I-20 EAST TRANSIT INITIATIVE

Purpose and Need Report

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Metropolitan Atlanta Rapid Transit Authority

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EXECUTIVE SUMMARY

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is undertaking the I-20 East Transit Initiative. This project seeks to identify transit investments that would increase east-west mobility and accessibility to jobs and housing, provide improved transit service, and support local land use and economic development goals within the corridor.

The intention of this report is to identify and detail the purpose and need for transit improvements in the corridor. This report will provide an overview of the stakeholder involvement, the previous studies in the corridor, the existing and planned transportation system and travel trends, as well as the demographics and land uses within the corridor.

Purpose and Need Statement

The purpose of the I-20 East Transit Initiative is to provide transit investments that enhance east-west mobility and improve accessibility to residential areas and employment centers within the corridor. The existing and future roadway congestion in the I-20 East corridor will have an increasingly detrimental effect on automobile and bus transit travel in the corridor. The proposed transit investments are intended to improve travel times and travel reliability by providing a rapid transit service for commuters traveling to and from central Atlanta.

Challenges in the Corridor

Based on the evaluation of existing and projected conditions, in conjunction with stakeholder input, the major challenges in the I-20 East Corridor that need to be addressed are:

- **Traffic congestion causes delay and slow travel times** – Over the past few decades, the I-20 East Corridor has experienced substantial growth, which is projected to continue, with a 26 percent increase in population and a 46 percent growth in employment between 2005 and 2030. This rapid growth has driven a steady increase in traffic volumes and congestion. This congestion has resulted in a continued degradation of travel within the corridor and is expected to worsen in the future. For example, the projected 64 percent increase in volumes on I-20 by 2030 is anticipated to increase travel times by 20 to 33 percent.

- **Inadequate access to downtown and other employment centers** – Due to increasing congestion of study area roadways, the transportation system within this corridor has been unable to keep pace with the high demands placed on it by the rapid growth. By 2030, the Level of Service (LOS) on most segments of I-20 is projected to be unacceptable (LOS E or F). Analysis reveals that downtown Atlanta represents the largest single destination for all trips within the corridor. By 2030, access to downtown Atlanta for much of the eastern portion of the study area will be constrained, with travel times to and from downtown Atlanta exceeding one hour.

- **Limited east-west roadways; I-20 is the only real choice** – Commuters traveling the I-20 East Corridor have few options for efficient east-west travel. I-20 is the only viable choice for travel of any distance. The lack of effective travel options continues

to burden the system, particularly those traveling to and from Downtown Atlanta and other major employment centers. Without alternative east-west travel options, increasing congestion on I-20 will serve to further limit mobility in the corridor.

- **Limited planned transportation projects in corridor to accommodate growth** – The lack of viable east-west travel options in the corridor is exacerbated by a long range transportation plan that contains very few projects to address this need. There are no planned projects to provide additional general use lanes or managed lanes to I-20 by 2030. With no planned improvements to I-20 or parallel facilities, east-west mobility in this growing study area will continue to degrade.

- **Insufficient transit service for a growing demand** – Analysis results revealed that transit trips in the corridor are expected to increase at a much higher rate (77 percent) than that of total trips (36 percent). With most of the study area served only by local and express bus service, the need exists for additional investment in transit for the study area.

- **Express buses operate in normal traffic** – The existing express bus services in the corridor are subject to the same congestion and delay as automobile commuters. Despite the lack of travel time benefit, Georgia Regional Transportation Authority (GRTA) *Xpress* service ridership has increased by 300 percent within the I-20 East Corridor from 2006 to 2009, further demonstrating the need for additional transit investment in the corridor.

- **Areas of the corridor are in need of revitalization** – There are many parcels, neighborhoods and communities along the I-20 East Corridor that are vacant, blighted, and underutilized. These areas provide excellent opportunities for redevelopment.

- **Limited transportation options for traditionally underserved populations** – There are a large number of low-income, minority, elderly, and transit dependent populations along the corridor. These traditionally underserved populations have limited access to premium transit.

Needs for the I-20 East Transit Initiative

Given the challenges facing the study area, improved transit service in the I-20 East Corridor is being investigated to address the following needs:

- **Improved Mobility and Accessibility in the Corridor**
  - Traffic congestion causes delay and slow travel times
  - Inadequate access to downtown and other employment centers
- **Additional Travel Options in the Corridor**
  - Limited east-west roadways; I-20 is the only real choice that spans the entire corridor
  - Limited planned transportation projects in the corridor to accommodate growth
- **Improved Transit Service in the Corridor**
  - Insufficient transit service for a growing demand
  - Express buses operate in normal traffic

  - Limited transportation options for transit dependent and elderly populations
- **Support Land Use and Development Goals within the Corridor**
  - Areas of the corridor are in need of revitalization

1.0 INTRODUCTION

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is undertaking the I-20 East Transit Initiative. This project seeks to identify transit investments that would increase east-west mobility and accessibility to jobs and housing, provide improved transit service, and support local land use and economic development goals within the corridor.

The study area for the I-20 East Transit Initiative extends from central Atlanta eastward along I-20, through DeKalb County, and into Rockdale County (see **Figure 1-1** on page 1-2). While the study corridor for the proposed transit service follows I-20 from downtown Atlanta to the Mall at Stonecrest in eastern DeKalb County, the area of influence extends well beyond the corridor.

The intention of this report is to identify and detail the purpose and need for transit improvements in the corridor. This report will provide an overview of the stakeholder involvement, the previous studies in the corridor, the existing and planned transportation system and travel trends, as well as the demographics and land uses within the corridor. The information presented will serve to illustrate the need for a transit investment in the I-20 East Corridor.

As documented herein, the Purpose and Need for the I-20 East Transit Initiative was developed through a two-step process:

- Step 1: Identify and engage stakeholders to provide input and feedback into the needs of the I-20 East Corridor and the goals of this project.
- Step 2: Conduct the necessary technical analysis and review of previous studies to confirm and detail these identified needs.

The document that follows primarily describes the characteristics and findings from this process to develop the Purpose and Need for the I-20 East Transit Initiative.

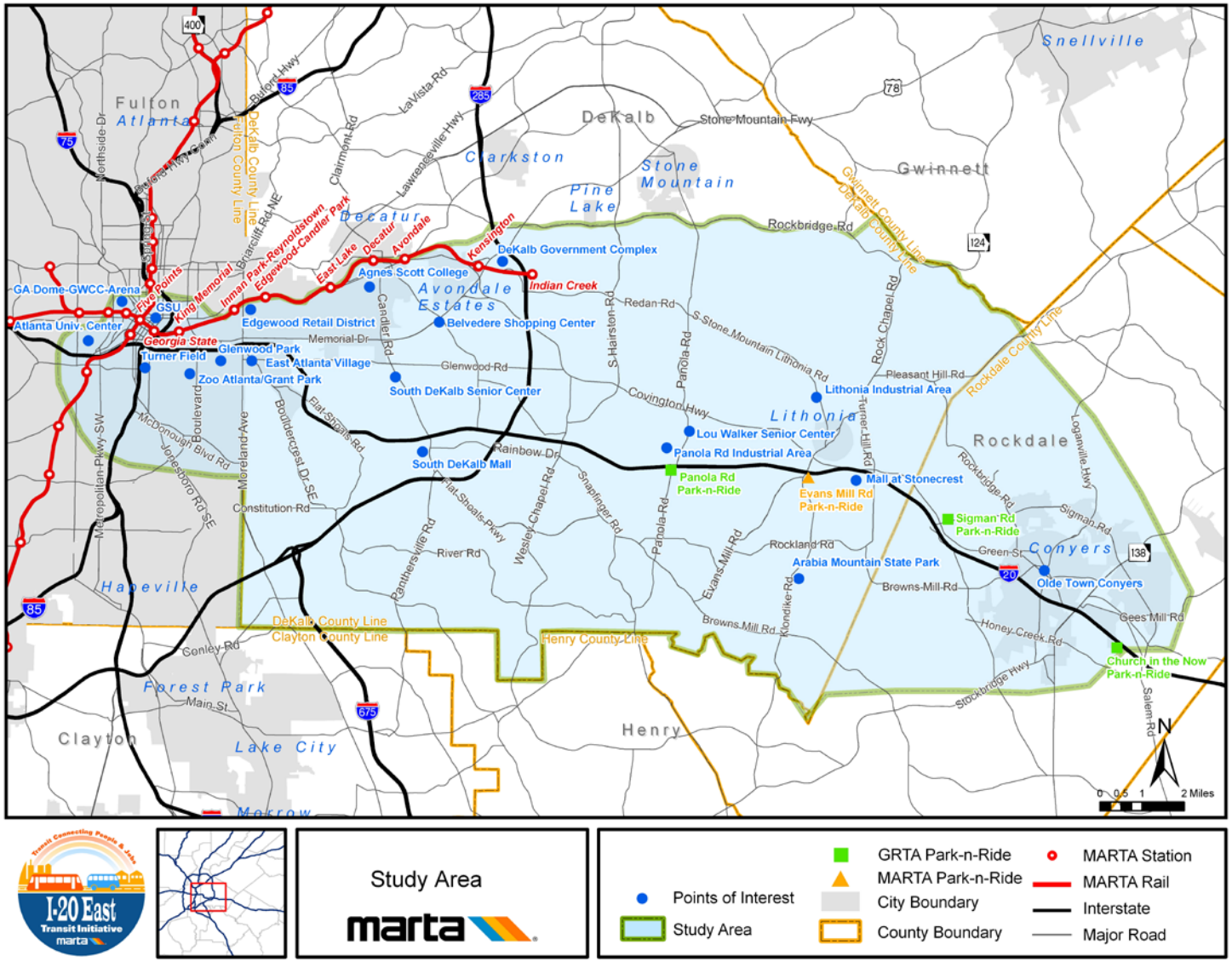
1.1 Report Organization

This Purpose and Need Report builds upon the existing conditions, initial data gathering, and stakeholder input in order to assess the factors that may influence the decisions regarding transit investments along the I-20 East Corridor. This report is intended to identify the background and purpose, as well as the rationale or need, for proposed transit improvements, which will serve as a necessary step in the project development process. It will highlight the transportation needs and problems along the corridor and assist in the development of transit solutions and alternatives that will address them.

The remainder of the report is organized as follows:

- **Chapter 2: Stakeholder and Community Input** – This section presents the input received from extensive stakeholder and public outreach regarding the corridor challenges and needs.
- **Chapter 3: Review of Previous Studies** – This section provides an overview of the prior studies and background information available that addressed the issues and problems within the corridor. These studies were reviewed in order to identify the previously identified needs and describe the planning basis for transportation improvements in the corridor.

Figure 1-1: I-20 East Corridor Study Area



- **Chapter 4: Transportation Facilities and Travel Trends** - This section highlights the existing and projected transportation conditions in the corridor. It includes information regarding existing facilities, travel times, trends, options, etc. in the corridor.
- **Chapter 5: Demographics, Land Use and Market Trends** – This section highlights the factors related to demographics, land use and market trends that warrant consideration during the development of potential alternatives and solutions.
- **Chapter 6: Project Purpose and Need** – This section summarizes the corridor challenges and needs, outlines the Purpose and Need Statement and present the Goals and Objectives of the project.

2.0 STAKEHOLDER AND COMMUNITY INPUT

In the first step of establishing a Purpose and Need for the I-20 East Transit Initiative, the study team gathered input on needs and issues in the study area through stakeholder involvement. Among the activities undertaken to help identify the overall purpose and need of the project:

- **Stakeholder Interviews:** At the onset of the study, interviews were conducted with approximately 40 stakeholders in the study area. These stakeholders included members of churches, business organizations, homeowners, and local elected officials. The purpose of these interviews was to educate the stakeholders on the I-20 East Transit Initiative and solicit their input and feedback regarding the challenges and needs within the corridor. While the primary focus of these meetings was regarding the transportation issues facing the corridor, a common theme that emerged from these meetings was that there were large portions of the study area in need of revitalization and these stakeholders felt strongly that a transit investment could serve as a catalyst for redevelopment along much of I-20.
- **Stakeholder Advisory Committee:** From the interviewed stakeholders, MARTA identified a subset of stakeholders to serve on the Stakeholder Advisory Committee (SAC). The purpose of the SAC is to provide input at key milestones in the I-20 East Transit Initiative process. As of August 1, three SAC meetings have been held on September 9, 2010, December 9, 2010, and a split session on May 9 and May 12, 2011. At the early meetings, the SAC was presented with a list of corridor issues and asked to confirm these as the primary challenges facing the corridor.
- **Public Meetings:** Two rounds of public meetings have been held thus far. Each round was held in three different locations throughout the corridor in order to provide sufficient access for the public. The first round of general public meetings were held in late October 2010 to introduce the project to the public, get their feedback on the identified needs within the corridor and goals of the project, introduce them to the range of alternatives to be studied, and get their input into any sensitive community, environmental, or cultural resources in the corridor. The second round of public meetings, held in May and June of 2011, were accompanied by an online survey. The meetings and survey sought to measure public support for the proposed Tier 1 alignments.

Through this public and stakeholder outreach, the following main issues were identified:

- **Traffic congestion causes delay and slow travel times**
- **Inadequate access to downtown and other employment centers**
- **Limited east-west roadways; I-20 is the only real choice**
- **Limited planned transportation projects in corridor to accommodate growing demand**
- **Insufficient transit service for a growing demand**
- **Express buses operate in normal traffic**
- **Areas of the corridor are in need of revitalization**
- **Limited transportation options for traditionally underserved populations**

These issues provide the foundation from which a thorough review of previous studies and technical analysis are used to develop a Purpose and Need statement for the I-20 East Transit Initiative.

3.0 REVIEW OF PREVIOUS STUDIES

This section of the Purpose and Need Report highlights the significant features from previous plans and studies that could impact the development of the I-20 East Transit Initiative. Much of the background data presented in this report is from a number of previous plans and studies such as regional initiatives, transit studies, locally initiated plans, and Livable Centers Initiatives (LCIs), as well as additional studies identified through public and stakeholder efforts. While this section includes only summary reviews of prior plans and studies, it provides important data for the formulation of Purpose and Need Report. **Table 3-1** below identifies the previous plans and studies that are relevant to the I-20 East Transit Initiative.

Table 3-1: Previous Plans and Studies

Plan/Study	Year	Agency
South DeKalb-Lindbergh Corridor Major Investment Study	2000	MARTA
Regional Transit Action Plan	2003	GRTA
Atlanta BeltLine	2003	City of Atlanta
I-20 East Corridor Study – Alternatives Analysis	2004	MARTA
The DeKalb County Comprehensive Plan 2005-2025	2005	DeKalb County
Envision6 2030 Regional Transportation Plan	2005	ARC
I-20 East Corridor Study - Modified LPA Report	2006	MARTA
DeKalb County Comprehensive Transportation Plan	2006	DeKalb County
Transportation Planning Board Final Report	2007	MARTA/GRTA
Candler Road/Flat Shoals Parkway LCI Study	2007	DeKalb County
Connect Atlanta	2008	City of Atlanta
Atlanta Strategic Action Plan	2008	City of Atlanta
Rockdale County Transportation Plan	2009	Rockdale County
Imagine Downtown	2009	Central Atlanta Progress
DRAFT Wesley Chapel LCI Study	2011	ARC
MMPT Conceptual Design	2010	GDOT
Plan 2040	2011	ARC

3.1 Summary of Previous Plans and Studies

3.1.1 South DeKalb – Lindbergh Corridor Major Investment Study

To explore the need for transit improvements in South DeKalb County and to meet the requirements from the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, a Major Investment Study (MIS) was completed in June 2000. Travel time delay and congestion that stemmed from the large number of residents and the numerous employment and activity centers present in South DeKalb County, seemed to warrant a new, direct connection with both the highway and transit systems. The overall purpose of the MIS was to determine the need, extent and nature of potential transit service improvements in the area southeast of I-285 to the Lindbergh Center. The study took into account needs and issues such as mobility, environmental, economic, educational, and cultural resources to develop the necessary measures to address the study area. Another important aspect of the MIS was that the evaluation framework incorporated the

Section 5309 Federal Transit Administration (FTA) New Starts Criteria. This MIS lead to a decision by the MARTA board to focus on the I-20 East Corridor for transit investment.

3.1.2 Regional Transit Action Plan

The *Regional Transit Action Plan* (RTAP) was completed by the Georgia Regional Transportation Authority (GRTA) in 2003. The goal was to produce a long-range transit action plan for the 13-county air quality non-attainment area in metro Atlanta. The RTAP contained a Draft Concept Plan that describes a proposed public transportation network in the Atlanta region. The recommendations include improvements to operations, infrastructure, and development of new routes to fill in gaps and extend services to other areas in the region. Relative to the I-20 East Transit Initiative study area, the RTAP specifically recommends a high speed BRT line along I-20 from Downtown Atlanta through the Mall at Stonecrest to Conyers. It also recommends a regional BRT network linking suburban areas with existing transit. A number of the recommended BRT corridors would affect the study area. These include Candler Road (City of Decatur to I-285), Memorial Drive (Stone Mountain to the Garnett MARTA station), and Moreland Avenue/Briarcliff Road (I-285 South to North Druid Hills Road).

3.1.3 Atlanta BeltLine Project

The Atlanta BeltLine project is a major transportation and land redevelopment project intended to influence the future growth of the Atlanta region. The project provides a network of transit, multi-use trails and public parks along a 22-mile railroad corridor circling central Atlanta and connecting 45 neighborhoods directly. Once completed, the Atlanta BeltLine could be the most comprehensive economic development effort ever undertaken in the city and one of the largest in the country. The Atlanta BeltLine is relevant to the I-20 East Transit Initiative based on its close proximity of the western end of the study area. Further, the BeltLine has the potential to be a transfer point at possible linkages such as Bill Kennedy Way and the Memorial Glenwood Connector.

The transit portion of the BeltLine is supported by several planning studies. MARTA performed the *Inner Core Feasibility Study* and *Inner Core Alternatives Assessment* in 2005, and the *Detailed Technical Screening and Selection of Locally Preferred Alternative (LPA)* in January 2007. The selected LPA consisted of light rail technology along a corridor that intersects with the I-20 East study area. Based on this recommendation, MARTA has completed the Tier 1 Environmental Impact Statement. Public hearings were held in August 2011, and a Record of Decision from the FTA is anticipated.

3.1.4 I-20 East Corridor Study – Alternatives Analysis

Completed in 2004, this study resulted in the MARTA Board approving the staff recommendation for selection of the Bus Rapid Transit (BRT) 4 Alternative as the LPA. The LPA extends from Downtown Atlanta (Five Points to Capitol Avenue) to the Mall at Stonecrest. The alignment is located along I-20 in the segment west of Moreland Avenue, where it transitions to a new guideway located on the south side of I-20 for the remainder of the alignment to the east. The issues, needs and goals/objectives identified in the Alternatives Analysis are similar to, and form the basis of, the analysis to be conducted in the I-20 East Transit Initiative.

3.1.5 Envision6 2030 Regional Transportation Plan

Envision6 is the 2030 Regional Transportation Plan (RTP) approved by Atlanta Regional Commission (ARC) in September of 2007. The RTP addresses regional planning challenges such as rapid growth, financial constraints, congestion, and provision of travel

options. The goals of the RTP are to improve accessibility and mobility for all people and freight; encourage and promote safe, secure, and efficient development, management, and operation of the surface transportation system; protect and improve the environment and quality of life; and support economic growth and development. The projects in the RTP also are included in the Transportation Improvement Program (TIP) and are identified either as long range or as programmed when they become financially constrained. In Section 3.2.1.4 the study area transit projects included in the RTP are discussed. Construction of the I-20 East Transit Initiative is shown as a long-range project.

3.1.6 I-20 East Corridor Study - Modified LPA Report

This report, completed in 2006, documented subsequent modifications to the previous I-20 East Corridor Study – Alternatives Analysis. After the completion of the Alternatives Analysis, and the MARTA Board of Directors' recommendation to approve the LPA, modifications to the LPA were made that included the modification to planned station location from Miller Road to Panola Road, revision of the alignment in Downtown Atlanta, and revision to the capital cost and project phasing estimates. The study effort and resulting report informs the I-20 East Transit Initiative to additional issues that were analyzed relative to transit station locations, downtown transit alignments and project phasing related transit services in the corridor. Neither this report nor its results were brought before the MARTA Board of Directors for approval.

3.1.7 DeKalb County Comprehensive Transportation Plan

The *DeKalb County Comprehensive Transportation Plan* (CTP) was completed in 2006, but has not been officially adopted by the DeKalb County Board of Commissioners. The CTP provides an overview of existing and forecasted travel conditions and lists recommended transportation investments in the county. As with the ARC's Envision6 process, the CTP incorporates land use scenario projects to predict transportation demand. As a result, the county's proposed land use and transportation policies have relevance affecting future transportation investments in the county.

The I-20 East Corridor runs through the southern part of DeKalb County and includes portions of the subareas of the SE and SW quadrants used in that plan. The CTP identified the southeast quadrant as deficient in transit service for both residents and employment centers and the southwest quadrant as deficient for employment transit service.

The DeKalb County CTP is relevant to the I-20 East Transit Initiative in that it recommends short-range (2006–2011), mid-range (2012–2020), and long-range (2012–2030) transportation projects within study area. Short range recommendations include an increase in transit service, especially in the southeastern area of the county, mainly around Lithonia, the Mall at Stonecrest and the Panola Road area, and throughout the study area during off peak hours. Relevant mid-range recommendations include widening Covington Highway from four to six lanes between Memorial Drive and Lithonia. Long range recommendations include widening I-20 from six lanes to eight lanes; a BRT along I-20 from the Mall at Stonecrest to Downtown Atlanta in an exclusive Right-of-Way (ROW); and widening SR 212 from two lanes to four lanes from Snapfinger Road to the DeKalb County line.

3.1.8 Connect Atlanta

Connect Atlanta, completed in 2008 is the City of Atlanta's first ever Comprehensive Transportation Plan. The goal of the plan was to meet the needs of commuters and their varied trips to, from, and within the City of Atlanta. The plan evaluated all modes of transportation and promoted policies and resources that, among other things, connected

transportation infrastructure evaluation to job locations, land use types and recreation amenities; created an affordable and walkable city; enhanced mobility within the city; supported regional connectivity; and maintained and optimized the city's existing transportation systems. The *Connect Atlanta Plan* was adopted by the Atlanta City Council in December of 2008. The relevance of Connect Atlanta to the I-20 East Transit Initiative is that this plan recommends the reconfiguration of the Moreland Ave at the I-20 interchange and proposes new transit lines along the BeltLine, both of which are in the western end of the I-20 East corridor study area.

3.1.9 Transit Planning Board Final Report

The Transit Planning Board (TPB) is a joint commission of the ARC, GRTA and MARTA developed to establish and maintain a seamless, integrated transit network for the Atlanta region. In 2008 it developed a regional transit plan, known as *Concept 3*, with a comprehensive financial plan, which worked to improve service coordination between transit systems, developed performance measures and advocated for increased federal funding for the Atlanta region. After the approval of *Concept 3* by the ARC, GRTA, and MARTA, the TPB became the Transit Implementation Board (TIB) and continued to support the plan and regional transit.

In its final report, the TPB recommended a light rail alignment along I-20 from Downtown to the Mall at Stonecrest, as well as a commuter rail line from Downtown Atlanta through Decatur and Stone Mountain to Lithonia and Conyers. Other recommendations included a BRT line along Memorial Drive from Downtown Atlanta to Stone Mountain and Snellville, the Atlanta BeltLine project, the Moreland Ave BRT, and the Candler Rd BRT.

3.1.10 Rockdale County Transportation Plan

Completed in 2009, this plan assessed the needs for transportation improvements and identified multi-modal transportation improvement opportunities to help Rockdale County address transportation issues through 2030. The goal of the plan was to identify existing and future operating conditions for the multi-modal transportation system (roadways, bridges, bike and pedestrian facilities, transit and aviation) within Rockdale County and use that information to identify improvements and prioritize projects for implementation.

Since Rockdale County and the City of Conyers comprise the eastern end of the I-20 East Transit Initiative study area, the transit-related recommendations of the Rockdale County CTP are relevant to this study. The CTP notes that GRTA and Rockdale County are exploring options to expand services in the county and have plans and funding for a second permanent park and ride lot that would replace the leased lot at the Church in the Now.

Additionally, there is a proposed, unfunded, intercity rail service between Atlanta, Madison and Augusta that would pass through Rockdale County and the City of Conyers, which could provide key connections between Rockdale County and the rest of the state. The CTP recommends the incorporation of this rail service into County and City transit planning initiatives and the development of feeder routes or other connections to this rail service upon implementation.

3.1.11 IMAGINE Downtown

The *Imagine Downtown: ENCORE* study was completed in 2009 by Central Atlanta Progress. It seeks to affirm and refine recent Downtown Atlanta master plans through input from local residents and businesses. The study recommends a streetcar system in Downtown Atlanta with service along Peachtree Street, Auburn Avenue and Edgewood Avenue to the Atlanta

BeltLine and the Centennial Olympic Park area. The study also recommends a light rail line from Garnett Station out the I-20 East Corridor.

3.1.12 Multi-Modal Transportation Passenger Terminal (MMPT) Conceptual Design

Completed in July 2010, this study was intended to help procure a Master Developer for the MMPT in downtown Atlanta to serve as a hub for existing MARTA heavy rail service; planned passenger rail operations; planned streetcar operations; intercity, local, and express bus operations; and new private development to stimulate economic growth in the vicinity The MMPT would be located adjacent to the MARTA Five Points Station.

The technical memorandum documented potential operator requirements and facility needs such as freight rail, passenger rail, bus operations and vehicles for hire. Circulation plans including pedestrian, bicycle, and automobile access were also included. It advised that the MMPT should be designed to ultimately accommodate existing and future intercity express and local bus services, while providing spaces for taxicab, shuttle, and car-sharing operations. Also, future commuter rail, high-speed rail (HSR), light rail, and streetcar services would also be located at the MMPT.

Once funded, the MMPT could serve as the western terminus of the study and possible connection point to other local and regional travel modes. Enhanced pedestrian access between the MMPT and Five Points Station are also planned.

3.1.13 Plan 2040

Completed by the ARC staff and adopted July 27, 2011 by the ARC Board, PLAN 2040 is the Regional Transportation Plan (RTP) for the 18-county ARC MPO region as well as the Regional Agenda for the 10-county ARC Regional Commission study area. The RTP examines the region's transportation needs through the year 2040 and provides a framework to address anticipated growth through systems and policies. PLAN 2040 provides a comprehensive statement of the regional future transportation needs as identified by local jurisdictions, the State and other stakeholder agencies. It contains strategies aimed at improving mobility and access, and defines both short- and long-term transportation strategies and investments to improve the region's transportation system.

Plan 2040 also includes the Transportation Improvement Program (TIP). The TIP is the program for funding and implementation of the near-term years of projects in the adopted long-range Regional Transportation Plan. Under SAFETEA-LU requirements, the TIP must cover a minimum of four fiscal years. The Atlanta region's TIP covers six fiscal years, FY 2012 through FY 2017.

Plan 2040 includes transit improvements in the I-20 East Corridor from downtown Atlanta to the Stonecrest Mall area in DeKalb County in its constrained plan. The constrained plan also includes an Alternatives Analysis study for Cobb and Gwinnett transit, the Multimodal Passenger Terminal in Atlanta, transit improvements in the Clifton Corridor from Lindbergh to Emory to Decatur, transit improvements on the Atlanta BeltLine and Streetcars in Atlanta. I-20 interchanges at I-285 east and Panola Road are included for funding in the TIP. The constrained plan and TIP include I-20 East managed lanes west of I-285. Managed lanes east of I-285 on I-20 East are in the aspirations plan.

3.1.14 Other Land Use and Redevelopment Plans

There are some land use and redevelopment plans that contribute to the current and future conditions within the corridor and, subsequently, to the purpose and need of this I-20 East

Transit Initiative. Summaries of these relevant land use plans can be found in the land use analysis in Section 4. These include:

- Wesley Chapel LCI (2011)
- Candler Road/Flat Shoals Parkway LCI (2007)
- The DeKalb County Comprehensive Plan 2005-2025
- Atlanta Strategic Action Plan (2008)
- Various LCI Studies

3.2 Major Findings

- The previous studies of transportation needs in the I-20 East corridor have clearly established the need for high capacity transit service.
- Studies starting with the *South DeKalb/Lindbergh Study* have consistently shown transit demand for a fixed guideway investment in the I-20 East Corridor between South DeKalb and Central Atlanta. Local jurisdictions including the City of Atlanta and the Counties of DeKalb and Rockdale have recently completed CTPs that contain many recommendations, strategies and other elements that apply to the study area and have some similar goals and objectives.
- There are regional transportation plans that establish frameworks for future transit operations, infrastructure and development as well as regional goals for mobility, safety and the environment. These regional efforts include improved transit service in the I-20 East Transit Initiative study area.
- There are land use and redevelopment plans and zoning ordinances in the City of Atlanta and DeKalb County, as well as from LCIs that support and encourage transit oriented development, a goal of the I-20 East Transit Initiative.

4.0 TRANSPORTATION FACILITIES AND TRAVEL TRENDS

This section presents an overview of the transportation facilities and travel trends within the I-20 East Corridor and how these factors contribute to the purpose and need for premium transit investment in the corridor. To understand the existing transportation system, an inventory of facilities and an assessment of system attributes were conducted. The assessment of system attributes includes identification of the planned and programmed projects in the study area, analysis of travel trend data as well identification of major origins and destinations and respective travel times.

4.1 Transportation System

This section presents an overview of the current and future roadway and transit systems within the I-20 East Corridor study area. A thorough inventory and assessment of the transportation network allows for a better understanding of the transportation options and obstacles facing those who live, work and play in the study area.

4.1.1 Existing Roadway Network

The following subsection provides an overview of the major roadway network in the I-20 East Corridor study area. Roadways reviewed in the network include I-20, other major east-west facilities, and major north-south facilities. For each of these roadways, the Annual Average Daily Traffic (AADT) and Level of Service (LOS) for current and future year are analyzed.

