commuter Rail Line

This commuter rail line would extend from Downtown Atlanta out to Madison, Georgia, with potential stops located at Avondale, Stone Mountain, Lithonia, Conyers, Covington, Social Circle, and Madison, as described in the GDOT commuter rail plan. Some consideration should be given to whether two stop locations are needed in Rockdale County, particularly given in the investment in the Sigman Road Park-and-Ride by GDOT located near the rail line. Like the other commuter rail lines, this line could be through routed to the Airport and the Southern Crescent Center. Additionally, the



Figure 4.4: Madison Commuter Rail Line

possibility of routing along the Bremen line should not be precluded, to allow for a direct East-West connection across the region. This connection would also allow for future intercity rail movements from Birmingham to Augusta or Columbia.

In conjunction with the I-20 East busway being converted to be part of the high capacity regional rail system, the possibility of incorporating an interchange station at either the Stonecrest Park-and-Ride under design or the existing Sigman Road Park-and-Ride lot just inside in the Rockdale County line should be examined. An additional transfer station should also be potentially considered at Stone Mountain to coordinate transfers between the under-construction Memorial Drive BRT and the proposed extension to Snellville.

Henry County Network

During the course of public involvement, the TPB received numerous comments regarding changes to improve the network in Henry County. In particular, better connections to McDonough were desired and freeway bus service south of McDonough. This suggests the following changes to the network in Henry County

- Extend freeway shared HOV/High Occupancy Toll (HOT) service to Locust Grove.
- Cross regional arterial BRT between Fayetteville and McDonough in the Jonesboro Road/McDonough Road corridor.
- Extend the regional suburban bus line in the SR 20 corridor from Conyers to Hampton through McDonough.
- Regional suburban bus service between McDonough and Lithonia or Southlake via US 23 and the current route between Lithonia and Southlake via Stockbridge.

The main impact these changes have on the regional transit network are: 1) Reinforcing McDonough as a transfer hub within the region for the Southeastern portion of the region, and 2) Providing intercounty alternatives in eastern Henry County.

Bus Extension to Snellville

This proposed change is an extension of the Memorial Drive BRT from the Stone Mountain Park-and-Ride along US 78 to Snellville. Current ridership on Route 418 (average daily ridership of 411 in May 2008), as well as the initial inclusion of a route as part of the Gwinnett County Transit Feasibility Study, supports extension of this route to Snellville. This extension complements the existing investment being made along Memorial Drive in DeKalb County.

This proposed change increases service within the South Gwinnett area through an extension of existing investments to Stone Mountain. Additionally, it reinforces both Snellville and Stone



Figure 4.5: Henry County Network

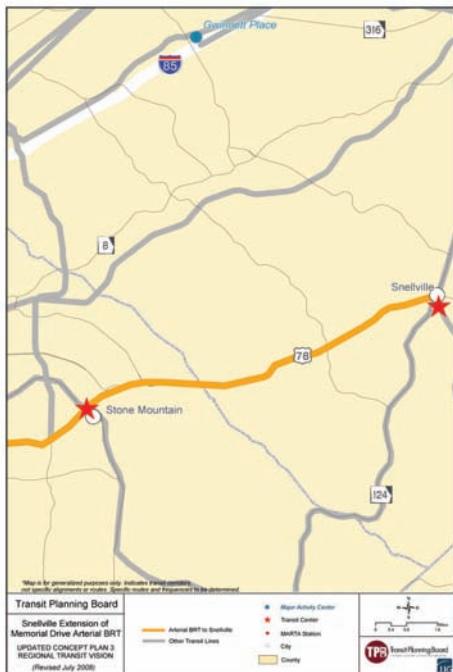


Figure 4.6: Bus Extension to Snellville

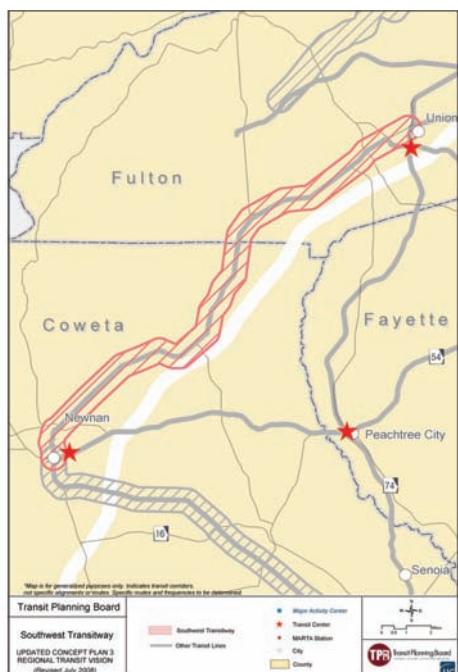


Figure 4.7: Southwest Transitway

Mountain as activity centers and suggests that these are two areas for consideration of transfer centers and/or Park-and-Ride lots.

Southwest Transit Way

This proposed change is to add a transit way from Union City to Newnan along the US 23 corridor (CSXT railroad). In particular, ridership on Xpress Routes 450 and 455 (375 and 189 average daily riders in May 2008, respectively) suggests a demand for peak-period service in the corridor. The last study of a major transit investment in this corridor reached a conclusion that a heavy rail investment in this corridor was not warranted; however, express bus and local bus service was recommended. This transit way project would examine whether a fixed guideway segment, such as commuter rail, should be re-examined in the corridor and what improvements to the freight rail might be necessary.

This transit way would allow an examination of the specific needs between I-85 in South Fulton and Coweta Counties. In particular, public comment supported an examination of commuter rail in the corridor to Newnan. The examination of this transit way should be coordinated with any study of freight rail needs between Union City and LaGrange to accommodate the increased freight activity on the line.

Modifications to the Regional Suburban Bus Network

These proposed changes are a series of modifications to the regional suburban network as part of the public involvement process or identification of additional places of interest for the regional suburban bus network (i.e. Reinhardt College in Waleska).

- Canton to Waleska
- Change of South Fulton Parkway suburban bus to arterial BRT
- West Cobb suburban bus in SR 6/SR 92 corridor from Douglas County to Acworth Park-and-Ride
- Transit center at McDonough

Overall, these changes, from the extension of the Northeast heavy rail line to the modification of regional suburban bus network, reveal the value and impact that a public engagement process can have on a technical activity.

4.2 DESCRIPTION OF ADOPTED CONCEPT 3 NETWORK

With the acceptance of these changes and the resulting adoption of Concept 3 by TPB, MARTA, GRTA, and ARC, the Atlanta region has a unifying document and outline for a regional transit network. A map of the adopted Concept 3 network is presented on page 7, followed by a narrative description of the final network.

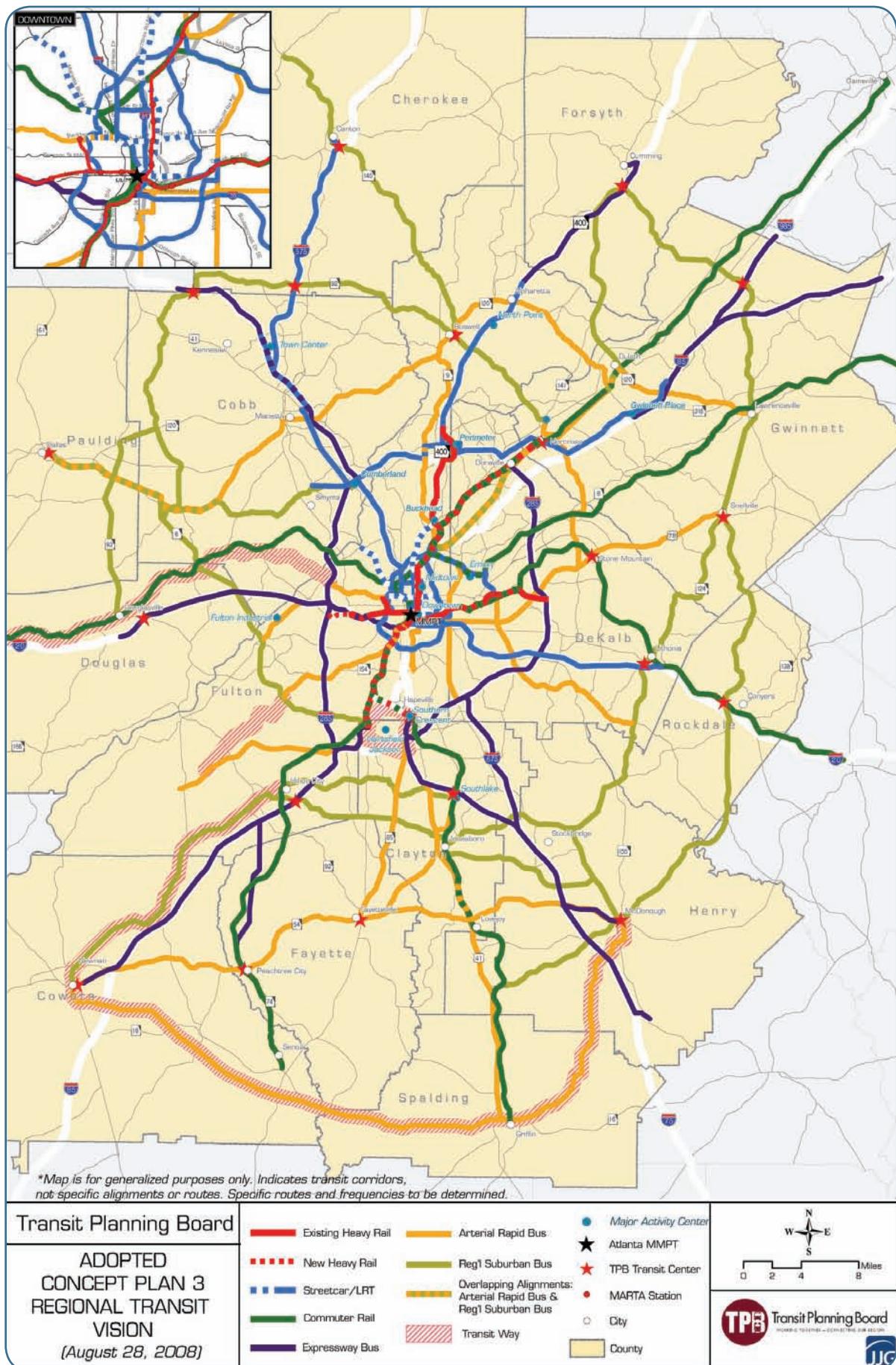


Figure 4.8: Adopted Concept 3

The Adopted Concept 3 network is composed of a variety of transit modes designed to fit transit as appropriate to the area it is serving. The following paragraphs describe the elements of this network by mode.

Heavy Rail

Concept 3 includes three extensions of the existing heavy rail network operated by MARTA:

- Extension of the Northeast line from Doraville station to Norcross.
- Extension of the West line from Hamilton E. Homes station to a station near the I-285/Martin Luther King Jr. Drive interchange.
- Extension Southeast from the East Point station (off existing MARTA South line) to the Southern Crescent Transportation Center near the new International Terminal at Hartsfield-Jackson Atlanta International Airport.

These three projects are in corridors that were identified in need of high-capacity transit services because of intensive volumes of regional travel. All three projects expand high-capacity radial transit service to and from the Downtown and Midtown travel markets. The Northeast line extension also provides expanded high-capacity transit service to a potential intermodal facility in Norcross. The Southeast branch also provides expanded high-capacity transit service to the Airport activity center via a proposed Airport-Southern Crescent connection.

Commuter Rail Network

For longer distance trips, Concept 3 proposes a commuter rail network that stretches throughout the region and beyond to reach Athens and Gainesville. Because of longer travel times, commuter rail trains typically have more customer amenities than local services. Additionally, all of the proposed lines provide service directly to Downtown Atlanta and Hartsfield-Jackson Atlanta International Airport. Three of the commuter lines would operate during the peak commute time periods:

- From Madison to the Southern Crescent Transportation Center through central DeKalb County and Downtown (East line).
- From Bremen to the Southern Crescent Transportation Center through Douglasville and Downtown (West line).
- From Senoia to Downtown Atlanta through Peachtree City and Union City (Southwest line).

A fourth line would have all-day rail service from Athens to Griffin through Emory, Downtown Atlanta, and the Southern Crescent Transportation Center. A final fifth line would operate from Gainesville to the Southern Crescent Transportation Center through Gwinnett County, Buckhead and Downtown Atlanta.

High Capacity Regional Rail Network

The next component of the system is high capacity regional rail system, potentially LRT. This system is proposed because of its great flexibility and ability to serve trips to and within activity centers. It serves high land use densities and has higher vehicle capacity than buses, enabling more people to be carried in one vehicle and with one driver, lowering operating costs in high-demand corridors. It can be located in freeway rights-of-way, on major arterials, or on local streets. It can serve as a seamless link between regional and local movements because of its inter-operability and compatibility with streetcars and other transit modes. In fact, if light rail is the chosen technology, light rail vehicles can potentially be integrated with a streetcar network. Six high capacity regional rail lines are proposed in Concept 3:

- Northwest Corridor from I-75 area KSU and Town Center to Midtown or Downtown Atlanta via Marietta and Cumberland
- Northern I-285 from Smyrna via Cumberland, Perimeter Center, and Gwinnett Place to the Gwinnett Arena
- Lindberg-Emory-Decatur
- GA 400 from Perimeter Center to Windward Parkway via North Point
- I-20 East from Downtown Atlanta to Sigman Road via South DeKalb
- I-575 from KSU and Town Center areas to Canton

Additionally, an inner core streetcar network is proposed consisting of:

- Beltline
- Peachtree streetcar, including a circulator along Auburn Avenue and Edgewood Avenue
- East-West line, along Marietta Boulevard, North Avenue, and Ponce de Leon

These new lines could provide connectivity between Marietta and Emory via the Beltline and Lindbergh or North Point from Gwinnett Place via Norcross and Perimeter Center or open up South DeKalb residential areas to the Cumberland employment center. The Beltline and Peachtree Streetcar projects provide medium- to high-capacity circulation and distribution service within the central core.

Freeway BRT, Arterial Rapid Transit, Express Bus Service, and Regional Suburban Bus Service

Concept 3 also includes several levels of bus service. First, the highest capacity bus service will be in freeway BRT systems. BRT can be accommodated on exclusive lanes or in HOV lanes and provide all-day service, a step above express bus service, which sometimes shares a lane with regular traffic and provides peak-period service only. Freeway BRT has the advantage of serving high-demand corridors with variable capacity that can respond to increasing demand. In addition, for those BRT lines that use exclusive lanes, there is the bonus of preserving the option for potential future conversion to a higher capacity rail mode. Concept 3 proposes four exclusive bus or shared HOV lanes of BRT:

- I-20 West from H.E. Holmes station to Fulton Industrial Boulevard and Six Flags
- I-75 South from McDonough to Southern Crescent Transportation Center
- I-285 East from Doraville to I-20
- I-285 West from Cumberland to I-20

Expansion of current express bus service is also included in Concept 3. Express bus serves long distance trips with relatively high levels of customer amenities. While less predictable than transit, with dedicated right-of-way, express bus service has the advantage of operational flexibility to match routes with changing demand. Express bus is a proven tool for building transit ridership in areas where service has never been available, including Atlanta. Express bus will be used both as a permanent element of the transit system in some areas and to help phase in transit service in areas where higher capacity rail will be required in the future.

The final elements of Concept 3 propose creating a support bus network, which includes arterial rapid bus and cross-county bus services, activity center circulators, and expanded local bus service. The arterial rapid bus service consists of two primary types of corridors:

- New cross-regional corridors, including Marietta to Lawrenceville via Roswell and Alpharetta, and Newnan to McDonough via Fayetteville; and
- Existing successful high ridership local bus corridors that carry approximately 4,000 or more passengers per day such as:
 1. Campbellton Road
 2. Candler Road
 3. Buford Highway
 4. Fulton Industrial Boulevard
 5. Piedmont / Roswell Road
 6. Moreland Avenue

The cross-county bus services are designed to reach those areas such as hospitals with emergency services, government centers, and regional recreational areas that should be accessible to all residents and visitors in the region and are in outer areas of the region.

