



CONNECT400

GA 400 TRANSIT INITIATIVE

Alternatives Analysis

PURPOSE AND NEED REPORT

Prepared for:
Metropolitan Atlanta Rapid Transit Authority

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Atlanta, GA

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1.0 Introduction

The Metropolitan Atlanta Rapid Transit Authority (MARTA) has undertaken the Georgia 400 Corridor Alternatives Analysis (AA) in an effort to identify potential transit improvements for portions of northern Fulton County. The study area, shown in Figure 1-1, includes the Georgia State Route 400 (GA 400) expressway between I-285 and the county line separating Fulton and Forsyth. The AA will result in the identification of a transit alternative (or alternatives) that best addresses the transportation needs in this study area.

The entire study area lies within Fulton and DeKalb Counties and includes all or portions of the cities of Sandy Springs, Dunwoody, Roswell, Alpharetta, and Milton. Travel patterns in jurisdictions adjacent to the study area including the cities of Atlanta, Johns Creek, and Mountain Park, as well as Gwinnett, Forsyth and Cobb Counties will also be assessed. Major high traffic volume arterials within the study area include portions of Interstate 285, GA 400, Georgia State Route 9 (SR 9 or Roswell Road), Hammond Drive, Abernathy Road, Northridge Road, Holcomb Bridge Road, Mansell Road, Haynes Bridge Road, Old Milton Parkway, and Windward Parkway.

Several previous planning studies have helped guide the development of the Purpose and Need document. A complete listing and summary of each study can be found in the *GA 400 Corridor Existing Conditions and Future Trends Report (July 2012)*.

FIGURE 1-1:
GA 400
Corridor
Study Area



Source:
AECOM/JG Joint Venture

1.1 Project Purpose¹

The purpose of the project is to provide reliable, convenient, efficient, and sustainable transit service in the GA 400 corridor by:

- Providing high capacity transit (bus and/or rail) through the GA 400 corridor study area,
- Improving transit linkages and coverage to communities within the study area, and
- Enhancing mobility and accessibility to and within the study area by providing a more robust transit network that offers an alternative to automobile travel.

1.1.1 Problem Statement

The GA 400 study area is challenged by low-density, single use land use patterns which require increased automobile use, a fragmented and discontinuous roadway network, and a lack of transportation options in the corridor. Further, as a result of the lack of transportation options, a high proportion of trips are made on GA 400 and SR 9 since they are the only available north-south routes. In addition to roadways, a majority of the transit routes follow a similar north-south pattern, limiting mobility for citizens that require east-west movement to and through the study area.

Transportation-related problems caused by these conditions include:

- Increasing levels of roadway congestion within the corridor
- Limited mobility options
- Longer transit travel times compared to auto.
- Increasing travel demands

These problems also contribute to, and interact with other problems, that can be summarized as follows:

- Constrained economic development
- Delayed construction of transportation improvements due to funding shortfalls
- Continued growth of vehicular traffic negatively affects the study area's air quality

1.2 Need for the Project

During evaluation of the mobility problem and travel conditions within the GA 400 corridor study area and through the public involvement process, the following themes emerge that reinforce the need for transportation improvements.

- Travel demand - Increased travel demand and traffic congestion is expected to result from:
 - Growth in population, employment, and households
 - Increases in the elderly population, and
 - High percentage of minority, low-income, and zero-car households populations in the study area
- Transit mobility - There is inadequate transit connectivity between northern Fulton, DeKalb, Gwinnett, and Cobb Counties, including east-west travel; and limited north-south roadway connectivity across the Chattahoochee River.
- Transit travel times - Transit travel times are not competitive with auto travel times for trips within the study area or for trips with origins and destinations outside the study area.
- Economic development - Traffic congestion caused by insufficient transportation system capacity affects both personal travel and goods movement, which constrains economic development opportunities.
- Air quality - The continued growth of vehicular travel will negatively affect air quality in the study area and the region.

1.2.1 Travel Demand

Given the number of existing major activity and employment centers and the high level of projected growth over the next decade, there is a need to provide transportation options within the GA 400 corridor. The resulting multimodal system would accommodate anticipated increases in travel demand and provide improved connections and access to the regional transportation system as well as provide relief to the already congested conditions. The *Existing Conditions and Future Trends Report July 2012, Appendix, Section 2.0* provides detailed data pertaining to travel demand.

1.2.2 Transit Mobility

The current supply of transit service for much of the study area is limited. While MARTA heavy rail transit provides a high level of regional service connecting the southern portion of the study area to central Atlanta, the larger central and northern portions have only bus routes that serve primarily as feeder service to the North Springs MARTA Station. The Georgia Regional Transportation Authority (GRTA) operates one Xpress bus service in the study area. The #400 line begins at the Park & Ride lot in Cumming and has an intermediate stop at the MARTA North Springs station, before continuing downtown. The service begins at 5:45 AM and ends at 7:00 PM. There is also a limited south-to-north "reverse commute" schedule.

