

## Section 6: Financial Plan

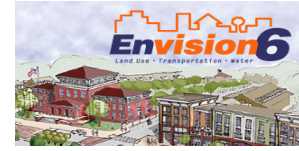
### *Introduction*

Since 2003, ARC has tracked worsening trends impacting the financial capacity of the region to fully fund needed transportation plans and programs. These trends included a probable decline in future federal transportation funding for transit and roads, increasing declines in the purchasing power of state motor fuel taxes, and rapid inflation in the construction industry. In April 2006, ARC staff informed the planning stakeholders that funding would not be available for projects not already included in the current RTP (*Mobility 2030*). By early 2007, it was apparent that projects and programs must be cut from *Mobility 2030* in order for *Envision6* to meet all fiscal constraint requirements, requiring rescheduling or dropping long range projects in cooperation with regional stakeholders. Never before has the Atlanta region had to remove projects from an existing RTP.

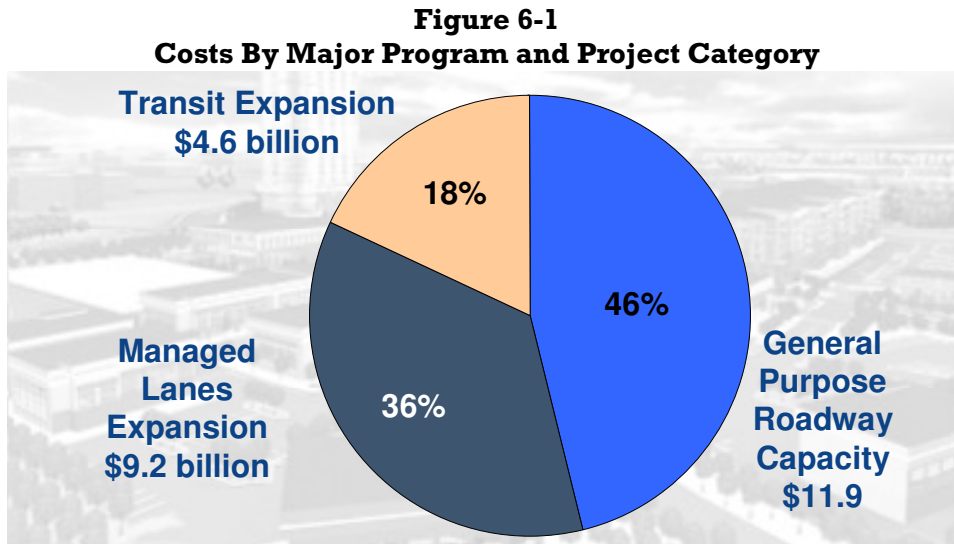
*Envision6* is now a financially constrained Regional Transportation Plan (RTP) that has sufficient financial resources to implement the proposed transportation strategies. New planning regulations released by USDOT in February 2007 (Federal register, Vol. 72, No. 30) require revenue and cost estimates contained in an RTP to use an inflation rate to reflect year of expenditure (YOE) dollars. This requirement must be met by December 11, 2007. ARC has met this requirement prior to the December 2007 deadline and has incorporated YOE cost and revenue data to financially balance *Envision6*.

A transportation plan is officially considered financially constrained when the federal government determines that it meets regulations found in federal law (Titles 23 and 49 U.S.C.). These requirements hold that long and short range transportation plans cannot propose to spend more money than reasonably anticipated revenues can pay for, including considerations for constructing, operating and maintaining planned projects. Not only is this balancing mandated, it is also sound fiscal policy. Once the federal government makes the official determination that *Envision6* meets all federal requirements, of which fiscal constraint is a component, projects can be funded and implemented as programmed in the plan.