Estimated Project Capital and System Operating Costs

The current transit systems in Cobb, Gwinnett, and Clayton Counties and MARTA are estimated to cost \$26 billion to operate through 2030. Concept 3 will add another \$26.8 billion in new capital costs, including \$20.7 billion for expansion of the regional transit system and \$6.1 billion to bring the existing system into a state of good repair. This is equal to approximately \$1.3 billion annually. To operate the full regional system, both existing and new expansion is estimated to be \$1.2 billion annually. This estimates the region needs approximately \$2.5 billion annually to fund the existing regional transit system and pay for needed expansion of the regional transit system. Assuming a population of six million people living in the Atlanta region in 2030, funding transit will cost each metro resident about \$1.15 a day, or less than a cup of coffee.

4.3 SUMMARY OF POTENTIAL BENEFITS AND IMPACTS

Implementation of Concept 3 is anticipated to bring forth a number of quantifiable and unquantifiable benefits. Key system attributes that will provide overall benefits include:

- 1. Providing a viable travel choice to the automobile.** This plan provides more opportunities for riders to get to a destination via a one-seat or one transfer ride.
- 2. Providing greater flexibility for the region's work force to choose housing and lifestyle.** Residents that desire transit accessibility between home and work will have greater choices in housing location.
- 3. Providing transit travel times competitive to the automobile.** Travel time is a key factor in an individual's decision to take transit. This Concept 3 Plan includes a significant amount of fixed guideway transit that provides predictable and dependable travel times.
- 4. Expanding the region's overall transportation capacity.** The region is near its limit in its ability to increase highway capacity in many corridors. Expansion of transit services provides a means to still increase overall transportation capacity in corridors as a means to meet growing travel demands.
- 5. Connecting the region's activity centers.** This plan includes an extensive regional transit network that provides high capacity transit services between the region's major activity centers.

Specific quantifiable transportation benefits with Concept 3 include:

- 1. An increase in the percent of regional trips taken by transit (mode choice), particularly employment centers.** In fact, initial analysis indicates that Concept 3 has the potential to more than double the number of workers able to reach their jobs by transit in major suburban activity centers. In the North Point and Town Center activity centers, the increase is more than 10-fold.
- 2. Improved overall regional mobility by providing congestion relief.** Initial analysis indicates that these benefits primarily occur in suburban and exurban arterials through reduction in the amount of time these facilities spend in congested conditions, particularly during peak periods.
- 3. An increase in overall system efficiencies.** An expanded regional transit network that is balanced with regional and local services will contribute to productive transit services. For example, while the region is estimated to currently achieve a return of two to three times what is invested in transit, initial estimates suggest Concept 3 could yield economic benefits of up to four times the amount invested - an annual benefit of almost \$10 billion a year.

Other benefits associated with this Concept Plan are:

1. Improved competitiveness for the region in attracting national and international businesses.
2. Improved regional competitiveness for federal funding of projects.
3. Economic development opportunities within transit corridors.

Concept 3 is intended to represent a regional vision for transit. It is important to note that further study will be required for each proposed project in Concept 3, such as determination of alignment and stations. These future planning efforts will also result in refinements to the plan. Transit projects will also need to undergo ARC's transportation planning process and adoption into the region's Long Range Transportation Plan, which will also likely result in refinements to the Concept Plan. As these refinements occur, it is important that Concept 3's vision of a multimodal transit network that provides reliable transit service to the region's activity centers remain intact.

4.4 ADOPTION PROCESS

On August 28, 2008, the TPB Board adopted Concept 3. MARTA and GRTA both adopted resolutions on Concept 3 over the course of the Fall of 2008. In the months between August 2008 and December 2008, TPB received numerous letters and statements of support and adoption. Fulton County's Board of Commissioners adopted Concept 3 in November 2008. Letters of support came from the Cobb County Chamber of Commerce, the Gwinnett County Chamber of Commerce, and the DeKalb Chamber of Commerce. On December 3, 2008, the ARC board adopted Concept 3 as the transit portion of the aspirations plan of the Long Range Transportation Plan and as the transit element of the Regional Strategic Transportation System for metro Atlanta. Details of the projects and their implementation will be worked out in subsequent planning as projects move into ARC's planning process.

4.5 CONCLUSION

As a result of the public engagement process, involving outreach to the public and to various stakeholders and partner agencies, TPB received numerous comments with additions or edits to the original Concept 3. Taking these suggestions into consideration, TPB adapted Concept 3 to better fit the needs of the region. This new version of Concept 3 was taken to the TPB Board in August 2008 and was adopted as the regional transit vision. Between August 2008 and December 2008, numerous organizations, partners, counties, and advocates for transit voiced support for the plan and in December 2008 ARC adopted Concept 3 as

the transit aspirations plan for metro Atlanta to be included in the next phase of regional transportation planning.

The key components of Concept 3 provide increased mobility options for the citizens and visitors of Atlanta and opportunities for more economic development in the region. Specifically, the benefits of Concept 3 are:

- 1. Maintaining our economic competitiveness through improving mobility.** More than 20 percent of our employment is concentrated in less than 1.5 percent of our land area, and moving people in and out of these key activity centers is vital to maintaining and attracting major employers.
- 2. Providing choice and reliability in our transportation network.** Our citizens travel regionally and are unconstrained by county and political boundaries. They demand a reliable and flexible transportation system that provides choices for where they live and work.
- 3. Meeting the current and evolving needs of our population.** By 2030, one in five residents of the Atlanta region will be over the age of 60. Transit options will allow them to continue to be full participants in our regional economic and social life with or without an automobile.

It further provides transportation and mobility options for the following segments of the metro Atlanta population:

- 1. Commuters.** Concept 3 is a seamless network of rail and exclusive busways focused on providing mobility choice and predictable travel times to and between major employment and mixed-use centers.
- 2. People without automobiles.** Concept 3 provides service to all major medical and government centers, places all citizens should have access to no matter what their travel choice.
- 3. Business visitors and leisure travelers.** Concept 3 allows travelers mobility choice within our region to reach major business, educational, and cultural destinations and to provide mobility options for those people unfamiliar with our roadway network.

As adopted Concept 3 moves into the regional planning process, individual projects and champions will emerge with plans for funding and implementation. These plans will take place in the next phase of development of transit in metro Atlanta.

As part of the next element, the TPB team worked through a series of illustrative financial and governance examples to help illustrate how a system such as Concept 3 could realistically be governed and funded. These efforts are described in the next section.

Making Concept 3 A Reality

5.1 THE CHALLENGES AND OPPORTUNITIES

The key challenge and opportunity for making Concept 3 a reality is the ability of the region to maintain its focus on the need for mobility choice, and to remember that mobility needs do not stop at the city or county line. Mobility needs reach across political boundaries and touch everyone in the region. If the region can stay focused on the need for regional mobility, then Concept 3 will move forward. The guiding principles described in the governance model (see Section 5.2) will help to manage expectations on giving everyone a voice in the new system.

Another important factor is the relationship of mutual trust and understanding among the Board and partner agencies. Many times during the TPB's efforts, issues and concerns would arise that could have split the Board or staff and stalled or canceled the effort. However, the Board stayed focused on the need to reach TPB's goal, allowing them to talk through each issue and reach consensus. To move Concept 3 forward will continue to require this same level of focus and commitment to the goal of mobility choice. The TPB in 2009 and beyond will have new faces, personalities, interests, and needs. Keeping everyone focused on the goal will be paramount to moving Concept 3 forward.

Maintaining focus will require continued technical assistance to create solution options to assist the Board in its efforts. As part of this effort, the TPB staff, MARTA staff, and the consultant team developed a Concept 3 illustrative implementation plan so that the Board could start to focus on how Concept 3 might be implemented. This plan was created to identify the technical and financial requirements needed to implement Concept 3, which will assist the Board to move Concept 3 into reality. The illustrative plan was not intended to be the final implementation plan, rather its intent was to assist in understanding the various issues that need resolution to implement Concept 3.

A key benefit to the illustrative plan was to answer critics who felt that Concept 3 was too big, too complicated, and/or too expensive to be implemented. While not the final approach, the illustrative program clearly shows how regional transit can be implemented in metro Atlanta.

This information was then used to assist the TPB Board in understanding what will be needed to create a governance structure to build and maintain a regional transit system.

The two main challenges for Concept 3 are:

- How do you operate, maintain, and govern the system?
- How do you pay for the system?

5.2 POTENTIAL GOVERNANCE: HOW TO BUILD, OPERATE, AND MAINTAIN THE SYSTEM

The following section describes the analysis undertaken to establish a means of governing a regional transit system such as Concept 3. Initial discussions about governance focused on six alternatives, as follows:

1. RTIA Recommended Transit Services Board
2. State Department of Intermodal Transportation
3. MARTA Expansion into Clayton, Cobb, and Gwinnett

4. MARTA splitting into separate organizations - MARTA Management and MARTA Operations
5. Regional Funding and Project Management Agency
6. Regional Transit Operations / Construction Agency

These alternatives were developed in a white paper to the board in an effort to spur discussion among policy makers.

The TPB Board recognized that in order to address a governance structure, they would require governance guiding principles that provided direction on how to maintain the regionality required to provide true mobility choice. The principles were discussed at the October 2007 board meeting and include:

- **Pay to Play, or “Good-Faith” Participation**, means an affirmative vote by each participating entity and a share of cost (administrative, capital, and operating) in accordance with participation.
- **Existing operators will have a policy voice** within any new entity or through the continuation of the exiting representative TPB/policy board.
- **Weighted representation should include a combination of funding and service statistics**, meaning how much you pay and how much service you receive determines how much your vote counts.
- **Initially will not operate service or own assets**, but has the flexibility to do so as future circumstances require. Individual members/entities can own or operate transit.
- **Driver of regional transit policy**.
- **Designed evolution should provide for maximum flexibility**, allow for innovative implementation strategies, and other contracts/arrangements/business models for services and infrastructure.
- **Foster collaborative implementation and services** through existing assets.

Further, the regional governance structure must include:

- Public accountability
- Transparency, and
- Performance measurement against adopted objectives.

Reaching consensus on these principles was a matter of continuing to move the TPB Board and partner agencies to agreement. The TPB staff tried a number of approaches over a period of months to assist the Board with creating its governance principles. Key to reaching consensus was constant communication between the Board members, agency staff, and other interested parties to work through difficult issues.

The objectives of the new governance structure should be:

- Rapid and cost-effective implementation and operation of Concept 3
- “State of Good Repair” of existing system and new investments
- Regional transit policy
- Service coordination
 - Performance measures
 - Fare policy
 - Data collection and dissemination
 - Transit marketing

Recognizing the growing momentum behind several ongoing TPB initiatives, such as the Service Coordination Council and the need to keep an open transit information conduit, the TPB adopted a resolution on the

long-term vision of where they suggest the Atlanta region should move and an accompanying resolution suggesting some interim steps (Appendix N).

The TPB staff was instructed at the August Board meeting to develop a regional transit governance strawman based on the principles that were developed and refined during the Board work session. The strawman has attributes taken from the Seattle Sound Transit governance structure, Chicago RTA, and other attributes developed by TPB staff. The TPB, as it is currently constituted, will sunset following its final meeting in December 2008.

The primary guiding principle for the development of the strawman is the concept of a governance structure that is evolutionary rather than revolutionary. It will be a structure that initially is focused largely on issues on a "going forward" basis, with a focus on expanding the transit system through major capital investments. The existing transit institutions (i.e. agencies, operators and local governments involved) remain as they are without impact to their existing operations, funding (local and federal formula), or governing body authorities. The governance structure forms the framework within which investment decisions can be made with new funding. The focus of the Board will be the implementation of Concept 3.

In addition to a strong public participation focus, there are three primary constituents for the Board: The local and state governments; the signatory agencies to the quad-party agreement (ARC, GDOT, GRTA, MARTA); and all of the transit operators, including the smaller shuttle operators such as the Atlantic Station Shuttle, universities, CIDs, etc.

Structure and Functionality

The newly constituted evolution of the TPB, presumably starting in early 2009, will have similar functionality to the TPB but will formalize the structure with a few additions and a new focus on implementation and funding. It will remain a small collaborative entity that will rely on inter-agency staffs and resources for much of its work. This is in response to the board stated desire not to implement a new bureaucracy and to continue fostering inter-agency cooperative relationships.

Given the evolutionary nature of this structure the intent is to design a base for a governance institution that can assume much larger roles through increased authority should new sources of funding get allocated, major capital projects get implemented, or new regional services instituted in the future. The evolution of the governance structure to assume new authorities and responsibilities will be linked to its successes.

This primary function of the Atlanta Regional Transit Implementation Board (ARTIB) is a planning/new funding allocation function. It includes several discrete functions:

- Lobbying efforts related to funding and implementation of Concept 3.

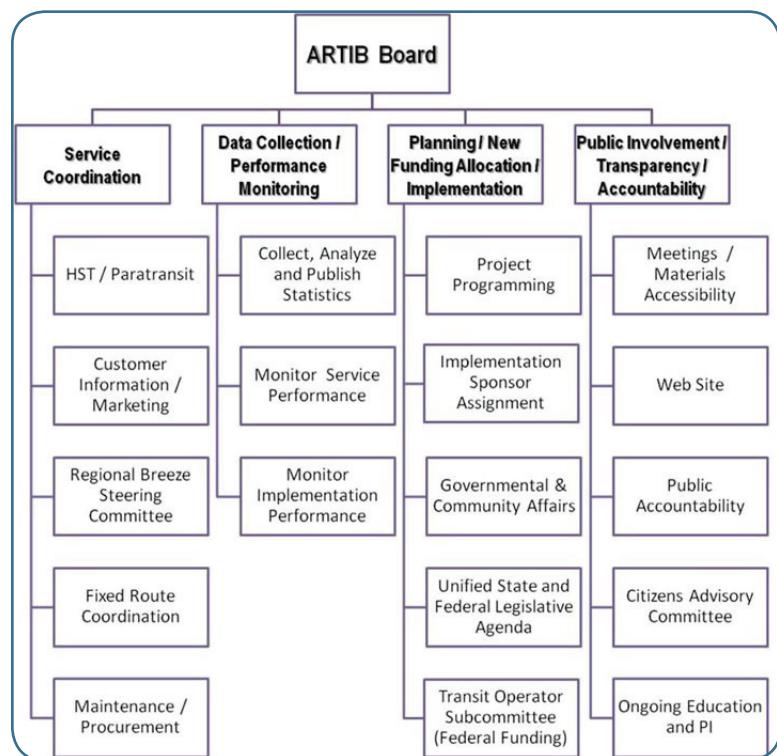


Figure 5.1: ARTIB Board Functional Framework

- Continued public involvement and education regarding transit in the Atlanta region, Concept 3, and general support of efforts for funding, particularly in support of a referendum.
- Programming of projects within Concept 3.
- Identification of project sponsors for the investments proposed in Concept 3.
- Fostering of innovative implementation and procurement practices for Concept 3, such as PPP.
- Development of a unified state and federal transit legislative agenda including prioritized appropriation requests.
- Ongoing updates and revisions of Concept 3 on a standard transportation planning “3C” principle basis – continuous, comprehensive and cooperative.