I-20

I-20 is the major transportation facility in the study area, and connects the Downtown Atlanta on the western end of the study area with the cities of Lithonia and Conyers to the east. This Interstate is the principal east-west roadway in the study area and is used by both automobile and transit commuters, as well as motor freight operators. It is the only facility that provides an east-west connection that runs the entire length of the study area. **Table 4-1** below provides further information about I-20. Classifications for this and other roadways can be found in **Figure 4-1** on page 4-2 and lane configurations can be found in **Figure 4-2** on page 4-3.

Table 4-1: Roadway Characteristics for I-20

Roadway	State Route	Functional Class	Travel Lanes	Speed Limit
I-20	SR 402/SR 12/US 278	Interstate	6-10*	55

Source: Georgia Department of Transportation (GDOT) Office of Transportation Data 2009

*- Lane Segmentation provided in Figure 4-2 on page 4-3.

Figure 4-1: Functional Classifications Map

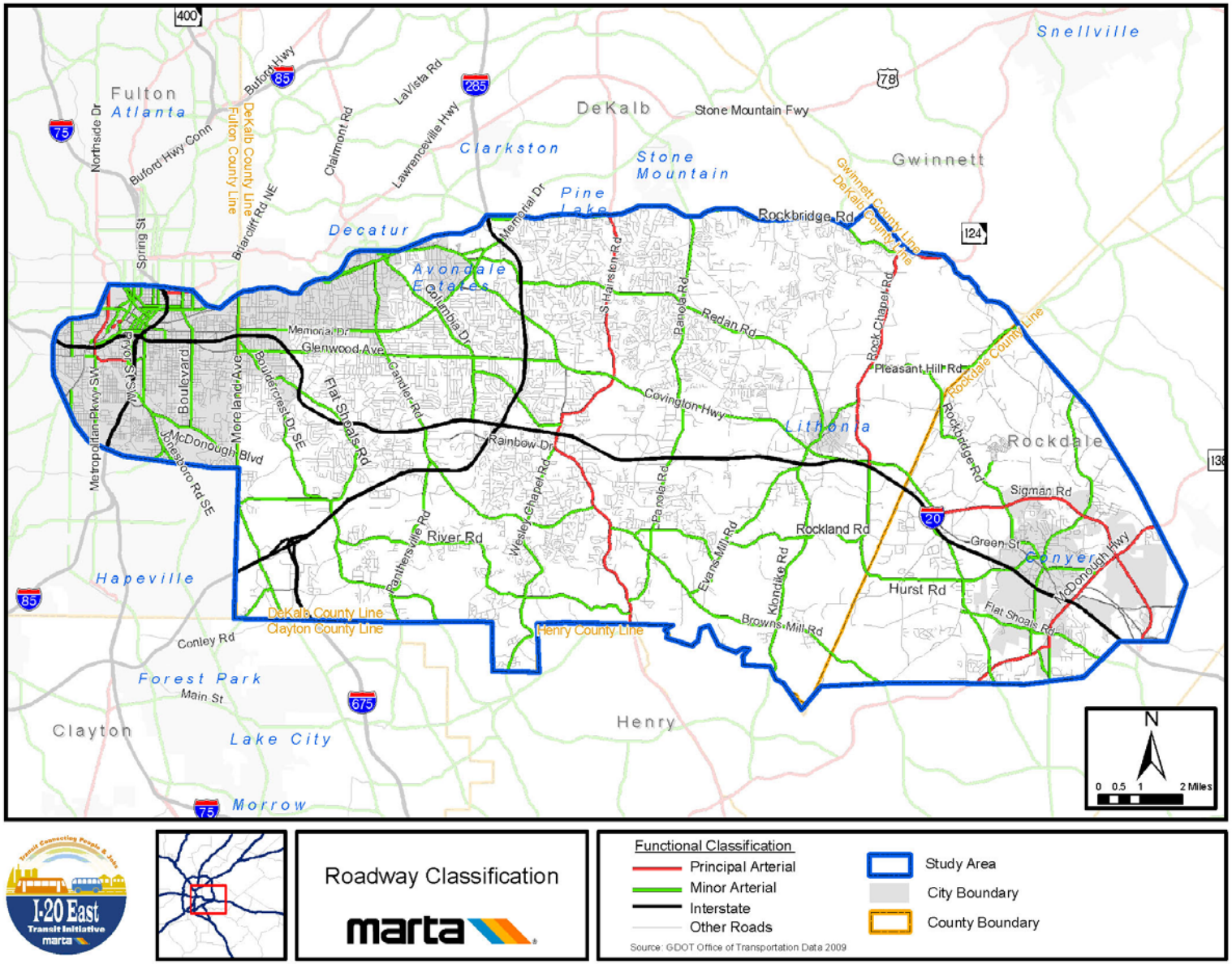
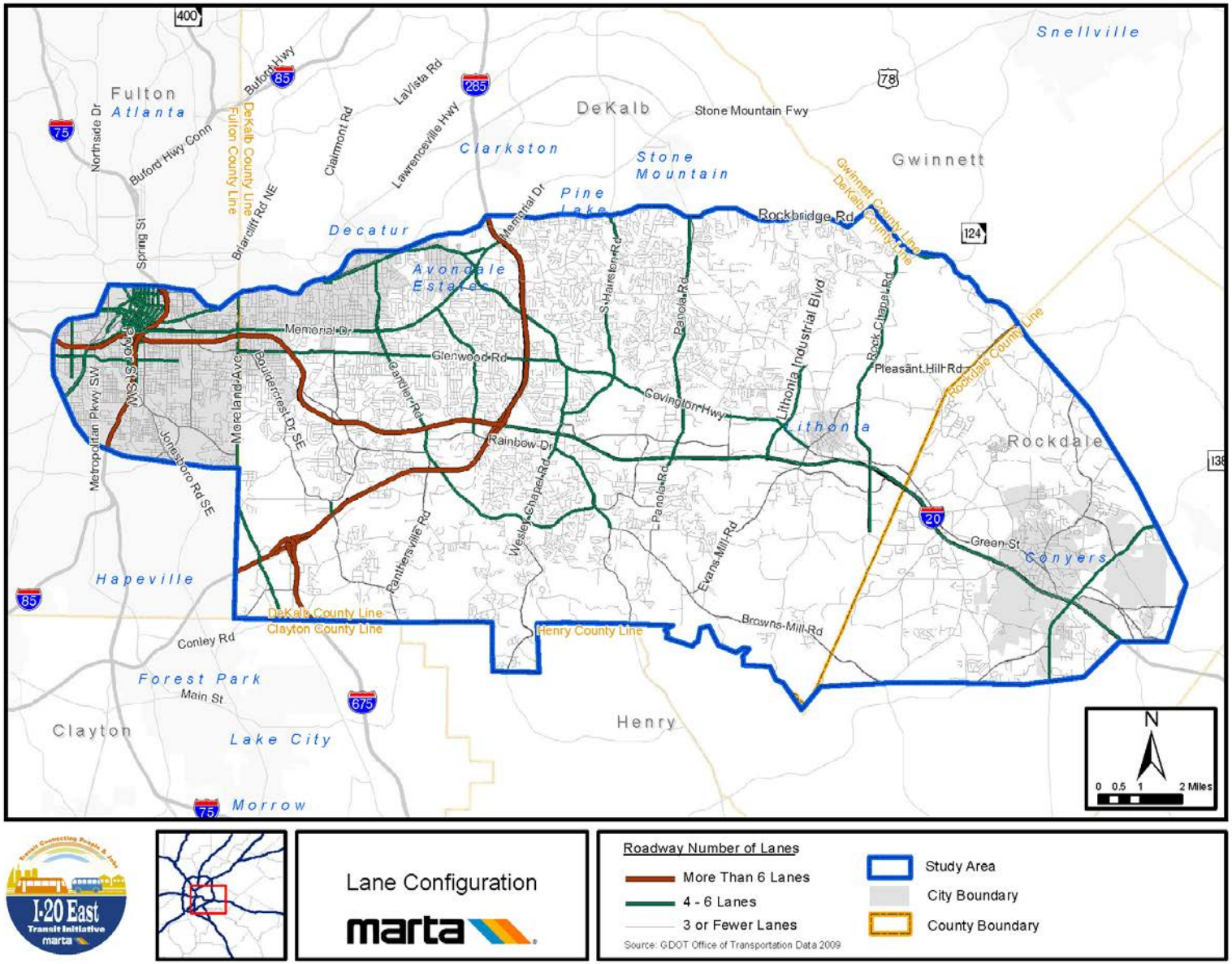


Figure 4-2: Lane Configurations Map



Major East-West Facilities

Other than I-20, there are few east-west roadway options for drivers in the study area, and of these, few extend across a significant portion of the study area or offer multiple lanes. Multi-lane roadway options for east-west travel within the study area are limited to Covington Highway in the central portion, and Memorial Drive in the western portion. There are no multi-lane east-west roadways in the eastern end of the study area. Furthermore, Sigman Road, on the eastern end of the study area, is the only east-west facility classified as a Principal Arterial. The remaining east-west facilities are Minor Arterials or local roads. Therefore, the existing transportation network does not provide a viable parallel route to I-20 for traversing the study area. **Table 4-2** below provides further information about major study area east-west facilities.

Table 4-2: Roadway Characteristics for Major East-West Facilities

Roadway	Segment	State Route	Functional Class	Travel Lanes	Speed Limit
Browns Mill Rd	Snapfinger Road to Klondike Rd	SR 212	Minor Arterial	2	45 mph
Glenwood Rd	Moreland Ave to Covington Hwy	SR 12/ US 278	Minor Arterial	4	40 mph
Memorial Dr	I-85 to I-285	SR 154	Minor Arterial	4	35 mph
Covington Hwy	Glenwood Rd to Evans Mill Rd	SR 12/ US 278	Minor Arterial	4	40 mph
Old Covington Hwy/Green St	Evans Mill Rd to I-20	SR 12/ US 278	Minor Arterial	2	35 mph
DeKalb Ave	I-85 to East Lake Dr	SR 42/ US 278	Minor Arterial	3	35 mph
College Ave	East Lake Dr to Covington Hwy	SR 42/ US 278	Minor Arterial	4	35 mph
Flat Shoals Rd	Glenwood to Candler Rd	SR 155	Minor Arterial	2	45 mph
Flat Shoals Pkwy	Candler Rd to Browns Mill Rd	SR 155	Minor Arterial	4	45 mph
Rockbridge Rd	Memorial Dr to Deshon Rd	-	Minor Arterial	2	35 mph
Rockbridge Rd	Deshon Rd to Rock Chapel Rd	-	Minor Arterial	4	45 mph
Redan Rd	Covington Hwy to Stone Mountain Lithonia Rd	-	Minor Arterial	2	45 mph
Hurst Rd/ Klondike Rd	I-20 to Flat Bridge Rd	-	Minor Arterial	2	40 mph
Sigman Rd NW	I-20 to I-20	SR 20	Principal Arterial	2	45 mph
Pleasant Hill Rd	Rockbridge Rd to Humphries Rd	-	Minor Arterial	2	40 mph

Source: GDOT Office of Transportation Data 2009

Major North-South Facilities

The transportation network offers many connections to and from I-20 and options for north-south travel. I-285 is a major facility that accommodates north-south travel in the central portion of the study area. In addition, Candler Road, Columbia Drive, Hairston Road, Wesley Chapel Road, Panola Road, and Rock Chapel Road are multi-lane, north-south roadways. In the eastern portion of the study area, McDonough Highway is a multi-lane north-south roadway. Of these arterials, only Hairston Road and Rock Chapel Road are classified as Principal Arterials. **Table 4-3** on page 4-5 provides further information about major north-south facilities in the study area.

Table 4-3: Roadway Characteristics for Major North-South Facilities

Roadway	Segment	State Route	Functional Class	Travel Lanes	Speed Limit
I-285	Moreland Ave to Rockbridge Rd	-	Interstate	8	55 mph
Bouldercrest Dr	Flat Shoals Rd to Constitution Road	-	Minor Arterial	2	35 mph
Bouldercrest Dr	Constitution Road to I-285	-	Minor Arterial	4	45 mph
Bouldercrest Dr	I-285 to Forest Pkwy/Panola Rd	-	Minor Arterial	2	35 mph
Candler Rd	College Ave to Flat Shoals Rd	SR 155	Minor Arterial	4	45 mph
Hairston Rd	Stone Mountain Pkwy to Wesley Chapel Rd	-	Principal Arterial	4	40 mph
McDonough Hwy	Honey Creek Rd to Lakefield Dr	SR 138	Principal Arterial	4	45 mph
McDonough Hwy	Lakefield Dr to I-20	SR 138	Principal Arterial	6	45 mph
Walnut Grove Rd	I-20 to Board Tusk Rd	SR 138	Principal Arterial	4	
Moreland Ave	Ponce de Leon Ave to Conley Road	-	Minor Arterial	4	45 mph
Panola Rd	Stone Mountain Lithonia Rd to Winslow Crossing	-	Minor Arterial	4	40 mph
Panola Rd	Winslow Crossing to Snapfinger Rd	-	Minor Arterial	2	40 mph
Panthersville Rd	Bouldercrest Rd to Flat Shoals Pkwy	-	Minor Arterial	2	45 mph
Rock Chapel Rd/ Turner Hill Rd	Rockbridge Rd to Mall Pkwy	SR 124	Minor Arterial	4	45 mph
Turner Hill Rd	Mall Pkwy to Rockland Rd	SR 124	Minor Arterial	2	45 mph
Snapfinger Rd	Panola Rd to Old Lantern Dr	SR 155	Principal Arterial	4	45 mph
Snapfinger Rd	Old Lantern Dr to Browns Mill Rd	SR 155	Principal Arterial	2	45 mph
Snapfinger Rd	Browns Mill Rd to Flat Shoals Pkwy	SR 155	Principal Arterial	4	45 mph
Snapfinger Rd	Flat Shoals Pkwy to I-20	SR 155	Principal Arterial	2	45 mph
Snapfinger Rd	I-20 to Columbia Dr	SR 155	Principal Arterial	2	45 mph
Wesley Chapel Rd	Covington Hwy to Kelley Chapel Rd/ Boring Rd	-	Minor Arterial	4	45 mph
Wesley Chapel Rd	Kelley Chapel Rd/Boring Rd to Flat Shoals Pkwy	-	Minor Arterial	2	45 mph
Pleasant Hill Rd	Rockbridge Rd to Loganville Hwy	-	Minor Arterial	2	45 mph
Flakes Mill Rd	Amsler Rd to Wesley Chapel Rd	-	Minor Arterial	2	35 mph

Source: GDOT Office of Transportation Data 2009

4.1.2 Roadway AADT and LOS

AADT is the measure of average daily traffic volume on a roadway segment over the course of a year. LOS is a qualitative measure of traffic flow that describes operating

conditions with six levels of service defined by Federal Highway Administration (FHWA) in the Highway Capacity Manual (HCM). LOS is described by letter designations from A to F, with LOS A representing the best operating conditions and F the worst. A facility may operate at a range of LOS depending upon time of day, day of week or period of the year. As such, the LOS is generally regarded as a standard measure for congestion.

I-20

Traffic volumes on I-20 in 2005, based on data from the Atlanta Regional Commission's Travel Demand Model (TDM), range from 76,800 AADT in the segment from McDonough Highway to Sigman Road in the rural, eastern end of the study area, to 195,000 AADT in the segment between Moreland Avenue and I-75/I-85 in Downtown Atlanta in the more developed, western end of the study area. By 2030, AADT on I-20 is projected to increase by up to 64 percent, with segment volumes reaching up to 269,100 vehicles per day. Existing and future AADT for I-20 roadway segments are illustrated in **Table 4-4** below.

Table 4-4: AADT and LOS on I-20

From	To	ADT 2005	LOS 2005	ADT 2030	LOS 2030	ADT Change	% Change in AADT
I-20							
I-75/I-85	Moreland Ave.	195,000	F	223,900	F	28,900	14.8%
Moreland Ave.	Fayetteville Rd.	168,300	E	204,100	E	35,800	21.3%
Fayetteville Rd.	Candler Rd.	119,500	D	171,100	F	51,600	43.2%
Candler Rd.	I-285	103,800	F	163,300	F	59,500	57.3%
I-285	Wesley Chapel Rd.	163,900	F	269,100	E	105,200	64.2%
Wesley Chapel Rd.	Panola Rd.	130,900	E	213,400	D	82,500	63.0%
Panola Rd.	Evans Mill Rd.	113,200	E	168,400	F	55,200	48.8%
Evans Mill Rd.	Turner Hill Rd.	102,600	E	142,100	F	39,500	38.5%
Turner Hill Rd.	Sigman Rd.	107,900	D	141,900	E	34,000	31.5%
Sigman Rd.	McDonough Hwy.	88,800	D	123,200	E	34,400	38.7%
McDonough Hwy.	Salem Rd.	76,800	D	117,200	E	40,400	52.6%

Source: ARC 2005 and 2030 Travel Demand Model

Based on data from the TDM, LOS on I-20 in 2005 ranged from D to F among study area roadway segments. By 2030, LOS is projected to worsen on more than half of these roadway segments, and only one segment is projected to operate at D or better, the level considered acceptable for urban areas. By 2030, I-20, the backbone of east-west transportation in the study area, is projected to suffer from congestion and degraded service quality, indicating a need for reduced travel delay within the study area. Existing and future LOS are further illustrated in **Figure 4-3** and **Figure 4-4** on pages 4-7 and 4-8.

Figure 4-3: Level of Service in the Study Area, 2005

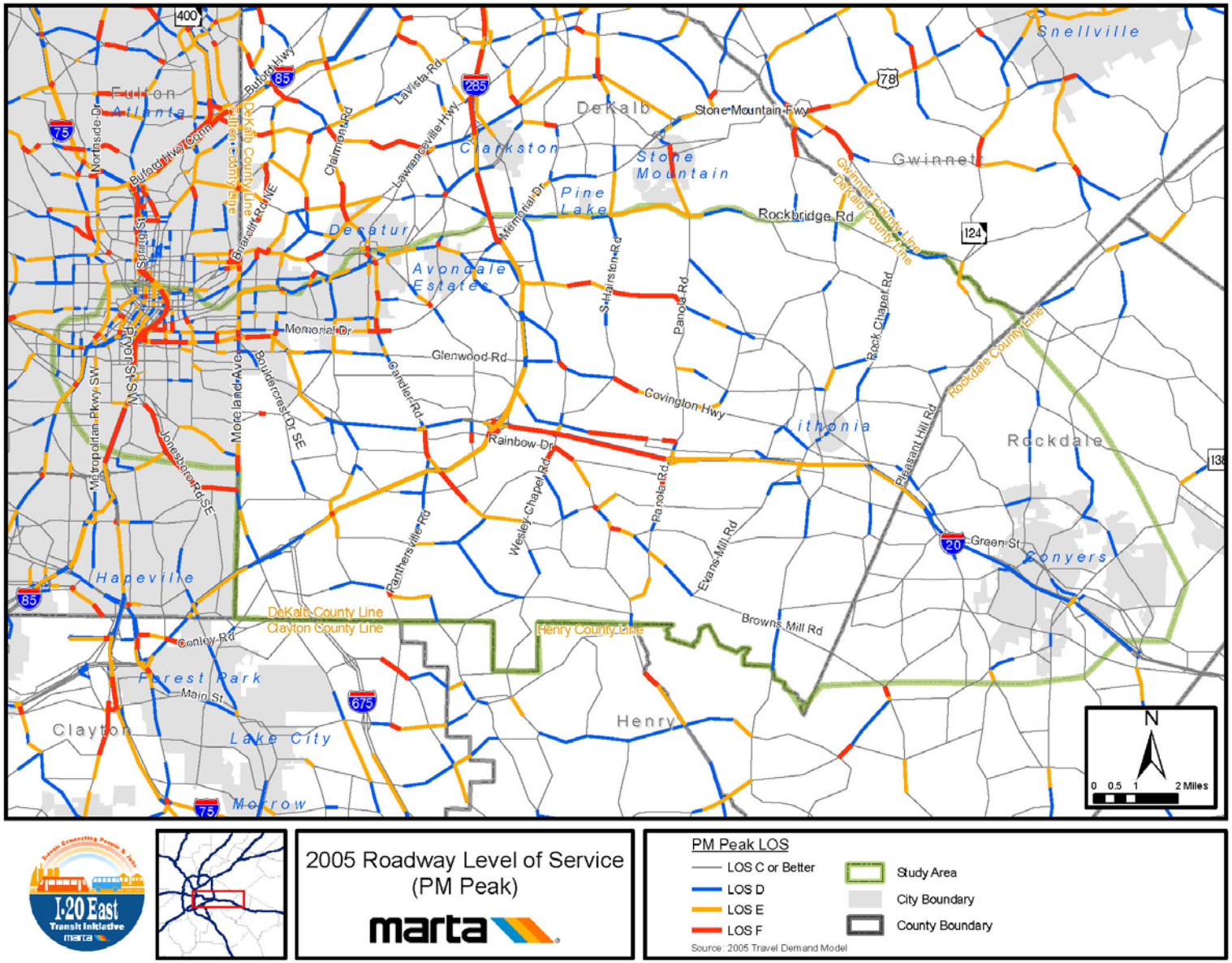
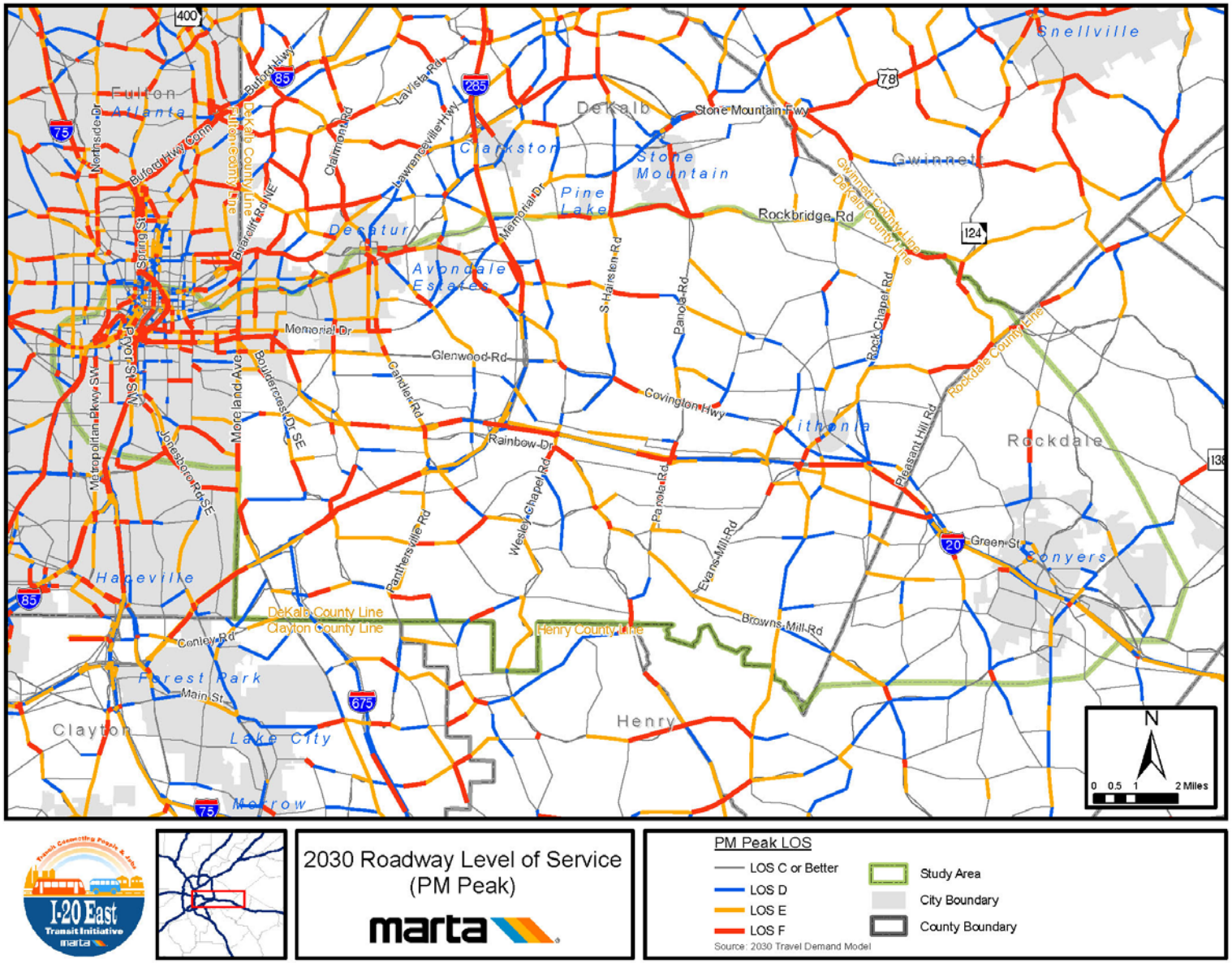


Figure 4-4: Level of Service in the Study Area, 2030



Major East-West Roadways

Overall, the AADT on east-west facilities in the corridor is projected to increase. Traffic growth is projected to be particularly strong on roadway segments in the eastern end of the study area. For example, AADT on Browns Mill Road is projected to increase by 68 to 86 percent by 2030 and on Pleasant Hill Road by 59 and 85 percent. These increases are indicative of substantial growth in the eastern portion of the study area, which is producing more vehicular trips on a limited number of facilities, and in turn, a need to increase the mobility options for east-west trips in the corridor.

Based on data from the TDM, 2005 LOS on all segments of east-west roadways in the study area was at C or below, with LOS F on Redan Road between Hairston Road and Panola Road. Covington Highway in the vicinity of Hairston Road and Memorial Drive in the vicinity of Candler Road were also operating at LOS F, as were some smaller east-west roadway segments in the study area. However, by 2030, travel conditions in the corridor are projected to worsen significantly, and the majority of east-west roadway segments evaluated in the study area are projected to operate at LOS D or below. Travel on east-west facilities during peak hours is accompanied by an increasing level of delay. Existing and future AADT and LOS for major east-west roadway segments in the study area are listed in **Table 4-5** on page 4-10.

Major North-South Roadways

Based on data from the TDM, AADT on north-south roadways in the corridor is projected to increase, with stronger traffic growth projected for roadway segments on the eastern end of the study area. AADT on I-285 is projected to increase from 20 to 43 percent over 2005 volumes, to volumes of 216,300 vehicles per day. Further east, Panola Road AADT is projected to increase by 39 to 89 percent to volumes up to 46,800 vehicles a day and Rock Chapel Road AADT is projected to increase by 34 to 118 percent to volumes up to 49,200 vehicles per day.

2005 LOS on all segments of north-south roadways in the study area was at C or below. Some north-south roadway segments, such as Panola Road just south of I-20 and Wesley Chapel Road at Rainbow Drive, were operating at LOS F. By 2030, LOS on major study area roadways is projected to decline, especially for north-south roadway segments on the western side of the study area, which already carry heavy loads of traffic. Existing and future AADT and LOS for major north-south roadway facilities in the study are illustrated in **Table 4-6** on page 4-11.