With travel demand already exceeding existing capacity, the forecast increase in study area travel trips will be challenging to accommodate with the existing transportation system,

¹ The Project Purpose statement may be modified as the project moves forward in order to best serve corridor needs.

including travel from the east and west. A new transit solution that diverts study area travel demand to transit and serves the predominant travel patterns would improve mobility by adding increased transit capacity and improved connections with existing transit services. The *Existing Conditions and Future Trends Report July 12, Appendix, Section 4.0* provides detailed data pertaining to transit mobility.

1.2.3 Transit Travel Times

The major factor influencing transit travel times in the study area is roadway congestion. Average travel times from the Windward area to Downtown Atlanta by transit during the morning peak period are forecast to increase from 94 minutes in 2010 to 116 minutes in 2040. From the North Point area to Downtown, average travel times are forecast to increase from 77 to 84 minutes. Increased travel time on highways and arterials not only impacts commuters in automobiles, but also those currently using public transit. Buses using the study area highway and roadway network are increasingly delayed in traffic congestion. This constraint affects schedule reliability and efforts to coordinate transfers. An added high-capacity transit alternative using dedicated rights-of-way would provide travelers with a travel alternative that could result in more reliable and shorter travel times within the study area and to the south. Dedicated right-of-way permits the transit vehicle to travel unimpeded, as compared to sharing space in the general travel lanes. Improved bus connections to existing and future transit could improve travel times for commuters to and from the east and west. The *Existing Conditions and Future Trends Report July 2012, Appendix, Section 4.5* provides detailed data pertaining to transit travel times.

1.2.4 Economic Development

The overburdened transportation system limits the land development capacity and quality of life in developed areas and can restrain emerging areas from reaching their full potential. The combination of increasing traffic congestion, commute distances, and commute times is threatening the ability of study area cities to attract and retain employment. Because preserving the quality of life and economic competitiveness are mutually reinforcing goals, planning and management of the infrastructure serving the study area must support economic development that is sustainable. The *Existing Conditions and Future Trends Report July 2012, Appendix, Section 2.0 and 6.0* provides detailed data pertaining to economic development.

1.2.5 Air Quality

The heavy reliance of Atlanta area residents on single occupant automobile travel has resulted in high vehicle miles traveled (VMT) per person, traffic congestion, and subsequent high levels of air pollution. Without the infrastructure to support more compact development

patterns coupled with non-automobile based transportation options, automobile use will continue incurring its negative environmental and social impacts. Due to the air quality problems in the Atlanta region, there is a need to identify and implement transit investments that result in reductions in air pollution. The *Existing Conditions and Future Trends Report July 2012, Appendix, Section 3.5* provides detailed data pertaining to air quality.

1.3 Goals and Objectives

The goals and objectives of the GA 400 corridor project are as follows:

Goal 1: Improve Mobility and Access:	
PROBLEMS	GOALS AND OBJECTIVES
<ul style="list-style-type: none"> Levels of roadway congestion are forecast to increase along the corridor. Transit mobility options are limited. Transit travel times are not competitive with auto travel times in the corridor. Travel demands are increasing. 	Improve transit access and connectivity to employment, education, residential, and activity centers within the study area and the region
	Increase transit ridership and capacity
	Improve transit travel times and reliability for all trip purposes
	Improve multimodal connections and access to the existing transit systems
• Goal 2: Support Land Use and Economic Development Planning:	
PROBLEMS	GOALS AND OBJECTIVES
<ul style="list-style-type: none"> Economic development is constrained. 	Ensure consistency with land use plans of study area jurisdictions
	Support planned and potential economic development
	Provide opportunities for compact land development that supports transit ridership
Goal 3: Provide Cost-Effective Transit Service:	
PROBLEMS	GOALS AND OBJECTIVES
<ul style="list-style-type: none"> A funding shortfall slows the construction of transportation improvements. 	Maximize operating and cost-efficiency
	Match the transportation investment to the study area's level of travel demand
	Provide a cost-effective transit system
Goal 4: Minimize Environmental Impacts:	
PROBLEMS	GOALS AND OBJECTIVES
<ul style="list-style-type: none"> Continued growth of vehicular traffic will negatively affect the study area's environment. 	Avoid, minimize, and mitigate impacts to cultural, historic, and environmentally sensitive areas
	Avoid, minimize, and mitigate negative impacts on the surrounding community including parks