Within this framework and its primary focus on implementation of Concept 3, the governance structure will have responsibility for several additional secondary functions that have either been initiated under the TPB or have been identified by the TPB as functions desired for further regional successes in transit. This activity is focused on seamless customer centric service planning. Since the TPB will have defined the future transit network and a governance path for its implementation the focus of the new structure will shift to advocating for new funds for its implementation at all levels (local, regional, state and federal), and programming decisions for implementation. These additional functions for the new structure include:

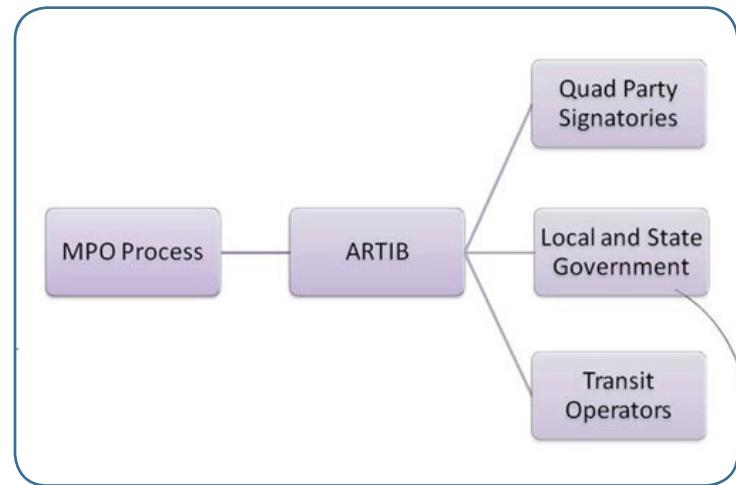


Figure 5.2: Regional Context and Constituents

- **Regional Service Coordination** including facilitating regional agreements for integrated services and regional “back office” agreements for items such as bus maintenance, joint procurements, vehicle standardization, facilities planning, joint service planning, etc.
 - Human Services Transportation (HST) and paratransit service coordination and integration
 - Customer information and communication coordination, such as regional system maps, inter-agency communication protocols, travel training programs, etc.
 - Fare coordination and new regional fare policy, including further development of the Breeze Fare Collection System at the regional level
- **Regional data collection and dissemination** through publishing of regional ridership data and other statistics to the public with an eye to establishing a future public performance monitoring system for regional transit, both for service and implementation performance tracking.
- **A public involvement group** that will be given a very clearly defined mission and set of tasks related to establishing public trust and feedback loops for the implementation of Concept 3 and attracting new funding and improving regional transit services. This group will become the network of grassroots advocates for the funding and implementation of Concept 3 and will eventually be linked to the performance measurement group.
 - Ensure accessible meetings (time and location and broadcast and publishing of meetings).
 - Maintain of the web site to include current meeting materials and meeting video stream archive.
 - Provide ongoing education and public involvement.
 - Ensure transparency of board actions, information and decision-making.

Existing Planning and Implementation Process

The new governance structure will fit within the existing ARC process. It will be responsible for clarifying the process for which transit projects are advanced into the Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP or STIP) development process as governed by the quad-party agreement for transportation planning in the Atlanta region. It will advance a slate of projects into the ARC process for consideration, in addition to setting the context for Concept 3, which become the framework for long range investment planning and from which projects are programmed into the slate. The attached diagram illustrates how the Board will work to feed the ARC process. The Board will use existing frameworks for implementation but will set and measure performance standards when a project is assigned to a sponsor.

Additionally the Board will have formal relationships with regular board reporting on the activities of several regional committees and groups to include:

- ARC Transportation and Air Quality Committee (TAQC) – the MPO process
- ARC Transit Operators Subcommittee – federal formula funds distribution and designated recipient functions
- Regional Breeze Committee – fare media implementation & maintenance and fare coordination
- Service Coordination Council

The Board is designed to form the framework for new transit funds for the region. As such it is designed to evolve into a full-service planning, project programming, implementation oversight, and public accountability agency to support transit infrastructure implementation. It will be a framework that will evolve as needed and will work closely with, and on behalf of, its constituents, as described earlier. In its initial start-up phase it will likely concentrate on continued public education and legislative education and advocacy efforts. As it becomes clear what the funding/referendum framework will be, the Board will work in a public education/marketing function. Finally, after new funding is appropriated, it will activate its performance monitoring functions for the projects and services for which new funding is appropriated. The Board will ultimately be constituted through codification in Georgia Statute.

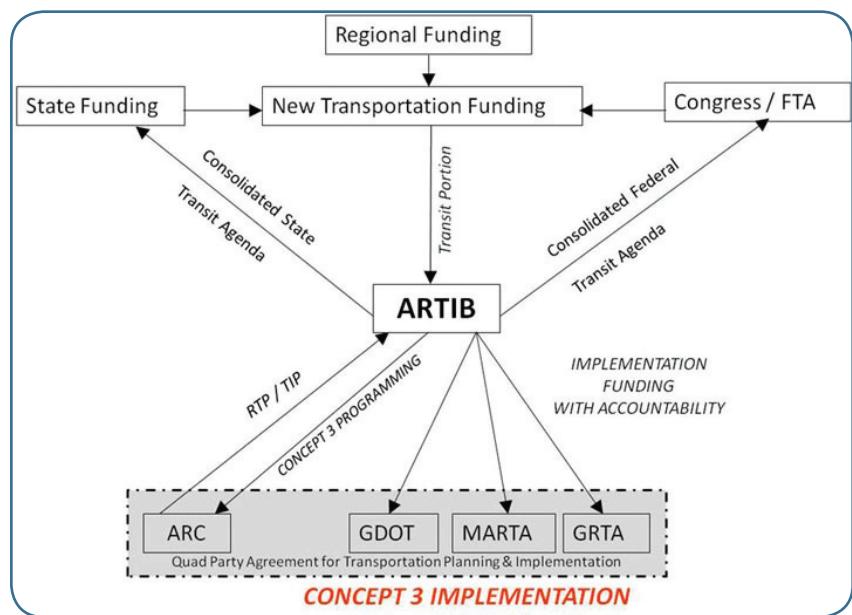


Figure 5.3: ARTIB Board Function

Board Composition and Identification (Public Branding)

The Board governance structure will require a branding exercise both for the name of the entity, the public name of the entity, and the name of the program (Concept 3) in order to facilitate the strong public identification with the entity, the plan, and especially the accountability for new funding related to new services and infrastructure.

The early constitution of the Board will be the same Board members as the TPB is presently constituted. As it starts to evolve over the course of the next 24 months, there have been several guiding principles espoused:

- **Representative weighted voting.** Several models could be used and/or combined for influence allocation such as population, funding contributed, service provided, service consumed, etc.
- **“Pay to Play” function** where members of the board are either contributing or in a “good faith” position to contribute in the immediate future through a defined process.
- **Adoption of the Board governance and program (Concept 3) through formal action** will be required for an entity to sit at the table.

Timeline for Implementation

The ARTIB initiation schedule is as follows:

1. **November TPB meeting.** Consensus on ARTIB framework governance structure.
2. **December TPB meeting.** Start implementation process for interim ARTIB through action of ARC Board Chair establishing Committee of current TPB Board members.
3. **December TPB meeting.** Sunset of TPB and wrap-up.
4. **January 2009 and beyond.** ARTIB established and process started to formally evolve into a constituted entity. Organization is immediately involved in transportation funding advocacy and education as it relates to Concept 3 and transit.

5.3 AN ILLUSTRATIVE FINANCIAL SCENARIO: HOW DO WE PAY FOR THE SYSTEM

The financial plan combines the costs and revenues projected to operate the region’s existing transit systems and the capital costs to enhance and maintain them in a state of good repair with the capital and operations and maintenance costs and revenues projected for Concept 3. The following sections summarize the input assumptions to the financial plan with regard to the existing transit systems’ costs and revenues and development of the Concept 3 components and their respective operating and capital cost and revenue estimates.

Existing Regional Transit System Operating Costs and Revenues

The first step in developing the Concept 3 financial plan was to project costs and revenues for the existing services provided by the region’s transit providers. Working with staff from the partner agencies, TPB staff obtained the following annual operating and capital (state of good repair and capital improvement program) cost and revenue estimates. Figure 5.4 summarizes the projected annual cost and revenue levels over the 2009 to 2030 period.

Annual Operating and Maintenance Costs

Annual operating and maintenance (O&M) costs were obtained from MARTA, GRTA, Cobb County, Clayton County and Gwinnett County. Annual operating costs in the financial plan reflect both steady state service and regional service enhancement projects not included in Concept 3.

Over the 2009 to 2030 period, the region’s existing annual operating costs are projected to grow 6 percent per year, from \$443.0 million to \$1.5 billion. Total operating costs over this time period are \$21.3 billion.

Annual Revenues for Operating and Maintenance

Annual estimates of revenues for O&M of existing regional transit services were also derived from information provided by MARTA, GRTA, Cobb County, Clayton County and Gwinnett County. The six main existing sources of funding used for O&M of the existing services and their assumed annual rates of growth consist of the following:

- Existing MARTA sales tax (of which 50 percent is assumed available for operations): Four percent
- Fare revenue
 - MARTA: Four percent
 - GRTA: Seven percent
 - Cobb County: Six percent
 - Clayton County: Eight percent
 - Gwinnett County: Seven percent
- Region's FTA Section 5307: Two percent
- Lease income: Three percent
- Transit oriented development income: Three percent; and
- Lease to service: Constant at 2009 level through 2030.

Based on these assumptions, the existing revenue sources for operation and maintenance of the existing regional transit services are projected to generate a total of \$13.9 billion over the 2009 to 2030 period, growing from \$353.4 million in 2009 to \$923.9 in 2030.

Annual Capital Costs

The annual capital costs associated with existing regional transit services include the costs for state of good repair improvements as well as MARTA's capital improvement program (CIP) projects that are not included in Concept 3. State of good repair and CIP costs for MARTA reflect the agency's current 10-year plan assumptions through 2018 with costs assumed to grow at 4 percent annually through 2030. MARTA's capital costs are projected to total \$6.2 billion over the 2009 to 2030 period. For the remaining regional transit systems, the financial plan assumes a total of \$200 million in state of good repair improvements distributed evenly (\$9.1 million per year) over the 2009 to 2030.

Annual costs also include annual repayment of MARTA's existing finance mechanisms: annual debt service payments for previous bond issues and interest payments for commercial paper. Based on data provided by MARTA staff, over the 2009 to 2030 period, debt repayment for prior bond issues will decrease from approximately \$132 million a year to \$61 million year in the out-years of the financial plan. Interest payments on commercial paper are assumed to be \$16 million per year as the financial plan assumes the agency will maintain a \$400 million per year commercial paper balance over the 2009 to 2030 period based on MARTA's historic trends. In total, MARTA's debt service payments are projected to total \$2.5 billion.

Summary of Capital Revenue Assumptions

The following capital revenue assumptions were developed in cooperation with TPB, MARTA, and the regional partners. The financial plan includes the major sources listed below, with the following assumptions for each source:

- MARTA's existing sales tax (of which 50 percent is assumed available for capital projects): revenues projected to grow four percent annually;
- FTA Section 5309, CMAQ and STP funds: the 14-county region is assumed to receive all of the region's FTA 5307, FTA 5309, STP, and CMAQ regional transit funds, in addition to funds currently allocated

to MARTA. Based on MARTA's projections, revenue from this source is assumed to grow four percent annually;

- TIP programmed funds: A number of the projects identified in the Fast Track's Early Action Plan are currently incorporated in the region's TIP. The financial plan assumes these funds are available for Fast Track projects in 2009 and 2010;
- Funding for state of good repair and capital improvement program projects: Based on a review of MARTA's recent annual data reported to the National Transit Database (NTD), the financial plan assumes that state of good repair and capital improvement projects will be funded through a combination of local, state and federal sources. Specifically, the plan assumes that federal discretionary revenue will provide 20 percent funding; the State will provide 1 percent funding; and local revenue will provide the remaining 79 percent;
- Beltline Tax Allocation District (TAD): The financial plan assumes that the Beltline TAD will generate revenue to provide 50 percent of the capital costs for the Beltline Streetcar project; and
- Net operating revenue: The financial plan assumes that if surplus operating revenue is available after accounting for all operating expense, these funds will be available for payment of capital costs and debt service.

Based on the above assumptions, the region's existing capital revenue is projected to generate a total of \$13.1 billion over the 2009 to 2030 period, averaging approximately \$623.8 million per year.

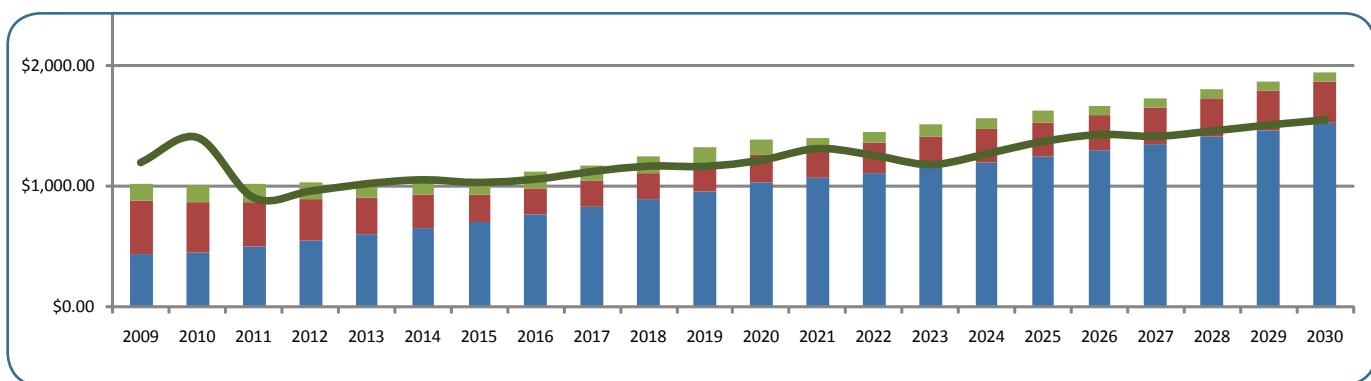


Figure 5.4: Existing Costs and Revenues

Note: Existing regional system revenues reflect combined annual operating and capital revenue estimates. Additionally, the surplus revenue shown in 2009 and 2010 reflect existing revenue for Fast Track projects that are currently in the TIP. Costs associated with these revenues are shown in Figure 10.

Concept 3 Capital Costs

Order of magnitude capital costs were developed using a combination of existing local information and national averages. Capital cost estimates were developed based on existing planning documents from the various partner agencies. When planning documents were not able to provide a basis for a project's cost estimate, national cost per route mile averages were used to develop the order of magnitude estimates.

As stated earlier, implementation of Concept 3 was divided into two phases: the Fast Tracks Early Action Plan (projects completed by 2015 and in operation by 2016) and the

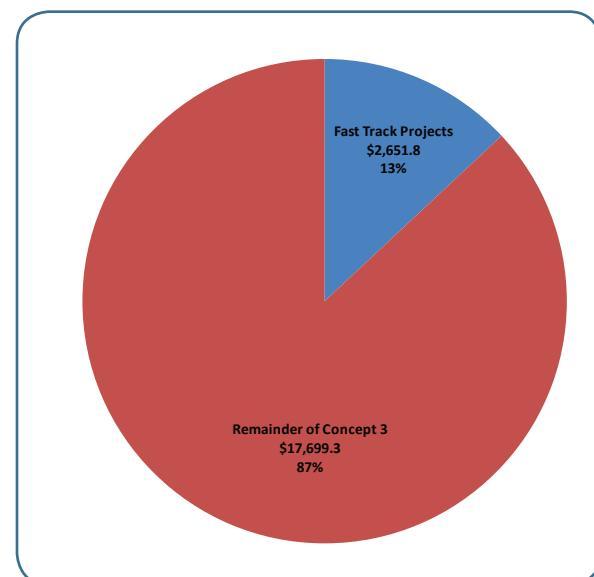


Figure 5.5: Fast Tracks Costs vs. Remainder of the Concept 3 Program (2008 dollars, in millions)

Remainder of the Concept 3 Program (projects in operation between 2017 and 2030). As shown in the Figure 5.5, the Fast Tracks Early Action Plan represents approximately 13 percent of the total Concept 3 program capital costs.

Table 5.1 and Figures 5.6 and 5.7 summarize the order of magnitude capital costs estimates by mode for each implementation phase in current (2008) dollars. As shown in the table and figures, modes with the ability to address the region's highest passenger capacity demands (heavy rail, high capacity regional rail, and commuter rail) account for 71 percent of the Concept 3 total costs. Of these modes, high capacity regional rail projects represent the largest share of project costs in both implementation phases; followed by commuter rail projects. Additionally, all heavy rail and Freeway BRT projects are assumed to be operational after 2016, although construction on some projects will start prior to 2016. All regional suburban bus services are planned to be implemented within the Fast Tracks period.