Table 4-5: AADT & LOS on Major East-West Facilities

From	To	AADT 2005	LOS 2005	AADT 2030	LOS 2030	% Change in AADT
Browns Mill Rd./Scott Hwy.						
Evans Mill Rd.	Klondike Rd.	11,000	C	18,500	E	68.2%
Klondike Rd.	Smyrna Rd. SW	10,800	C	20,100	D	86.1%
Covington Hwy.						
Memorial Dr.	I-285	27,500	D	46,800	F	70.2%
I-285	Glenwood Rd.	44,400	D	43,200	E	-2.7%
Glenwood Rd.	Hairston Rd.	35,600	D	35,700	D	0.3%
Hairston Rd.	Panola Rd.	50,200	E	55,000	E	9.6%
Panola Rd.	Lithonia Industrial Blvd.	36,500	C	46,300	D	26.8%
Lithonia Industrial Blvd.	Main St.	30,400	D	35,500	D	16.8%
DeKalb Ave/College Ave.						
Moreland Ave.	Lake Rd.	12,800	E	12,100	E	-5.5%
Lake Rd.	Candler Rd.	12,000	D	16,500	F	37.5%
Candler Rd.	Arcadia Rd.	26,700	E	35,700	F	33.7%
Flat Shoals Pkwy.						
Glenwood Rd.	Bouldercrest Rd.	2,700	D	5,100	E	88.9%
I-285	Clifton Church Rd.	8,700	C	10,900	C	25.3%
Glenwood Rd.						
Moreland Ave.	I-20	3,200	C	6,000	E	87.5%
I-20	Candler Rd.	21,800	D	29,200	E	33.9%
Candler Rd.	I-285	11,400	C	13,900	C	21.9%
Memorial Dr.						
Moreland Ave.	Candler Rd.	35,100	D	26,200	E	-25.4%
Candler Rd.	College Ave.	37,200	C	37,300	D	0.3%
Pleasant Hill Rd.						
Rock Chapel Rd.	Union Grove Rd.	9,800	C	15,600	C	59.2%
Union Grove Rd.	Centerville Hwy./Norris Lake Rd.	9,600	C	17,800	F	85.4%
Redan Rd.						
I-285	Indian Creek Rd.	13,100	E	14,700	E	12.2%
Indian Creek Rd.	Hairston Rd.	14,600	E	17,100	E	17.1%
Hairston Rd.	Panola Rd.	13,100	F	16,800	F	28.2%
Panola Rd.	Wellborn Rd.	9,200	D	13,600	E	47.8%
Wellborn Rd.	Marbut Rd.	3,500	C	5,700	C	62.9%
Rockbridge Rd.						
Memorial Dr.	Hairston Rd.	9,300	D	13,300	E	43.0%
Hairston Rd.	S. Stone Mountain Lithonia Rd.	10,900	E	14,800	F	35.8%
S. Stone Mountain Lithonia Rd.	Deshon Rd.	12,600	D	14,600	E	15.9%
Deshon Rd.	Rock Chapel Rd.	5,000	C	7,800	C	56.0%
Union Grove Rd.	Lake Capri Rd.	3,600	C	6,700	C	86.1%
Lake Capri Rd.	Sigman Rd.	2,600	C	6,900	C	165.4%
Sigman Rd.	Old Covington Hwy.	4,700	C	7,600	C	61.7%
Sigman Rd.						
Covington Hwy.	Rockbridge Rd.	13,600	C	15,700	C	15.4%
Rockbridge Rd.	Irwin Bridge Rd.	14,800	D	15,100	D	2.0%
Irwin Bridge Rd.	Loganville Hwy.	9,100	C	12,700	C	39.6%
Loganville Hwy.	McDonough Hwy.	16,400	D	24,000	E	46.3%
McDonough Hwy.	I-20	13,700	C	19,400	D	41.6%

Source: ARC Travel Demand Model

Table 4-6: AADT and LOS on Major North-South Facilities

From	To	AADT 2005	LOS 2005	AADT 2030	LOS 2030	Percent Change in AADT
I-285						
Rockbridge Rd.	I-20	167,800	F	208,200	F	24.1%
I-20	Flat Shoals Pkwy.	149,300	E	212,700	E	42.5%
Flat Shoals Pkwy.	I-675	180,500	E	216,300	F	19.8%
I-675	Moreland Ave.	139,000	D	189,100	E	36.0%
Bouldercrest Rd.						
Flat Shoals Rd.	Constitution Rd.	6,100	D	12,700	F	108.2%
Candler Rd.						
College Ave.	I-20	34,800	D	41,600	E	19.5%
Hairston Rd.						
Rockbridge Rd.	Redan Rd.	29,500	D	42,000	C	42.4%
Redan Rd.	Wesley Chapel Rd.	31,400	C	43,000	D	36.9%
Hurst Rd./Klondike Rd.						
I-20	Browns Mill Rd.	9,500	D	13,100	E	37.9%
Browns Mill Rd.	Flat Bridge Rd	11,200	D	14,700	E	31.3%
McDonough Hwy.						
Flat Shoals Rd.	I-20	46,200	E	61,500	F	33.1%
I-20	Eastview Rd.	27,100	C	45,600	D	68.3%
Moreland Ave.						
DeKalb Rd.	Memorial Dr.	56,900	E	57,300	E	0.7%
Memorial Dr.	Constitution Rd.	44,700	D	57,700	E	29.1%
Constitution Rd.	I-285	50,100	E	65,700	F	31.1%
Panola Rd.						
Rockbridge Rd.	Redan Rd.	17,300	C	25,700	C	48.6%
Redan Rd.	Covington Hwy.	22,100	C	34,000	D	53.8%
Covington Hwy.	I-20	28,300	C	39,400	C	39.2%
I-20	Browns Mill Rd.	24,800	F	46,800	F	88.7%
Panthersville Rd./Candler Rd.						
I-20	I-285	42,400	F	50,200	F	18.4%
I-285	River Rd.	7,500	D	15,500	E	106.7%
River Rd.	Bouldercrest Rd.	5,300	C	13,400	E	152.8%
Rock Chapel Rd./Turner Hill Rd.						
Rockbridge Rd.	Old Covington Hwy.	36,600	C	49,200	E	34.4%
Old Covington Hwy.	Rockland Rd.	11,300	D	24,600	E	117.7%
Snapfinger Rd.						
Wesley Chapel Rd.	Browns Mill Rd.	23,600	E	35,500	E	50.4%
Browns Mill Rd.	Panola Rd.	13,800	C	23,100	C	67.4%
Panola Rd.	River Rd.	24,800	D	45,900	F	85.1%
Wesley Chapel Rd./Flakes Mill Rd.						
Rainbow Rd.	Flat Shoals Pkwy.	17,900	C	29,300	D	63.7%
Flat Shoals Pkwy.	River Rd.	14,400	D	25,600	E	77.8%

Source: ARC Travel Demand Model

4.1.3 Planned and Programmed Roadway Network

The ARC RTP includes a number of planned and programmed roadway improvements within the I-20 East Corridor. Three of the planned and programmed projects in the study area are on the I-20 roadway:

- Projects DK–AR-241 and DK-AR-242, consist of improvements to existing I-20 interchanges, and

- Project AR-ML-500, for managed lanes to I-20 East between I-85/I-75 and I-285.

Planned and programmed roadway projects in the study area are presented in **Figure 4-5** on page 4-13 and in **Table 4-7** on page 4-14.

As shown in **Figure 4-5**, few of the planned and programmed projects on other study area roadways would substantially address east-west mobility within the study area since most of these projects target north-south roadways. The widening of Sigman Road in Conyers (RO-235C, RO-235D) and the widening of Covington Highway near Lithonia are the only two projects that would occur on major east-west roadways for a significant length.

Figure 4-5: Planned and Programmed Roadway Improvements Map

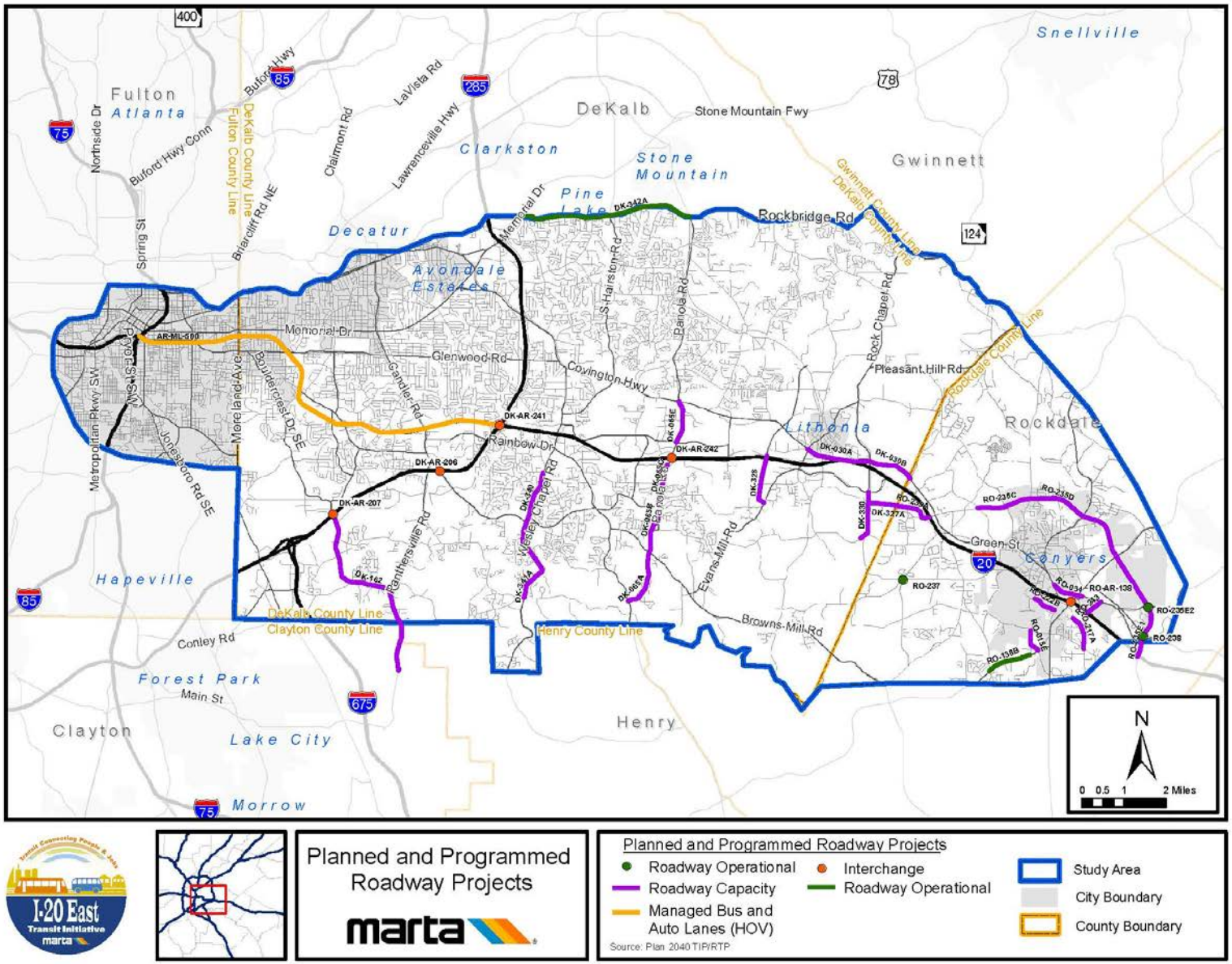


Table 4-7: Planned and Programmed Roadway Improvements

ARC ID	Name	Project Type	Description	Status
AR-ML-500	I-20 East Managed Lanes	Roadway/Managed Lanes	Managed lanes on I-20 from I-75/I-85 to I-285	Programmed
DK-065B	Panola Rd.: Segment 2	Roadway Capacity	Widen road from 2 to 4 lanes	Programmed
DK-065C	Panola Rd.: Segment 3	Roadway Capacity	Widen road from 4 to 6 lanes	Programmed
DK-065E	Panola Rd.: Segment 5	Roadway Capacity	Widen road from 4 to 6 lanes	Programmed
DK-327A	Hayden Quarry Rd. / Sigman Rd. Extension	Roadway Capacity	New 4-lane roadway alignment	Programmed
DK-328	Lithonia Ind. Blvd. Extension: Phase III	Roadway Capacity	New 4-lane roadway alignment	Programmed
DK-330	Turner Hill Rd.	Roadway Capacity	Widen road from 2 to 4 lanes	Programmed
DK-342A	Rockbridge Rd.	Roadway Operations	Widen road from 2 to 4 lanes	Programmed
DK-AR-206	I-285 South	Interchange Capacity	Additional turn lanes, added capacity on the bridge & improved signalization	Programmed
DK-AR-241	I-285 East	Interchange Capacity	Comprehensive interchange reconstruction	Programmed
DK-AR-242	I-20 East	Interchange Capacity	Add left turn lane from NB Panola Road to WB I-20.	Programmed
RO-015E	Parker Rd.: Phase III	Roadway Capacity	Widen Road from 2 to 4 lanes	Programmed
RO-034	Old Covington Hwy.	Roadway Capacity	Widen Road from 2 to 4 lanes	Programmed
RO-138B	SR 138 (Stockbridge Hwy.)	Roadway Operations	Operational improvements to SR 138	Programmed
RO-235C	Sigman Rd.	Roadway Capacity	Widen Road from 2 to 4 lanes	Programmed
RO-235E2	Sigman Rd.	Roadway Operations	Add left and right turn lanes at all intersection approaches.	Programmed
RO-237	Klondike Rd.	Roadway Operations	Realign intersection approaches	Programmed
RO-238	Old Covington Rd.	Roadway Operations	Add left and right turn lanes and realign intersection.	Programmed
DK-030A	Covington Hwy./US 278	Roadway Capacity	Widen road from 2 to 4 lanes with center turn lane	Programmed
DK-030B	Covington Hwy./US 278	Roadway Capacity	Widen road from 2 to 4 lanes with center turn lane	Long Range
DK-065A	Panola Rd.: Segment 1	Roadway Capacity	Widen road from 2 to 4 lanes	Long Range
DK-162	Bouldercrest Rd.	Roadway Capacity	Widen road from 2 to 4 lanes	Long Range
DK-340	Wesley Chapel Rd.	Roadway Capacity	Widen road from 2 to 4 lanes	Long Range
DK-341A	Flakes Mill Rd.	Roadway Capacity	Widen road from 2 to 4 lanes	Long Range
DK-AR-207	I-285 South	Interchange Upgrade	Additional turn lanes on bridge and improved signalization	Long Range
RO-217A	Old Salem Rd.: Segment I	Roadway Capacity	Widen Road from 2 to 4 lanes	Long Range
RO-222B	East Freeway Dr. Extension: Phase II	Roadway Capacity	New 4-lane roadway linking	Long Range
RO-235A	Sigman Rd. Extension / Hayden Quarry Rd.	Roadway Capacity	New four-lane parkway	Long Range
RO-235E1	Sigman Rd.	Roadway Capacity	Widen Road from 2 to 4 lanes	Long Range
RO-235D	SR 20/Sigman Rd.	Roadway Capacity	Widen Road from 2 to 4 lanes	Long Range
RO-243	Salem Gate Extension and I-20 Overpass	Roadway Capacity	New 4-lane connection	Long Range
RO-AR-138	SR 138/20 at I-20	Roadway/Interchange Capacity	Bridge widening and ramp improvements	Long Range

Source: Plan 2040 RTP/TIP

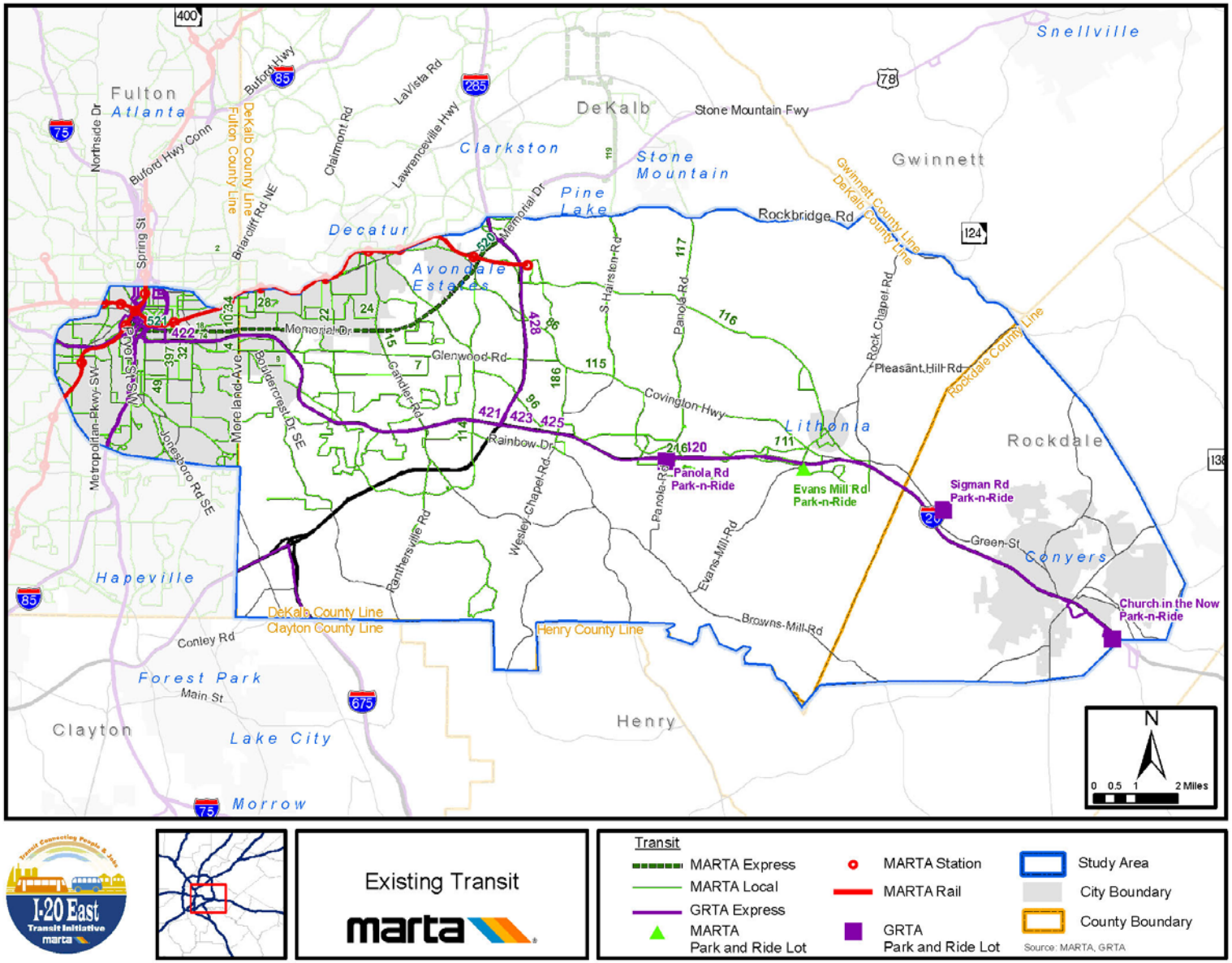
Of note is the absence of any widening or addition of HOV/managed lanes along I-20. The lack of planned and programmed projects to increase east-west capacity or mobility further highlights the need for additional east-west mobility options in the study area.

4.1.4 Existing Transit Services

The following section summarizes the existing transit service within the I-20 East Corridor. This analysis is based on an inventory of current services provided by MARTA and GRTA and is organized by rail, bus, and express bus services. MARTA services are presented as they existed in September of 2010. Because MARTA undertook a major restructuring of services in October 2010, examining the network as it existed in September of 2010 allows for a more accurate picture of growth in transit travel demand in the corridor.

As shown on **Figure 4-6** on page 4-16, the western portion of the study area is currently served by both MARTA heavy-rail and bus services. The heavy-rail lines and stations are located in the western end of the study area and along its northwestern perimeter. The easternmost rail station is found at Indian Creek, alongside I-285, at a point approximately one-third of the distance from the study area's western boundary. In contrast, MARTA bus service extends as far east as Lithonia. Bus service to the east of Lithonia consists solely of GRTA *Xpress* commuter bus service.

Figure 4-6: Existing Transit Service Map



MARTA Rail

MARTA offers north-south rail service on its red and yellow lines, and east-west service on its blue and green lines. The red line extends north to North Springs Station, which is on GA-400 north of I-285 in Sandy Springs, and the gold line extends northeast to Doraville Station just south of I-285; both red and gold lines extend south to the Hartsfield-Jackson Atlanta International Airport (HJAIA), which is owned by the City of Atlanta and located in Clayton County north of I-285. The green line extends west to Bankhead Station at Donald Lee Hollowell Parkway NW in west Atlanta, and east to Edgewood/Candler Park Station on DeKalb Avenue NE in eastern Atlanta. The blue line extends west to Hamilton E. Homes Station east of I-285 in west Atlanta; and east to Indian Creek station east of I-285 in Stone Mountain. A map of existing MARTA heavy rail service in the Atlanta metropolitan area can be found in **Figure 4-7** on page 4-18.

MARTA Bus

The I-20 East Corridor is currently served by 21 MARTA bus routes. MARTA bus service primarily connects activity centers to the MARTA rail line, with some local service also offered. In the fall of 2010, MARTA introduced peak-hour limited routes 520 and 521 along Memorial Drive from Kensington Station to points east, Memorial Drive Park-and-Ride and East Ponce de Leon at Mountain Industrial Boulevard. Extension of this service westward into downtown Atlanta is included in the planned and programmed transit projects in the RTP. MARTA bus routes that serve the study area and their service types are listed in **Table 4-9** below.

As can be seen from **Figure 4-6**, MARTA service is strongest within the I-285 perimeter. East of I-285, MARTA bus service primarily provides feeder service from the Lithonia area and other locations north of I-20 to rail stations along the MARTA east line. The area south of I-20 and east of I-285 has little to no MARTA bus service to connect potential riders with local destinations or the MARTA rail network.

Table 4-9: MARTA Bus Routes that Serve the Study Area

Route	Name	Termini	Type
2	Ponce de Leon Ave/Moreland Ave	North Avenue Station and Edgewood/Candler Park Station	Rail Feeder
4	McDonough Blvd/Moreland Ave	Inman Park Station and Five Points Station	Rail Feeder
9	Toney Valley	Toney Dr and Five Points Station	Rail Feeder
15	Candler Rd/South DeKalb	Clevemont Rd to Decatur Station	Rail Feeder
21	Memorial Drive	Kensington Station to Five Points	Rail Feeder
24	East Lake/Hosea Williams	East Lake Station and Edgewood/Candler Park Station	
32	Eastland/Bouldercrest	Bouldercrest to King Memorial	Rail Feeder
34	Gresham Rd	Gresham to Inman Park Station	Rail Feeder
49	McDonough Blvd	Moreland Drive at Woodland Ave to Alabama and Forsyth	
74	Flat Shoals/South DeKalb	Flat Shoals and Five Points Station	Local/Express
86	Fairington Rd/Lithonia	Lithonia to Indian Creek Station	Rail Feeder
107	Glenwood Rd	Indian Creek Station to Inman Park Station	Rail Feeder
111	Hillandale Dr/Stonecrest	Stonecrest Mall to Indian Creek Station	Rail Feeder
114	Columbia Dr	Clifton Springs Rd to Avondale Station	Rail Feeder
115	Covington Hwy	Lithonia to Kensington Station	Rail Feeder
116	Redan Rd/Stonecrest	Stonecrest Mall to Indian Creek Station	Rail Feeder
117	Rockbridge Rd/Panola Rd	GRTA Park and Ride to Kensington Station	Rail Feeder
119	Kensington Road/Hairston Road	Memorial drive PNR to Indian Creek Station	
186	Rainbow Dr./Wesley Chapel Rd	Indian Creek Station to Spring St. & Poplar	Local/Express
520	Q Memorial Drive Limited	Ponce de Leon Ave at N Hairston Rd to Kensington Station	Express
521	Q Memorial Drive Express	Memorial Drive Park-and-Ride to Kensington Station	Express

Source: MARTA

Figure 4-7: MARTA Heavy Rail Service

Source: MARTA

GRTA *Xpress* Bus Service

GRTA began operating its *Xpress*-branded express bus service within the I-20 East Corridor in 2006. GRTA *Xpress* operates service from the Panola Road, Sigman Road and East Conyers Park & Ride lots in the corridor to the Downtown, Midtown and Perimeter Center employment centers. These commuter-driven, express routes offer one-way service during AM and PM peak hours. GRTA routes do not offer reverse-commute options, local service, or weekend operations. *Xpress* bus riders can transfer to MARTA rail and bus services for free using the Breeze Smartcard. GRTA bus routes that serve the study area are shown in **Table 4-10** below.

Table 4-10: GRTA Bus Routes in the Study Area

Route	Name	Termini
420	W. Conyers to Downtown	Sigman P&R to Five Points & Civic Center
421	W. Conyers to Midtown	Sigman P&R to Civic Center & Arts Center
422	Panola Rd to Downtown	Panola P&R to Five Points & Civic Center
423	E. Conyers/Panola to Midtown	Panola P&R to Civic Center & Arts Center
425	E. Conyers to Downtown	Church in the Now to Five Points & Civic Center
428	Panola Rd to Perimeter	Panola P&R to Dunwoody & Medical Center

Source: GRTA

4.1.5 Planned and Programmed Transit Services

There are several additions to the transit network that are planned and programmed within the study area. These transit projects find their source in the Plan 2040 RTP and TIP (2011) and the Concept 3 Regional Transit Vision Plan (2008). The Plan 2040 projects are programmed and long range, while the projects included in Concept 3 represent a vision for the Atlanta metropolitan area's potential transit future. Planned and programmed transit improvements are listed in **Table 4-11** on page 4-20 and mapped in **Figure 4-8** on page 4-21. Among these projects is the I-20 East Corridor High Capacity Rail Service.

Of the transit improvements planned and programmed for the study area, the Atlanta BeltLine project is of special importance to this study, due to the possibility of a direct connection with the I-20 East transit alignment. The Atlanta BeltLine project would provide a network of public parks, multi-use trails and transit along a 22-mile railroad corridor circling downtown. Due to its presence in the western end of the I-20 East Corridor study area, the Atlanta BeltLine has the potential to be a transfer point where the two alignments are in close proximity or intersect.

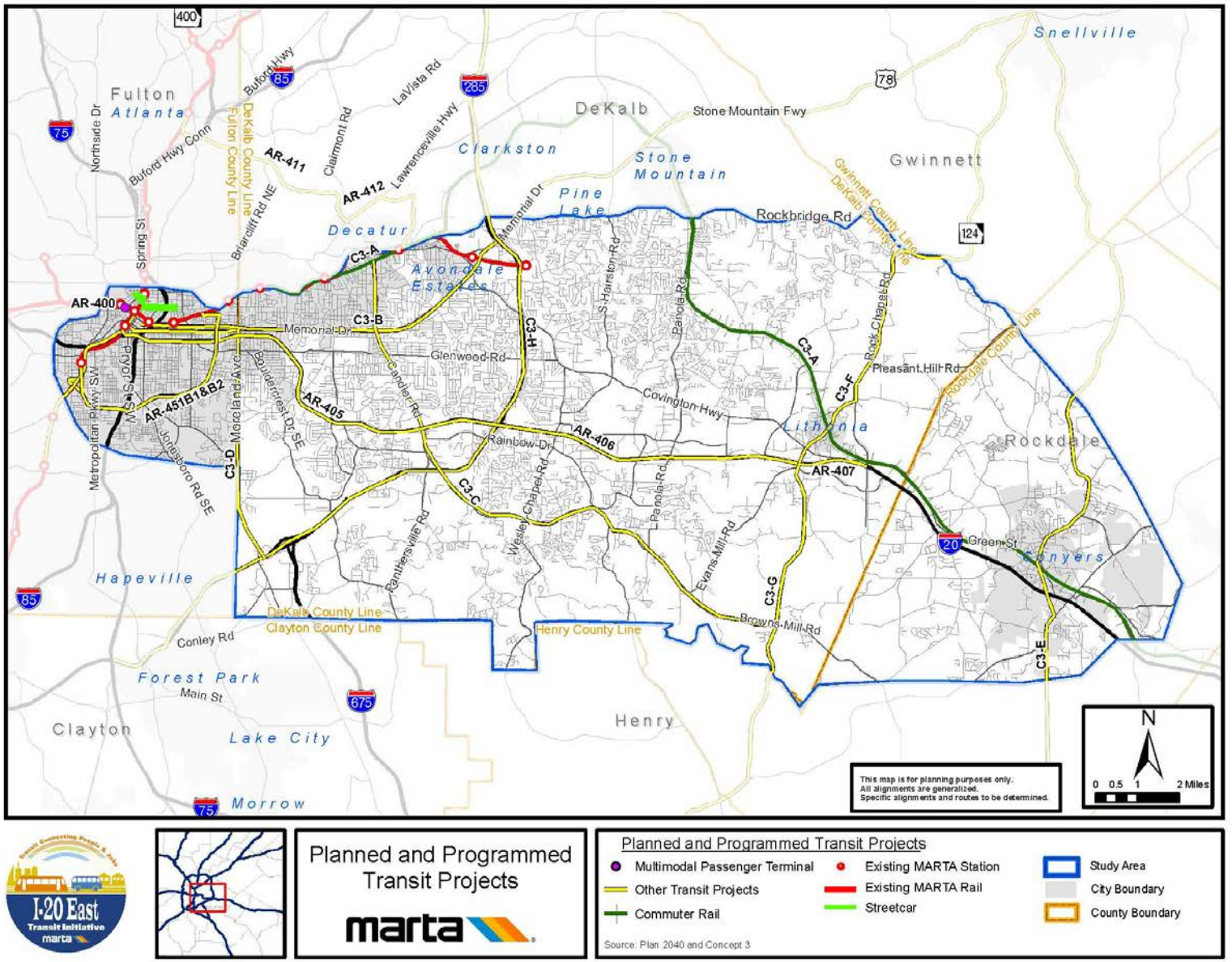
The ongoing Clifton Corridor Transit Imitative has proposed a connection from the Emory university area to the existing MARTA Avondale station. In the case that the In-20 East Transit Initiative elects an LPA which extends the existing MARTA east-west line, riders would then be able to transfer to that proposed transit line at Avondale station.

Table 4-11: Planned and Programmed Transit Improvements

Source	ID	Name	Project Type	Location	Status
Plan 2040	AR-451B1	Belt Line Transportation Corridor – SE Quadrant	Fixed Guideway Transit	City of Atlanta	Long Range
Plan 2040	AR-451B2	Belt Line Transportation Corridor – SE Quadrant	Fixed Guideway Transit	City of Atlanta	Long Range
Plan 2040	AR-400	Multimodal Passenger Terminal	Transit / Facilities Capital	Regional	Programmed
Plan 2040	AR-405	East Corridor High Capacity Rail Service – Central Atlanta to S. DeKalb Mall area	Transit / Rail Capital	Regional-East	Long Range
Plan 2040	AR-406	East Corridor High Capacity Rail Service – S. DeKalb Mall to Panola Road	Transit / Rail Capital	Regional-East	Long Range
Plan 2040	AR-407	East Corridor High Capacity Rail Service – Panola Road to Stonecrest Mall area	Transit / Rail Capital	Regional-East	Long Range
Plan 2040	AR-411	Clifton Corridor High Capacity Rail Service	Transit / Rail Capital	Regional-East	Long Range
Plan 2040	AR-412	Clifton Corridor High Capacity Rail Service	Transit / Rail Capital	Regional-East	Long Range
Concept 3	C3-A	Madison Commuter Rail	Commuter Rail	Multi-Jurisdictional	Long Range
Concept 3	C3-B	Memorial BRT	Arterial BRT	Multi-Jurisdictional	Long Range
Concept 3	C3-C	Candler Road BRT	Arterial BRT	DeKalb County	Long Range
Concept 3	C3-D	Moreland Avenue BRT	Arterial BRT	Multi-Jurisdictional	Long Range
Concept 3	C3-E	SR20 Express Bus	Bus	Multi-Jurisdictional	Long Range
Concept 3	C3-F	SR 124 Express Bus	Bus	Multi-Jurisdictional	Long Range
Concept 3	C3-G	SR 138 Express Bus	Bus	Multi-Jurisdictional	Long Range
Concept 3	C3-I	Atlanta Streetcar	Streetcar	City of Atlanta	Programmed
Concept 3	C3-H	I-285 Express Bus	Bus	Multi-Jurisdictional	Long Range

Source: Plan 2040 RTP/TIP and Concept 3

Figure 4-8: Planned and Programmed Transit Services



4.2 Travel Trends

The purpose of this section is to examine the current travel trends and travel patterns along with transit service patronage levels to provide insight into the future mobility needs within the I-20 East Corridor. The subsections that follow describe the range of data used, the methodology and analysis results.