As in Figure 6-1, *Envision6* includes an array of projects to strategically address, within expected revenues, the projected transportation challenges the region will face over the next 22 years. These figures include all project types including, but not limited to roadway, transit, Livable Center Initiative grants, smart corridors, and bike and pedestrian projects. Categorically, about 59% is spent just to maintain and operate the existing transportation system with 38% allocated for capital expansion and improvements. The remaining 3% is allocated towards demand management techniques such as signal timing, smart corridors, and access management projects. Overall, the transportation strategies in the RTP represent a \$67.6 billion investment



in the region’s infrastructure, with forecasted revenues reasonably anticipated to fund the transportation strategies.



This chapter provides a broad overview of fiscal constraint, with more detailed funding and cost tables provided in Appendix H.

## ***Forecasting Financial Resources***

Consistent with ARC practice, financial forecasts were developed in consultation with the U.S. Department of Transportation, Georgia Department of Transportation, Georgia Regional Transportation Authority, Metropolitan Atlanta Rapid Transit Authority, and the State Road Tollway Authority. Revenues to fund transportation plans and programs are anticipated from three primary sources – federal, state, and local funds. Following is an overview of the forecast methodology and primary assumptions for each funding source.

### **Federal Funding**

Federal funding for transportation is authorized through a transportation bill setting upper limits on funding for highways and transit facilities. Funding in the transportation bill comes from federal taxes on fuel, heavy-duty trucks, and, to a lesser extent, general funds. Tax revenues are tracked through the Highway Trust Fund (HTF) which is separated into two accounts – a highway account and a mass transit account. The highway account is by far the larger of the two accounts, comprising roughly 90% of the HTF.

Historically, the HTF has carried a positive net balance (or savings account) due to federal decisions to annually distribute or spend less than incoming tax revenues.



However, the balance of the HTF is declining rapidly. To incorporate this reality into federal funding forecasts, federal funding coming to Georgia was assumed to grow at an annual rate consistent with federal HTF revenue projections as reported by U.S. Treasury’s Office of Tax Analysis.

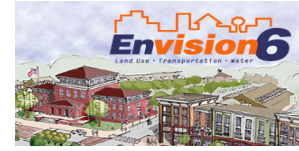
Fiscal year 2007 obligation limits for Georgia (the most recent annual funding released by the U.S. Department of Transportation) were used as the base for forecasting. When funding was available specifically for the Atlanta region (typical only for federal transit funding), Atlanta numbers were used rather than state level funding. All federal funds were estimated through year 2030, the horizon year of this RTP.

To estimate the Atlanta share of Georgia federal transportation funds, revenue shares were assumed to match historical regional population share growth trends consistent with Georgia’s process for drawing Congressional Districts. Federal and state transportation funds are required to be balanced by Congressional Districts, leading to balanced transportation spending based on population. The 2007 Atlanta 18-county region, as reported by the U.S. Census Bureau, accounts for 52% of Georgia’s population. It is anticipated that the population share will grow to 57% between the years 2014 to 2020, and reach 60% between 2021 and 2030. These shares are consistent with the funding Atlanta can expect from Georgia’s Congressional Balancing requirements.

As illustrated in Table 6-1, ARC forecasts that approximately \$17.2 billion of federal highway funds and \$3.9 billion of federal transit funds will be available to the region through the years 2008 to 2030. The available federal highway funds are net principal and interest payments on outstanding and anticipated bonds during the RTP timeframe. The Georgia Department of Transportation and the State Road and Tollway Authority provided information on bond debt payment. The total federal funding amount of \$21.1 billion meets the federal funding needs through the year 2030.

**Table 6-1  
Projected Source of Federal Funds for the Atlanta Region  
(excludes bond payments and proceeds)  
18-counties – in \$ billions**

Year	Federal		Total
	Highway	Transit	
2008 – 2013	\$3.4	\$0.9	\$4.3
2014 – 2021	\$4.4	\$1.1	\$5.5
2022 – 2030	\$9.4	\$1.9	\$11.3
<b>TOTAL</b>	<b>\$17.2</b>	<b>\$3.9</b>	<b>\$21.1</b>



## State Funding

The State of Georgia collects two types of taxes on motor fuels to help fund transportation investments.