Concept 3 Capital Costs		
Fast Tracks	2008 \$	Percent of Costs
Heavy Rail	\$0.00	0%
High Capacity Regional Rail	\$1,072.50	40%
Streetcar	\$390.00	15%
Commuter Rail	\$647.80	24%
Freeway BRT	\$0.00	0%
Arterial Rapid Bus	\$139.50	5%
Suburban Bus	\$110.00	4%
Support Facilities	\$292.00	11%
Total	\$2,651.80	
Remainder of Concept 3		
Remainder of Concept 3	2008 \$	Percent of Costs
Heavy Rail	\$1,985.00	11%
High Capacity Regional Rail	\$7,303.50	41%
Streetcar	\$1,247.50	7%
Commuter Rail	\$3,426.80	19%
Freeway BRT	\$2,263.00	13%
Arterial Rapid Bus	\$1,085.60	6%
Suburban Bus	\$0.00	0%
Support Facilities	\$388.00	2%
Total	\$17,699.30	
Total Illustrative Program		
Total Illustrative Program	2008 \$	Percent of Costs
Heavy Rail	\$1,985.00	10%
High Capacity Regional Rail	\$8,376.00	41%
Streetcar	\$1,637.50	8%
Commuter Rail	\$4,074.60	20%
Freeway BRT	\$2,263.00	11%
Arterial Rapid Bus	\$1,225.10	6%
Suburban Bus	\$110.00	1%
Support Facilities	\$680.00	3%
Total	\$20,351.20	

Table 5.1: Cost by Concept 3 Program Component (in millions)

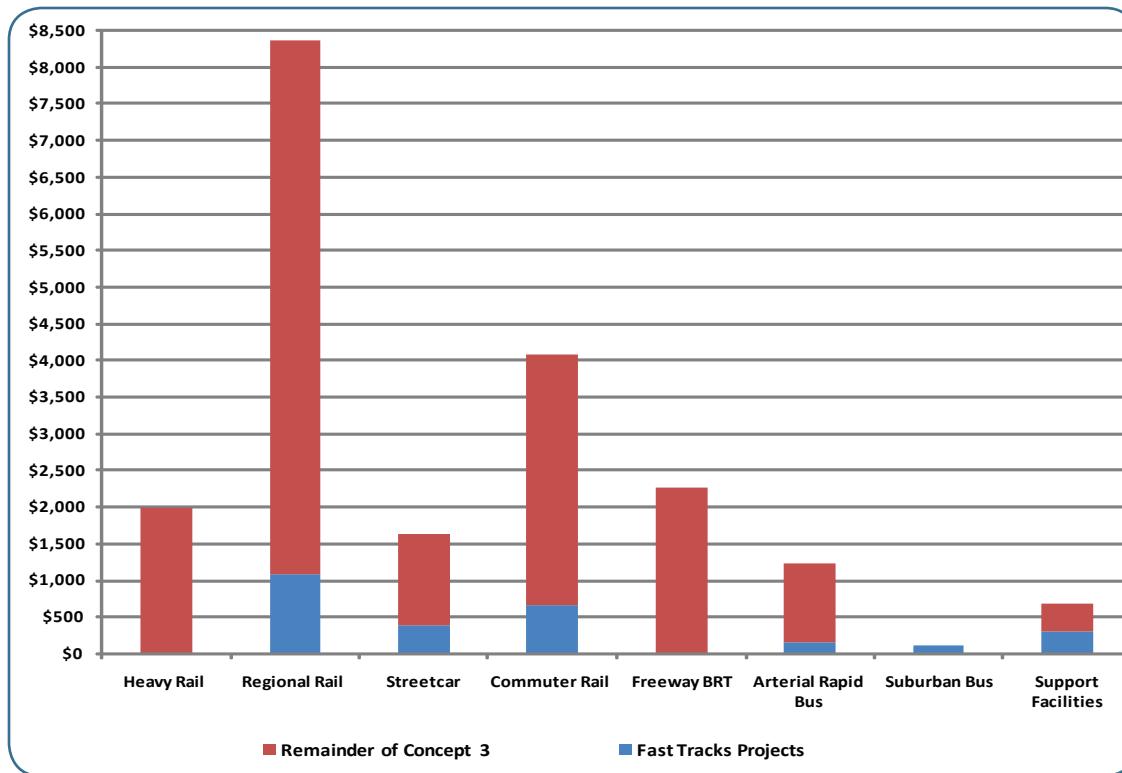


Figure 5.6: Cost by Concept 3 Program Component (in millions)

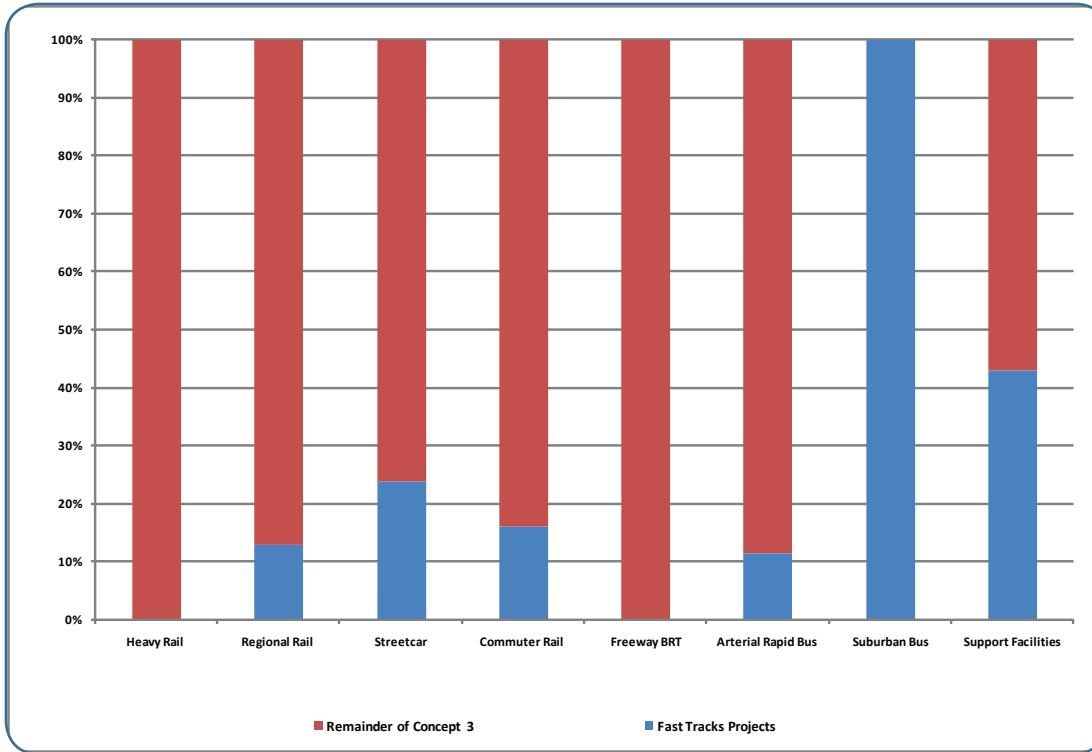


Figure 5.7: Percent of Costs by Program Component

To develop the financial plan and project cost in year of expenditure dollars, implementation schedule assumptions were needed for the Fast Tracks Early Action Plan and the remainder of Concept 3. TPB staff worked with MARTA staff to develop project development and implementation plan parameters for each mode. Table 5.2 summarizes the estimated time assumed to implement the various modes.

Time in Months	Heavy Rail	Regional Rail and Streetcar	Commuter Rail	Arterial BRT	Freeway BRT
Initiation Phase (Initial Planning)	24	20	16	12	24
Planning / Environmental Phase	24	20	16	6	8
Design Phase (includes 6 months procurement)	24	18	18	14	16
Implementation Phase	36	30	18	12	24
Commissioning and Close Out	12	8	8	6	6
TOTAL MONTHS	120	96	76	50	78

Table 5.2: Assumed Implementation Schedules By Mode (in months)

Additionally, the following implementation schedule assumptions were used for the support facilities:

- Non-rail park and ride facilities: 44 months
- Non-rail transit centers: 44 months
- LRT maintenance facilities: 24 months
- Bus facilities: 52 months

TPB and MARTA staff developed a preliminary plan to implement Concept 3 based on the schedules identified above and a preliminary prioritization of projects based on estimated funding availability and the productivity of projects. Concept 3's preliminary implementation scheduled was then used as the basis for the projection of capital costs in year of expenditure (YOE) dollars assuming an inflation rate of four percent per year. The projection of costs and revenues in YOE dollars provides a better understanding of the financial impact of funds that would need to be expended in the actual year of expenditure and the relative effects of inflation on costs and revenues. More specifically, YOE dollar values are computed by multiplying base year dollar values by the compounded escalation factor for the year in which funds would be expended. For example, in YOE dollars, \$1.00 in 2008 is equivalent to \$1.04 in 2009, using an inflation rate of four percent.

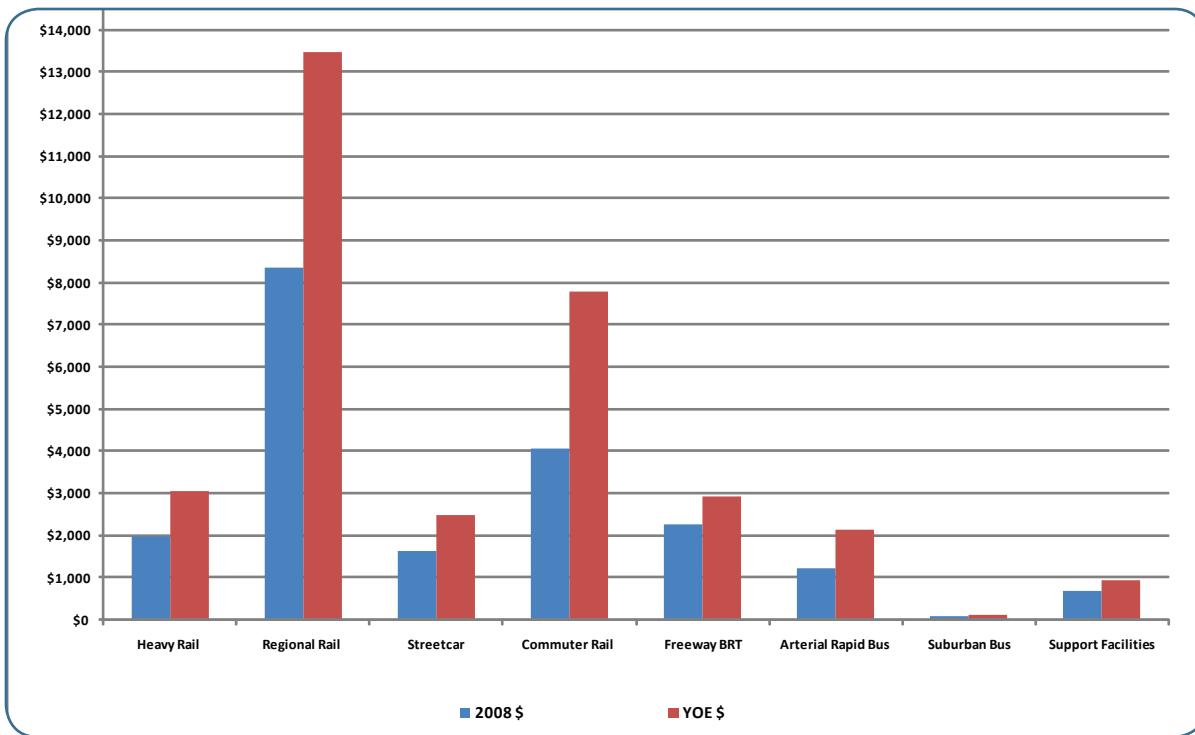


Figure 5.8: Total Cost By Mode: 2008 dollars and YOE dollars (in millions)

Figure 5.8 and Table 5.3 compare project costs in current year dollars (2008 dollars) to YOE dollars. As shown in the figure and the table, the YOE cost estimates are significantly higher due to the cost of time

(implementation schedule and annual inflation rate). While implementing projects on an accelerated schedule would reduce the YOE dollar costs, costs need to be balanced relative to available funding. It is important to note that the implementation plan used to develop the financial plan represents only one potential scenario. Additionally, project cost estimates will be refined and implementation schedules will likely be adjusted. As a result, these costs should be considered a preliminary order of magnitude estimate.

Summary of Concept 3 Capital Costs (2009 to 2030)		
Fast Tracks	2008 \$	YOE \$
Heavy Rail	\$0.00	\$0.00
Regional Rail	\$1,072.50	\$1,303.10
Streetcar	\$390.00	\$473.90
Commuter Rail	\$647.80	\$729.60
Freeway BRT	\$0.00	\$0.00
Arterial Rapid Bus	\$139.50	\$276.30
Suburban Bus	\$110.00	\$123.80
Support Facilities	\$292.00	\$451.20
Total	\$2,651.80	\$3,357.90
Remainder of Illustrative Program	2008 \$	YOE \$
Heavy Rail	\$1,985.00	\$3,071.40
Regional Rail	\$7,303.50	\$12,177.20
Streetcar	\$1,247.50	\$2,013.10
Commuter Rail	\$3,426.80	\$7,067.70
Freeway BRT	\$2,263.00	\$2,946.40
Arterial Rapid Bus	\$1,085.60	\$1,878.70
Suburban Bus	\$0.00	\$0.00
Support Facilities	\$388.00	\$494.20
Total	\$17,699.30	\$29,648.70
Total Illustrative Program	2008 \$	YOE \$
Heavy Rail	\$1,985.00	\$3,071.40
Regional Rail	\$8,376.00	\$13,480.30
Streetcar	\$1,637.50	\$2,487.00
Commuter Rail	\$4,074.60	\$7,797.40
Freeway BRT	\$2,263.00	\$2,946.40
Arterial Rapid Bus	\$1,225.10	\$2,155.00
Suburban Bus	\$110.00	\$123.80
Support Facilities	\$680.00	\$945.30
Total	\$20,351.20	\$33,006.60

Table 5.3: Comparison of Concept 3 Costs – 2008 Dollars vs YOE Dollars

Concept 3 Operating and Maintenance Cost Estimates

Similar to capital costs, order of magnitude O&M costs estimates were developed using a combination of existing local information and national averages as documented in the TPB Project Prioritization Process report from August 2007. Annual O&M costs were estimated based on annual service hours by mode and a cost per hour estimate for each mode. The costs per hour estimates are summarized below:

- Bus: \$90/bus-hour.

- Streetcar: \$175/train-hour for Beltline and \$125/train-hour for other lines
- LRT: \$375/train-hour
- Heavy Rail: \$750/train-hour
- Commuter Rail: \$3,100/train-hour

Based on the cost per hour estimates and preliminary operating plans for each project, Table 5.4 summarizes the total estimated O&M costs for the Concept 3 program. Over the 2009 to 2030, Concept 3 O&M costs are projected to total approximately \$9.1 billion, including implementation of additional hours and miles of service and a four percent annual increase in the cost per service hour. In 2030 when all projects are in operation, the annual O&M costs are estimated to be \$1.2 billion.

Figure 5.9 illustrates the distribution of annual capital and O&M costs for both the existing regional system and Concept 3 assumed over the 2009 to 2030 period relative to annual transit system revenues from existing sources. Concept 3 costs are distinguished between the Fast Track Early Action Plan and the remainder of the Program. The Concept 3 costs are in addition to the annual capital and O&M costs for the existing regional system shown previously in Figure 5.4.

Preliminary Financial Plan

As illustrated in Figure 5.9, additional revenues will be required to implement, operate, and maintain the Concept 3 long range transit vision in addition to the existing regional transit system. A combination of potential local, state, and federal revenue sources and debt financing options were analyzed and considered in the context of a preliminary financial plan that would allow Concept 3 to be implemented by 2030. The results of these analyses are summarized below. The preliminary financial plan provides a base case for sensitivity testing of alternate assumptions related to growth in costs, revenues, and interest rates.