4.2.1 Analysis Methodology

An analysis of the travel patterns, demands, and mobility constraints within the study area will allow this study to better identify the location and type of transit investments that would most effectively address the transportation needs within the corridor. The source of information for this analysis was the ARC regional TDM in conjunction with current and historical trip demand, mode share, and transit ridership data. Projections from the TDM utilize a horizon year of 2030, because when this analysis began, data to support a horizon year of 2040 were not yet available. **Table 4-12** below summarizes the data and resources used in this report.

Table 4-12: Data Summary

Data	Time Period	Source
Trip Tables, Travel Times, Mode Share	2005, 2035	ARC TDM
GRTA Xpress Routes Monthly Ridership and Average Daily Boardings	2006 -2009	GRTA
ARC On-Board Survey, Weekday trips between stations	Oct. 2009	ARC
Daily Rail Station Entries	2007- 2009	MARTA

his analysis involves a large study area. As such, the traffic analysis zones (TAZs) used to determine the major origins and destinations were aggregated into larger travel districts (**see Figure 4-9** on page 4-24). The ARC's travel districts were used as the basis and tailored to better represent the trip-makings between the I-20 East Corridor and other travel districts in the region. Within the study area, 10 districts were created to better capture the travel markets in the corridor. These districts include:

- I-20 CBD: Includes the entirety of the downtown Central Business District (CBD) area as defined by ARC.
- I-20 Fulton: Is comprised of the remaining portion of Fulton County within the study area.
- I-20 S DeKalb Mall: Refers to the TAZs that make up the South DeKalb Mall area as defined by ARC.
- I-20 DeKalb Inside the Perimeter (ITP): Refers to the remaining portion of DeKalb County area inside the I-285 Perimeter.
- I-20 S DeKalb/W Panola: Includes the area within the study area south of I-20, generally west of I-285 and bound by Panola Road to the west.
- I-20 N DeKalb/W Panola: Includes the area within the study area north of I-20, generally west of I-285 and bound by Panola Road to the west.
- I-20 N DeKalb/E Panola: Includes the remaining portion of DeKalb County within the study area north of I-20 and east of Panola Road.
- I-20 Stonecrest: Refers to the TAZs that make up the Mall at Stonecrest area as defined by ARC.
- I-20 S DeKalb/E Panola: Includes the remaining portion of DeKalb County within the study area south of I-20 and east of Panola Road.

- I-20 Rockdale: Refers to the TAZs within the study area that are located in Rockdale County and the City of Conyers.

4.2.2 Major Origins and Destinations

The I-20 East Corridor is characterized by inadequate access to Downtown Atlanta and other major employment centers because the transportation system that serves the corridor has been unable to keep pace with the increasing travel demand from growth and development. This affects travelers that use the corridor to reach their origins or destinations, particularly those traveling to and from Downtown Atlanta and other activity centers.

The ARC model estimates that out of the total 14.7 million daily person trips in the Atlanta Region in 2005, 2.6 million either began or ended in the I-20 East corridor, as shown in **Table 4-13** below**.** These trips accounted for nearly 18 percent of all regional daily person trips in 2005. The total number of study area trips is expected to increase to 3.5 million daily trips by 2030, a 35 percent increase.

Table 4-13: I-20 East Corridor Total Trips

	Regional Daily Person Trips	
	Year 2005	**Year 2030**
I-20 East Corridor	2,600,000	3,500,000
Entire Region	14,700,000	21,900,000
Percent in the I-20 East Corridor	17.7%	16.0%

Source: 2005 and 2030 ARC Travel Demand Model

District-to-district trips represent all trips made by all modes, including walking, auto, and transit. Trips originating in a particular district are referred to as trip productions and trips ending in a particular area are referred to as trip attractions. A home-based work (HBW) trip is defined as a trip made for the purpose of work, which either begins or ends at home. HBW trips are typically used to make major investment decisions in recognition of the significance in providing mobility and viable transportation alternatives for commuters. Furthermore, HBW trips are the predominant trip purpose for those traveling via carpool or transit. These trips are presented in **Table 4-14** on page 4-25.

Figure 4-9: Travel Districts

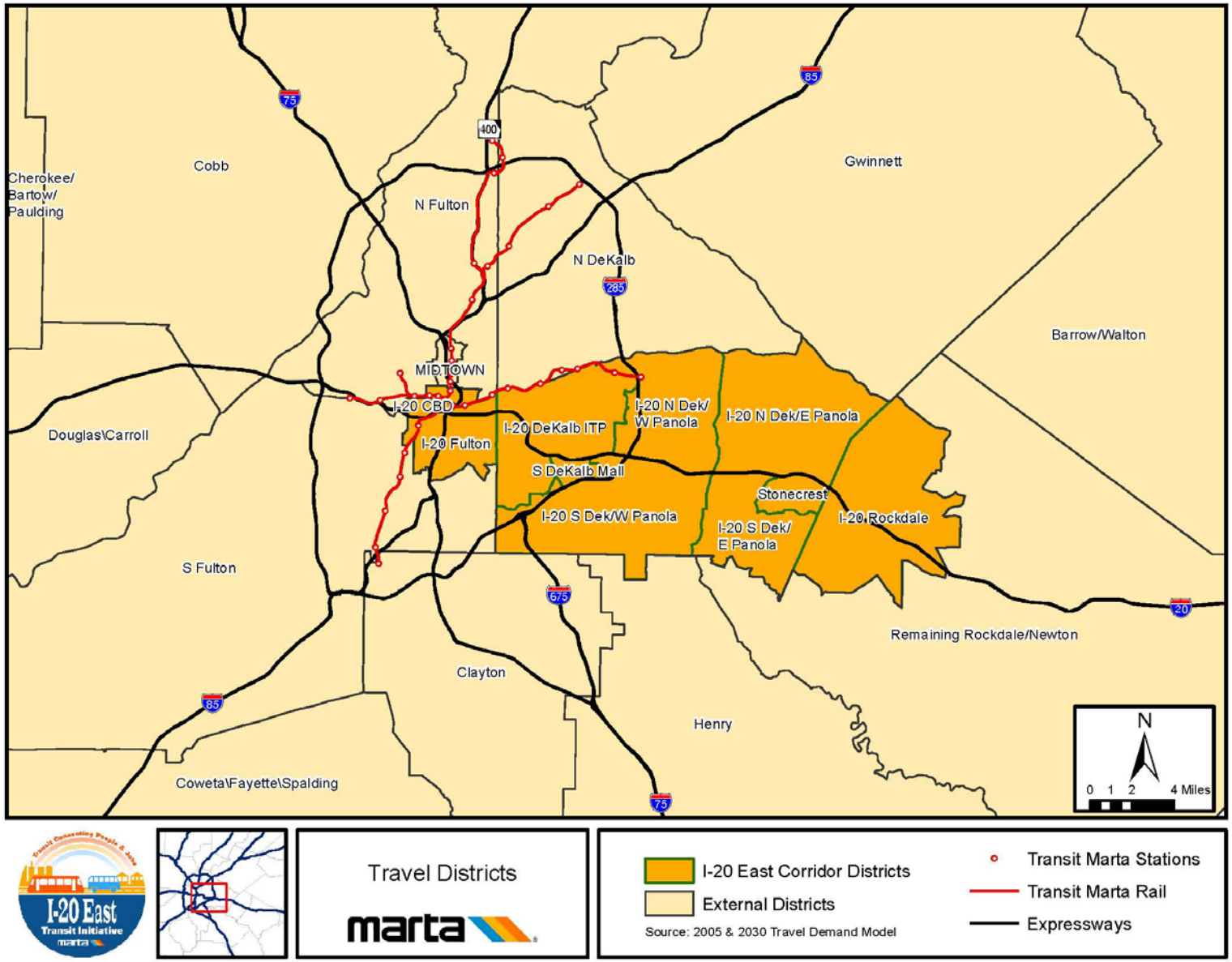


Table 4-14: Home-Based Work Trip Productions

Production District	2005		2030		Change	Growth
	Trips	Share	Trips	Share		
Internal	**82,200**	**27%**	**133,400**	**31%**	**51,200**	**62%**
I-20 DeKalb ITP	17,100	6%	24,900	6%	7,800	46%
I-20 N DeKalb W of Panola	12,700	4%	17,600	4%	4,900	39%
I-20 N DeKalb E of Panola	12,700	4%	21,100	5%	8,400	66%
I-20 Fulton	11,600	4%	19,100	4%	7,500	65%
I-20 S DeKalb W of Panola	11,100	4%	16,300	4%	5,200	47%
I-20 Rockdale	8,400	3%	18,800	4%	10,400	124%
I-20 S DeKalb E of Panola	4,700	2%	8,800	2%	4,100	87%
I-20 CBD	1,800	1%	3,400	1%	1,600	89%
I-20 S DeKalb Mall	1,500	0%	2,000	0%	500	33%
I-20 Stonecrest	600	0%	1,400	0%	800	133%
External	**218,500**	**73%**	**299,600**	**69%**	**81,100**	**37%**
N Fulton	28,100	9%	32,900	8%	4,800	17%
S Fulton	26,500	9%	36,900	9%	10,400	39%
N DeKalb	25,300	8%	31,200	7%	5,900	23%
Gwinnett	23,500	8%	26,400	6%	2,900	12%
Cobb	22,000	7%	23,900	6%	1,900	9%
Clayton	20,900	7%	25,000	6%	4,100	20%
Remain Rockdale/Newton	20,000	7%	42,500	10%	22,500	113%
Henry	16,300	5%	33,900	8%	17,600	108%
Coweta/Fayette/Spalding	11,700	4%	12,900	3%	1,200	10%
Other	29,700	10%	39,500	9%	9,800	33%
Total	**300,700**	**100%**	**433,000**	**100%**	**132,300**	**44%**

Source: 2005 and 2030 Travel Demand Model

Table 4-14 presents the origins or production districts and the corresponding number of HBW trips into the I-20 East Corridor. The table is organized by production trip types – internal and external. Overall, work trips to the corridor are expected to increase by 44 percent by 2030. Internal trip growth (62 percent) is expected to be much higher than external trip growth (32 percent), a phenomenon which reflects the significant number of employment centers and their associated employment growth in the corridor, especially within and surrounding the I-20 CBD (Downtown Atlanta). The highest share of trips from within the study area originates from the residential areas concentrated in the I-20 DeKalb ITP district, followed by the districts north of I-20. As would be expected of employment centers such as the I-20 CBD, South DeKalb Mall and Mall at Stonecrest, very few HBW trips originate in these districts.

Not surprisingly, the commuters traveling into the corridor are spread fairly evenly throughout the neighboring counties, including Fulton, DeKalb, Gwinnett, Cobb, Clayton, and remaining Rockdale/Newton. By 2030, the remaining Rockdale/Newton area is expected to emerge as the external district with the highest share of work trips to the corridor. This trend will continue to place pressure on the I-20 East corridor to accommodate traffic growth.

Table 4-15 on page 4-26 presents the destinations and the number of HBW trips that originate from within the corridor. In 2005, approximately 255,000 HBW trips were made from the corridor. This number is expected to be 363,600 by 2030, an increase of 43 percent. This is representative of the high level of growth expected in the study area. It is important to note that the I-20 CBD is a primary destination for many HBW trips in the region, attracting 12 percent of all HBW trips made into the corridor.

For those corridor residents who live and work within the corridor, the I-20 CBD district is by far the most popular (12 percent) work destination with almost 30,000 trips. By 2030, the number of HBW trips to the I-20 CBD district from the corridor is expected to increase to 41,000. When Midtown Atlanta is included with the I-20 CBD, the percentage of HBW trips to this area rises to 18 percent, or 43,800 trips, from the corridor. By 2030 this number rises to 61,400. With Midtown immediately adjacent to I-20 CBD, trips to this area can be considered a single destination.

Table 4-15: Home-Based Work Trip Destinations

Attraction District	2005		2030		Change	Growth
	Trips	Share	Trips	Share		
Internal	**82,200**	**32%**	**133,400**	**37%**	**51,200**	**62%**
I-20 CBD	29,600	12%	41,000	11%	11,400	39%
I-20 Rockdale	11,000	4%	17,400	5%	6,400	58%
I-20 DeKalb ITP	9,400	4%	19,400	5%	10,000	106%
I-20 Fulton	9,100	4%	14,300	4%	5,200	57%
I-20 N DeKalb W of Panola	8,400	3%	14,900	4%	6,500	77%
I-20 S DeKalb W of Panola	5,700	2%	7,200	2%	1,500	26%
I-20 N DeKalb E of Panola	5,600	2%	10,200	3%	4,600	82%
I-20 S DeKalb E of Panola	1,300	1%	4,600	1%	3,300	254%
I-20 S DeKalb Mall	1,100	0%	1,800	0%	700	64%
I-20 Stonecrest	1,000	0%	2,600	1%	1,600	160%
External	**172,800**	**68%**	**230,200**	**63%**	**57,400**	**50%**
N DeKalb	45,900	18%	61,800	17%	15,900	35%
N Fulton	31,600	12%	43,100	12%	11,500	36%
Gwinnett	20,500	8%	26,800	7%	6,300	31%
Clayton	17,500	7%	19,800	5%	2,300	13%
S Fulton	17,200	7%	22,400	6%	5,200	30%
Midtown	14,200	6%	20,400	6%	6,200	44%
Cobb	10,500	4%	12,700	3%	2,200	21%
Other	15,400	6%	23,200	6%	7,800	51%
Total	**255,000**	**100%**	**363,600**	**100%**	**108,600**	**43%**

Source: 2005 and 2030 Travel Demand Model

While a large percentage of trips (18 percent) are destined for the North DeKalb area, this destination represents a large geographical area encompassing the Emory University/Centers for Disease Control and Prevention (CDC) area, the North DeKalb Mall and Lavista area, as well as Perimeter Center. The same is true for the North Fulton area which includes the cities of Sandy Springs, Roswell, Alpharetta, Johns Creek, and Milton. Thus, while a higher overall percentage of corridor HBW trips are destined for North Fulton and DeKalb, the I-20 CBD and Midtown Atlanta area are the largest concentrated destination for HBW trips in the corridor. The primary destinations for HBW trips are further examined in the next section.

4.2.3 Select Link Analysis

In order to provide further analysis of the travel patterns and trip destinations within the corridor, a select link analysis was performed. This select link analysis utilizes the travel demand model to better identify routes and destinations of trips within the study area. As shown in **Figure 4-10** on page 4-28, the segment of I-20 just east of I-285 was selected to capture the travel patterns of those trips which utilize that section of I-20 as part of the HBW trip. As presented in Figure 2-1, the path of traffic traveling through the selected link is represented by the dark line, with the thickness of the line representing the number of trips. As presented, the majority of HBW trips utilizing I-20 just east of I-285 travel to

and from the I-20 CBD. While a large percentage of trips do utilize I-285 to travel north or south, the majority of HBW trips on I-20 travel to or from the I-20 CBD.

Figure 4-11 on page 4-29 presents another select link analysis in which the dots represent the number of trip ends (destinations) for HBW trips utilizing this same segment of I-20. The findings of this analysis clearly indicate that the I-20 CBD and Midtown Atlanta area represent the highest concentration of HBW trip destinations within the corridor. A second concentration of trip ends can be seen within the study area north of I-20 and east of I-285 in the Snapfinger Woods Drive industrial area.

4.2.4 Travel Times

Corridor stakeholder interviews held in the Spring and Summer of 2010 identified improved mobility and access as a primary transportation need within the corridor. Previous studies in the corridor, the South DeKalb-Lindbergh Major Investment Study (2000) and the I-20 East Corridor Alternatives Analysis (2004) have also concluded that the corridor has significant mobility constraints. Mobility and access have decreased within the corridor over the past 20 years for several reasons. These include increasing traffic congestion, lack of east-west transportation facilities, and the lack of rapid transit service along most of the corridor.

In order to quantify the mobility constraints within the corridor as well as identify which areas of the corridor are most impacted by these constraints, an analysis of existing and future travel times was performed. In order to better understand the mobility and access constraints facing the corridor, both highway and transit travel times were analyzed. Since travel times are affected by congestion, the highway network, and the transit facilities and service, it is an invaluable measure of the level of mobility constraints within a study area.

Travel times were analyzed during the AM and PM peak travel hours for this analysis since mobility within the corridor and access to jobs and housing is most affected during these periods. Congestion on study area roadways was identified as the primary cause of slow travel times, both for automobiles and local and express bus transit. While traffic congestion does not hinder travel times on the MARTA Blue Line within the study area, access to stations via automobile or bus are influenced by this congestion.

Travel times between the I-20 CBD and the Mall at Stonecrest, a trip of 18 miles, were analyzed to quantify the declining mobility between these two major activity centers within the corridor. **Table 4-16** on page 4-30 presents the peak period travel times for both automobiles and transit in 2005 and 2030 in the corridor. The table shows that trips into the I-20 CBD in the AM period experience significant delay compared to travel in the non-peak direction. The same is true for the PM peak period, with eastbound trips taking appreciably longer than westbound trips. Furthermore, peak direction travel times are expected to worsen considerably more than non-peak directional travel times between 2005 and 2030. This deterioration of travel times is a direct result of increasing traffic congestion.

Figure 4-10: Select Link Analysis – Trip Destinations (2005 AM Peak Period)

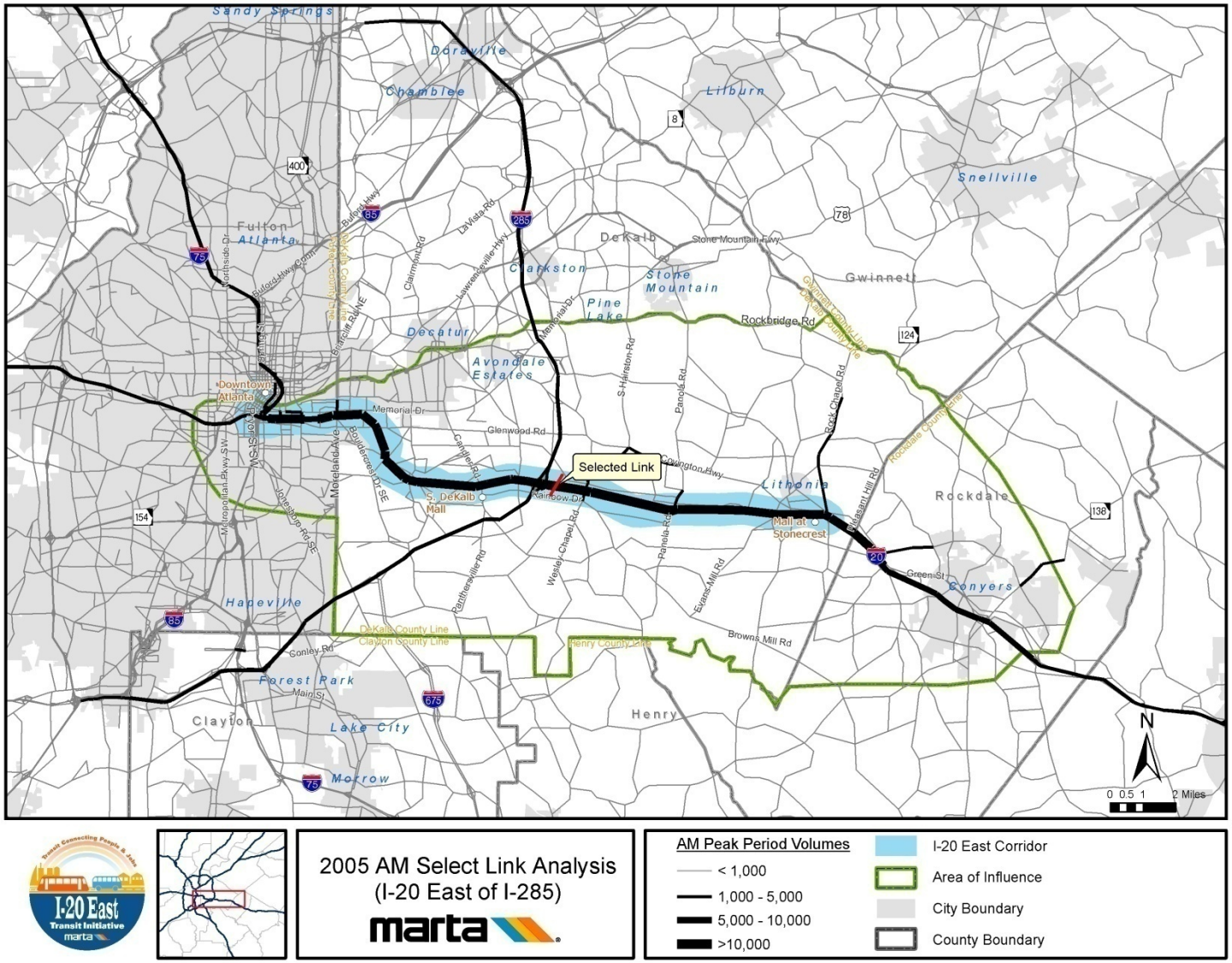


Figure 4-11: Select Link Analysis – Trip Destinations (2030 AM Peak Period)

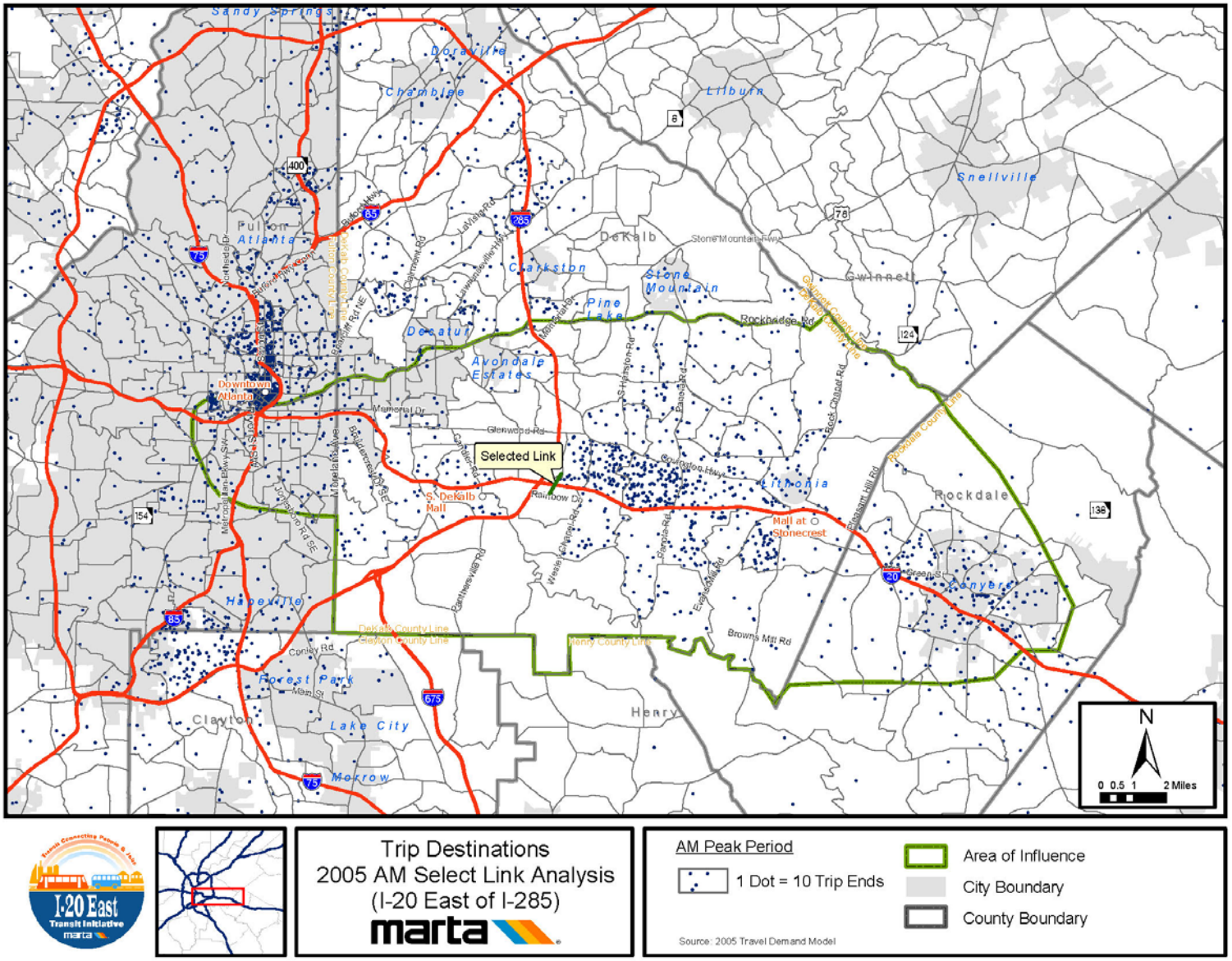


Table 4-16: Travel Times from Mall at Stonecrest to I-20 CBD (2005 & 2030) in Minutes

Mode	2005		2030		% Change 2005 - 2030	
	AM	PM	AM	PM	AM	PM
Car						
Mall at Stonecrest to I-20 CBD	51.55	35.52	63.49	37.51	23%	6%
I-20 CBD to Mall at Stonecrest	30.29	49.86	31.13	66.26	3%	33%
Transit						
Mall at Stonecrest to I-20 CBD	58.11	43.11	65.98	45.40	14%	5%
I-20 CBD to Mall at Stonecrest	38.56	56.72	39.77	68.16	3%	20%

Source: 2005 and 2030 Travel Demand Model

Transit travel times for this analysis are only slightly longer. Since the primary mode of transit between the Mall at Stonecrest and the I-20 CBD is express bus, it is not surprising that the travel times would be similar to automobile travel since these buses operate in the same congested conditions as automobiles.

While an analysis of travel times between the Mall at Stonecrest and the I-20 CBD does quantify the mobility constraints between these two activity centers, this analysis does not represent travel within the entire corridor. As the previous sections highlight, the I-20 CBD represents the largest single destination for travel within the corridor; however, in order to quantify mobility throughout the corridor, travel times to and from the I-20 CBD for the entire corridor must be quantified.

The average length of trips made inside the corridor to and from the I-20 CBD is projected to lengthen considerably over the next 20 years. In 2005, just four percent of automobile trips to and from downtown from within the corridor took longer than one hour. By 2030, however, 21 percent of the AM trips and 28 percent of the PM trips to the I-20 CBD from within the corridor are projected to take one hour or more. The increase in travel times from 2005 to 2030 highlights the reduction in mobility expected for study area residents. **Table 4-17** below presents travel times to and from the I-20 CBD for automobile trips from the entire study corridor during peak hours in 2005 and 2030.

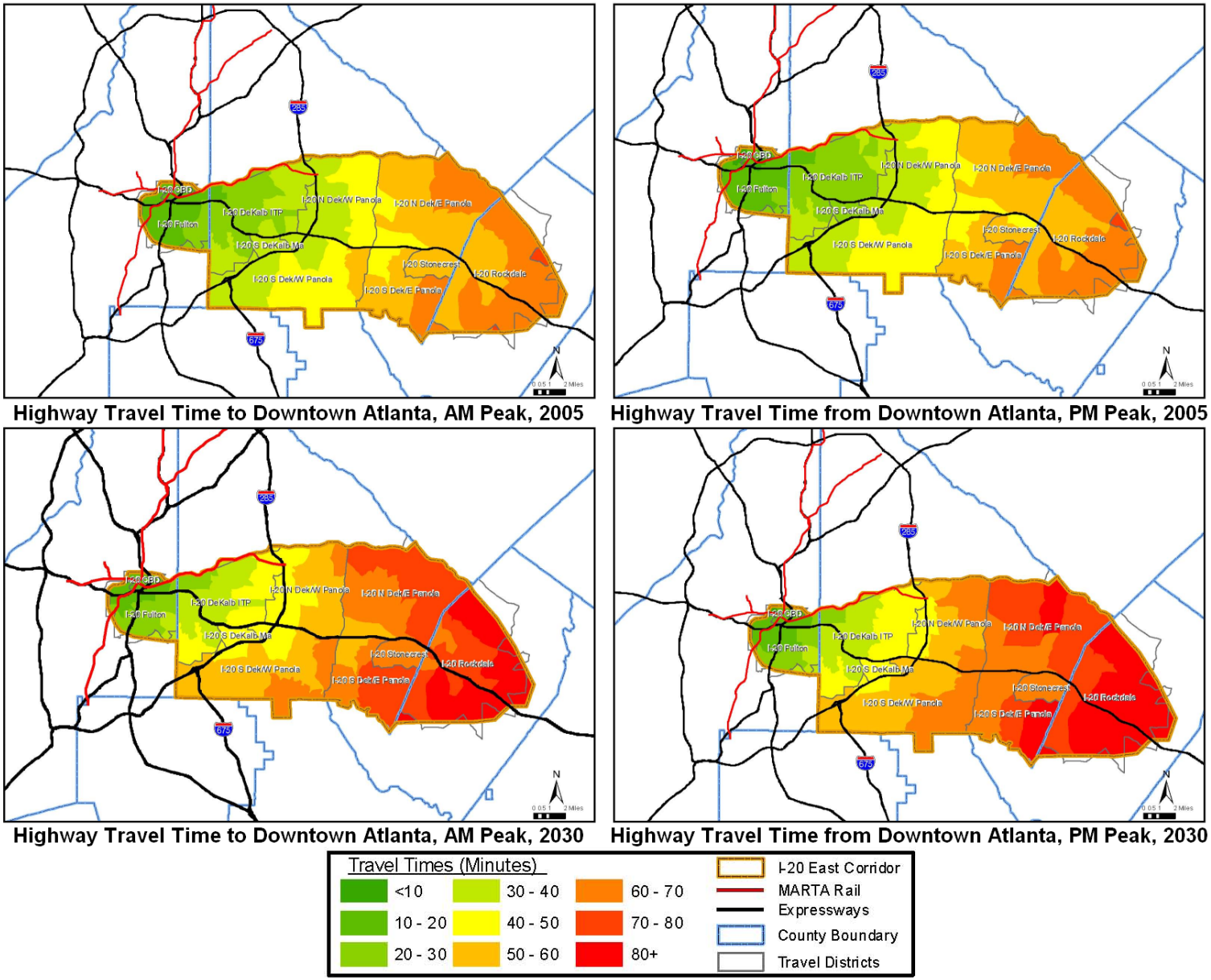
Table 4-17: AM and PM Peak Hour Automobile Travel Times between Study Area and the I-20 CBD

	Year 2005		Year 2030	
Travel Time Range (minutes)	**AM Trips to Downtown Atlanta**	**PM Trips from Downtown Atlanta**	**AM Trips to Downtown Atlanta**	**PM Trips from Downtown Atlanta**
0 - 15	9%	19%	6%	11%
15 - 30	37%	34%	28%	26%
30 - 45	29%	24%	21%	16%
45 - 60	21%	18%	24%	19%
> 60	4%	4%	21%	28%

Source: 2005 and 2030 Travel Demand Model

Figure 4-12 on page 4-31 presents corridor automobile travel times to and from Downtown Atlanta for 2005 and 2030 in both AM and PM peak periods. This analysis was prepared to better quantify the mobility constraints of the corridor, and identify which areas within the corridor experience the highest mobility constraints. Figure 4-12 reveals that, in 2005, only the eastern travel districts experience travel times of greater than 50 minutes. By 2030 however, most travel districts west of I-285 are expected to experience travel times of greater than 50 minutes with much of the area experiencing travel times of 60 - 80+ minutes.