1) Georgia collects a fuel excise tax - a fee or tax based on the volume (gallons) of fuel purchased. The amount of the excise tax on gasoline is 7.5 cents per gallon. Since this tax is based solely on the volume of gasoline sold, it is not indexed to inflation. Revenues increase only with an increase in roadway usage. Roadway usage rises either due to increases in the average daily miles a person travels or through an increase in the number of vehicles traveling in the region. However, revenue increases from travel are offset due to improved engine technology and higher fuel efficiency of vehicles.

2) Georgia also collects a 4% sales tax on the average retail price of fuel, referred to as a Prepaid State Tax. 3% is dedicated to transportation and the remaining 1% goes to the state general fund for other uses. Revenues from the motor fuel sales tax rise and fall with the price of gasoline. However, frequent fluctuations in the revenue stream are minimized by how Georgia collects the sales tax. The Prepaid State Tax is collected based on a cent per gallon rate that is set using a weighted average indexed retail sales price for each type of fuel. The weighted indexed retail sales price is determined and published in the months of November and May for use in the subsequent two calendar quarters.

Future Georgia motor fuel revenues are based on observed tax collections over the past two decades. To estimate the amount of the state motor fuel tax revenues coming to the Atlanta region, the same methodology as employed for federal highway transportation funds was used. \$10.1 billion is forecast to be available to the Atlanta region (see Table 6-2). The available state transportation funds are net principal and interest payments on outstanding and anticipated bonds during the RTP timeframe. The Georgia Department of Transportation and the State Road and Tollway Authority provided information on bond debt payment. The motor fuel funds meet the financial requirement for state funded projects *programmed* in the RTP through year 2030.

**Table 6-2**  
**Projected State Motor Fuel Funds for the Atlanta Region**  
**(excludes bond payments and proceeds)**  
**(18 Counties, in \$ billions)**

Year	Atlanta region State motor fuel funds
<b>2008-2013</b>	\$1.8
<b>2014-2020</b>	\$2.7
<b>2020-2030</b>	\$5.6
<b>TOTAL</b>	<b>\$10.1</b>



To supplement motor fuel tax revenues, the state allocates general funds to the Georgia Department of Transportation. These funds are typically earmarked for a particular use such as transit, airport aid, rail, and ports and waterways. For FY 2007, roughly \$17 million in general fund expenditures was allocated to the Georgia Department of Transportation. Over the past six years (FY2002 – FY2007), Georgia general fund expenditures to the Department of Transportation have ranged from \$13 million in FY2005 to \$18 million in FY2003. While in recent years, the state general fund expenditures have remained relatively stable, the concern remains that immediate needs in other sectors, such as education, could decrease general fund sources for transportation. General fund expenditures for transportation are not included in forecast state funds due to the potential uncertainty of those funds.

The State of Georgia also issues bonds to construct roads and transit facilities. Bond transportation funding is a valuable tool enabling needed facilities to be built sooner than the traditional pay as you go method. Bonds can be backed and transportation projects funded from a variety of anticipated state revenue sources including state motor fuel funds, federal transportation funds, toll revenue, or any combination of these sources. It is important to note, however, that bonds obligate future funds reducing the flexibility of future revenues. A balance must be maintained that allows needed projects to be built in a timely manner while still preserving sufficient future funds to meet currently unanticipated needs.