Summary of Concept 3 Operating Costs	
Fast Tracks	YOE \$
Heavy Rail	\$0.00
Regional Rail	\$1,107.90
Streetcar	\$412.70
Commuter Rail	\$409.60
Freeway BRT	\$419.90
Arterial Rapid Bus	\$0.00
Suburban Bus	\$1,565.80
Total	\$3,915.90
Remainder of Illustrative Program	YOE \$
Heavy Rail	\$137.30
Regional Rail	\$2,286.80
Streetcar	\$1,079.10
Commuter Rail	\$263.00
Freeway BRT	\$1,138.30
Arterial Rapid Bus	\$231.10
Suburban Bus	\$0.00
Total	\$5,135.40
Total Illustrative Program	YOE \$
Heavy Rail	\$137.30
Regional Rail	\$3,394.70
Streetcar	\$1,491.80
Commuter Rail	\$672.60
Freeway BRT	\$1,558.20
Arterial Rapid Bus	\$231.10
Suburban Bus	\$1,565.80
Total	\$9,051.30

Table 5.4: Annual O&M Costs by Implementation Phase

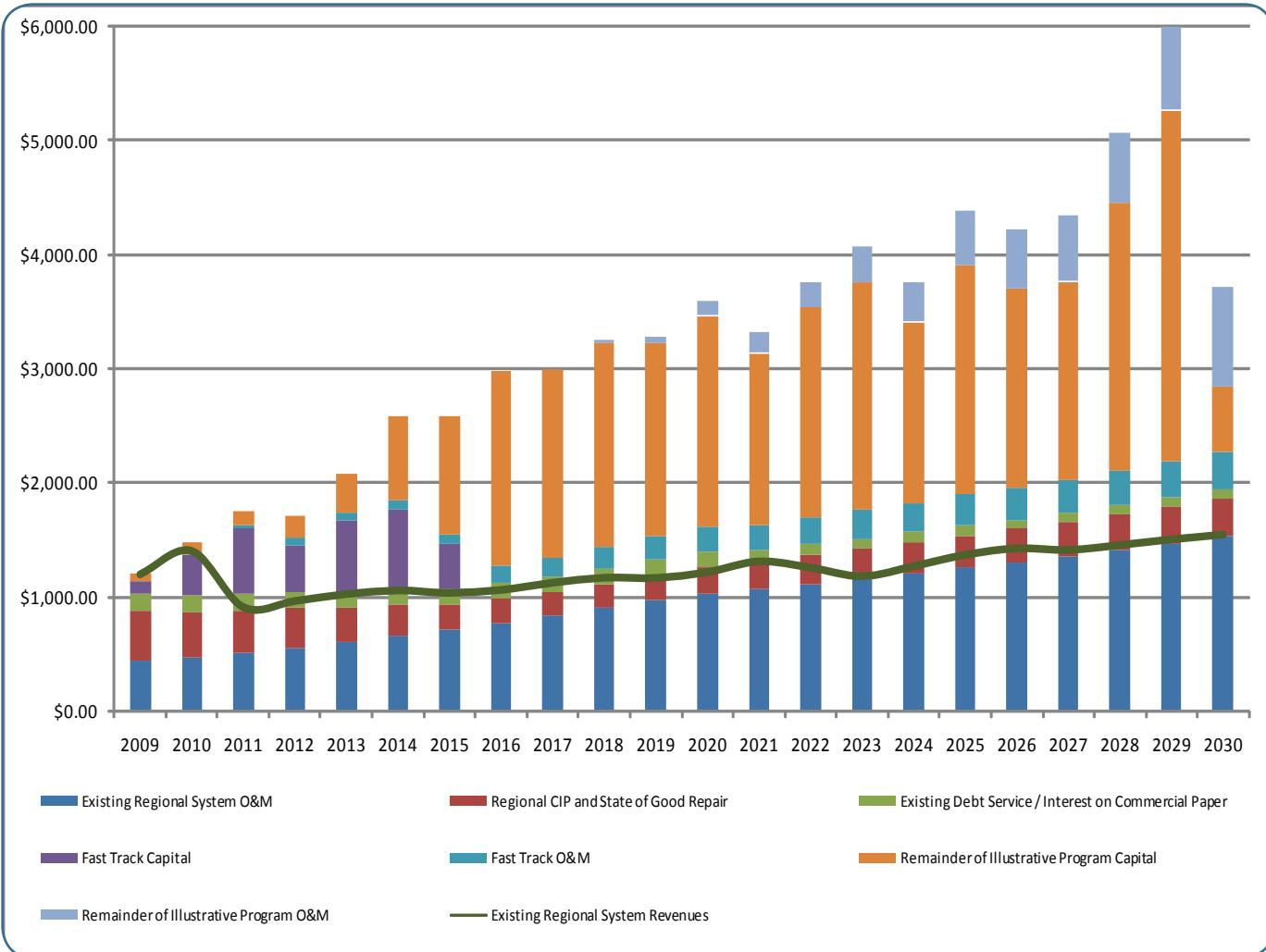


Figure 5.9: Annual Operating and Capital Costs and Existing Revenues

Fare Revenue

For the purposes of the financial plan it was assumed that all Concept 3 projects would generate fare revenues sufficient to cover 25 percent of their operating costs, (fare box recovery rate of 25 percent). This assumption was based on the following fare recovery rates from the 2007 National Transit Database:

- MARTA: bus: 27.4 percent, rail: 29.4 percent;
- GRTA: 26.3 percent;
- Cobb County Transit: 27.0 percent;
- Gwinnett County Transit: 25.9 percent; and
- Clayton County Transit: 30.5 percent.

Based on the 25 percent fare recovery assumption, over the 2009 to 2030 fares are projected to generate \$2.3 billion in revenue.

Potential Regional Sales Tax

As stated earlier, currently the largest transit funding source in the region is MARTA's one-cent transit sales tax. This sales tax is collected in Fulton and DeKalb Counties (existing MARTA counties) and is projected to generate approximately \$336.1 million in FY 2009. As part of the TPB work plan, a review was conducted of other potential local revenue sources that could provide funding for Concept 3. These sources included:

- Gas tax
- Annual vehicle registration
- Motor vehicle excise tax
- Expansion of a one-cent sales tax to the rest of the 14 counties

Based on Georgia State University (GSU) projections of annual sales taxes, if the one-cent sales tax was implemented in all 12 counties, in 2012 it would generate over \$1.1 billion. Figure 5.10 provides an order of magnitude comparison of the relative revenue generation of the one-cent sales tax relative to the other three sources.

As shown in the figure, to generate the \$1.0 billion annual level of funding equivalent to the one-cent sales tax would require a gas tax of \$0.35 per gallon; annual vehicle registration fees of \$300 per vehicle, and a motor vehicle excise tax of \$1,750 assuming an average value of \$10,000. Based on this analysis, it was determined that the Concept 3 financial plan should assume expansion of the one-cent sales tax as a key potential new local revenue source to assist in the implementation of Concept 3.

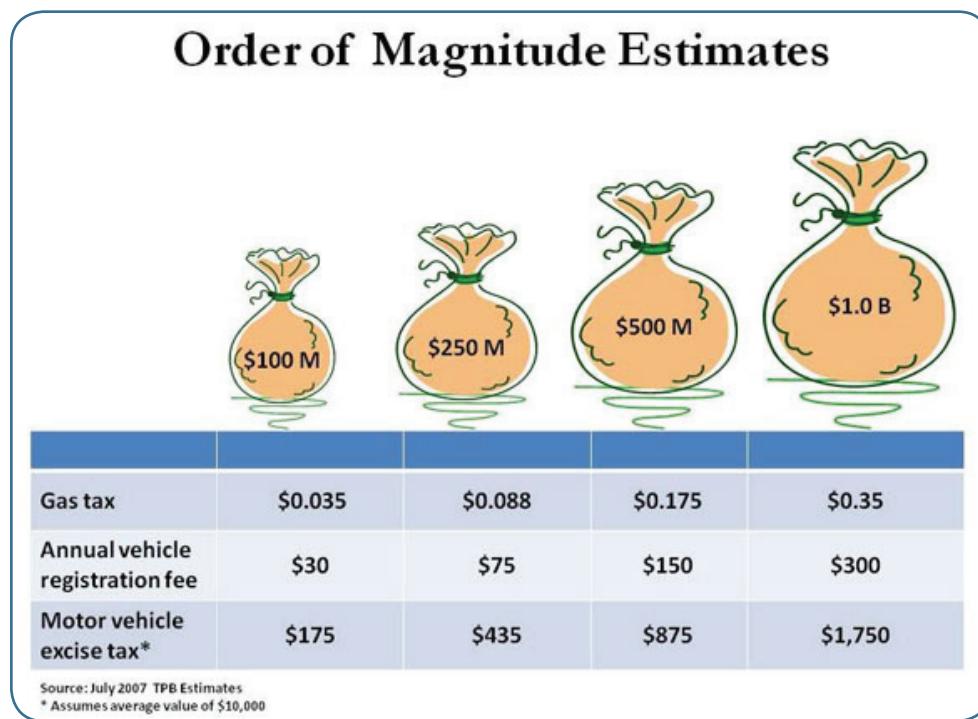


Figure 5.10: Potential Revenue from Local Sources

During the development of the financial plan, questions arose regarding the geographic extent of the potential sales tax, the percentage of the sales tax dedicated to transit, the level of the sales tax rate, and how long the tax should remain in place. Figure 5.11 compares the projected 2009 to 2030 total costs for the Existing Regional Transit System plus the Fast Tracks portion of Concept 3 and the full Concept 3 program to the total sales tax revenue estimated under the following implementation scenarios:

- Implementation of an equivalent half-cent or a one-cent sales tax in MARTA-eligible counties (Clayton, Cobb, and Gwinnett Counties);
- Implementation of an equivalent half-cent or a one-cent sales tax in MARTA-eligible counties plus an equivalent half-cent or a one-cent sales tax in MARTA existing counties (Fulton and DeKalb Counties)

- Implementation of an equivalent half-cent or a one-cent sales tax in 12 counties (does not include MARTA existing counties) / Implementation of an equivalent half-cent or a one-cent sales tax all 14 counties with 65 percent of tax going to transit; and
- Implementation of an equivalent half-cent or a one-cent sales tax all 14 counties

It is important to note that the equivalent one-cent sales tax is defined as a currently unknown revenue source(s) that would generate the same level of revenue as a one-cent sales tax in that county.

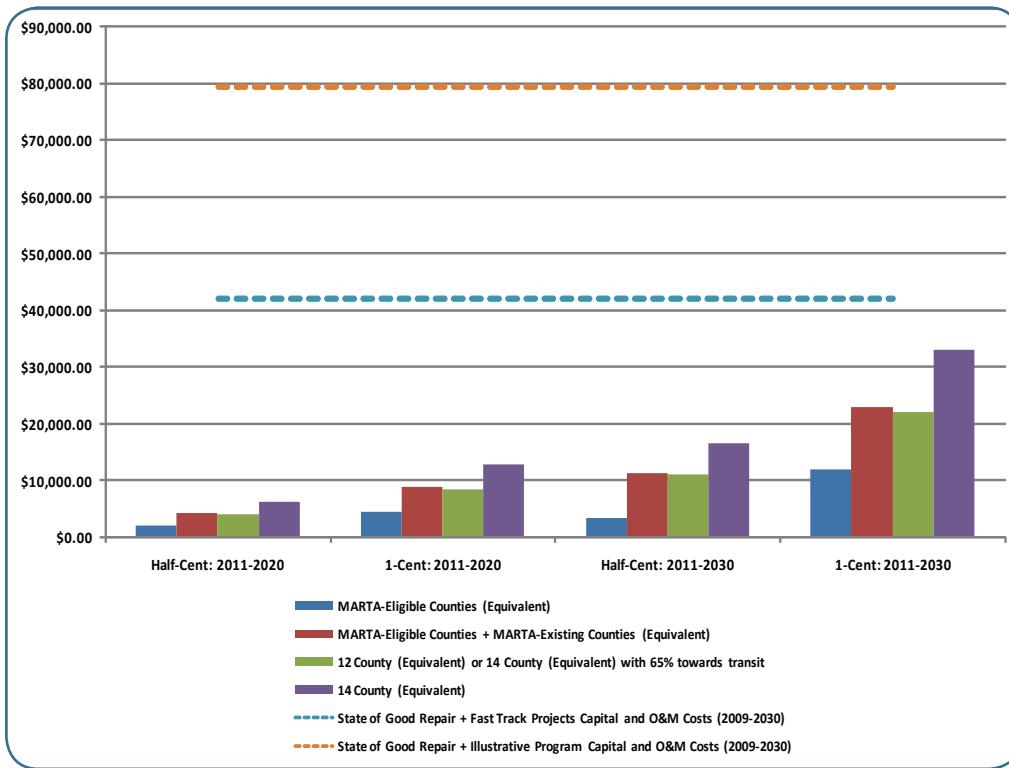


Figure 5.11: Sales Tax Levels Compared to Concept 3 Costs

As shown in the figure, only the full one-cent sales tax equivalent in all 14 counties would generate enough revenue on its own to come close to potentially implement the Fast Tracks portion of Concept 3. However, it still provides less than half of the revenue needed to fully implement Concept 3. On this basis, the preliminary financial plan for the full Concept 3 program assumes that the following would be required:

- Implementation of the full one-cent sales tax equivalent in 14, with collection beginning January 1, 2011;
- Continuation of the sales tax beyond 2030, without sunset, in order to finance the implementation of the program over time through issuance and repayment of long term debt; and
- Sales tax revenue used 50 percent for capital and 50 percent for operations.

Over the 2011 to 2030 period, the regional sales tax is projected to generate approximately \$33.2 billion in revenue, or approximately \$1.6 billion per year. Figure 5.12 compares total annual costs of Concept 3 and the Existing Regional System relative to total annual revenues generated by existing sources, Concept 3 fare revenue and the region-wide one-cent sales tax.

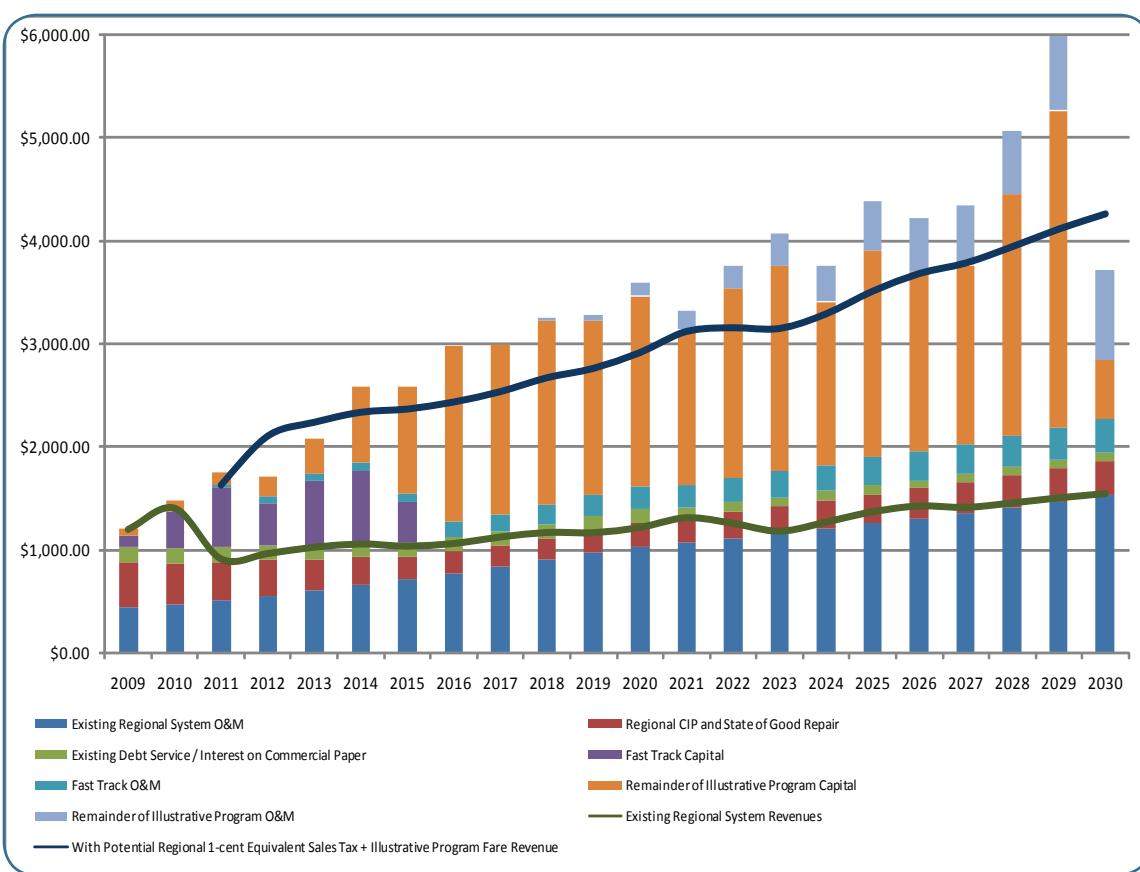


Figure 5.12: Annual Existing and Concept 3 Costs and Proposed Region-Wide Sales Tax

Additional Potential Revenue Sources

As shown in Figure 5.12, beginning in 2014, there is a need for additional revenue from other sources to cover annual costs to implement and operate the Existing Transit System plus the Concept 3 program. To supplement potential revenue from a new one-cent sales tax, consideration was given to State and federal funding participation. Inclusion of State funding reflect experiences of other states and cities, such as Charlotte, North Carolina, that have received significant State funding to implement major regional transit improvements.