Figure 4-12: 2005/2030 Peak Period Automobile Travel Times to and from Downtown Atlanta



In order to further identify which areas of the study corridor are expected to experience the greatest loss of mobility by 2030, average travel times to and from Downtown Atlanta for all travel districts were calculated. **Table 4-18** below lists the average travel time by automobile to and from Downtown Atlanta from each I-20 travel district. As presented in this table, all travel districts east of I-285 are expected to experience travel times approaching or exceeding one hour by 2030.

Table 4-18: AM and PM Peak Hour Average Automobile Travel Times to and from Downtown Atlanta by I-20 Travel Districts (2005 & 2030) in Minutes

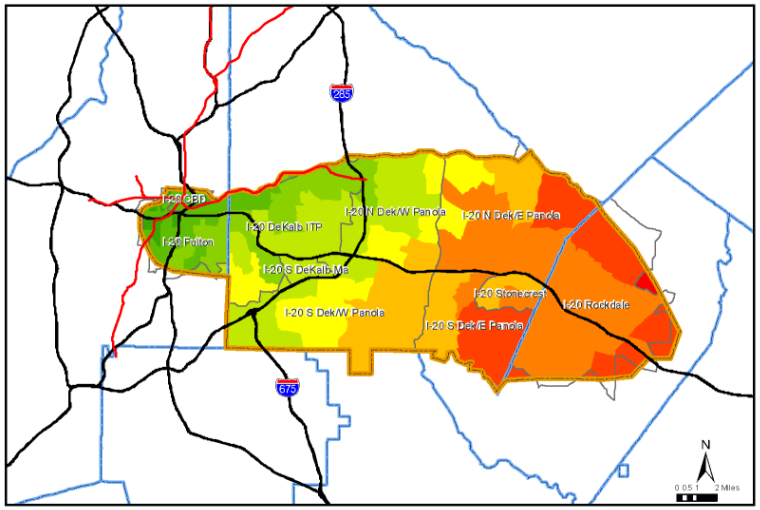
Travel District	Travel Time To Downtown (in minutes)		Travel Time From Downtown (in minutes)	
	2005 AM Peak	2030 AM Peak	2005 PM Peak	2030 PM Peak
I-20 CBD	12.12	14.45	8.39	11.38
I-20 Fulton	20.75	28.18	17.80	26.57
I-20 S DeKalb Mall	31.72	43.84	29.82	46.05
I-20 DeKalb ITP	33.85	45.72	31.03	49.10
I-20 N DeKalb/W Panola	47.51	58.82	47.31	63.22
I-20 N DeKalb/E Panola	45.56	58.36	45.35	62.40
I-20 S DeKalb/W Panola	48.54	59.97	46.74	61.78
I-20 S DeKalb/E Panola	50.40	63.08	48.61	65.59
I-20 Rockdale	53.14	70.54	55.74	76.03
Stonecrest	51.55	63.49	49.86	66.26

Source: 2005 and 2030 Travel Demand Model

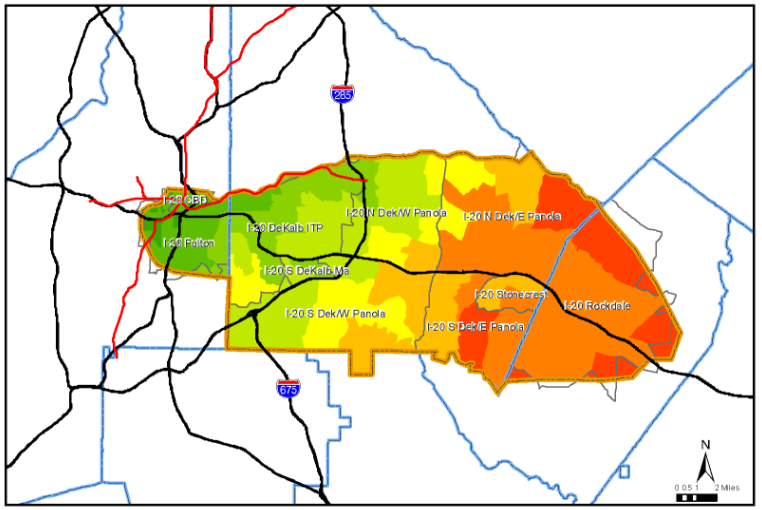
Figure 4-13 on page 4-33 presents transit travel times to and from Downtown Atlanta for 2005 and 2030 in both AM and PM peak periods. The transit travel accounts for local and express bus as well as travel on the existing MARTA heavy rail (Blue Line) within the corridor. As shown in Figure 4-32, transit travel times in the eastern portion of the corridor are extremely long. This is expected to worsen by 2030 since transit service to this area of the corridor is provided by buses operating on congested roadways. It is important to note that transit travel times within 2-3 miles of the existing MARTA heavy rail line are not expected to decline between 2005 and 2030. This is expected since heavy rail service is not affected by increasing traffic congestion. Additionally, 2030 transit travel times in the areas surrounding the eastern end of the MARTA heavy rail line are expected to be shorter than automobile travel times. This further highlights the detrimental effect that congestion will have on automobile travel in the study area.

Table 4-19 on page 4-34 lists the average travel time by transit to and from downtown Atlanta from each I-20 travel district. As with automobile travel times, the travel districts east of I-285 are expected to experience transit travel times approaching or exceeding one hour.

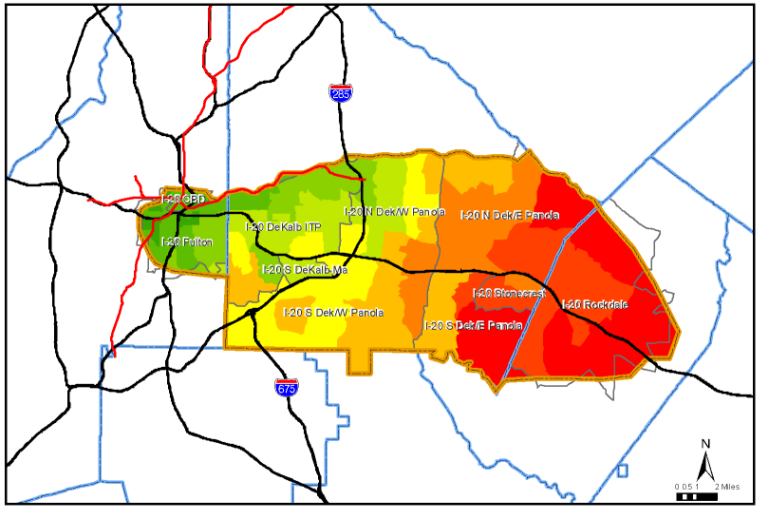
Figure 4-13: 2005/2030 Peak Period Transit Travel Times to and from Downtown Atlanta



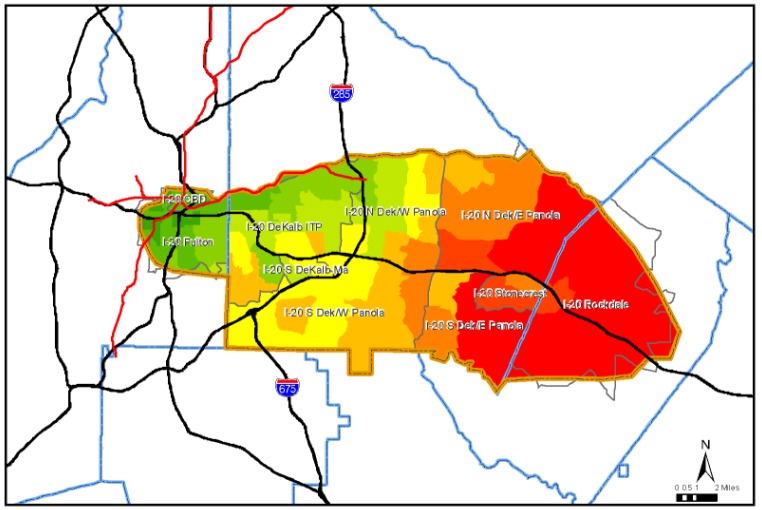
Transit Travel Time to Downtown Atlanta, AM Peak, 2005



Transit Travel Time from Downtown Atlanta, PM Peak, 2005



Transit Travel Time to Downtown Atlanta, AM Peak, 2030



Transit Travel Time from Downtown Atlanta, PM Peak, 2030

Table 4-19: AM and PM Peak Hour Transit Travel Times to and from Downtown Atlanta by I-20 Travel Districts (2005 & 2030) in Minutes

	Travel Time To Downtown (in minutes)		Travel Time From Downtown (in minutes)	
	2005 AM Peak	2030 AM Peak	2005 AM Peak	2030 AM Peak
I-20 CBD	16.81	19.36	14.3	17.54
I-20 S DeKalb Mall	31	38.86	29.78	40.34
I-20 Fulton	22.49	26.61	21.57	26.61
I-20 DeKalb ITP	36.88	40.49	35.95	41.42
I-20 N DeKalb/W Panola	61.59	68.92	61.59	71.27
I-20 N DeKalb/E Panola	54.48	60.77	54.48	62.55
I-20 S DeKalb/W Panola	51.45	53.2	50.48	53.98
I-20 S DeKalb/E Panola	52.99	60.18	51.96	62.2
I-20 Rockdale	63.89	71.67	66.57	76.41
Stonecrest	58.11	65.98	56.72	68.16

Source: 2005 and 2030 Travel Demand Model

The results of this travel time analysis indicate that much of the study area east of I-285 already experiences long travel times and these travel times are expected to worsen significantly by 2030. As presented in this analysis, most areas east of I-285 are expected to experience automobile and transit travel times to and from downtown of one hour or more. Furthermore, without dedicated rapid transit service, much of the study area will not have convenient access to travel time competitive transit service.

4.2.5 Transit Trips

The primary purpose of the I-20 East Transit Initiative is to identify transit investments that would improve east-west mobility and accessibility to jobs and housing within the corridor. In order to identify what type of transit improvements are necessary and where these are most needed, a thorough understanding of the existing and projected transit travel trends is necessary. This section provides a detailed examination of transit trends that focuses on existing and forecast ridership and travel times. As with the previous analysis of overall travel trends in the corridor, travel demand model outputs are used to study existing and forecast trip origins and destinations. Furthermore, recently collected ridership data from GRTA and MARTA also are used to examine existing transit trips and recent trends in the corridor.

Table 4-20 on page 4-35 presents the total number of existing and projected transit trips in the corridor. These transit trips include all trip purposes (e.g., home-based work, home-based other, etc). The number of transit trips have been divided by trip productions from the corridor and trip attractions to the corridor. The model estimates a total of 143,700 transit trips in 2005 and 253,000 trips by 2030. Analysis results revealed that transit trips in the corridor are expected increase at a much higher rate (77 percent) than that of total trips (36 percent) which include all modes.

Table 4-20 also shows more transit trips traveling into the corridor than trips originating from within the corridor. This is primarily due to the inclusion of Downtown Atlanta in the study area. With its high levels of employment and convenient access to the MARTA heavy rail system, the Downtown Atlanta area represents a significant destination of transit trips within the region.

Table 4-20: Total Transit Attractions to and Productions from the I-20 East Corridor

Total Transit Attractions			Total Transit Productions		
2005	2030	Growth	2005	2030	Growth
83,200	145,000	74%	60,500	108,000	79%

Source: 2005 and 2030 Travel Demand Model

Transit trip characteristics are further examined in this section by analyzing HBW trips. As noted previously, HBW trips are made for the purpose of accessing employment that end or begin at home. According to the Transit On-Board Survey, 44,800 (74 percent) of the 60,500 transit trips that originated in the study area in 2005 were taken for work purposes. These HBW trips represent the largest travel market for transit trips within the Atlanta Region. Therefore, HBW trips are commonly used for making major transit investment decisions due to the value in providing access to jobs.

Table 4-21 below provides a breakdown of the origins of commuters who are using transit to access jobs within the corridor. In 2005, the majority (70 percent) of commuters taking transit to work in the corridor did so from outside the study area. The remaining 30 percent of the trip attractions translate to 13,700 transit trips that begin and end in the corridor. By 2030, the number of internal transit trips in the corridor will increase to 25,300, a growth of 83 percent.

Table 4-21: HBW Transit Trip Productions for Travel into the Corridor

Production District	2005		2030		Change	Growth
	Trips	Share	Trips	Share		
Internal	13,700	30%	25,300	33%	11,200	83%
I-20 DeKalb ITP	4,700	10%	8,000	11%	3,300	70%
I-20 Fulton	4,100	9%	8,500	11%	4,400	107%
I-20 N DeKalb W of Panola	2,000	4%	3,000	4%	1,000	50%
I-20 N DeKalb E of Panola	800	2%	1,400	2%	600	75%
I-20 CBD	700	2%	1,400	2%	700	100%
I-20 S DeKalb W of Panola	600	1%	1,300	2%	700	117%
I-20 S DeKalb Mall	300	1%	500	1%	200	67%
I-20 S DeKalb E of Panola	200	0%	500	1%	300	150%
I-20 Rockdale	100	0%	300	0%	200	200%
I-20 Stonecrest	200	0%	400	0%	200	0%
External	31,300	70%	51,300	67%	20,000	63%
N Fulton	8,700	19%	13,000	17%	4,300	49%
S Fulton	8,100	18%	13,600	18%	5,500	68%
N DeKalb	6,100	14%	9,500	13%	3,400	56%
Clayton	2,100	5%	3,400	4%	1,300	62%
Cobb	2,100	5%	3,900	5%	1,800	86%
Gwinnett	1,300	3%	1,600	2%	300	23%
Midtown	1,000	2%	2,300	3%	1,300	130%
Other	1,900	4%	4,000	5%	2,100	111%
Total	44,800	100%	75,700	100%	30,900	69%

Source: 2005 and 2030 ARC Travel Demand Model

As transit accessibility is required for both trip ends to complete the trip, it is no surprise that the top transit origins are located within the MARTA service area (DeKalb and Fulton Counties). Within the corridor, the highest number of HBW transit trips originates from Fulton and DeKalb Counties inside I-285. This is mainly due to the access to MARTA heavy rail and the extensive local bus service within these areas. In 2030, these areas will continue to have the highest transit trip productions, not to mention gain the most

number of trips, with an additional 4,400 and 3,300 trips, respectively. This is likely due to projected increases in the density of land uses surrounding central Atlanta.

The 2005 and 2030 model data reveals relatively few HBW transit trips from the areas in the eastern portions of the study area. This suggests a lack of convenient transit options and travel time competitive transit service. As detailed earlier in this report, areas east of I-285 currently experience long travel times and these are expected to worsen by 2030.

Table 4-22 below details the HBW transit trips that originate from the study area. This table provides a breakdown of where the study area residents are taking transit for work. Unlike auto travel and transit trip attractions, an analysis of transit trip productions shows that about half of the corridor transit work trips begin and end within the corridor; this is expected to remain constant in 2030.

Table 4-22: Home Based Work Transit Destination for Travel from within the Corridor

Attraction District	2005		2030		Change	Growth
	Trips	Share	Trips	Share		
Internal	13,600	51%	24,900	50%	11,300	83%
I-20 CBD	10,000	37%	15,400	31%	5,400	54%
I-20 Fulton	1,700	6%	4,500	9%	2,800	165%
I-20 DeKalb ITP	1,000	4%	2,900	6%	1,900	190%
I-20 N DeKalb W of Panola	500	2%	1,200	2%	700	140%
I-20 N DeKalb E of Panola	200	1%	300	1%	100	50%
I-20 S DeKalb Mall	100	0%	300	1%	200	200%
I-20 S DeKalb W of Panola	100	0%	300	1%	200	200%
I-20 Stonecrest	10	0%	40	0%	30	0%
I-20 S DeKalb E of Panola	10	0%	40	0%	30	0%
I-20 Rockdale	-	0%	-	0%	-	0%
External	13,100	49%	25,100	50%	12,000	50%
N Fulton	3,600	13%	7,800	16%	4,200	117%
Midtown	3,300	12%	5,400	11%	2,100	64%
N DeKalb	3,300	12%	6,000	12%	2,700	82%
S Fulton	1,600	6%	3,100	6%	1,500	94%
Clayton	700	3%	1,200	2%	500	71%
Cobb	400	1%	1,300	3%	900	225%
Gwinnett	200	1%	300	1%	100	50%
Other	-	0%	-	0%	-	0%
Total	26,700	100%	50,000	100%	23,300	87%

Source: 2005 and 2030 ARC Travel Demand Model

MARTA Rail Ridership

MARTA rail boardings have increased in the study area since the last major corridor study was conducted using 2001 ridership data (**Table 4-23** on page 4-37). In 2009, an average of 36,000 weekday boardings occurred in the nine study area rail stations. A comparison of the boardings at stations has shown a significant ridership increase (nine percent) from 2001 to 2008. MARTA heavy rail ridership dipped in 2009 for reasons assumed to be attributable to decreases in area gasoline prices and increases in the regional unemployment. In spite of this dip, ridership remained greater than in 2001. The long term trend of increasing ridership is expected as gas prices increase and the unemployment rate decreases.

Table 4-23: Average Weekday Boardings of Study Area Stations

Rail Station	2001	2007	2008	2009
Indian Creek	5,322	6,190	6,373	5,804
Kensington	8,807	7,617	7,757	7,177
Avondale	5,828	5,104	6,002	5,595
Decatur	3,489	4,387	4,642	4,580
East Lake	1,344	1,129	1,258	1,114
Edgewood/Candler Park	1,594	1,463	1,529	1,360
Inman Park/Reynoldstown	2,560	3,328	3,354	3,134
King Memorial	1,519	2,142	2,192	2,027
Georgia State	4,659	4,919	5,319	4,960
Total	**35,122**	**36,279**	**38,426**	**35,751**
Percent Increase over 2001	**--**	**3%**	**9%**	**2%**

Source: 2001, I-20 East Corridor Study (Average Weekday in November); 2007-2009, MARTA Weekday Boardings (November)

MARTA Bus Ridership

While recent service cuts have resulted in several routes being discontinued, the Purpose and Need Report analyzes all MARTA bus routes prior to the fall 2010 changes in order to better understand the trends in ridership within the corridor. The I-20 East Corridor is currently served by multiple MARTA bus routes. The majority of these bus routes provide local or rail station feeder service and generally cover the western portions of the study area. Routes 216 (Lithonia Express – Discontinued Service), 74 (Flat Shoals) and 186 (Rainbow Drive/South DeKalb) are notable because they are cross-town or express routes that travel on I-20 East for a portion of their trip. These routes are particularly relevant because they mimic service that could be provided through a major transit investment along I-20 East. Ridership trends from 2006 to 2009 are shown in **Table 4-24** below for these three routes in addition to bus ridership for all routes in the corridor. Route 186 provides a majority of the express service with almost 3,200 weekday boardings in 2009.

Table 4-24: Average Weekday Boardings for MARTA Bus Routes

Route	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Increase from '06-'09	Percent Change
186	2,179	2,994	3,523	3,185	1,136	32%
216	875	572	660	593	-282	-48%
74	1,204	1,375	1,504	1,426	222	16%
All Other Routes	39,092	41,940	47,171	43,496	4,404	11%
Total	43,350	46,891	52,858	48,700	5,350	12%

Source: MARTA, Average Weekday Boardings (2006-2009)

Table 4-24 shows increases in ridership on the 186 and 74 routes indicating increasing demand for this type of cross-town service. Route 216 (discontinued), the Lithonia Express shows dwindling ridership since GRTA has added *Xpress* bus routes that offer similar service that brings riders to Downtown or Midtown from stops near Lithonia at Panola Road or east Conyers. As a result, the weekday boardings have decreased by 282 patrons on the Lithonia Flyer from 2006-2009.

Table 4-24 also indicates a general increase in ridership on local and rail station feeder routes in the study area. From 2006 to 2009 there has been an increase in ridership of

11 percent for these routes, indicating an increasing demand for local transit service, in addition to express cross-town trips.

GRTA *Xpress* Bus Ridership

During the time period (2002 – 2004) in which the previous *I-20 East Corridor Study* was conducted, the GRTA *Xpress* service was only in the planning stages. Ridership data is now available from 2006 to 2009 and the data show an increasing demand for work trip alternatives in the corridor. *Xpress* ridership levels and trends are particularly relevant for this study because they mimic commuter service that could be provided through a major transit investment running parallel to I-20 East.

GRTA began operating its *Xpress* bus service within the I-20 East Corridor in 2006, when it introduced Routes 420 and 421 to Downtown and Midtown Atlanta from the Sigman Road Park and Ride. In 2007 and 2008 GRTA added Routes 422 and 423 from the Panola Road Park and Ride, and Route 425 from East Conyers. Due to demand GRTA has increased trips on these routes and has expanded the Sigman Road P&R to meet increased demand as part of the Congestion Reduction Demonstration project.

As shown in **Table 4-25** below, *Xpress* service ridership (expressed in boardings) has significantly increased (300 percent) within the I-20 East Corridor from 2006 to 2009. As with MARTA rail ridership, in the fall of 2008, there was a marked reduction in the number of monthly boardings. More recently, in spite of these economic factors, ridership has held steady at levels seen in the beginning of 2008. As the unemployment rate decreases and gas prices rise again it is expected that express bus ridership will increase to levels seen in 2008 or above.

Table 4-25: GRTA *Xpress* Bus Ridership Trends

	2006	2007	2008	2009
Monthly Boardings	11,216	26,196	57,207	44,903
Yearly Percent Increase	--	134%	118%	-22%
Increase over 2006 ridership	--	134%	410%	300%

Source: Georgia Regional Transportation Authority, Monthly Boardings in July

Despite the temporary downturn in overall ridership, several *Xpress* routes met with success during the 2006 to 2009 period. As can be seen from **Table 4-26** below, route 423, which runs from East Conyers to Midtown Atlanta, has seen an increase in ridership from 2007 to 2009, despite a downturn in ridership in 2009. Ridership on this route rose despite the introduction of Route 425, which provides service from the same general area to Downtown Atlanta. The combination of these two routes displays the demand for transit service from along the corridor. The success of these routes are important for this study due to the similarities of the service to those contemplated along the I-20 East corridor.

Table 4-26: GRTA Average Monthly Study Area Bus Route Ridership

GRTA Route Number	Nov-07	Nov-08	Nov-09	2007-2008	2008-2009	2007-2009
420 - W. Conyers to Downtown	10,881	6,437	5,336	-40.8%	-17.1%	-51.0%
421 - W. Conyers to Midtown	4,799	4,331	3,784	-9.8%	-12.6%	-21.2%
422 - Panola to Downtown	6,104	6,284	5,372	2.9%	-14.5%	-12.0%
423 - E. Conyers to Midtown	3,065	5,700	4,548	86.0%	-20.2%	48.4%
425 - E. Conyers to Downtown	--	7,752	8,067	NA	4.1%	NA
428 - Panola to Perimeter	3,627	4,211	2,706	16.1%	-35.7%	-25.4%
Total Study Area Ridership	28,476	34,715	29,813	21.9%	-14.1%	4.7%

Source: GRTA

These trends in bus and rail ridership within the corridor support the travel demand modeling results which indicate that transit demand is growing within the corridor.

4.3 Major Findings

The following details the key findings of the transportation facilities and travel trends section as it pertains to the project purpose and need.

- With the exception of I-20, there are limited roadway options for drivers traveling east-west in the study area, and of these, few extend across a significant portion of the study area or offer multiple lanes. Since the existing transportation network does not provide a viable parallel route to I-20 for traversing the study area, the need exists to increase travel choices for east-west mobility in the corridor.
- The ARC model estimated a total of 2.6 million daily person trips that originated and terminated within the study area in 2005. By 2030, the number of trips associated with the corridor is expected to increase to 3.5 million trips, an increase of 36 percent.
- AADT for study area roadways are projected to increase significantly in 2030 as development in the area continues to increase. Volumes on I-20 in 2005 range from 76,800 AADT in the rural, eastern end of the study area to 195,000 AADT in Downtown Atlanta. By 2030, AADT on I-20 is projected to increase by up to 64 percent to volumes of up to 269,100 vehicles per day. Similar or greater increases in volume are projected for many of the area major roadways.
- A degradation in LOS is projected for most major roadways in the study area. The LOS on I-20 in 2005 ranged from D to F among study area roadway segments. By 2030, LOS is projected to worsen on more than half of these roadway segments, and only one segment is projected to operate at D or better, the level considered acceptable for urban areas. This projection for 2030 roadway conditions is typical in the study area for major east-west roadway segments, most of which are projected to operate at LOS E or F.
- While there are planned and programmed roadway capacity projects in the study area, the lack of east-west movement is projected to remain an issue due to the projects' emphasis on north-south roadways. There are no projects planned to add general use lanes or managed lanes to I-20 by 2030.
- Downtown and Midtown Atlanta represent the largest concentrated destination for travel within the corridor during peak and off-peak hours. This is especially true for transit trips, with 49 percent of transit trips originating in the corridor destined for Downtown and Midtown Atlanta. As automobile and transit travel times to central Atlanta continue to lengthen, access to this important employment center will become increasingly difficult.
- East-west travel along I-20 is the predominant travel pattern within the corridor. This demonstrates that east-west travel along I-20 within the study area is the predominant travel pattern. With no other facilities providing significant east-west mobility, I-20 remains the only real choice for east-west travel within the corridor.
- By 2030, the largest source of trips (work trips and non-work trips) coming into the study area will be from Rockdale and Newton Counties to the east. Approximately 10 percent of all trips destined for the study corridor will come from these areas. This represents a 113 percent increase in trips from Rockdale and Newton Counties from 2005 and 2030. With I-20 the main option for travel into the study area from these

counties, congestion will continue to increase, causing mobility and access to decrease. This confirms the need for transportation improvements to address east-west mobility along I-20.

- Automobile and transit travel times limit mobility and access within much of the corridor. Much of the study area already experiences long travel times to and from downtown. These travel times are expected to increase significantly by 2030. By 2030, most of the corridor west of I-285 is expected to experience automobile travel times to downtown of greater than 50 minutes with much of this area experiencing travel times of 60 - 80+ minutes. The same is true for transit travel times.
- The eastern portion of the study area is the most mobility and access constrained. The results of this analysis indicate that much of the study area east of I-285 already experiences long travel times and these travel times are expected to worsen significantly by 2030. By 2030, the average automobile travel times to and from downtown are expected to be greater than one hour for those residents living east of I-285. Transit travel times surrounding the existing MARTA heavy rail line are not expected to lengthen by 2030. However, by 2030 local and express bus service in much of the eastern portion of the corridor is expected to experience considerably longer travel times, primarily due to the fact that these services operate on congested roadways and there are few capacity-adding roadway improvements planned for the study area by 2030. Furthermore, no managed lanes or HOV lanes are planned along I-20 east of I-285 by 2030. This further highlights the need for travel time competitive transit service to address the mobility and access needs of the study area.
- Transit travel times are longer than automobile travel in the corridor. Overall, existing and future transit travel times are considerably longer than automobile travel times, illustrating that current transit service is not travel time competitive.
- Transit travel is expected to increase significantly in the corridor. In 2005 there were 143,700 daily transit trips in the I-20 East Corridor. By 2030, it is projected that there will be 253,000 daily transit trips in the study area, a 77 percent increase from 2005. Transit travel growth will far outpace the 36 percent growth for trips of all modes, which includes automobile trips. Over the past five to ten years, significant increases in ridership have been seen on express bus services offered by GRTA and MARTA that travel on I-20 East. These increases have occurred despite the fact that these buses operate on congested roadways. This demonstrates the strong demand for transit service within the corridor despite the fact that the existing transit service is not travel time competitive.

5.0 DEMOGRAPHICS, LAND USE AND MARKET TRENDS

5.1 Demographics

Demographics are an important factor in determining the characteristics of potential transit improvements. They describe the populations that live near proposed improvements, and assist in defining how transit could benefit and impact these groups. This section includes data about population and employment, Environmental Justice communities, and transit-dependent populations within the I-20 East Transit Initiative study area.

Population and employment forecasts are analyzed to determine the potential transit needs of current and future demographics. Population and employment forecasts at the TAZ level were developed as a component of ARC 2005 and 2030 TDM. The data analyzed in this section were derived from the 2005 and 2030 ARC's TAZ socio-economic allocations. These allocations are several years old and therefore may not account for more recent changes in trends and new developments.