## Local Funding

Local funding for transportation comes primarily from two sources: Special Purpose Local Option Sales Taxes (SPLOST or local imposts) and local general fund expenditures. In the Atlanta region, local areas typically dedicate a portion of SPLOST revenues to fund transportation, with dedicated funds typically ranging from 30% to 100% of total SPLOST revenues. In 2006 alone, SPLOST revenues in the Atlanta region generated \$300 million. In addition, most counties have a long term history of approving and renewing SPLOST programs which typically run for around 5 years. SPLOST programs are subject to voter approval and run for a limited time frame, and are therefore not a dedicated guaranteed source of transportation funding. Similarly, local general fund expenditures for transportation must go through an annual budgeting process and compete against other uses. This makes general funds also a potentially unstable source of transportation funding. However, combined, SPLOST and local general fund revenue historically account for roughly 95% of all local transportation funding.

Local revenues reasonably expected to be available for transportation investments over the next 22 years (through year 2030) were based on an evaluation of historic funding levels from four sources – general funds, special assessments, SPLOST, and miscellaneous funds. FHWA reports historical local transportation expenditures from general funds, special assessments, and miscellaneous sources in the FHWA Statistics Reports series. For local imposts (or SPLOST) applied to transportation, a



survey of local entities was conducted to determine the current level of transportation expenditures. In addition, historical information on SPLOST data is available through the Georgia Department of Revenue.

In total, \$17 billion of local funds can reasonably be anticipated for the implementation of transportation strategies through the year 2030. Additional funding is available through transit fares, tolls, and other local revenue sources. This estimate excludes any local funds generated exclusively for transit such as local sales tax revenue dedicated to MARTA. Not all of these funds are allocated in the RTP as most local governments formulate five-year capital budgets to identify potential projects. These funds meet the financial requirement for locally programmed projects in this RTP through the year 2030.

## **Transit Funding**

### **MARTA Resources**

Adequate funding resources are available for MARTA over the life of the RTP to support MARTA sponsored projects in the plan. MARTA has several sources of funding including a dedicated local sales tax and farebox returns. MARTA receives proceeds from a 1% sales tax in the City of Atlanta, Fulton, and DeKalb Counties. As forecast by MARTA through a contract with Georgia State University, the sales tax generates approximately \$15 billion from 2008 through year 2030.

Importantly, in the spring of 2007, MARTA was granted an extension of the 1% dedicated sales tax through year 2047. The previous term of the sales tax was through year 2032. The extension represents approximately \$16 billion in additional revenue beyond 2032, and provides MARTA the opportunity to leverage additional funding sources, including bonds and other long term financing.

### **Transit Operating Funds**

The majority of transit operating funds must come from state and local funding resources as federal transit operating funds are very limited. In Georgia, as required by the Georgia Constitution, state motor fuel tax revenues cannot support transit or any transportation purpose other than roadways and bridges. Since there is not a dedicated state funding source for transit, the stability of state general funds allocated to transit as well as locally derived transit funds are crucial to the future of Georgia's transit systems.

MARTA is the only transit system in the region supported by a multi-jurisdiction sales tax as a dedicated funding source. Roughly 50% of the MARTA sales tax revenue can be allocated towards operation expenses. All other regional transit systems fund their operations out of the local government general fund.



For planned new systems, more financing options are available including state support, farebox returns, and local Tax Allocation Districts. Financial support for proposed long-range projects must be finalized before projects can be moved into the short-range TIP (2008-2013). The U.S. Department of Transportation requires a commitment for operating support from state, regional, or local governments before allowing federal funds to be spent on the construction and implementation of transit projects.

## ***Forecasting Project Costs***

New planning regulations released by USDOT in February 2007 (Federal register, Vol. 72, No. 30) require revenue and cost estimates contained in an RTP to use an inflation rate to reflect year of expenditure (YOE) dollars. This requirement must be met by December 11, 2007. ARC has met this requirement prior to the December 2007 deadline and has incorporated YOE cost and revenue data to financially balance *Envision6*. Below is an overview of the methodology used. More detailed information is found in appendixes H and I.

The first step ARC undertook in updating project costs was to place all cost information from *Mobility 2030* into current year dollars. All cost estimates contained in *Mobility 2030* were in 2004 dollars based on the costing tool and results of engineering and special planning studies.