The federal government's primary grant program to support locally-planned, implemented, and operated transit "guideway" capital investments, such as Concept 3's heavy rail, commuter rail and high capacity regional rail projects, is the Federal Transit Administration (FTA) Section 5309 New Starts program. Projects applying for New Starts funding must undergo evaluation by the FTA throughout the entire project development process. Projects are evaluated according to a variety of criteria including mobility improvements, environmental benefits, cost-effectiveness, operating efficiencies, transit supportive land use, and local financial capacity. Although in recent years the Atlanta region has not been actively involved in the New Starts program, there are a number of projects in Concept 3 that would be potentially be candidates for FTA New Starts funding.

State Participation

The preliminary financial plan for Concept 3 assumes two levels of State participation in funding the capital costs of proposed regional transit service:

- State grants are assumed to provide 10 percent funding for the heavy rail, high capacity regional rail, commuter rail, and suburban bus components of Concept 3. Over the 2011 to 2030 period, State revenue for these elements of the Concept 3 program would total \$2.4 billion, or approximately \$120 million a year.

- Since the Freeway BRT projects will be located within the existing highway system, State and/or HOT lane funding was assumed to cover 50 percent of these project costs. The reasoning for use of this revenue source is that with the conversion of a general purpose lane to an HOT lane there will be a reduction in travel capacity within the remaining travel lanes and an associated need for increased transit service. The Freeway BRT service would provide the capacity to meet the increased transit demand. Over the 2013 to 2024 Freeway BRT implementation period, State/HOT lane revenue would total \$1.5 billion, which is approximately \$125 million a year.

Federal Participation

The preliminary financial plan for Concept 3 assumes that:

- FTA New Starts funds will provide 20 percent of the total capital costs of the heavy rail, high capacity regional rail, and commuter rail components of the Concept 3 program;
- The region would enter into a memorandum of understanding (MOU) with FTA. Under the MOU, the 20 percent federal funding share would include the cost of projects completed during the Fast Tracks Early Action Plan that are planned to be 100 percent locally funded over the 2009 to 2015 period. This strategy reflects a similar MOU that was recently implemented between the Utah Transit Authority and FTA to implement the five-corridor FrontLines 2015 Program.
- FTA New Starts funds would be received over the 2016 to 2030 period; Over the 2016 to 2030 period, the financial plan projects receipt of \$4.9 billion in New Starts funds, or an average of \$329 million per year.

Figure 5.13 compares total annual costs of Concept 3 and the Existing Regional System relative to total annual revenues generated by the combination of State and federal grants, existing sources, Concept 3 fare revenue and the region-wide one-cent sales tax.

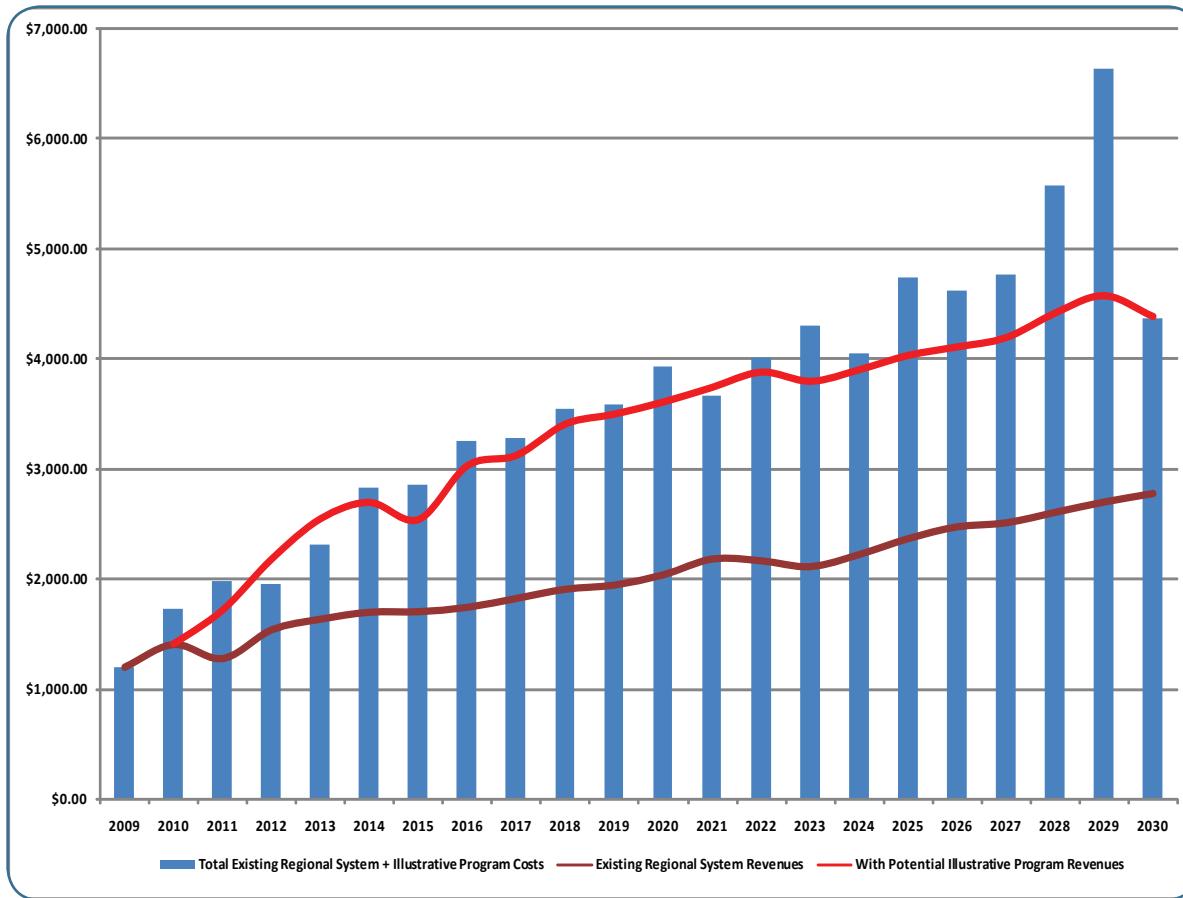


Figure 5.13: Annual Costs, Existing Revenues and Potential Revenues

Potential Debt Financing

As shown in Figure 5.13, while the addition of State and federal grants narrows the annual and total funding shortfall to implement Concept 3, shortfalls still exist. To address the annual shortfalls, the financial plan assumes long-term bonds will be issued.

To maintain consistency with MARTA's existing financing terms and conditions, the financial plan incorporates MARTA's current bond issuance assumptions (30-year term, six percent interest rates, and interest-only payments the first ten years) and bond test requirements to ensure that annual debt service payments do not exceed available funding resources. The bond test requirements include:

- Minimum annual ending balance of at least \$20.0 million;
- Maximum outstanding level of commercial paper of \$400.0 million;
- Minimum annual debt coverage ratio of 1.0 (ratio of bondable sales tax to debt service payment); and
- Maximum of 90% of annual bondable sales tax used for payment of debt service.

As shown in Figure 5.14, implementation of Concept 3 by 2030 will require use of bond proceeds nearly every year. Over the 2011 to 2030 period, a total bonding level of \$8.2 billion is projected to be required, or about \$410.8 million per year, with all bond test requirements achieved.

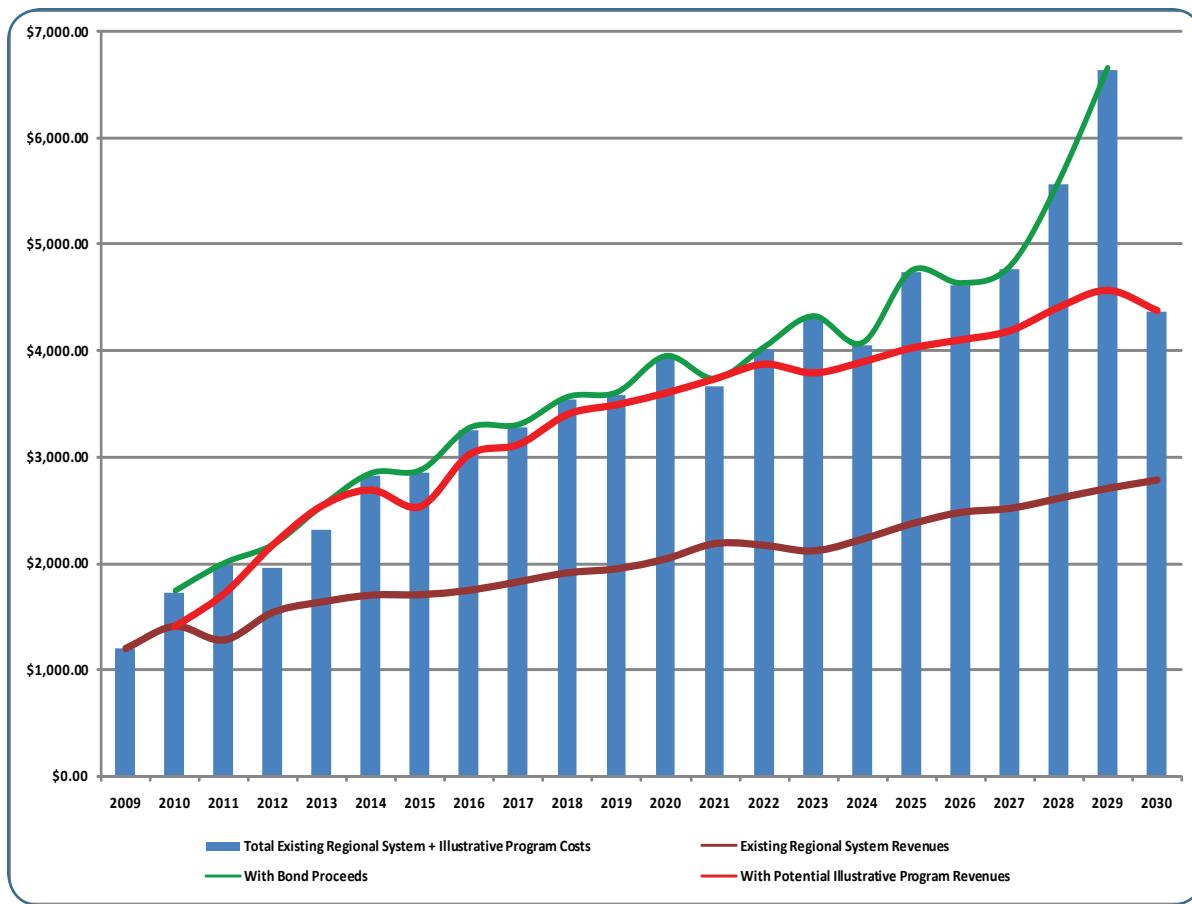


Figure 5.14: Annual Costs, Existing and Potential Revenue, and Debt Financing

Sensitivity Tests

Three types of sensitivity tests were conducted to assess if the preliminary financial plan provided sufficient capacity to allow for the implementation of Concept 3 by 2030 under alternate assumptions with regard to the rates of growth in costs and revenues. These tests included:

- Increasing the base case assumption of a four percent annual capital and O&M cost escalation rate assumed in the preliminary financial plan;
- Adjusting the level of financial participation from State and federal grant programs; and
- Adjusting the base case assumption of a six percent interest rate on bonded indebtedness.

For each test, a comparison was made of the total level of bonding required to implement Concept 3 by 2030 relative to the \$8.2 billion in bonding required under the base case assumptions in the preliminary financial plan. A graphic representation of this comparison is provided for each sensitivity test.

Sensitivity Test: Cost Increases

The sensitivity testing for increases in cost considered two sets of scenarios. The first set of scenarios tested the impact of increasing the annual cost escalation rate above four percent, while maintaining the base case assumption of annual growth in sales tax revenues. The second set of scenarios tested the impact of increasing the annual cost escalation rate above four percent with commensurate decreases in the annual rate of growth in sales tax revenues.

Increased Cost Escalation Rate

Under this set of tests, annual capital and O&M costs were assumed to grow at rates exceeding the 4.0 percent rate assumed in the base case, while maintaining the annual rate of growth in sales tax revenues. Sensitivity tests were conducted to determine the impact of increasing the annual cost escalation rate to:

- Increasing the annual rate of cost growth by 0.5 percent, to 4.5 percent;
- Increasing the annual rate of cost growth by one percent, to five percent; and
- Increasing the annual rate of cost growth by four percent, to eight percent for two years (2009 and 2010) and then returning to four percent annual cost increase over the 2011 to 2030 period.

As shown in Figure 5.15, the results indicate that in order to implement Concept 3 by 2030, total bond levels would need to increase from the base case of \$8.2 billion to:

- \$12.1 billion for a 4.5 percent annual cost escalation rate;
- \$16.3 billion for a five percent annual cost escalation rate; and
- \$13.0 billion for an eight percent cost escalation rate spike for two years and then a return to the four percent base case annual cost escalation assumption.

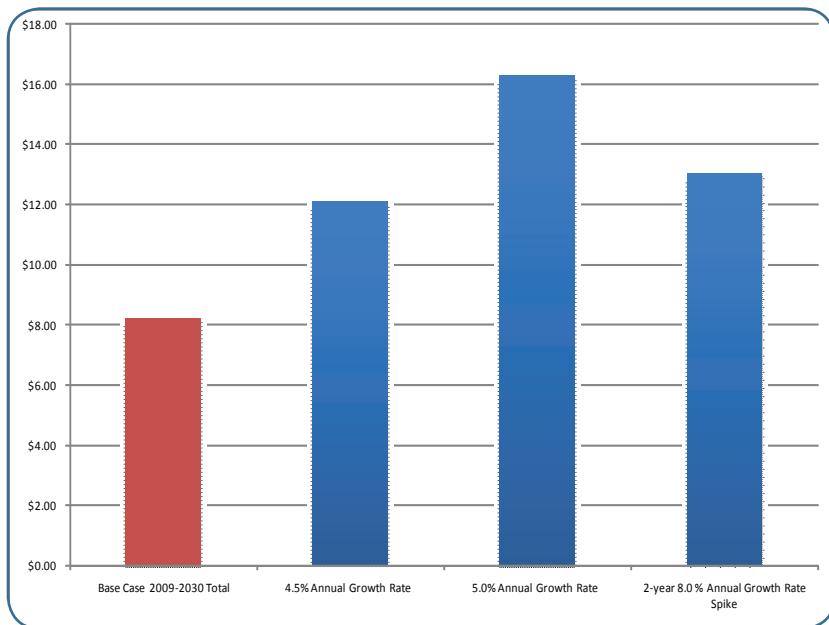


Figure 5.15: Total Bonds Issued: Cost Growth Increase

Sensitivity Test: Increased Cost Escalation Rates with Commensurate Reductions in Sales Tax Growth Rates

This set of sensitivity tests considered the impact of annual sales tax revenues diminishing at the same rate as costs are projected to increase. Sensitivity tests were conducted to determine the impact of:

- Increasing the annual rate of cost growth by 0.5 percent, to 4.5 percent, while decreasing the annual rate of sales tax revenue growth by 0.5 percent;
- Increasing the annual rate of cost growth by one percent, to five percent, while decreasing the annual rate of sales tax revenue growth by one percent; and
- Increasing the annual rate of cost growth by four percent, to eight percent for two years (2009 and 2010) and then returning to four percent annual cost increase over the 2011 to 2030 period, while decreasing the annual rate of sales tax revenue growth by three percent for two years and then returning to the annual rates developed by GSU for the 2011 to 2030 period.