Furthermore, data sets used in analysis of Environmental Justice communities and transit dependent populations were obtained from the 2000 US Census. At the time of the writing of this report, the 2010 Census was complete, but data at the appropriate level had not been released at time the analysis took place. Census data were obtained at the smallest geographical unit possible. With the exception of low-income household data, this data was mapped at the block group level. The data for low-income households below the tract level is not released by the Census for reasons of privacy. It is important to note that because of the different sources, the data presented in the population and employment forecasts does not correspond to the data presented in the other portions of this section.

5.1.1 Population and Employment Forecasts

Based on ARC model projections, the population of the I-20 East Transit Initiative study area is projected to grow by approximately 26 percent from 448,900 in 2005 to 566,200 in 2030. The Atlanta region is one of the fastest growing metropolitan areas in the country, with a population that is expected to grow by roughly 45 percent from 2005 to 2030. **Table 5-1** below illustrates the projected growth in population in the I-20 East Corridor and Atlanta region.

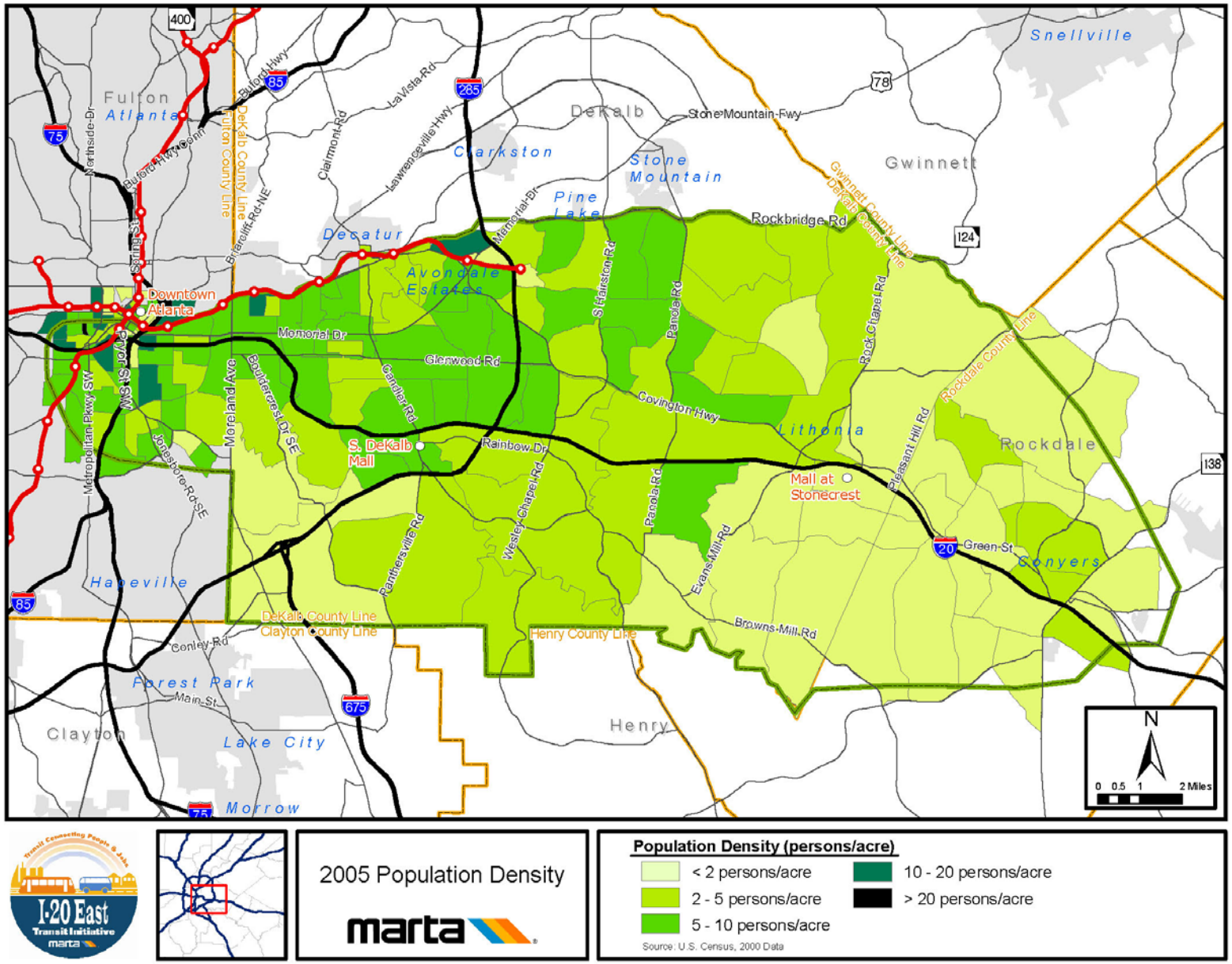
Table 5-1: Population Change 2005 – 2030

	2005 Population	2030 Population	Change in Population, 2005-2030
I-20 East Corridor	448,900	566,200	26.1%
20-County Atlanta Region	4.7 million	6.8 million	45%

Source: ARC Travel Demand Model

Population density in the corridor is projected to increase as well. According to ARC's population projections, 2005 density for the entire corridor was 5.3 persons per acre. As illustrated in **Figure 5-1** on page 5-2, study area population density is highest at the western end of the corridor and decreases toward the eastern end. The western end of the corridor has a mixture of areas with densities of 10 to 20 persons per acre and one area with over 20 persons per acre.

Figure 5-1: Existing (2005) Population Density



This is consistent with the land uses in the western end of the corridor which includes the central business district and many colleges and universities. Conversely, the eastern end of the corridor is characterized by large tracts of land with lower density development interspersed with some areas characterized as rural.

By 2030, population density along the I-20 East corridor is projected to increase to an average of 8.1 persons per acre. The future projected population is expected to intensify in and around areas with relatively high existing density, as can be seen in **Figure 5-2** on page 5-3. According to the map in **Figure 5-3** on page 5-4, the change in population density from 2005 to 2030 in both the study area's western end and eastern end is projected to grow by over 50 percent.

The I-20 East Corridor is projected to experience even more employment growth than population growth over the 25-year study period. The ARC projects approximately 46.5 percent job growth in the corridor from 213,000 in 2005 to 312,200 in 2030. In comparison, the ARC forecasts indicate the greater Atlanta region will experience 60 percent job growth from 2005 to 2030, from 2.3 million to 3.8 million. **Table 5-2** below lists the projected growth in employment in the I-20 East Corridor and Atlanta region.

Table 5-2: Employment Change 2005 – 2030

	2005 Employment	2030 Employment	Change in Employment, 2005-2030
I-20 East Corridor	213,000	312,200	46.5 %
20-County Atlanta Region	2.3 million	3.8 million	60%

Source: ARC Travel Demand Model

Similarly, general employment density for the I-20 East Corridor is also intensifying, from 27.3 jobs per acre in 2005 to a projected 33.1 per acre in 2030. Existing areas of significant employment density can be found not only near Downtown Atlanta in the study area's western end, but on the eastern end, within Rockdale County. There is also an employment node at I-20 and Panola Road in the central portion of the study area. **Figure 5-4** on page 5- 5 illustrates the 2005 employment density at the TAZ level.

By 2030, it is projected that these areas will intensify in terms of employment per acre. Several employment nodes in the western, central, and eastern study area are projected to move from a maximum of five jobs per acre to a maximum of ten jobs per acre. While densities are increasing along established trend lines, it is clear that many of the TAZs in the I-20 East Corridor are expected to experience greater than 50 percent job growth. **Figure 5-5** on page 5-6 illustrates the 2030 employment density at the TAZ level while the change in the employment density from 2005 to 2030 in the corridor can be seen in **Figure 5-6** on page 5-7.

The projected increase in employment in the study area creates the need and opportunities for expanded premium transit service, more so than the increase in population. The I-20 East Transit Initiative has identified inadequate access to existing employment centers as a corridor issue. Based on the forecasts of these existing employment nodes employing increasing numbers of people, demand for transportation to access these employment nodes is projected to increase at the same or a greater rate.

Figure 5-2: Future (2030) Population Density

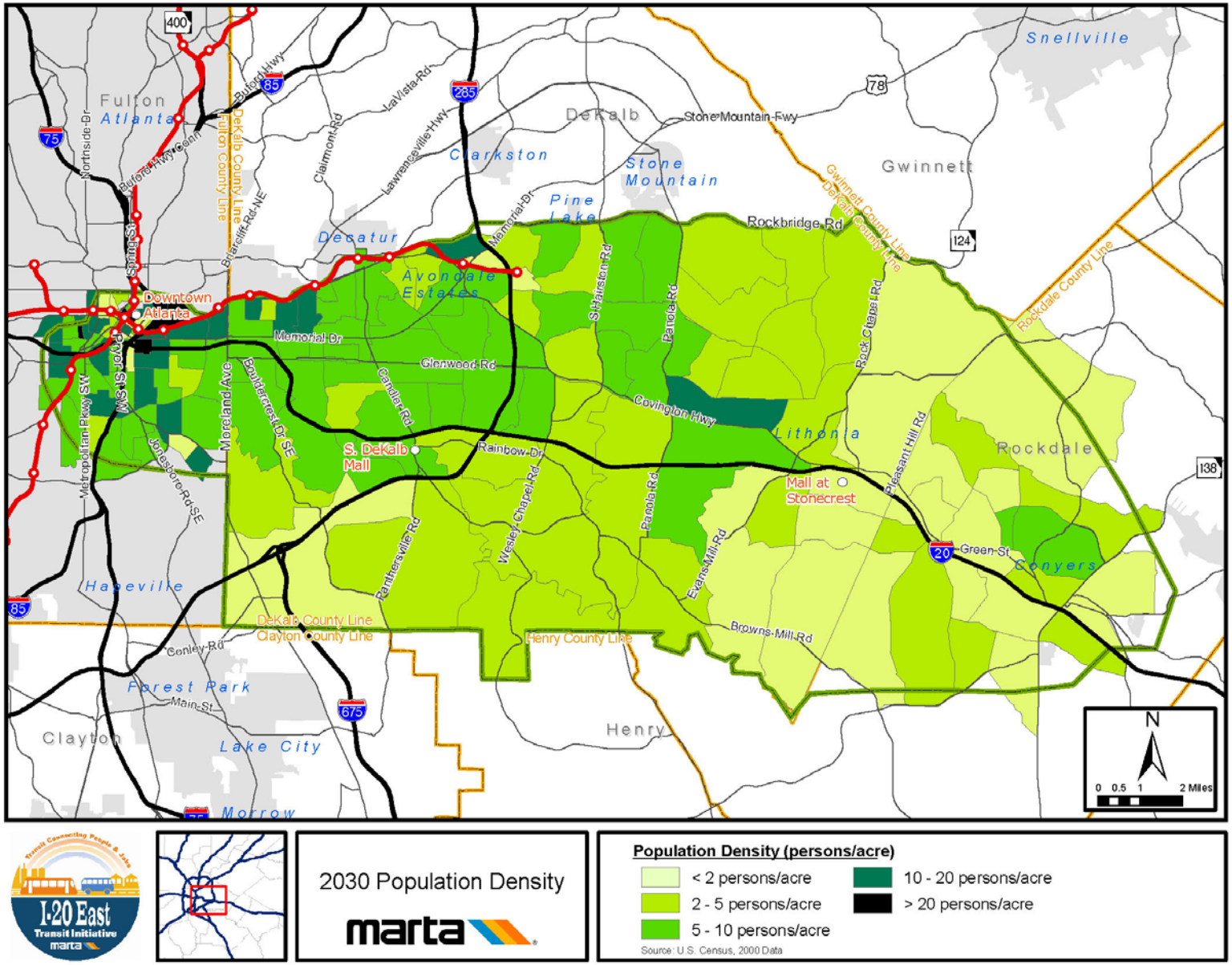


Figure 5-3: Change in Population 2005-2030

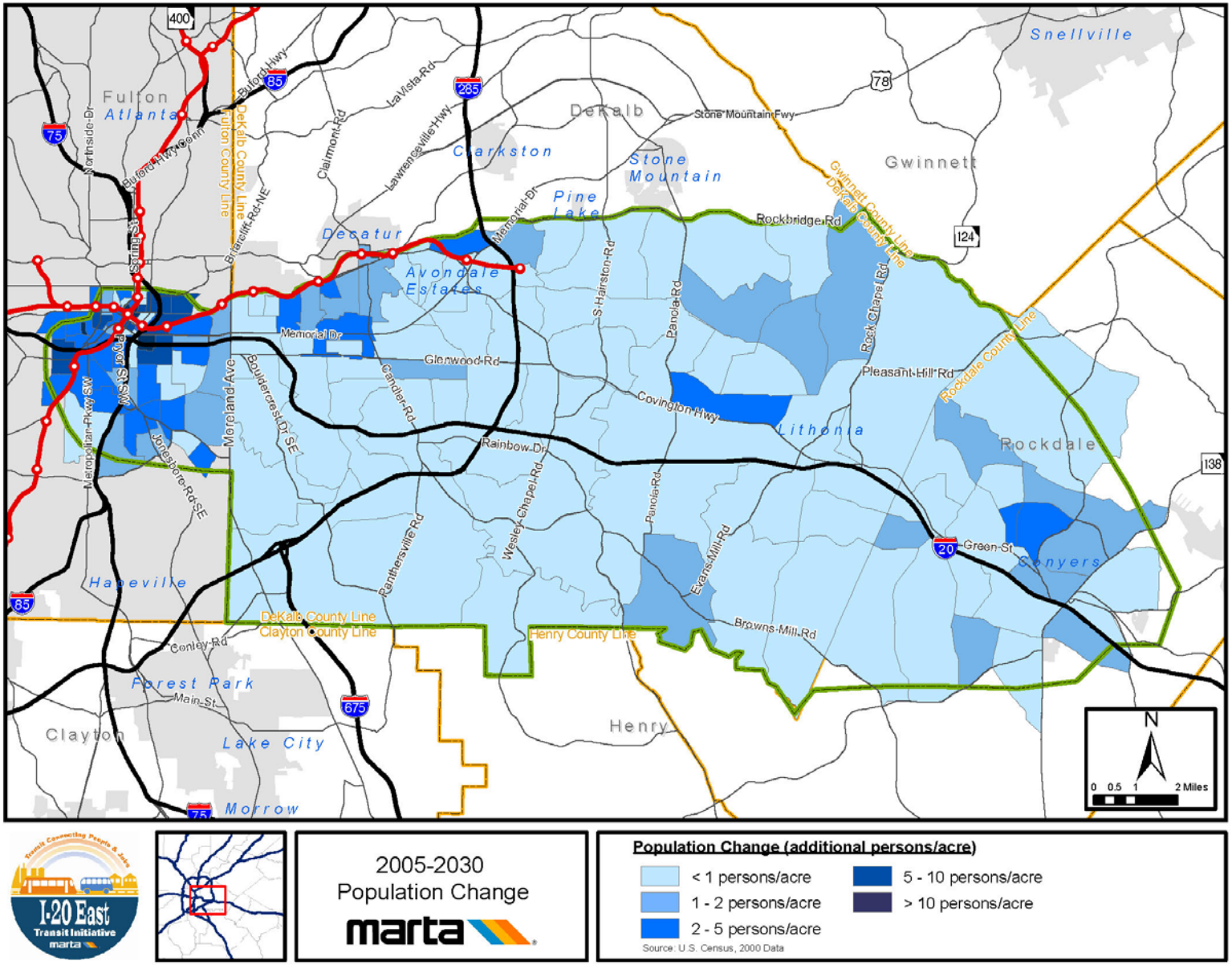


Figure 5-4: Existing Employment Density

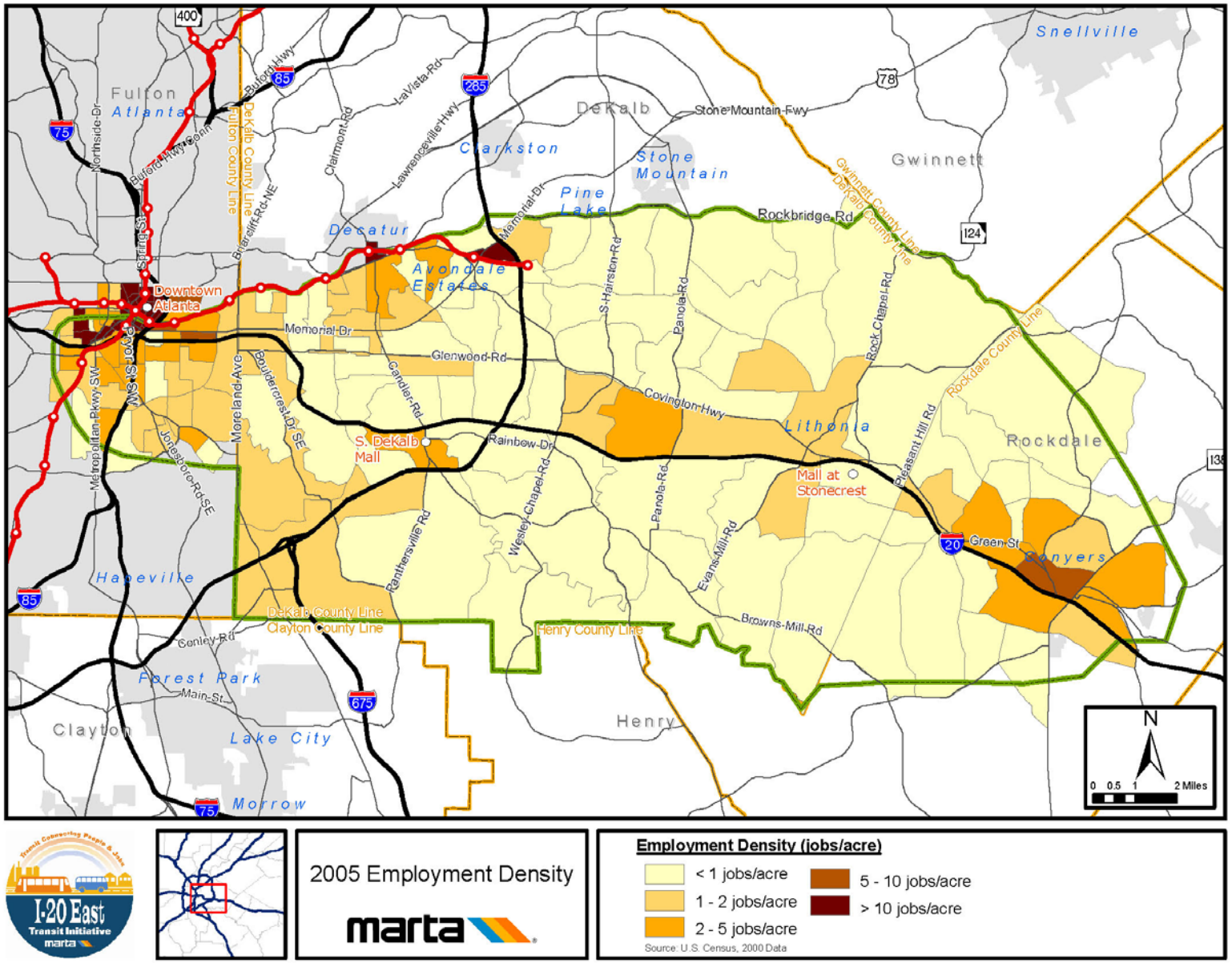


Figure 5-5: Future Employment Density

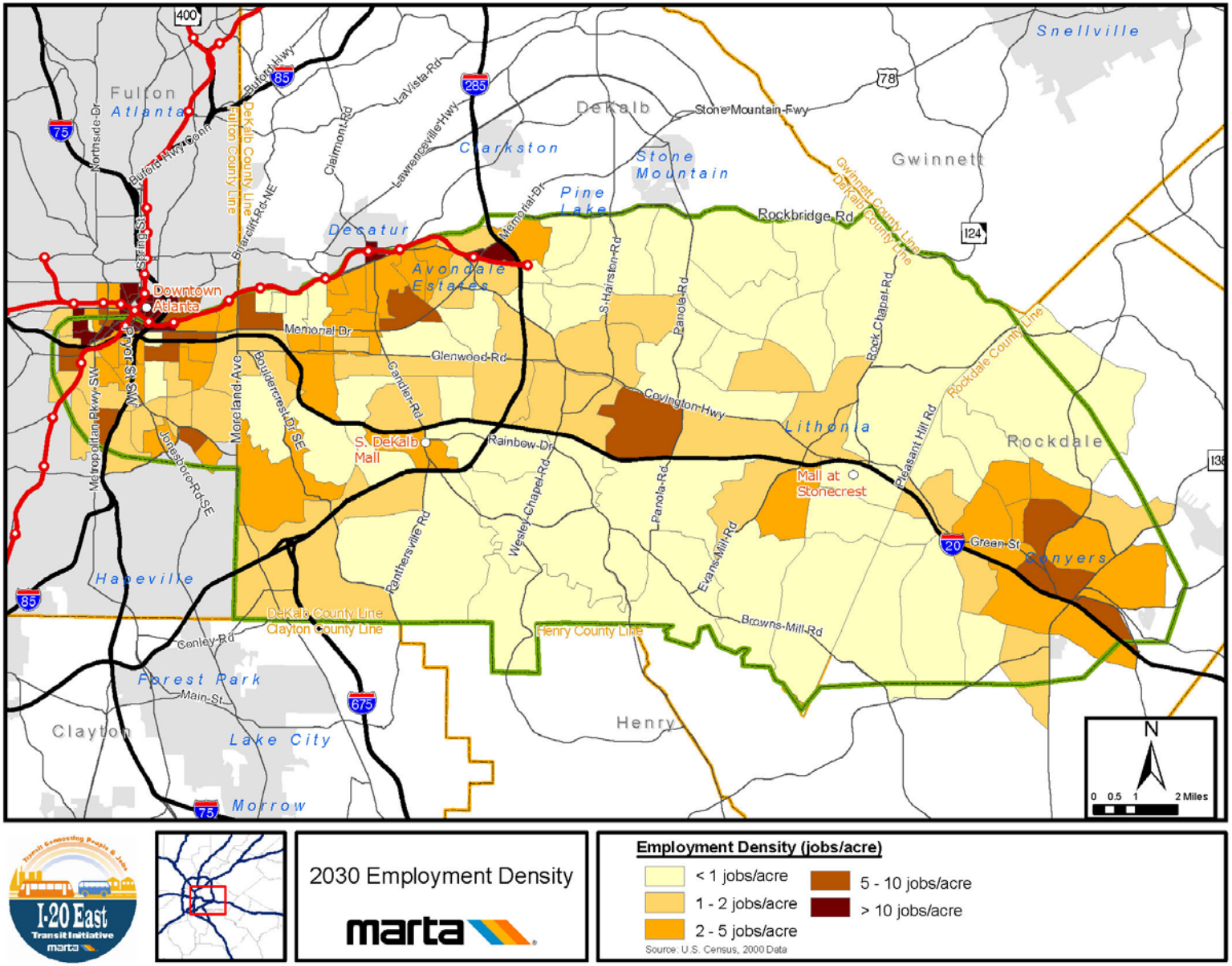
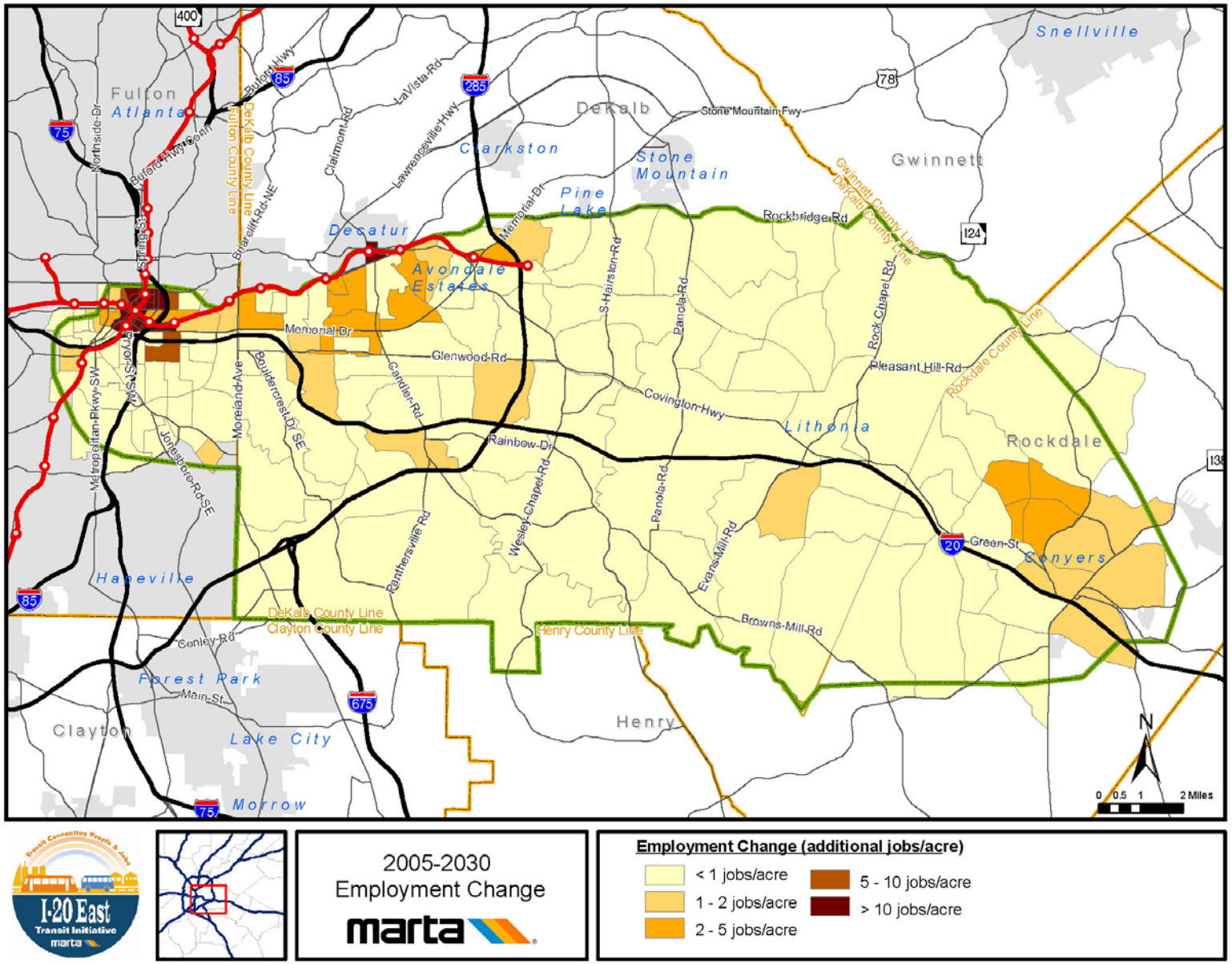


Figure 5-6: Change in Employment Density 2005-2030



5.1.2 Environmental Justice Communities

This section examines the potential for disproportionate adverse impacts to low-income and minority populations that may arise as a result of a major transportation improvement in the study area. The intent of this examination is to avoid unnecessary and unfair impacts to minority or low-income neighborhoods in the selection or construction of transportation improvements. This information will be useful in efforts to avoid any negative impacts from potential projects.

It should be noted that the same communities that are identified for protection under the provisions of Environmental Justice are also often among those who are underserved by existing transit. Therefore, while negative impacts to the areas identified within this section will be avoided; extending transit service to these populations remains a goal of the I-20 East Transit Initiative.

The latest available Census data (Census 2000 data from the P4 and P92 sample datasets) were used to provide a quantitative analysis of the study area relative to minority, and low-income Environmental Justice populations, and relative to elderly and disabled populations, and households without vehicles. For this study, Environmental Justice data sets were gathered and mapped at the lowest level at which they were available. Low-income household data was gathered and mapped at the US Census block group level, and minority data was gathered and mapped at the US Census block level. Income data is not available at a higher level of detail due to its sensitive nature.

Minority Populations

In the United States, minority populations are protected by federal Environmental Justice legislation, Title VI of the Civil Rights Act of 1964 and related statutes assure that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal financial assistance on the basis of race, color, national origin, age, sex, and disability. Executive Order (EO) 12898 - *Federal Actions to Address Environmental Justice to Minority Populations and Low Income Populations* - requires federal agencies to consider impacts to minority and low-income populations as part of environmental analyses to ensure that these populations do not receive a disproportionately high number of adverse human health impacts as a result of a federally funded project. In 1998, FHWA issued a guidance document that established policies and procedures for complying with EO 12898 in relation to federally-funded transportation projects. This guidance defines a “disproportionately high and adverse effect” as one that is predominantly borne by, suffered by, or that is appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the non-minority population and/or non-low-income population.

Minority persons are defined as those people belonging to the following groups: Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and Hispanic or Latino. It is important to note that while the first five groups are defined as races, Hispanic or Latino is defined as an ethnicity by the Office of Management and Budget as well as Census 2000. As such, people of this minority group can belong to any racial group but are still considered minorities with respect to Environmental Justice considerations.

In 2000, minority persons made up approximately 83 percent of the I-20 East Corridor population as a whole. This is more than double the statewide average of 37 percent and the Metropolitan Statistical Area (MSA) average of 40 percent. Minority population

varies among neighborhoods within the corridor, and Census Tracts range from 3.7 to 99.9 percent minority. **Table 5-3** below lists existing minority populations.

As can be seen in **Figure 5-7** on page 5-10, the greater portion of the I-20 East Corridor is over 75 percent minority. Minority populations are primarily concentrated in the western end and the central portion of the corridor. In Rockdale County, the minority population falls to under 50 percent near I-20 and falls further, to under 25 percent, along the periphery of the study area. Attention must be paid to ensure that these neighborhoods are not affected disproportionately by potential alternatives.

Table 5-3: Minority Population Comparisons

	I-20 East Corridor	Atlanta MSA	State of Georgia
Total population	438,362	4,112,200	8,186,500
Minority population	365,248	1,650,200	3,057,800
Percent Minority	83.3%	40%	37%

Source: U.S. Census 2000

Low-Income Populations

Like minority populations, low-income populations are protected from discrimination in the alternative selection process by federal Environmental Justice legislation. Low-income persons are defined as those whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines in Census 2000 data.

