



CONNECT4

GA 400 TRANSIT INITIATIVE

Alternatives Analysis

EXISTING CONDITIONS AND FUTURE TRENDS REPORT

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Metropolitan Atlanta Rapid Transit Authority

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1.0 Introduction

The Metropolitan Atlanta Rapid Transit Authority (MARTA) has undertaken this study to identify potential and feasible transit modal alternatives in the Georgia State Route 400 (GA 400) corridor to address future travel demands. The GA 400 study area is characterized by low-density, scattered land use patterns that are automobile-dependent, a fragmented and discontinuous roadway network, and a lack of transportation options in the corridor. Further, due to the lack of transportation options, a high proportion of trips utilize GA 400 and State Route 9 (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. To this end, the GA 400 Corridor Alternatives Analysis (AA) is intended to identify improved travel options, enhanced transit services and access to jobs for the commuters and residents in the corridor.

The Existing Conditions and Future Trends Report provides an assessment of the socioeconomic, land use, environmental and travel conditions that potentially support the case for a major transit investment in the study area. This document highlights the key information pertaining to known features, trends, opportunities and constraints that may warrant further analysis as the project advances through the study process. A Technical Appendix has been designed to provide details on the extensive data collected and analyzed to support the findings of this report.

1.1 Study Area Definition

The GA 400 corridor is the transportation spine of northern Fulton County, one of the fastest growing sub-regions in the Atlanta region. The GA 400 Corridor AA addresses the travel market generally extending north along GA 400 from I-285 to the Fulton – Forsyth County boundary, a distance of approximately 15 miles. The GA 400 corridor study area is home to many large employers. The southern portion of the corridor, Perimeter Center, one of the largest employment centers in the region. The study area, shown in Figure 1-1, centers on the GA 400 corridor and includes areas on either side of the highway.

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 accessed. Major high traffic volume arterials within the study area include portions of Interstate 285, GA 400, 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.

1.2 Project Background

While assessing the existing conditions in the study area, particularly the mobility and travel issues along with the demographics, several themes emerged that reinforced the need for transportation improvements. These included the increased

travel demand and traffic congestion projected to result due to increases in population (especially the minority, low-income, and transit dependent), employment and households. Other themes involved an overall lack of transit mobility (especially regional connectivity), noncompetitive transit travel times, constrained economic development (due to the effect of congestion on moving goods), and the negative impact to air quality in the study area.

Additionally, the many prior studies in the GA 400 study area also indicated that the combination of land use patterns along with the limited transportation options contributed heavily to the roadway congestion, and increased demand on the existing infrastructure¹.

In February 2003, MARTA initiated a North Line AA to evaluate potential expansion alternatives and to select a locally preferred alternative (LPA) for a North Line extension. During the course of this analysis, ridership projections suggested that the study area was not sufficiently transit supportive due to a combination of high incomes and low household and employment densities. Consequently, a decision was made to redirect future planning activities. The North Line Transit-Oriented Development Study, a land use and market analysis was undertaken.

The intent of this study was to assess the potential for transit-oriented development (TOD) and to encourage new development patterns along the GA 400 corridor to support future MARTA expansion in northern Fulton County. It promoted an understanding of TOD concepts, strategies, and opportunities among local communities along the GA 400 corridor. TOD refers to development activity located along or within walking distance to transit routes or stations that mixes residential, retail, office, and public uses in a walkable environment, making it convenient for residents and employees to travel by transit, bicycle or foot. In the past ten years, the study area has changed significantly, emerging as one of the fastest growing sub-regions in the metropolitan Atlanta region with some of the densest employment zones. A stronger integration between land use and transportation can counter many of the problems associated with low-density development by providing enhanced, lower-cost mobility options for residents and workers. Job centers that are clustered along major urban travel corridors have strong potential to support enhanced transit. Furthermore, the transformation of single-use suburban job centers to compact, mixed-use districts also offers the opportunity for shifting travel habits for mid-day convenience trips in addition to the commute trip.²

Concept 3, the vision plan for regional transit that was adopted by the Transit Planning Board in late 2008, also addresses the corridor. The MARTA Board and the constituent governments in the MARTA service area, including Fulton and DeKalb Counties, endorsed this plan. The *Concept 3* vision is also incorporated into the 2011 update of the Regional Transportation Plan (RTP), Plan 2040, prepared by the Atlanta Regional

Commission (ARC). The corridor is also being addressed in the *Atlanta Northside Strategy: A Northern Metro Atlanta Suburbs Comprehensive Transit Feasibility Study* and is included in the Georgia Transportation Investment Act of 2010 (TIA 2010) project list.