As shown in Figure 5.16, the results indicate that in order to implement Concept 3 by 2030, total bond levels would need to increase from the base case of \$8.2 billion to:

- \$17.3 billion for a 4.5 percent annual cost escalation rate and 0.5 percent decrease in annual sales tax revenue;
- \$26.6 billion for a five percent annual cost escalation rate and one percent decrease in annual sales tax revenue; and
- \$18.9 billion for an eight percent annual increase for two years (2009 and 2010) and then returning to four percent annual cost increase over the 2011 to 2030 period and a three percent decrease in annual sales tax for two year and then returning to the annual rates developed by GSU for the 2011 to 2030 period.

This analysis indicated that the system-wide annual ending balance and MARTA bond tests would be achieved for five of the six sensitivity tests conducted. However, under the test assuming a five percent annual cost escalation rate and one percent decrease in annual sales tax revenue, the system-wide annual ending balance and MARTA bonds tests would fail beginning in 2027. This means that the preliminary Concept 3 implementation plan could not be implemented by 2030 under this scenario.

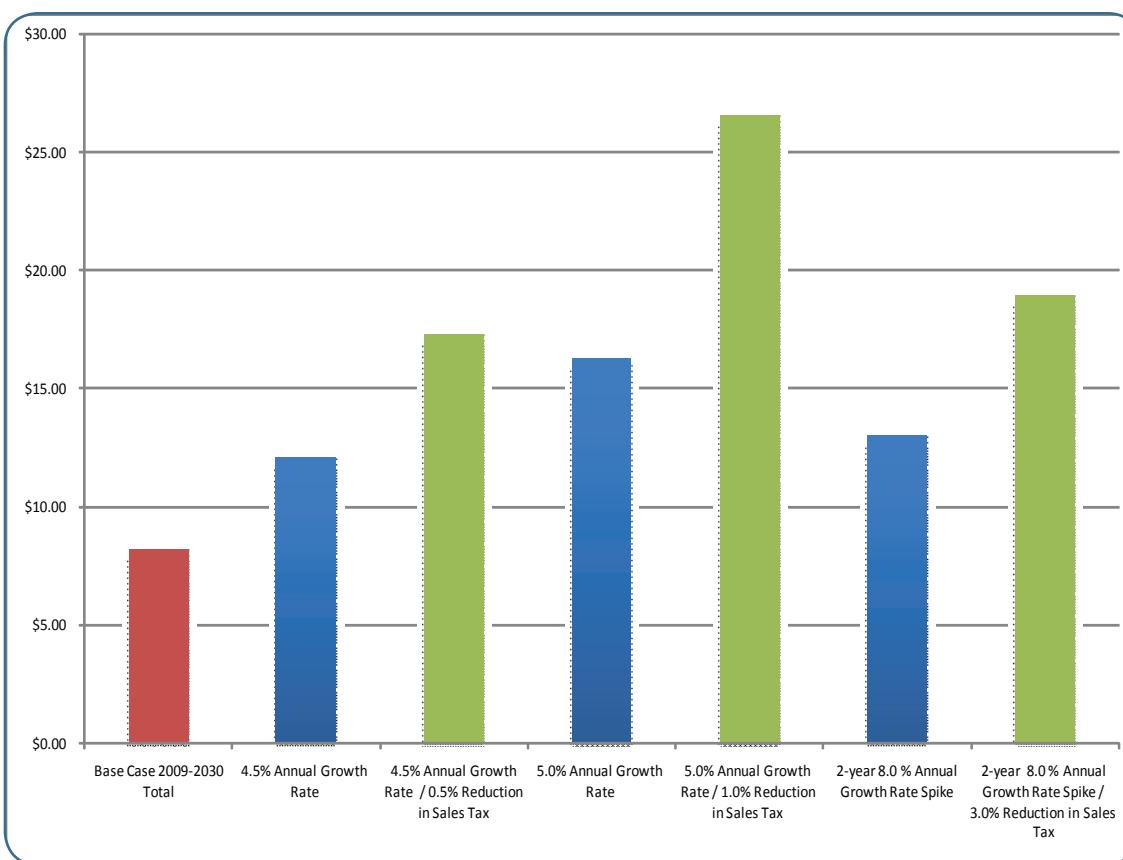


Figure 5.16: Total Bonds Issued: Cost Increase and Sales Tax Revenue Reduction

Sensitivity Test: State and Federal Funding Participation

The sensitivity testing of State and federal grant funding participation levels considered three scenarios. Two scenarios tested the impact of increased State funding participation and the third scenario tested the impact of reduced FTA New Starts funding.

Increased State Revenue

The base case assumptions in the preliminary financial plan call for the State to fund 10 percent of heavy rail, high capacity regional rail, commuter rail and suburban bus capital costs. Sensitivity tests were conducted to determine the impact of the State participation in these Concept 3 program components increasing to provide:

- 10 percent operating revenue in addition to the base case assumption of providing 10 percent of capital costs; and
- 25 percent operating revenue and 25 percent of the capital costs.

As shown in Figure 14, total bonding levels required for these scenarios would decrease from the base case of \$8.2 billion to \$7.6 billion and \$1.2 billion respectively.

Reduced FTA New Starts Funding

As stated earlier, the base case assumption in the preliminary financial plan is that FTA New Starts funds will provide 20 percent of the capital funding required for the heavy rail, high capacity regional rail, and commuter rail components of Concept 3. This includes an assumption that the 20 percent in FTA funds will include credit for the Fast Tracks costs initially paid 100 percent locally over the 2009 to 2015 period, with FTA funding to be received over the 2016 to 2030 period.

For this sensitivity test, it was assumed that FTA's 20 percent capital cost share would exclude credit for the 100 percent local funding provided for Fast Tracks projects costs, resulting in a reduced level of FTA funding. As shown in Figure 5.17, the reduction in FTA funding would result in bonding levels increasing from \$8.22 million in the base case to \$8.92 million.

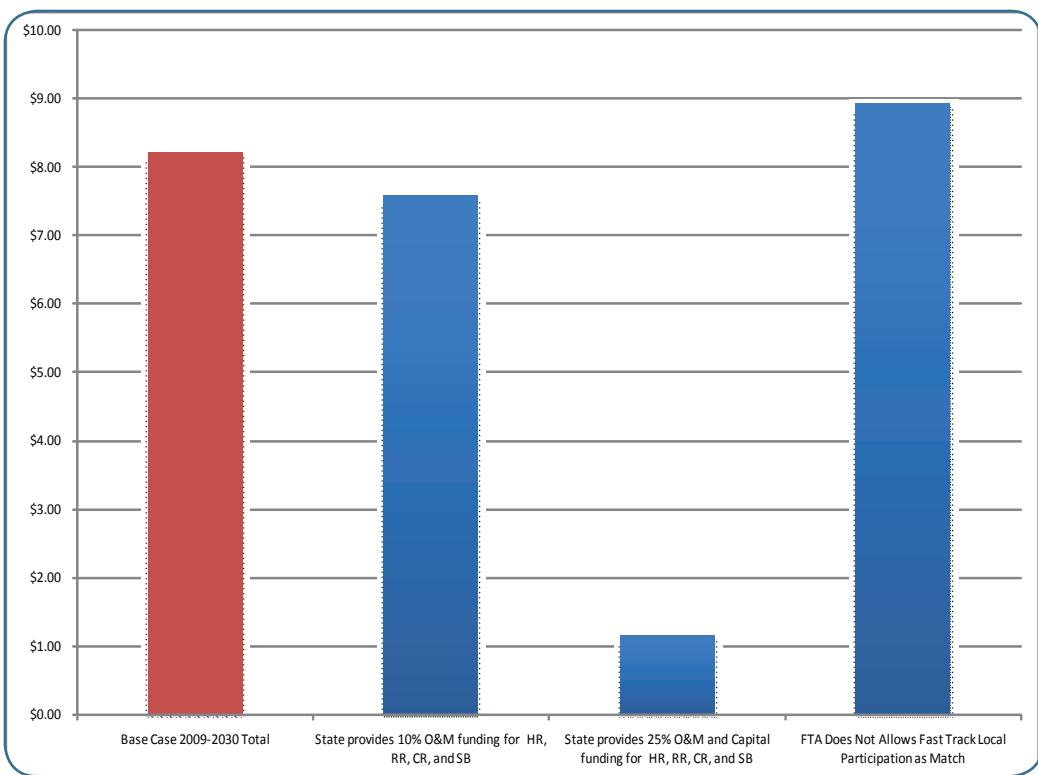


Figure 5.17: Sensitivity Test: Grant Revenue

Sensitivity Test: Changes in Bond Interest Rates

Since issuing debt is a key component of the Concept 3 preliminary financial plan, sensitivity tests were conducted to determine the impact of increasing or decreasing bond interest rates. The base case assumption in the preliminary financial plan calls for bonds to be issued at a six percent interest rate. The two sensitivity test scenarios analyzed the effect of decreasing and increasing the interest rate by 0.5 percent, to 5.5 percent and 6.5 percent respectively. As shown in Figure 5.18, compared to the \$8.2 billion in bonding required in the base case, bonding levels would decrease to \$7.9 billion in the decreased rate scenario and would increase to \$8.7 billion in the interest rate increase scenario.

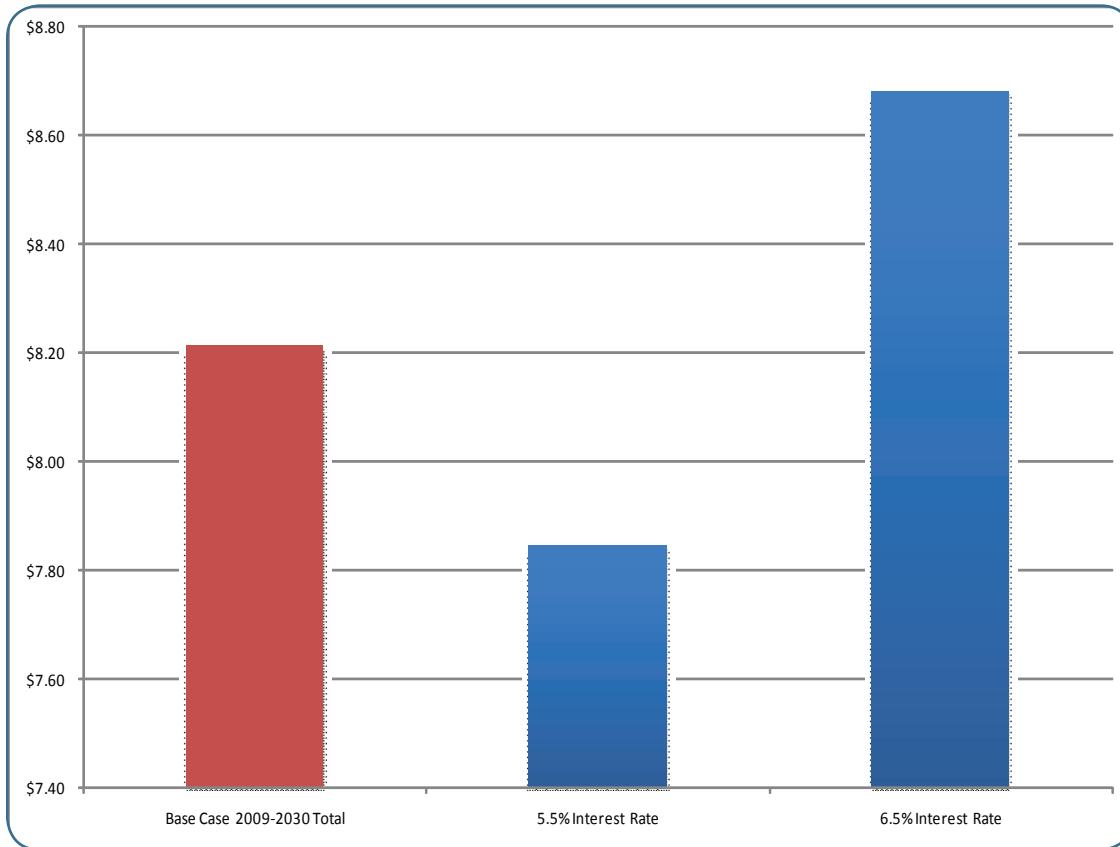


Figure 5.18: Sensitivity Tests: Changes in Bond Interest Rates

Sensitivity Tests Summary Results

Figure 5.19 illustrates in ascending order the comparative impact of the 11 sensitivity tests on the level of bonding required for the Concept 3 program. With the exception of the 5 percent annual increase in costs and 1.0 percent decrease in annual sales tax revenue scenario, Concept 3 could be implemented by 2030 under 10 of the 11 scenarios. As shown in Figure 5.19, the 1.0 percent cost increase / revenue decrease scenario would require a significant increase in bonding to implement the program by 2030.

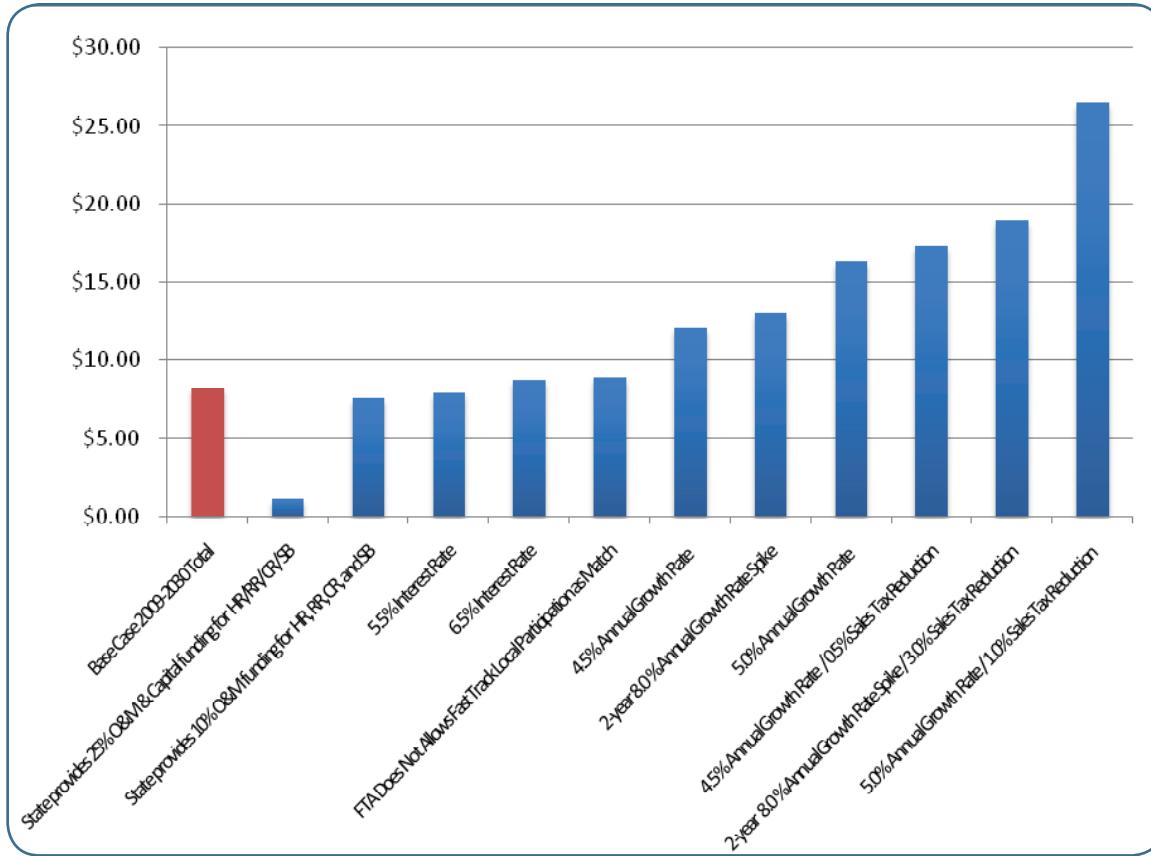


Figure 5.19: Sensitivity Tests Summary Results

Figure 5.19 suggests that the level of state participation in the program could have a significant impact on the development of the program. However, it also suggests that external factors such as overall inflation and sales tax growth will have a significant impact on the ability of the region to implement a program such as Concept 3.