In the I-20 East Corridor, nearly 15 percent of households are considered low-income, which is slightly higher than the statewide average of 12.6 percent and the MSA average of 8.7 percent. The proportion of low-income households by neighborhood, however, ranges from zero to 100 percent. **Table 5-4** below presents the low-income households in the study area, Atlanta, and the State of Georgia.

Table 5-4: Low-income household Comparisons

	I-20 East Corridor	Atlanta MSA	State of Georgia
Total households	150,249	1,505,564	3,007,678
Low-income households	22,085	160,362	380,240
Percent low-income households	14.7%	8.7%	12.6%

Source: U.S. Census 2000

As can be seen in **Figure 5-8** on page 5-11, areas made up of more than 25 percent low-income households are concentrated primarily in the western end of the corridor. Some of these neighborhoods are found along the existing MARTA rail lines; however, many of them are located along I-20 and toward the southern perimeter of the study area, and are not currently directly served by premium transit. Furthermore, disproportionate negative impacts to these neighborhoods from planned transportation improvements must be avoided and will be addressed in later phases of this study.

Figure 5-7: Minority Populations in the Study Area

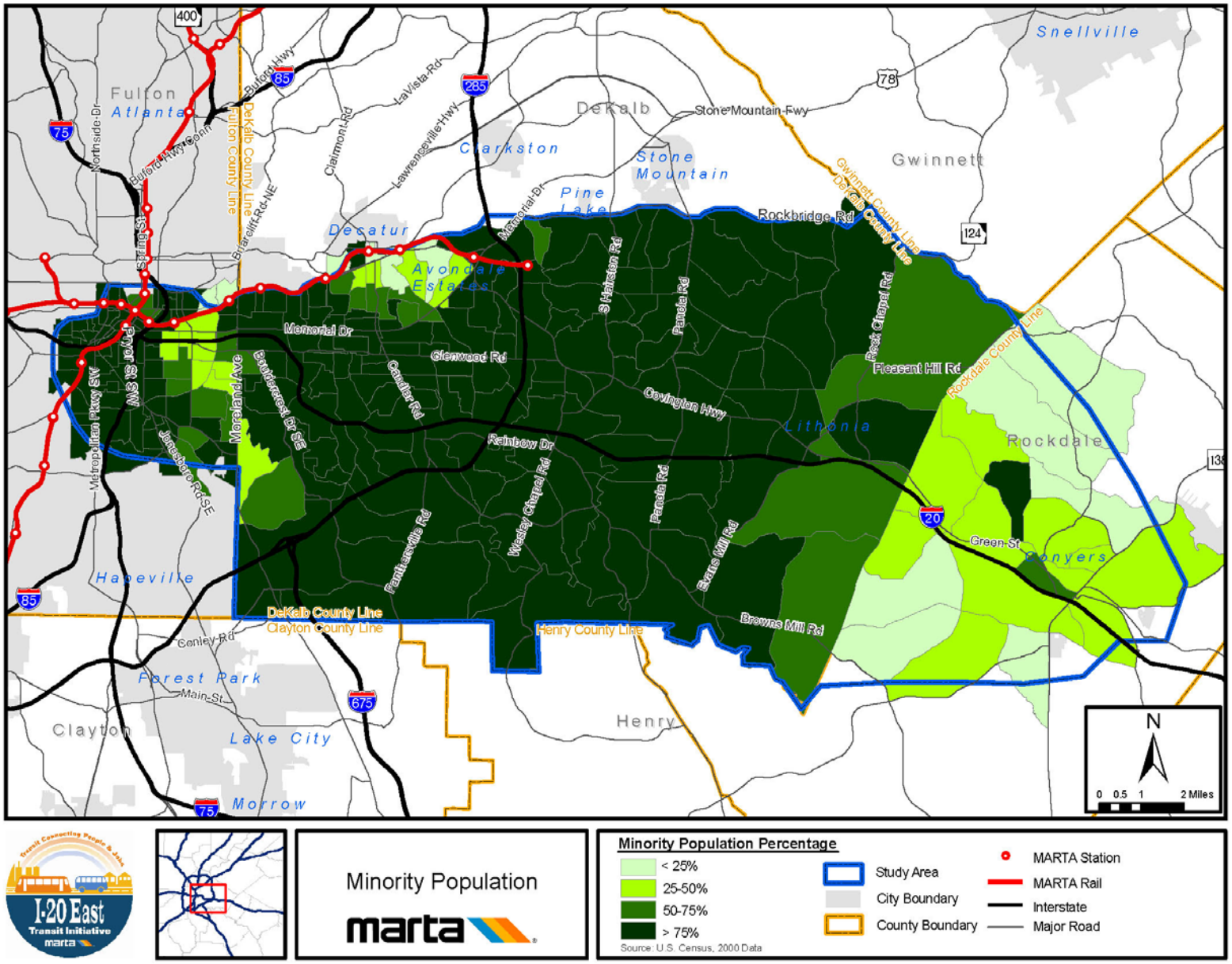
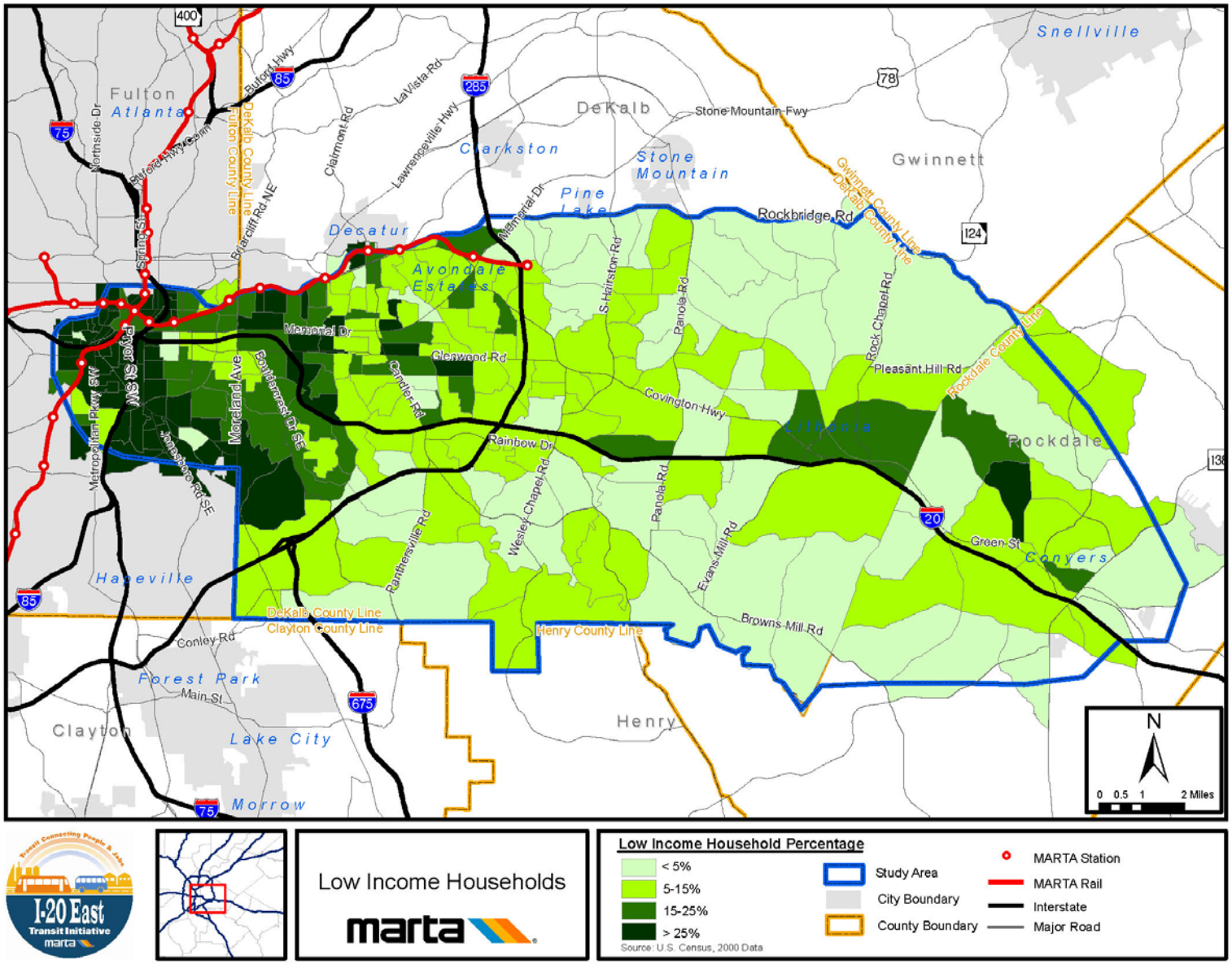


Figure 5-8: Low-Income Households in the Study Area



5.1.3 Transit Dependent Populations

Traditionally transit-dependent populations are those who do not have access to a vehicle at their household or are unable to drive due to age or disability. One of the benefits of improved transit in the corridor would be the ability to better and more equitably serve the populations for whom transit is the only transportation option. This section discusses this population within the corridor.

Zero-Vehicle Households

Zero-vehicle households are examined in this document in order to consider how households without vehicles would be served by transit improvements. In the I-20 East Corridor, 15.4 percent of all housing units do not have a vehicle, as can be seen in **Table 5-5** below. (The census measures the number of vehicles available per housing unit, hereafter referred to as a household.) Members of renter-occupied households have, on the whole, far less access to cars than those of owner-occupied households. In the I-20 East Corridor, just over 30 percent of renter-occupied households have no vehicle, while the same is true for just 5.6 percent of owner occupied households. The proportion of I-20 East Corridor households without automobiles is more than twice that of the Atlanta MSA and almost twice that of the State of Georgia as a whole.

As shown in **Figure 5-9** on page 5-13**,** areas in which more than 25 percent of households have no car are primarily located along the MARTA east-west blue and green lines as well as along the north-south red and gold lines. However, there are many such neighborhoods along I-20 and toward the interior of the study area that would benefit from improved transit service.

Table 5-5: Zero-Car Households

	I-20 East Corridor			Atlanta MSA			State of Georgia		
	Total	Occupied by		Total	Occupied by		Total	Occupied by	
		Owner	Renter		Owner	Renter		Owner	Renter
Households	173,744	104,258	69,486	1,504,871	999,647	505,224	3,006,369	2,029,293	977,076
Zero- Vehicle Households	26,777	5,842	20,935	110,401	28,107	82,284	248,546	76,660	171,886
Percentage	15.4%	5.6%	30.1%	7.3%	2.8%	16.3%	8.3%	3.8%	17.6%

Source: U.S. Census 2000

Elderly and Disabled Populations

An aging or elderly population may need to be well-served by transit as they find they cannot or do not care to drive. 6.4 percent of the I-20 East Corridor population is 65 years old or older, a smaller percentage than the average for the Atlanta MSA. However, the elderly population varies among neighborhoods, and makes up as much as 33.3 percent of some populations. **Table 5-6** on page 5-14 lists elderly populations in the study area, Atlanta, and across the state.

Figure 5-9: Zero-Car Households

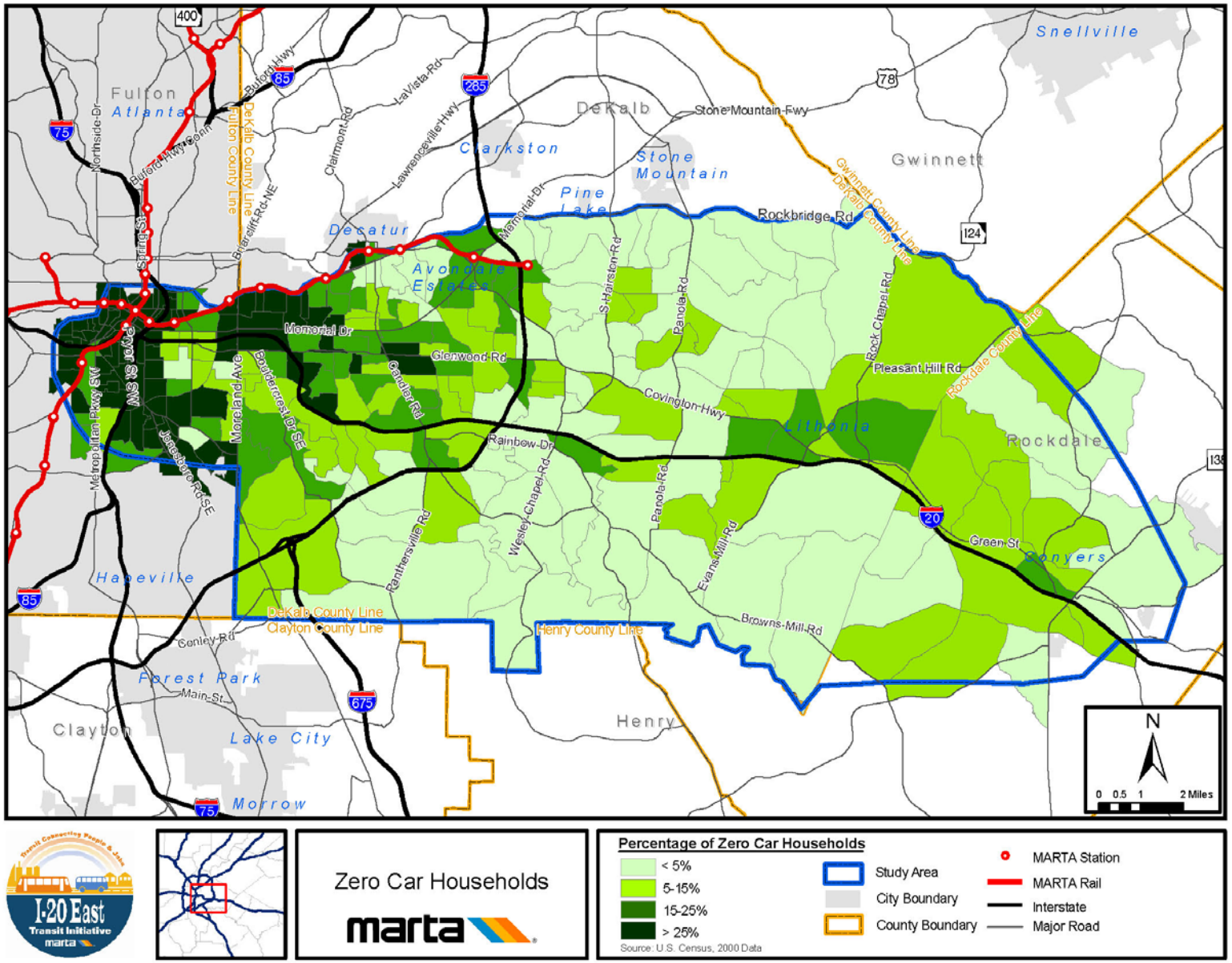


Table 5-6: Elderly Population

	I-20 East Corridor	Atlanta MSA	State of Georgia
Population	365,248	4,112,198	8,186,453
Population over 65	28,109	310,703	785,275
Percent	6.4%	7.6%	17.7%

Source: U.S. Census 2000

As can be seen **Figure 5-10** on page 5-14, many neighborhoods in the corridor have a 10-25 percent elderly population. In the western end of study area, some of these neighborhoods are served by MARTA rail lines, however in the eastern end of the corridor, many relatively high-elderly population neighborhoods do not have access to transit.

Like elderly populations and zero-car households, disabled populations are not protected by Environmental Justice procedures, but can be well-served by thoughtful transit planning. In the 2000 Census, just over 20 percent of the corridor's population over the age of five reported having a disability, which is slightly lower than the average population shares for the MSA and State. (Please note that the Census does not report disabilities for those under the age of five.) **Table 5-7** below lists the disabled populations in the study area, MSA and state.

Table 5-7: Disabled Persons

	I-20 East Corridor	Atlanta MSA	State of Georgia
Population	438,362	4,112,198	8,186,453
Population over the age of 5	395,430	3,764,967	7,402,293
Population with a disability	79,820	630,759	1,456,812
Percent of population over the age of 5 with a disability	20.2%	16.8%	19.7%

Source: U.S. Census 2000

As can be seen from **Figure 5-11** on page 5-16, disabled residents make up more than 25 percent of many study area neighborhoods, particularly in the eastern and western ends of the study area. As with the elderly population, much of the disabled population in the western end of the study area resides near the existing MARTA rail lines. However, in the eastern end of the study area, there are large areas with significant disabled populations that do not have access to premium transit.

5.2 Existing and Future Land Use

The following section presents an analysis of land use conditions and development trends in the I-20 East Corridor. It specifically focuses on how these factors influence the need for premium transit investment in the corridor. This analysis also examines major development activity, potential redevelopment areas, and the overall land use policy framework within the study area.

Figure 5-10: Elderly Populations

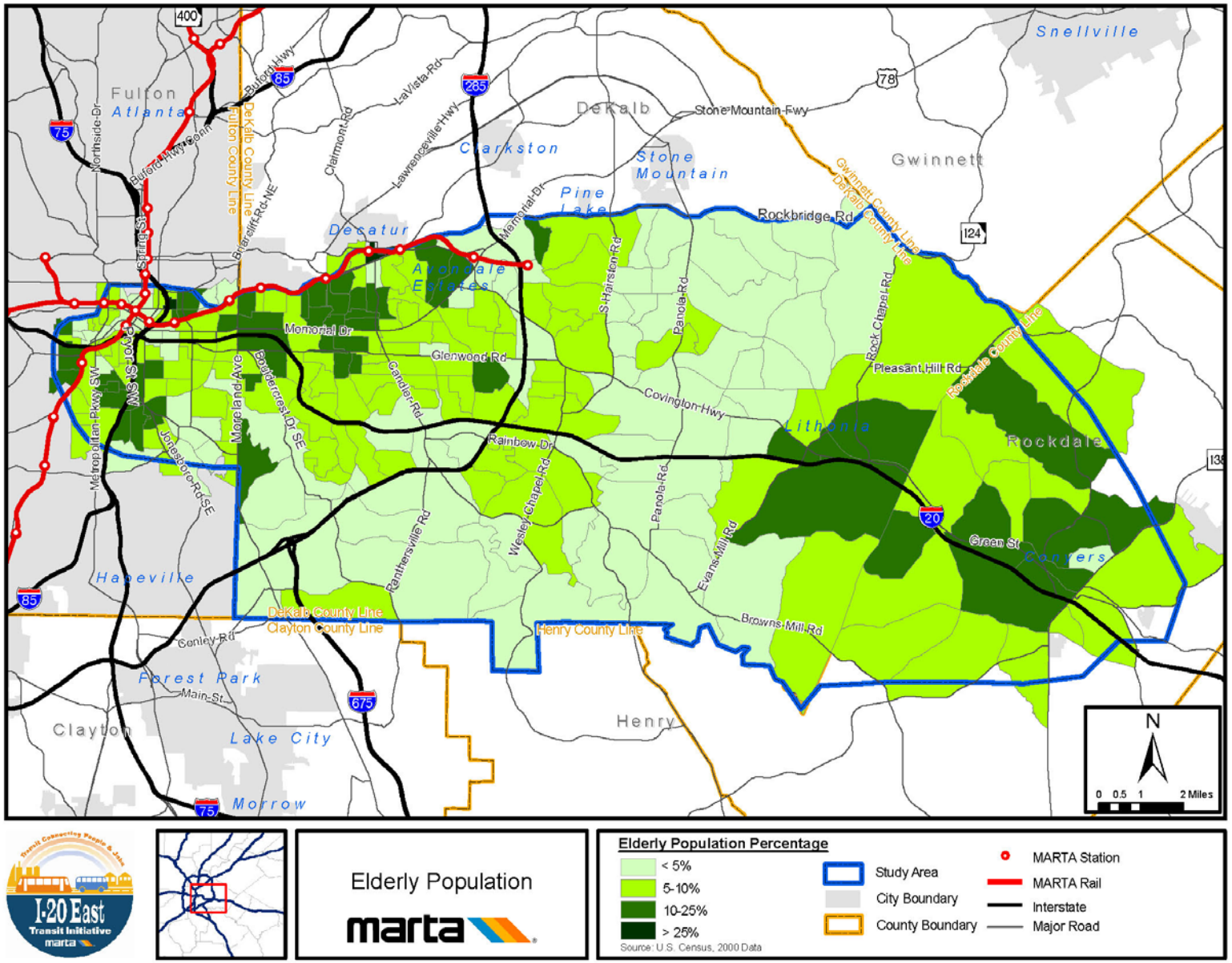
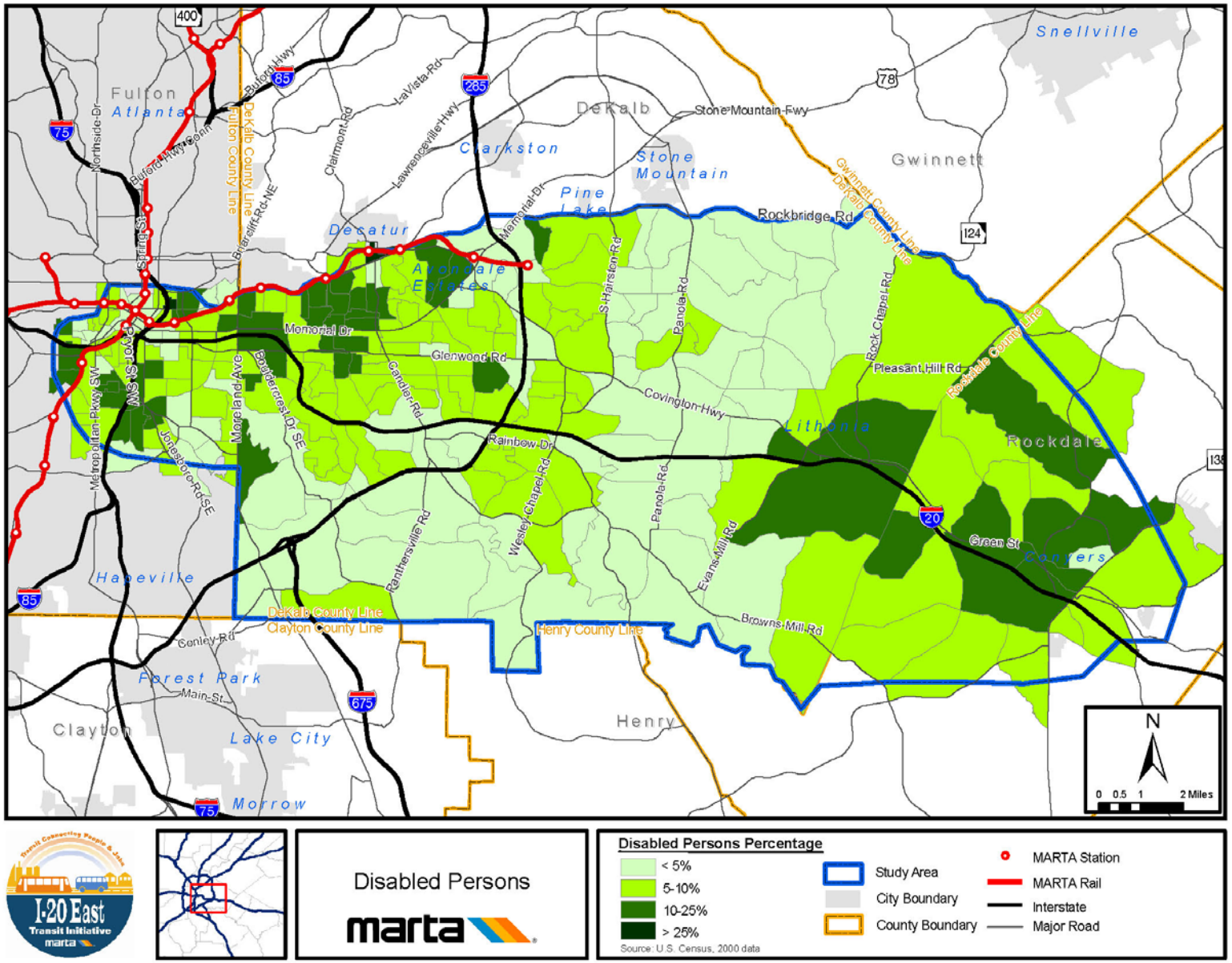


Figure 5-11: Disabled Populations



5.2.1 Existing Land Use

To assess existing land use patterns in the corridor, ARC Land Pro data was used. This data set was developed for regional and cross-municipal planning and is especially useful when mapping existing land uses across multiple jurisdictions. It provides a consistent set of land use categories across the seven jurisdictions in the study area. The ARC develops this data set through a combination of sources including aerial photography, parcel ownership, web resources and national inventories of environmentally sensitive lands. Multiple land use categories within the Land Pro data set have been combined for ease of comparison with planned future land uses in the study area.

Figure 5-13 on the following page illustrates the existing land use distribution and reflects the well-developed nature of the corridor and concentrations of intense development adjacent to I-20. **Figure 5-13** also shows significant amounts of undeveloped or under developed land within eastern DeKalb County and in Rockdale County. This indicates the corridor's potential to accommodate significant amounts of additional residential and commercial development.

Table 5-8 below details the existing land use composition in the study corridor. Low to Medium-Density Residential, which includes residential land uses containing less than eight dwelling units per acre, is by far the most common land use in the corridor, and comprises 46.3 percent of total land uses.

Table 5-8: Existing Land Use Composition of the I-20 East Corridor

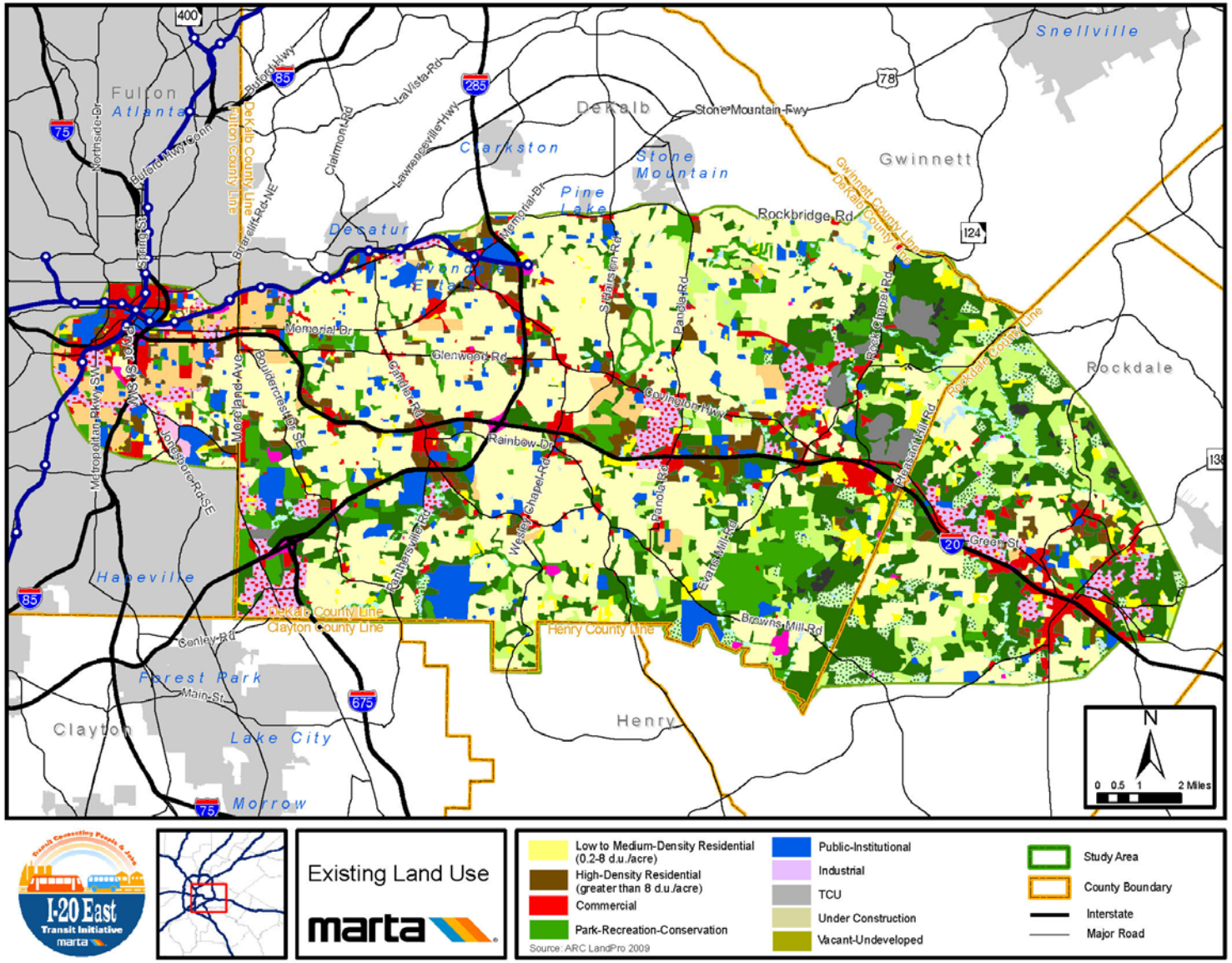
Land Use Category	Acres	Percent of Total
Low to Medium-Density Residential	63,403	46.3%
Agriculture-Forestry-Open Space	35,273	25.8%
Commercial	8,976	6.6%
Park-Recreation-Conservation	8,970	6.6%
Industrial	7,555	5.5%
Public-Institutional	6,827	5.0%
High-Density Residential	5,211	3.8%
Transportation-Communications-Utilities	623	0.5%
Total	**136,838**	**100%**

Source: ARCLandPro2009

Low to Medium-Density Residential

Low to Medium-Density Residential land uses are widespread and can be found throughout the study area. However the character of this land use type changes significantly from east to west. In the eastern portions of the corridor, in Rockdale County, a considerable portion is comprised of large-lot rural residential uses with homes on two to five-acre lots. Throughout most of the study area single-family homes are found on lots ranging from a quarter-acre to two-acre lots. In isolated subdivisions in DeKalb County and in historic Atlanta neighborhoods, homes are found on lots less than a quarter-acre.