1 The potential for an expansion beyond the MARTA "Red Line" at North Springs was addressed in the MARTA Three Corridors Feasibility Study, which examined three areas for potential heavy rail extensions. The Three Corridors Feasibility Study concluded that both the West (Blue Line) and North (Red Line) corridors were feasible alternatives for extending the MARTA heavy rail system.

2 Transit Oriented Development and Employment. Dena Belzer and Sujata Srivastava of Strategic Economics, Jeff Wood of Reconnecting America, and Ellen Greenberg of ARUP. Center for Transit-Oriented Development, May 11, 2011



Figure 1-1:
GA 400
Corridor
Study Area

Source:
AECOM/JJG Joint Venture



2.0 Key Findings

As stated earlier, the current development patterns in the in the GA 400 study area are typified by suburban sprawl, low-density growth patterns, and a fragmented roadway network with limited north-south and east-west options. In assessing the existing conditions for the study areas, numerous themes or findings emerged in the areas of socioeconomics, land use, natural and historic resources, and the transportation network. The following sections provide the key findings of the conditions in the GA 400 corridor study area, particularly as they relate to the potential transit improvements

2.1 Socioeconomic Conditions

Although transit feasibility is linked to both population and employment densities, it is important to note the considerably higher share of study area employment when compared to its population. The employment sector is the predominant transit market in the study area. The study area is projected to experience a 45 percent increase in jobs by 2040 and will remain a strong activity center and economic base for the region. This trend will further burden an already constrained transportation system as more people commute to the many employment centers in the study area. The GA 400 corridor is an affluent and prosperous commuter corridor in the north-central portion of the Atlanta region. Additionally, the number of people who take transit to work or who have no car are both limited in number. These trends present an excellent opportunity to attract more riders who are not transit-dependent.

Key findings regarding socioeconomic conditions include the following:

- **Population Growth** – The study area population has grown at a more rapid rate than the surrounding northern Fulton County as a whole during this last decade. In 2000, the study area population was 119,082 residents. The 2010 US Census indicates an increase of 22 percent to 145,156. Forecasts predict the population to grow to 164,150 by the year 2040, a 10 percent increase over the year 2010 population. A growing population will continue to place demands for additional transportation capacity on an already overburdened transportation system in the study area and the region. Figures 2-1 and 2-2 in the Appendix present population density.
- **Employment Growth** – Forecasts predict the study area will become an increasingly important destination for work trips. Employment is forecast to grow from 147,144 jobs in the year 2009 to nearly 212,861 by the year 2040, a 45 percent increase. Assessments of transportation impacts will need to consider the changing travel patterns that are likely to result from this growth in employment and changes to the housing and employment balance in the corridor. Figures 2-3 and 2-4 in the Appendix present employment density.
- **Transit Use** – According to the US Census, approximately four percent of the residents 16 years of age and older in the study area currently use transit to get to work. Improvements in transit, bicycle, and pedestrian facilities in the corridor may provide significant mobility and quality of life enhancements for these residents as well as those who own private automobiles but may choose to use other modes of transportation for a share of their trips. According to the ARC Regional Travel Demand Model, approximately two percent of all trips within the study area are made using transit.
- **Potential Choice Riders** - Choice transit riders are defined as residents of the study area who have access to an automobile, yet choose to ride transit regularly. The study area's 2009 median household income was \$86,670, which is 60 percent higher than that of the Atlanta Metropolitan Statistical Area (\$51,950). Likely factors to influence choice riders are convenience, time-competitiveness of transit and/or proximity to employment locations.

- **Community Diversity** – About 44 percent of study area residents are from minority populations, about eight percent of all residents are defined by the US Census as being in poverty, and over nine percent are over the age of 65. Maintaining and enhancing the character and functionality of the study area neighborhoods will be an important consideration in assessing potential project impacts.

2.2 Land Use, Zoning, and Local Plans

Although the study area contains many large activity centers, suburban employment centers and major trip generators, the generally low-density, dispersed nature of the existing land uses and development patterns could provide a challenge to effective service through transit. The study area has witnessed significant levels of major development in recent years and it is likely this trend will continue. Further, an analysis of planned future land uses in the study area indicates support for higher-intensity development in many locations. This is specifically evident in support for large-scale mixed-use development, which is particularly supportive of transit ridership. Numerous LCI's in the study area also promote TOD adjacent to potential or existing transit stations. Given the land use policy framework of study area jurisdictions, it is likely future development will feature more transit-supportive characteristics than existing development and contribute to improved transit accessibility.