Public-Private-Partnerships

Public-Private-Partnership (PPPs) provide a potential tool to assist with implementing some projected higher performing Concept 3 projects. According to the APTA Task Force on Public-Private Partnerships white paper "Public-Private Partnerships In Public Transportation: Policies and Principles for The Transit Industry", by definition:

A public-private partnership is a contractual arrangement between a public or governmental agency and a private entity that facilitates greater participation by the private entity in the delivery and operation of an infrastructure project, facility or service. Typically, within the transport sector, such an arrangement involves one or more aspects of the funding, financing, planning, design, construction, operation and maintenance of a transportation facility. Within the commonly utilized context of financing and/or delivering projects, a public-private partnership is an approach or mechanism that is utilized to move the funding process from a single strategy of governmental aid through grants to regional and local authorities, to a more diversified approach involving increased utilization of private capital markets. In some cases – generally outside the United States – private firms have injected capital into the building and construction process of new and improved transit capital facilities, in anticipation of an acceptable level of return on investment which may be delivered through farebox revenues, public subsidies, and/or performance/availability payments. Of course, capital is only one of the requirements for success: good projects and good management are also necessary.

As stated above, the primary objective of PPPs is to improve/enhance project development and/or service delivery through creative approaches to sharing project risk. When entering into a PPP agreement the private and public sectors have different expectations:

- **Private Sector Expectations:** Increased professional service opportunities and/or financial/investment opportunities, in return for an acceptable rate of return based on risk
- **Public Sector Expectations:** Combination of lowered cost, expedited delivery, improved service quality, new technology, risk reduction, increased technical/managerial expertise

Potential benefits of PPPs include:

- Expedited completion compared to conventional project delivery methods;
- Potential project cost savings;
- Improved quality and system performance including use of innovative management techniques;
- Substitution of private resources and personnel for increasingly constrained public resources ; and
- Potential access to sources of private capital.

The APTA Task Force on PPP also developed seven principles for PPPs as a means of assuring that such partnerships protect both the public interest and provide commensurate benefit for private partners. From the Task Force's white paper "Public-Private Partnerships In Public Transportation: Policies And Principles For The Transit Industry", the following principles were designed to provide a potential framework for assessing the efficacy of PPPs for funding, financing, and delivering public transportation services and facilities.

- » **Principle 1: Public-private partnerships are a tool in the transit toolbox.** PPPs should be viewed as one of a number of techniques and mechanisms for funding, delivering and sustaining transit facilities and services. PPPs can be used successfully for a variety of purposes, including delivery of major projects, provision of cost-effective services, and utilization of contractual relationships to improve quality and timeliness of capital projects and services. However, PPPs should not be viewed as an ultimate funding solution in the absence of other resources, but as a complement to existing and traditional sources of funding for service expansion, modernization, and infrastructure investment.
- » **Principle 2: Public-private partnerships should be structured to maintain the public interest.** In the vast majority of circumstances, control and oversight of the public asset – the facilities and services provided to the public – must remain with an entity whose "client" is the public interest. Thus, the governmental or public entity that holds this responsibility must carefully evaluate the transfer of risk and concomitant transfer of control within a proposed public-private partnership to assure that these transfers bring commercial benefits and foster creative use of non-traditional resources, while maintaining sufficient control/oversight to assure the preservation and sustainability of the public interest.
- » **Principle 3: Public-private partnerships should be utilized as a strategy to achieve public goals and support long-range regional plans.** PPPs are often proposed and implemented as a means of implementing projects or selling/leasing assets in ways that do not directly support regional goals for multi-modal transport investment. There have been projects or asset sales done primarily because they could be done, not because such undertakings achieved outcomes that met a regional prioritization of transportation infrastructure investment. Thus, public transportation assets should not be sold simply for the sake of general revenue enhancement, especially if the generated revenues are used for purposes other than for improving transportation facilities and/or services.
- » **Principle 4: Public-private partnerships are most effective in those cases where a long-term revenue stream can be assured.** Some agencies believe that the private sector can be a viable source of funding when no tax or general revenues are available and no identifiable revenue stream exists.

The reality, of course, is that the private sector can only be a useful partner in those cases where financing – as contrasted to funding – is the issue, or in those rare cases where capital invested at risk by a private partner has a strong probability of generating a long term return on that investment. In order for such a return to be generated, the presence, predictability and stability of a long-term revenue stream is mandatory.

- » **Principle 5: Public-private partnerships should be based on constructive and beneficial sharing of risk.** One of the key premises underlying public-private partnerships is the beneficial sharing of risks inherent in project development. This means that the public sector and private sector assume respectively those risks which each are best suited to accept. For example, a common risk allocation may be for the private sector to accept the risks inherent in the cost and timeliness of construction, while the public sector is more capable of accepting the risks associated with environmental clearance, public acceptance, and ridership/revenue for development of a capital project.
- » **Principle 6: Public-private partnerships should be used constructively for increasing procurement flexibility and project effectiveness.** There are many opportunities for maximizing the competitiveness and performance of capital or operating assets through creative utilization of private resources. Numerous examples exist in the literature that demonstrate significant cost and time savings owing to private contracting. However, in some states, PPP deployments are obstructed by procurement statutes that have not kept pace with the emergence of PPPs, inhibiting some agencies from PPP deployments. In addition, where life-cycle costs and benefits are considered, the tax consequences of long-term private investment may substantially reduce the required public subsidy for transit facilities and services. Thus, utilizing federal tax policy as an instrument for promoting PPPs can be a clearly positive action, presuming that tax revenue lost through such mechanisms is less than the direct federal investment necessary to achieve the same outcome through a traditional grant-in-aid approach.
- » **Principle 7: Public-private partnerships for tolling and other forms of congestion pricing should be structured to increase transit usage.** The concept of “high performance corridors” is gaining traction, particularly in light of energy saving and global climate change. Increasing the transit share should be a desirable objective in any undertaking to reduce congestion, improve air quality, and reduce dependency on foreign oil.

Opportunities for Public-Private Partnerships in the Concept 3 Program

The Concept 3 program provides a variety of potential opportunities for private sector participation in project implementation and operation. These opportunities include private sector involvement in:

- Project acceleration
- Advancement of multiple projects simultaneously
- Financial participation
- Joint equipment / rolling stock purchase
- Transit oriented development / joint development
- Outsourcing of:
 - Operations
 - Maintenance

The TPB, MARTA, and the participating agencies could assist the private sector in identifying opportunities for public-private partnerships by providing background information about the projects comprising the program. Such information could include the level of prior study, environmental status, projected patronage, and estimated capital and operating costs of the projects in the program sufficient for the private sector to

screen for opportunities of interest. Conversely, the agencies could target particular projects and/or program components as public-private partnership opportunities.

Key Findings

The preliminary financial plan for Concept 3 identifies potential funding sources; levels of local, State, and federal financial participation; and a conceptual financing strategy that would allow for the implementation and operation of the program by 2030. Over time, Concept 3 will be refined from a regional transit vision to a detailed program of projects, with associated refinement in the funding sources, levels of financial participation, and financial strategy required for implementation.

- The preliminary sources and uses of funds associated with the Concept 3 program are summarized in Table 5. As shown in the table, the key funding and financing concepts comprising the preliminary financial plan for Concept 3 include the following:
 - Implement a region-wide one-cent sales tax equivalent. Revenue from this source would provide a long term, stable revenue source to allow for the issuance and repayment of long term bonds for capital, provide revenue to support annual system-wide O&M costs, and achieve and maintain the system in a state of good repair;
 - Secure State participation in funding the capital costs associated with the regional and multi-county high capacity transit components of the Concept 3 program. These include the heavy rail, high capacity regional rail, and commuter rail components of the program, as well as the freeway bus rapid transit and suburban bus components. As shown in the sensitivity tests, State participation in funding of operating costs would further strengthen the financial plan;
 - Work with the FTA to define a candidate program of fixed guideway projects for FTA New Starts funding. In addition, pursue federal discretionary and formula grant opportunities to fund system-wide costs for capital, O&M, and state of good repair;
 - Develop a phasing strategy to facilitate accelerated implementation of the Concept 3 program and to balance projected capital and operating costs with projected revenues. Incorporate opportunities to accelerate implementation through issuance of short term and long term debt to address annual funding shortfalls;
 - Identify and secure supplementary sources of funding and opportunities for cost-sharing, including the potential for tax allocation district funding and value capture from transit oriented developments; and
 - Work with the private sector to identify potential opportunities for public-private partnerships to facilitate program implementation and service delivery.

The ability to pursue and implement the assumptions listed above will require the continuation of the regional partnership that was initiated and enhanced through the TPB process. The region's transit officials will need to speak as a unified voice to a variety of audiences including the following:

- The State legislature to establish the ability to enact a one-cent regional sales tax and to request and obtain capital funding for multi-jurisdictional Concept 3 projects;
- The Region's federal Congressional delegation to develop a comprehensive plan to apply for and obtain FTA New Starts funds and discretionary funds for State of Good Repair projects; and
- The general public to educate and promote the need for and the benefits of Concept 3 in anticipation of a referendum to implement a possible region-wide transportation sales tax.

Costs	Total	Subtotals
Operating Costs	\$30,331.13	
Existing Regional System		\$21,279.85
Fast Track Projects		\$4,003.03
Remainder of Concept 3 Projects		\$5,048.25
Capital Costs	\$42,542.48	
CIP and State of Good Repair Capital		\$6,358.14
Fast Track Projects Capital		\$3,168.18
Remaining Illustrative Program Capital		\$29,746.15
Retire Commercial Paper		\$3,270.00
Debt Service	\$6,345.37	
MARTA Current Debt Service		\$2,116.10
Interest on Commercial Paper		\$349.80
Concept 3 Debt Service		\$3,879.47
Revenues		
Operating Revenues	\$34,017.40	
Total Existing System O&M Revenue		\$14,093.08
FTA Section 5307 Regional Balance		\$378.26
Farebox Revenue - Fast Tracks Projects		\$1,000.76
Farebox Revenue - Remainder of Concept 3		\$1,262.06
Sales Tax (12 + Existing MARTA-equivalent)		\$16,609.13
Advanced from Beginning Balance		\$674.11
Capital Revenues	\$50,256.07	
Net Operating Revenue		\$3,686.27
Federal Funds		
Existing Regional System Formula (5309, CMAQ, STP)		\$1,063.34
Existing Regional System State of Good Repair Discretionary		\$1,271.63
Concept 3 FTA New Starts (Heavy, Regional, & Commuter Rail)		\$4,869.81
State Funds		
Existing Regional State of Good Repair		\$63.58
Concept 3 Heavy, Regional, Commuter Rail, and Suburban Bus Funds		\$2,400.01
Concept 3 Freeway Bus / HOT lanes		\$1,472.24
Local Funds		
Existing MARTA Sales Tax		\$5,845.89
Proposed Sales Tax (12 + equivalent in existing MARTA counties)		\$16,609.13
Other (Beltline TAD)		\$639.18
Other (TIP Funds)		\$574.31
Debt Issues		
Commercial Paper		\$3,545.00
Bond Proceeds: Fast Tracks		\$1,121.70
Bond Proceeds: Remainder of Concept 3		\$7,094.00

Table 5.5: Concept 3 Sources and Uses of Funds Summary

5.4 CONCLUSION

In order to move Concept 3 forward, the region will need work on implementing a workable long-term structure for the TIB while working with the state and federal levels on a workable and sustainable funding structure. Together, these key decisions will help to overcome the challenges currently facing the future implementation and success of Concept 3. Over time, Concept 3 will be refined from a regional transit vision to a detailed program of projects, with associated refinement in governance and funding, through the region's long term transportation planning process. The ability to pursue and implement Concept 3 will require the continuation of the regional partnership that was initiated and enhanced through the TPB. The region's transit officials will need to speak as a unified voice to a variety of audiences including the State legislature, the region's federal congressional delegation, and the general public.

Next Steps

6.1 CONTINUING TO ADVANCE REGIONAL TRANSIT AFTER TPB

At its December 2008 board meeting, TPB passed two significant resolutions that deal with its next two iterations.

First, a transitional TIB that continues the momentum and coordination efforts developed by TPB when the TPB sunsets in December 2008; works out the details to bring TIB into full-fledged operation as the regional implementation entity for metro Atlanta transit; and implements Concept 3. The key focus areas are:

- Continued stakeholder and public education regarding Concept 3.
- Funding and governance requirements needed to implementing Concept 3.
- Action plan to implement Concept 3.

Also significant is the desire among all of the TPB partner members to continue to work together to make regional transit a reality in metro Atlanta. This desire is coupled with the understanding that by setting a specific sunset timetable, each of the partners members recognizes that time is indeed of the essence and, in order to move Concept 3 forward, each member must be willing to continue to contribute energy in a focused and timely manner.

Also key is the continued agreement to move forward by the four sponsoring partners, ARC, GRTA, MARTA and GDOT, together with the 11 participating counties and the State. This group will continue their joint cooperation to staff, support and move TIB forward as follows:

- **ARC** will house the TIB as an Ad Hoc Committee of ARC under the guidance of the TIB Board with ARC continuing to provide a part-time staff person to TIB. Estimated at 1.5 full time equivalents (FTE) through a combination of staffers.
- **MARTA** will provide office space and serve as the administrative agent for and staff resources to the TIB Board and the continuation of regional transit coordination and implementation efforts. The existing TPB grant and remaining monies would be transferred from GRTA to MARTA. Estimated 2.0 FTE's through a combination of staffers.
- **GDOT** will provide staff assistance to support TIB efforts. Estimated ½ FTE.
- **GRTA** will provide staff assistance to support to support TIB efforts. Estimated 1.0 FTE's through a combination of staffers.
- **The 11 member Counties** will continue to provide assistance as requested from TIB staff to effectuate TIB's goals. This could include providing funding for TIB operations.
- **The State of Georgia** will continue to appoint three members to the TIB Board to promote the State's interest in transit.

The second resolution is also significant in that the TPB Board recognized the need to also focus the evolution of the TPB/TIB into a permanent and independent governance entity to implement, operate and maintain metro Atlanta transit once the various funding sources are identified and implemented.

6.2 2009 LEGISLATIVE SESSION: KEEPING TRANSIT AND FUNDING AT THE TABLE

During the 2008 Legislative Session significant progress was made in proposed legislation – SR 845 – that included language making all new funding available for all transportation purposes. Indications are that the 2009 Legislative Session will consider, and some say pass early, legislation that will be a refinement of constitutional amendment that failed by a narrow margin in 2008. Get Georgia Moving (GGM) has been active the entire year in advocating for passage of additional funding for transportation, including transit. TPB should continue participation and support of GGM efforts. Most widely discussed 2009 legislation in public forums and private discussions is a refinement of the regional T-SPLOST. TPB should monitor this 2009 legislative process closely to make certain these elements are included:

- New funding available for all transportation purposes.
- Regional control of projects proposed in new funding referendum.
- Ability of region to propose referendum to generate up to two percent additional.
- Implementation of transit projects should available to all agencies having expenditure authority.

Expenditures resulting from any new Federal stimulus for transportation infrastructure should include transit. These funds should also be available to all agencies having expenditure and implementation authority.

6.3 MAINTAINING THE REGIONAL PERSPECTIVE AND TAKING ACTION

The major challenge for the TIB, the region, and the State of Georgia is to continue to focus on the critical need to move forward. The metro Atlanta region needs mobility choices that first and foremost allow people to get to where they want and back again in a safe, efficient, cost-effective, and comfortable manner. Our region cannot continue to grow and prosper with the existing transportation options, nor can the region afford to view transportation as only an issue within specific political boundaries. There will be so many opportunities along the way to wait, ponder, pontificate, and spin around aimlessly, together with a great many justifications to do so.

TIB is the next first step for the region to stay focused on providing the mobility choice that continues its economic strength and vitality. If the region can stay focused on that goal and maintain its relentlessness towards achieving it, then it can continue to work together to make Concept 3 a reality.



Jordan, Jones & Goulding

6801 Governors Lake Parkway

Norcross, GA 30071

t 770.455.8555 • f 770.455.7391

www.jjg.com