To update *Mobility 2030* cost estimates to reflect current conditions, ARC contracted with a consultant to develop an updated costing tool. The consultant reviewed the GDOT online construction bid database to obtain current Atlanta area representative project cost information for a variety of project types, i.e., roadway widenings (by number of lanes), new location roadways, intersection improvements, and bridges. Project types were further broken into urban and rural categories. The bid tabulations (by project type) were then used to develop typical roadway costs on a per lane mile basis. To further refine the costing tool, discussions were held with GDOT personnel, local government DOT, local Public Works personal, transportation contractors, suppliers and design professionals.

ARC then used the updated costing tool to re-cost applicable projects in *Mobility 2030*. On average, capital construction cost estimates increased over 26% from 2004 estimates. There are a number of reasons for the rapid inflation of construction costs. Nationally, construction costs have risen at a higher rate than historical averages. These increases are due in part to hurricane reconstruction demands, rising fuel costs, and global demand for construction materials, particularly China's demand for concrete and steel. The large increases observed in the Atlanta region are typical of metro areas across the United States during the 2004 to 2007 timeframe.

In addition to using the updated costing tool, ARC staff conducted extensive outreach with local jurisdictions and project sponsors to further refine cost estimates. Often



this resulted in additional cost increases due to increasing project scope or previously unidentified costs such as environmental mitigation. This pushed the overall average cost increase to over 30%. Ultimately, the increases led to a multi-billion dollar funding shortfall (in current year dollars) making it necessary to remove projects from *Mobility 2030* in order to develop a fiscally constrained plan.

The final step in developing YOE cost estimates was to determine the appropriate inflation rate to use. ARC staff conducted a review of two construction inflation rate indexes – the FHWA road construction cost index (FHWA CCI) and a CCI published by McGraw Hill Engineering. The FHWA CCI contains a composite index based on national bid prices for 6 key items: common excavation (represents trends for roadway excavation), surfacing bid prices (Portland cement and Bituminous concrete), and structural bid prices (reinforcing steel, structural steel, and structural concrete). FHWA recommends the use of their cost inflation data in choosing an appropriate inflation rate. The McGraw Hill CCI is a composite index specific to the Atlanta area. The McGraw Hill index includes a labor component in addition to materials components. The labor component is 200 hours of common labor multiplied by the city average wage rate including fringe benefits. The material component consists of city prices on fabricated standard structural steel, bulk Portland cement, and lumber. For both indexes a 22-year average annual inflation rate from 1982-2003 was evaluated. Both indexes showed a long range annual average inflation rate of roughly 2.2%.

This annual average inflation was used as the basis for placing projects into YOE costs. Per discussions with the GDOT, project costs in their Comprehensive Work Program (a 6-year program) regardless of project sponsor are already in YOE. Therefore, no inflation rate was applied to projects in the GDOT Comprehensive Work Program for years 2008 - 2013. All other projects in the first 6-years of the RTP (2008-2013) were placed into YOE estimates based on the anticipated opening date of the project. Outside of the first 6-years of the RTP, most projects do not have a specific open to traffic date and are, instead, grouped into time periods of 2014-2020 and 2021-2030. In these cases, YOE was considered 2016 and 2025 respectively. For lump sum funding (funds set aside for a particular use such as right of way costs but not applied to a specific project) no cost inflation was applied.

After placing project costs into YOE dollars, a \$4.3 billion funding shortfall was identified. Addressing this financial crisis was an overriding issue throughout the development of *Envision6*.

## ***Financial Plan Balancing***

The RTP includes approximately \$67.6 billion in projects through 2030 in year of expenditure (YOE) dollars (see Figure 6-2). Adequate resources are available to implement *Envision6*. The RTP is also balanced by planning period (2008-2013, 2014-2020, and 2021-2030).



**Figure 6-2**  
**Envision6 System Funding**