With the significant amount of office and retail employment found throughout the study area, there is the potential to maximize transit investment from the significant level of two-directional ridership during peak commuting times, as opposed to single-directional ridership found in a primarily residential corridor.

Key findings regarding land use, zoning and local plans include the following:

- **Land Use** – Predominant existing land uses in the study area include residential (52%), commercial (24%), and open space (13%). Future land use plans show that residential uses will continue to be the dominant type of use, but mixed-use development will increase, especially along major corridors. Developments of regional impact (DRIs) have been concentrated in the Perimeter Center area and in the northern portions of the study area. Figures 2-12 and 2-19 in the Appendix depict existing land uses and recent DRIs.
- **Related Plans and Efforts** – A comprehensive review of relevant plans and studies was conducted that included seven Comprehensive Plans, ten Livable Centers Initiatives (LCIs), and other corridor and subarea studies throughout the study area. These studies are used to determine areas ideal for TOD. Implementing transit in places that are consistent with these plans is particularly helpful as these places already have the local stakeholder support and the recommended changes to local development regulations in these locations have already been made. There is a demonstrated interest in

focusing development in the major activity centers such as the Perimeter Center area, Roswell Town Square and North Point Mall area. Section 4.4 of the Appendix discusses the jurisdictional Comprehensive Plans and Section 6.0 details each of the relevant corridor and sub-area studies in the corridor.

2.3 Environmental Features

The study area is home to the Chattahoochee River and associated park lands which are valuable natural resources and recreational assets. The Chattahoochee River crossing at I-285 may pose significant engineering issues and cost implications as negative impacts to the natural and cultural system must be avoided to the extent possible. Similar to the natural resources, state and federal regulations protect these community facilities from disruptions and negative impacts. A more detailed examination of the potential environmental impacts will need to be conducted as the alternatives are developed and advanced through the project development process. Key findings regarding the natural and built environments include the following:

- **Water Resources** – Preliminary research identified 681 acres of wetlands, 2,016 acres of floodplains, and six named rivers and streams within the study area. The crossing of the Chattahoochee River could be a significant consideration in the development and analysis of potential alternatives. Many of the water resources within the study area are co-located with parks. Figures 3-1 and 3-2 in the Appendix present water resources.
- **Contaminated and Hazardous Materials Sites** - Preliminary assessments have identified five sites of potential concern. Further research conducted as part of the study process may yield even more potential contaminated and hazardous materials sites.
- **Parks** - The study area includes 1,850 acres of parkland that consists of portions of 31 public parks. Parks are frequently along natural areas and water resources. Local plans show considerable community support for parks and a desire for physical continuity and community access. See Figure 3-3 in the Appendix for a depiction of parks and their location relative to water resources.
- **Historic and Cultural Resources** - Preliminary research has identified eight sites and one district in the study area that are listed on the National Register of Historic Places. Approximately 527 other sites and seven districts were identified as having potential historic significance. Eight historic cemeteries and 11 archaeological sites are also located in the study area. Historic and cultural resources are predominantly found along SR 9, the study area's original travel corridor and the location of the historic town centers of Alpharetta, Roswell, and Sandy Springs. See Figure 3-4 in the Appendix for a depiction of historic and cultural resources in the study area.

2.4 Transportation Conditions

Roadway congestion coupled with a high dependence on automobile travel has had an adverse impact on mobility. Travel demands are increasing but mobility options are limited because transit travel times are not competitive with auto travel times. The relatively small share of transit trip growth can be attributed to the limited amount of transit projects planned in the region. Findings from this Existing Conditions and Future Trends Report support this assertion. Key findings regarding land use, zoning and local plans include the following:

- **Congestion** - Of the 19 arterial roadways in the study area, only seven have a Volume-to-Capacity (V/C) ratio under 1.0 in the year 2010. In 2040, only three forecasts to have a V/C ratio under 1.0 and two roads, McGinnis Ferry Road and Glenridge Connector are forecast to have a V/C ratio of 2.0. Figures 4-3 and 4-4 in the Appendix present roadway traffic volumes.
- **Transit Mobility** - Transit service in the study area is not time competitive with automobile travel or used as frequently. According to ARC’s travel demand model, transit travel times are significantly longer relative to automobile travel, and transit provides a significantly smaller share of all trips. Without exclusive rights-of-way, the buses that provide transit service north and west of the North Springs MARTA Station must share the congested roadways with other motor vehicles. The planned introduction of managed lanes on GA 400, if shared with transit, could improve transit travel times. However, between the years 2010 and 2040, as additional improvements are completed, forecasts predict the number of transit trips produced by and attracted to the study area will increase by 32.5 and 41.5 percent, respectively. Figure 4-1 in the Appendix presents existing transit service.
- **Travel Demands** - Application of the regional travel demand model provided the following data pertaining to trip volumes to, from, and within the study area. The number of year 2010 trips and 2040 forecasted trips, for all trip types, was calculated. Table 1-1 summarizes the trip volumes from, to, and within the study area. Between the years 2010 and 2040, the travel demand model forecasts an increase of trips from the study area of 28.7 percent, trips to the study area of 45.4 percent, and trips within the study area of 35.6 percent. Trips to and from Forsyth County are forecast to increase by approximately 90 percent during this period. Figures 4-7 and 4-8 in the Appendix present travel volumes.

- **Related Plans and Efforts** - In accordance with the findings of Plan 2040, the GA 400 corridor is designated as a Regional Employment Corridor ¹. These are the areas proposed for increased housing and employment density, and focus of improved connectivity between Regional Centers and the Region Core. Nineteen transportation related studies were reviewed as part of the data collection efforts. These plans include individual city comprehensive transportation plans, detailed in Section 4.4 of the Appendix, and a number of transit studies conducted by various local and regional agencies. Many of the findings from these studies recognize transit improvements as a significant need in order to address the mobility and accessibility issues in the study area.

TABLE 1-1: Daily Person Trips

	2010	2040
From study area (Productions)	362,900	467,100
To study area (Attractions)	682,600	992,600
Within study area (Productions and Attractions)	454,500	616,200

Source: ARC Travel Demand Model 2011

¹ Regional Employment Corridors represent the densest development outside of the Regional Core and connect the various Regional Centers and the Regional Core via existing and planned high capacity transportation facilities.



3.0 Public and Stakeholder Input

Extensive public and stakeholder outreach has been ongoing to engage the public in the AA process by receiving feedback and/or information to supplement the technical analysis. The outreach process includes numerous interviews with elected officials, key stakeholders and agency partners. Furthermore, the project team has formed a Project Steering Committee (PSC), which is the advisory committee established to guide the study process. The PSC is made up of the Stakeholder Advisory Committee (SAC) and Technical Advisory Committee (TAC). The SAC includes key members of the community, elected officials, residents and area employers to provide community insight and input on major project themes. The TAC is made up of representatives from state, local, and federal agencies who are responsible for providing input on technical and policy framework. In addition, a public meeting was held on January 26, 2012 to present the initial findings of this report and obtain feedback from the public. Highlights and re-occurring themes from the public and stakeholder outreach to date include the following:

- Improve east/west connectivity
 - Increase north-south and east-west transportation capacity
 - Improve multi-modal connections and access to existing transit systems
 - Coordinate with existing and future land use plans
 - Support planned and potential economic development
 - Provide opportunities for compact land development that supports transit ridership
- Connect to population and employment centers
 - Establish a funding source for transportation improvements
 - Increase number of bicycle/pedestrian facilities
 - Increase number of pedestrian-scale roadways
 - Improve communications between agencies (cities, counties, ARC, MARTA, GDOT, etc.)



4.0 Conclusion and Next Steps

The GA 400 corridor study area consists of diverse neighborhoods served by a rich resource of community facilities and public services. The lack of public transportation service, combined with a history of a lower density land development is typical of suburban and exurban development. Recent planning efforts, the nature of identified transportation projects and land use plans reveal a preference for a change in this development pattern and its associated impacts on quality of life. These changes include the development of identified areas for transit-supportive development in close proximity to GA 400. This reveals potential for successful development of improved transit services.

The demographic analysis indicates that there is potential to capture the transit market in the study area given the appropriate transit investment. There is support for future higher-intensity development in many locations throughout the study area. Evidence of this support is included in the numerous LCI's and other plans that promote transit-oriented development. Further, the combination of transit-supportive residential development and dense employment centers in the study area can support an efficient transit service by facilitating two-directional ridership (i.e., reverse commute) during peak travel times. The important transit travel markets appear to be study area residents traveling to jobs within the GA 400 corridor, commuters from outside the study area (within the I-285 Perimeter), and employees traveling to the major activity centers from adjacent communities outside the study area.

This report provides an overview of the key findings in the study

area and some of the projected trends that will continue in the future. Refer to the Technical Appendix for more detailed data, maps, and quantitative information that will be used to establish the Purpose and Needs of the project and to help identify transit alternatives.