Figure 5-13: Existing Land Use



Agriculture-Forest-Open Space

The Agriculture-Forest-Open Space land use category is the second most prevalent category comprising 25.8 percent of the total. This land use can be found dispersed throughout the corridor with the predominance seen in eastern portion of the study area. This is mainly comprised of forest and pasture land. This also represents vacant undeveloped land in urban sections of the corridor. The concentrations of this land use type in the eastern portion of the study area indicate the ability to accommodate significant amounts of additional development in this area.

Commercial

Commercial land uses are the third most prevalent land use in the corridor representing 6.6 percent of the total. This category includes office and retail development. The largest grouping is found in downtown Atlanta indicating the major concentration of office uses. Significant nodal concentrations of primarily retail commercial uses are also found surrounding major I-20 interchanges. These interchange area commercial nodes include Gresham Rd, Candler Rd, Wesley Chapel Rd, Panola Rd, Turner Hill Rd, Covington Highway and interchanges in Rockdale County.

Park-Recreation-Conservation

Park-Recreation-Conservation uses, or PRC, can be found throughout the corridor with the most sizable concentration found in southern DeKalb County in the Davidson-Arabia Mountain Nature Preserve. Other notable large areas include Turner Field, Freedom Park, and Grant Park. This category includes a wide variety of land uses from city/county parks to golf courses, ball fields, and protected natural areas as well as wetlands, river corridors, and reservoirs. Many of these areas are expected to remain unchanged and protected from development pressures.

Industrial

Industrial land uses are found throughout the corridor with major concentrations evident along Panola Road and in the vicinity of Lithonia. Significant concentrations are also located adjacent to I-20 in Rockdale County and near I-675 in southern DeKalb County. Most of these uses are warehouse and distribution facilities, but rock quarries are major uses in the Lithonia area.

Public-Institutional

Public-Institutional land uses are also found dispersed throughout the study area. These land uses include churches, schools, government buildings, libraries, universities, hospitals, jails, and cemeteries. Major facilities include Georgia State University, Grady Hospital, Georgia State Capitol Complex, Fulton County Government Center, Atlanta City Hall, Atlanta University Center, and Oakland Cemetery in Atlanta. This category also includes Agnes Scott College, the DeKalb County government complex, Georgia Regional Hospital, DeKalb Community College, New Birth Missionary Baptist, and DeKalb Medical Hillandale in DeKalb County.

High-Density Residential

High-Density Residential uses are dispersed throughout the study area. This category is defined as residential land uses greater than eight-units per acre. These primarily consist

of multi-family apartment and condominium buildings. Many high density residential uses are adjacent to the I-20 right-of-way.

Transportation-Communications-Utilities

The Transportation-Communications-Utilities or TCU category includes land dedicated to these purposes, such as limited access transportation right-of-way, cell phone tower sites, water and wastewater facilities, and electrical distribution facilities. These uses represent the smallest component of the study area, comprising only half of one percent of the study land area. These uses are dispersed throughout the study area with the largest component being the right-of-way for the interstate highways.

5.2.2 Future Land Use

Table 5-9 below presents the composition of planned future land uses in the corridor. This is illustrated by **Figure 5-14** on page 5-21. **Table 5-9** and **Figure 5-14** depict a significant departure from existing land uses in the corridor. The Agriculture-Forest-Open Space category that currently exists though out the study area will be replaced by a preponderance of Low to Medium-Density Residential land uses. Additionally considerable areas of Mixed-Use land uses will replace many of the existing Commercial and Public-Institutional land uses.

Table 5-9: Future Land Use Composition of the I-20 East Corridor

Land Use Category	Existing Land Use Acres	Future Land Use Acres	Percent of Total of Future Land Uses	Change in Acreage from Existing Land Use	Percent Change from Existing Land Use
Low to Medium-Density Residential	63,403	97,427	71.1 %	34,024	54%
Agric.-Forestry-Open Space	35,273	0	0%	-35,273	-100%
Industrial	7,555	12,585	9.2%	5,030	67%
Park-Recreation-Conservation	8,970	8,304	6.1%	-666	-7%
Mixed-Use	0	6,910	5.0%	6,910	--
Public-Institutional	6,827	4,606	3.4%	-2,221	-33%
High-Density Residential	5,211	3,913	3.8%	-1,298	-25%
Commercial	8,976	3,183	2.3%	-5,793	-65%
Transportation-Communications-Utilities	623	127	0.1%	-496	-80%
Total	**136,838**	**137,055**	**100%**		

Source: City of Atlanta, City of Decatur, City of Avondale Estates, City of Conyers, DeKalb County, Rockdale County

Figure 5-14: Future Land Use

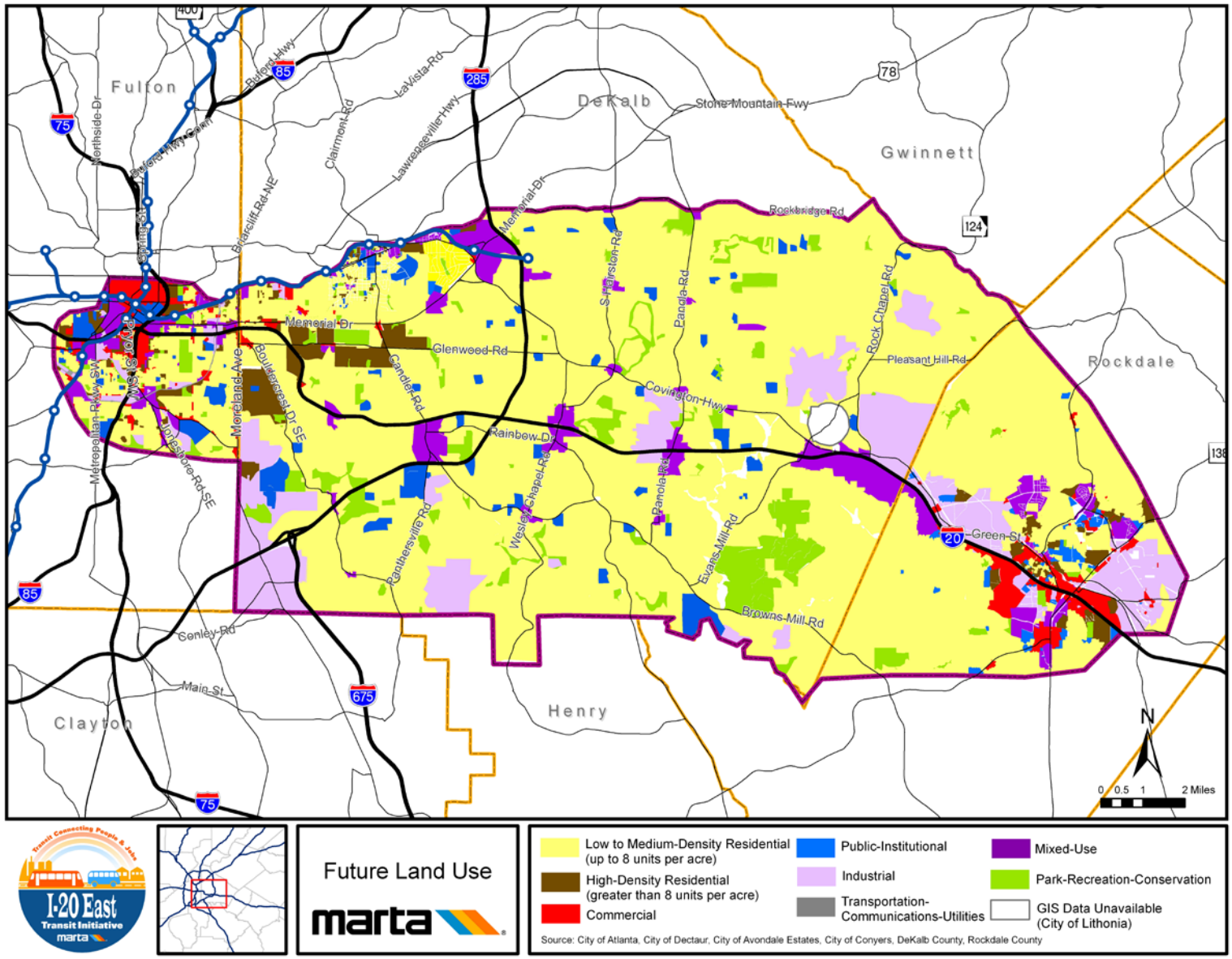


Table 5-9 provides an overall general comparison of land uses. It is important to note that given the varying data sources used for existing and future land use, an exact comparison of acreages is not possible. This is particularly true in light of the lack of future land use GIS data for the City of Lithonia. However, Lithonia represents only 505 acres out of the 138,862 acres in the study area, or 0.3 percent of the study area, and does not skew the comparison significantly. Additionally, the total of existing land uses equals 136,838, while the total for future land uses equals 137,055. This is the result of the future land use designations of DeKalb County containing land area that is not calculated within the existing land use totals. There are significant portions of interstate right-of-way that are not calculated for existing land use, but have a future land use designation.

Low to Medium-Density Residential

Low to Medium-Density Residential Land Uses are planned to grow considerably in the future. As currently planned, Low to Medium-Density Residential land uses are projected to grow by 54 percent. Large areas in eastern DeKalb County and Rockdale County that are currently shown as Agriculture-Forest-Open Space are planned to accommodate these lower-density residential land uses in the future. The extensive areas planned for additional residential development in the eastern portion of the corridor will help accommodate the high levels of projected population growth in the study area (from 448,900 in 2005 to 566,200 in 2030 and increase of 26.1 percent).

Industrial

Industrial land uses are planned to grow by up to 67 percent. No new industrial areas are planned in the corridor with the projected increase resulting from the expansion of existing industrial areas. This can be seen in industrial areas near the City of Lithonia and near Conyers in the very eastern limits of the study corridor. This growth in Industrial land uses can also be attributed to a change in coding of the Seminole Road Landfill in southern DeKalb County. It is designated in existing land use as a Public-Institutional use since it is owned by DeKalb County, but is considered an industrial use in the future.

Park-Recreation-Conservation

Park-Recreation-Conservation land uses are planned to remain relatively unchanged. A comparison of existing land uses to future land uses shows a minor decrease of seven percent. This is likely the result of the coding of golf courses from recreational land uses on the Existing Land Use Map to lower-density residential land uses on the Future Land Use Map. The largest component of this land use in the study area remains the Davidson-Arabia Mountain Nature Preserve.

Mixed-Use

Approximately five percent of the study area is planned for Mixed-Use land uses including those in Downtown Atlanta and a series of planned mixed-use centers in DeKalb County. DeKalb County's Future Development Map indicates a series of town centers along I-20 East at Gresham Road, Candler Road, Wesley Chapel Road, and Panola Road. DeKalb County also plans for town-center type development near I-285 and Memorial Drive in the northern portion of the corridor at the existing DeKalb government complex. The County plans a more intensive regional-scale mixed-use center in the Mall at Stonecrest area. Rockdale County has designated the area south of

I-20 adjacent to the Mall at Stonecrest area as a mixed-use area. The City of Conyers also has a series of mixed-use centers planned throughout the city.

This planned future mixed-use growth throughout the corridor ties directly with the identified needs for transit service in the corridor. Specifically the need to improve accessibility and mobility options to major destinations along the corridor and the need to improve transit convenience and accessibility that is consistent with future growth. In accordance with future land use plans, as denser mixed-use nodal areas of the corridor develop, premium transit service will be needed to better serve these areas by improving mobility and accessibility between these activity centers. Also, as land uses redevelop from low-rise commercial uses to more dense mixed-use residential/commercial areas, the ability to support premium transit service will increase in the corridor.

Public-Institutional

Public-Institutional land uses are not expected to change significantly in the future. The comparison of existing land uses to future land uses shows a 33 percent reduction in the acreage of this land use type. However, this reduction is due to the reclassification of DeKalb County's municipal dump from Public-Institutional to an Industrial designation, and is misleading. Another factor contributing to the reduction is the inclusion of public-institutional land use within planned mixed-use centers.

High-Density Residential

A modest reduction in High-Density Residential land uses of 25 percent is evident when comparing existing and future land uses. This results from existing high-density residential areas being designated as appropriate for lower-density residential in DeKalb County. DeKalb County seeks to direct additional high-density residential development into mixed-use centers, thereby shifting the projected high-density residential growth into the more transit friendly, Mixed Use category. Concentrated growth in the High-Density Residential land use type can be seen in DeKalb County neighborhoods adjacent to Glenwood Avenue and Moreland Avenue. These neighborhoods have been designated as traditional neighborhoods in which densities greater than eight units per acre are permitted. This is expected to take the form of isolated townhome development with the character of these neighborhoods remaining predominately single-family.

Commercial

Commercial land uses are shown to decrease by 65 percent from existing levels. This is the result of the reclassification of several major commercial areas as mixed-use centers. Existing commercial areas in Conyers and Rockdale County have been designated as mixed-use areas in future land use plans. The redevelopment of aging commercial areas as mixed-use nodes is desired throughout the corridor.

Transportation-Communications-Utilities

Transportation-Communications-Utilities land uses are shown to decrease by 80 percent from existing levels. This comparison is misleading, however, as little change is expected for these land uses. This land use type is primarily land that is dedicated for the provision of utility and transportation infrastructure. DeKalb County does not reflect these land uses in their future land use typologies. They are shown as part of the larger character area. As a result, Transportation-Communications-Utilities land uses in DeKalb County, the largest single component of the study area, are not reflected in the future land use totals.

5.2.3 Major Development Activity

Since the previous Alternatives Analysis was completed in 2004, significant development has occurred in the corridor. This includes major redevelopment projects in the City of Atlanta and new 'green field' development in DeKalb and Rockdale Counties.

An extensive and noteworthy redevelopment project in the corridor is the 28-acre Glenwood Park development adjacent to I-20 and Bill Kennedy Way. Glenwood Park is a mixed-use 'new-urbanist' neighborhood that was built on a former industrial site recently used as a concrete recycling facility. Major construction occurred between 2003 and 2007. It features a mixture of single-family detached homes on small-lots, townhomes, and multi-family condominiums above retail. The commercial core contains restaurants, bars, offices and retail. The development contains approximately 380 residential units, 50,000 square feet of retail and 20,000 square feet of office space. It is designed to encourage pedestrian travel with extensive sidewalks and short blocks.

Glenwood Park has spurred large-scale high-density development adjacent to the site, including a 325-unit mid-rise apartment community on the western side of Bill Kennedy Way. The greater Glenwood Park area exhibits many qualities of Transit-Oriented Development (TOD), including superior pedestrian connectivity, mixed-uses, high-density residential and human-scaled buildings. This area contains adjacent industrial land uses with the potential to facilitate additional redevelopment. Given the significant changes to this area since the previous corridor study this site should be reexamined for suitability as a potential transit station.

Glenwood Park Redevelopment

Other major redevelopment projects in the western portion of the study area that have recently been constructed include the mixed-use Oakland Park condominiums and retail development and the Capitol Gateway apartments redevelopment. The Oakland Park condominium is a 65-unit mid-rise building with street-level retail. It represents one of many redevelopment projects within the revitalizing Memorial Drive corridor running parallel to I-20 East. The Capitol Gateway redevelopment project is comprised of 421 rental units on a 16-acre site immediately north of I-20 and near the Georgia State

Capitol building. This site originally housed the outdated Capitol Homes public-housing complex before it was demolished to make way for this development. Future phases are planned to add 370 for-sale condominiums and townhomes and 25,000 square feet of neighborhood retail.

These projects are just two examples of numerous infill redevelopment projects that have occurred in the study area over the past six years. Most in-town Atlanta neighborhoods in the study area have seen significant reinvestment through infill housing construction and other redevelopment projects. These include Cabbagetown, Reynoldstown, Grant Park, East Atlanta, Edgewood, and Kirkwood.

In addition to residential development, significant retail development has occurred in the western portion of the study area in recent years. A major example of this is the Edgewood Retail District on Moreland Avenue, adjacent to the northern boundary of the study corridor, which opened in 2005. This 44-acre retail development contains 540,000 square feet of commercial space and features nine large-format 'big-box' anchor stores. It also contains a residential component with a 41-unit loft warehouse-conversion and residential units above small shops on the development's main street. This development is significant due to its size and since it brings large national chain retailers into surrounding neighborhoods from which they have previously been absent and far removed. This represents a major new activity center in the study corridor.

In addition to significant residential and retail development, major institutional development has occurred in the corridor in recent years. In 2005, the DeKalb Medical Center at Hillandale opened to the public, after three years of construction, as south DeKalb's first full-service hospital. The six-story, 191,000 square foot facility is located on a 40-acre campus immediately north of I-20 in Lithonia. The medical center features one hundred hospital beds. The campus includes two medical office buildings, an outpatient surgery center and lab and rehabilitation and wellness services. DeKalb Medical Center at Hillandale currently represents a significant employment destination and activity center in the eastern portion of the study corridor.

Developments of considerable size trigger a review by the Georgia Department of Community Affairs and the Atlanta Regional Commission. These developments, referred to as Developments of Regional Impact (DRI), are used as a common indicator of major development activity in a given area. To asses major development trends in the I-20 East Corridor DRIs were reviewed from 2001 to 2010. These are listed in **Table 5-10** on page 5-26 and illustrated in **Figure 5-15** on page 5-27 which displays development conditions in the corridor.

Table 5-10: Developments of Regional Impact in the Study Area Since 2001

Name	Year	Type
Canterra Crossroads	2001	Mixed-Use
Moreland Ave Retail Project	2003	Mixed-Use
Rock Chapel Road Mixed-Use Development	2004	Mixed-Use
River Village	2005	Mixed-Use
Fun World Palace and Resort	2005	Mixed-Use
East Medinah Village	2006	Mixed-Use
Lakeview at Stonecrest	2006	Mixed-Use
Forest Lake	2006	Mixed-Use
Capitol Gateway Grady Development/King Memorial TOD	2006	Residential
McDaniel Glenn	2006	Residential
Chosewood Park	2007	Mixed-Use
Advanced Disposal Road Closure Plan	2007	Waste Handling
Swift Creek	2007	Mixed -Use
Daniels Bridge Road	2007	Mixed-Use
4039 Bosnal Road	2007	Waste Handling
Panola Road Mixed-Use Development	2007	Mixed-Use
Parkview Plaza Mixed-Use Development	2007	Mixed-Use
Grant Street Mixed Use Development	2007	Mixed-Use
Cityview at Englewood	2008	Mixed-Use
River Village	2008	Mixed-Use
CMT Travel Plaza	2008	Truck Stop
Flat Shoals/Clifton Tract	2008	Mixed-Use
777 Memorial	2008	Mixed-Use

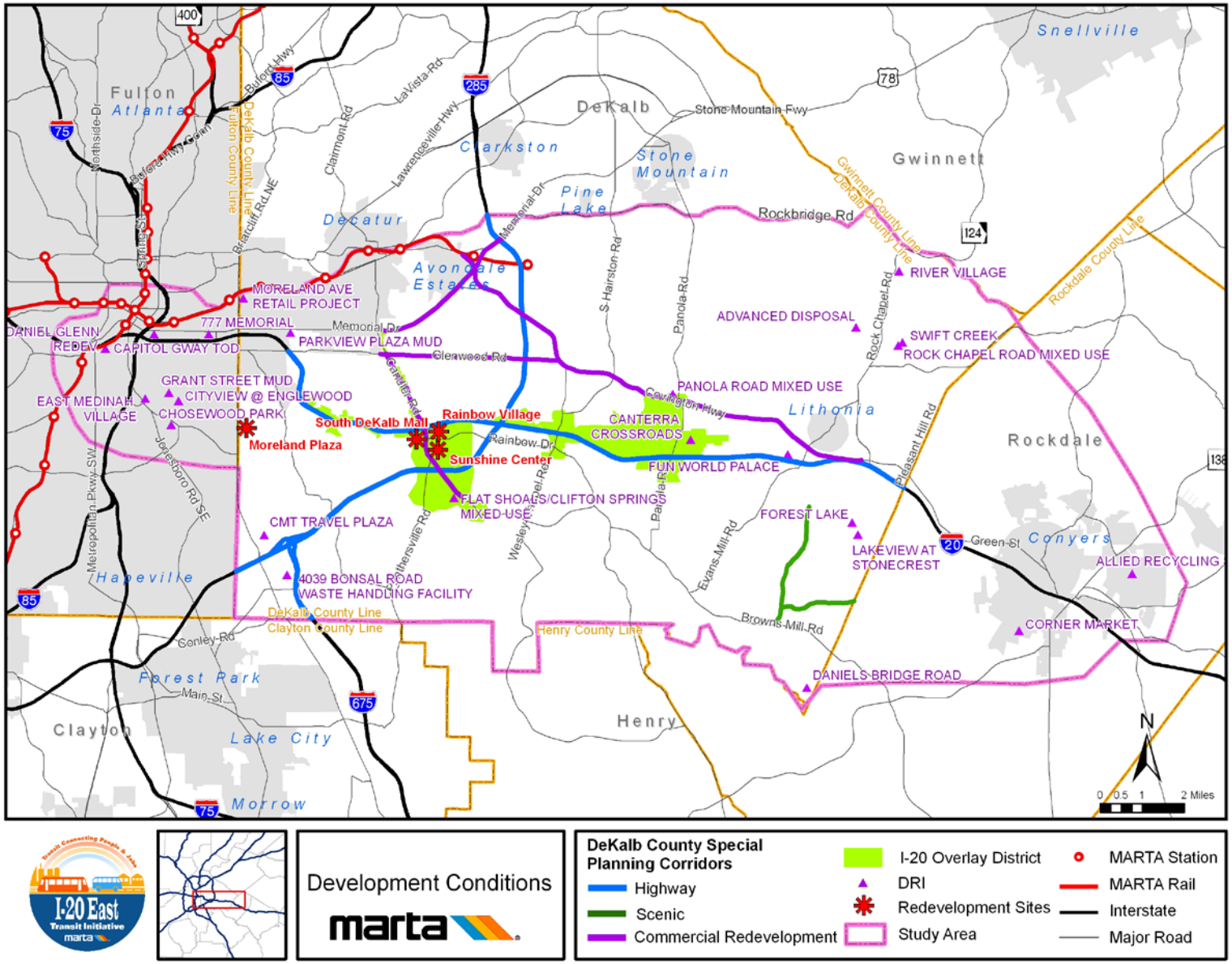
Source: ARC and GA Department of Community Affairs

An analysis of recent DRIs shows significant development planned within the corridor. The majority of these developments are mixed-use redevelopment projects. A representative example of these DRIs is the 777 Memorial project at the intersection of Memorial Drive and Pearl Street. This is an industrial site that is planned for mixed-use redevelopment that would feature 350 residential units, 71,700 square feet of retail, and 12,100 square feet of office space.

5.2.4 Potential Redevelopment Areas

The I-20 East Corridor contains numerous areas with the potential and identified need for significant reinvestment. These have been identified in **Figure 5-15** on page 5-27**,** showing development conditions in the corridor. Economic revitalization was a primary corridor need identified within the 2004 AA study. This is still a primary issue in the corridor with members of the community identifying it as the most important goal for future transit service in the corridor through this study.

Figure 5-15: Development Conditions



In portions of the study area there has been significant disinvestment over the past 30 years, as development interest has bypassed these areas. This is particularly evident in the western and middle portions of the study area. However, this trend is reversing itself with a new wave of reinvestment in the western portions of the study area in the City of Atlanta in the past decade. Areas in the middle portion of the corridor, in southern DeKalb County, have yet to witness significant redevelopment activity despite the need identified by area residents and government leaders. The area surrounding the Mall at Stonecrest and the Rockdale County portion of the study area have yet to experience significant redevelopment, since many major developments there are relatively new.

Rainbow Village Shopping Center on Candler Road

A series of planning studies has recommended redevelopment activities within the I-20 East study area, including two relevant LCI studies. The recently completed Draft Wesley Chapel LCI study (2011) designates an area for transit oriented development at Wesley Chapel Road and I-20 in anticipation of new rapid transit service in the I-20 East corridor. At this site, it proposes a catalyst site near interchange, such as a medical facility or institution, and a multi-purpose conference center, a retirement community and other residential and commercial development.

The Candler Road/Flat Shoals Parkway LCI study, completed in 2007, identifies the South DeKalb Mall site and the aging strip shopping centers along the eastern side of Candler Road as prime redevelopment sites. These shopping centers and the mall have significant parking footprints capable of supporting additional development without requiring the redevelopment of the primary structure. The LCI's Town Center Master Plan calls for redevelopment at the South DeKalb Mall site through additional buildings along the outer edges of the surface parking lots. The plan also recommends the complete redevelopment of the Rainbow Village Shopping Center (shown above) into a combination of offices, townhomes, mixed-use buildings, and parks. This shopping center is anchored by a grocery store that is outdated in regards to size and layout and the overall structure is in a state of serious deterioration.

In addition to the Rainbow Village Shopping Center and South DeKalb Mall site, there are numerous other aging or obsolete retail centers in the corridor. There is a limited life-span for retail developments that fail to reinvest or reinvent themselves to maintain economic

competitiveness with newer retail developments. Many shopping centers in the corridor are nearing the end of their useful life unless significant improvements are made. These commercial sites, particularly in the vicinity of I-20, represent an opportunity for redevelopment as compact mixed-use centers supportive of transit service. Given the obstacles to redevelopment requiring multiple parcel consolidations, these large sites represent the most likely location for sizable redevelopment in the corridor.

5.2.5 Policy Framework

The overall land use policy framework for jurisdictions within the I-20 East Transit Initiative study area is very supportive of premium transit service. This section identifies the land use policies of jurisdictions in the study area through examining their future land use plans, development policies, and special planning initiatives.

DeKalb County

In 2007, DeKalb County adopted the I-20 Overlay District. Major goals of the overlay district include:

- Spurring economic development along the I-20 East corridor;
- Encouraging mixed-use development and redevelopment;
- Allowing flexibility in development standards to encourage innovative developments;
- Promoting a visually aesthetic and uniform quality of development;
- Promoting the formation of a well-designed, pedestrian-friendly, high-density commercial/residential activity centers, which will support alternative modes of transportation; and
- Allowing and encouraging land use densities that are capable of making effective use of alternative transportation modes, such as bus and rail transit.

The boundaries of the overlay district follow I-20 through southern DeKalb County and expand to include parcels at major intersecting roads. These expanded areas include areas adjacent to Gresham Road, Candler Road, the I-285 interchange, Wesley Chapel Road, Snapfinger Woods Road, and Panola Road.

The I-20 Overlay District is organized into three tiers that regulate building height and dwelling units per acre. Tier 1 permits up to 20 story buildings and 60 dwelling units per acre. Tier 2 permits buildings up to 8 stories and 40 dwelling units per acre. Tier 3 permits building heights up to 4 stories and 40 dwelling units per acre. Parcels in the most intense Tier 1 category can be found in areas adjacent to stations proposed in the previous LPA from the Alternatives Analysis completed in 2004 and modified in 2006. These include areas along Gresham Road, Candler Road, Wesley Chapel Road and Panola Road.

The overlay district seeks to encourage mixed-use development and connected public spaces through density bonuses in the form of increases in permissible Floor Area Ratios (FARs). FARs are calculated based on the useable floor area permitted in a building (or buildings) and the area of the lot on which the building stands. Developers can achieve density bonuses in the Tier 1 area if the developer allocates more than 25 percent of the development as well-connected public space. Mixed-use development will also qualify for bonuses if it includes at least 40 dwelling units per acre in the same structure as office-institutional, commercial, or

retail uses and these non-residential uses do not constitute less than thirty percent of the gross floor area. If all of these conditions are met FARs may be increased from 3.5 to 5.5.

Design guidelines for development are another component of the I-20 Overlay District. All new development in the overlay area must meet the minimum guidelines. A major goal of the design guidelines is to achieve a built environment that is supportive of alternative modes of transportation. Therefore the guidelines require sidewalks on both sides of all streets, off-street pedestrian-ways that connect business entrances and parking areas to transit stops, bicycle lanes on certain roadways, and bicycle parking at major destinations. The guidelines seek to make pedestrian travel more pleasant by requiring a planted landscape strip between the sidewalk and roadway and permitting parallel parking on smaller streets, both of which serve as a barrier between pedestrians and motorists.

Through the adoption of the I-20 Overlay District, DeKalb County has put in place a policy framework that is supportive of future premium transit service. It encourages the densities, mixed-uses and pedestrian connectivity needed to best support transit service. The district permits residential densities well above those needed to support premium transit service. It allows up to 40 or 60 dwelling units per acre, considerably higher than the nine dwelling units per acre frequently cited as needed to support light rail or bus rapid transit. It also encourages connectivity and large-scale mixed-use development through density bonuses at nodal locations along the corridor. These nodal locations can be found at major interstate exits and represent the locations for logical transit stations in the corridor, as were identified in the previous LPA. Maintaining public space throughout developments with pedestrian connections is incentivized and this is critical to ensuring good transit accessibility in areas in close proximity to transit stops. The accompanying design guidelines for development also strive to create an environment supportive of pedestrian, bicycle, and transit travel.

In addition to the I-20 Overlay District, DeKalb County has also adopted the Stonecrest Overlay District. In 2008, the County adopted this overlay to regulate development adjacent to the Mall at Stonecrest. Major goals of the Stonecrest Overlay District include:

- Ensuring compatible development with the Mall at Stonecrest in regards to land use type and building heights;
- Encouraging and promoting compatible mixed-use developments in the area;
- Providing a balanced distribution of regional and community commercial and mixed-use office centers;
- Supporting higher-density housing in office and mixed-use centers which have the appropriate location, access, and infrastructure to accommodate it;
- Encouraging an efficient land use and development plan by forming a live-work-play environment that offers employees and residents the opportunity to fulfill their daily activities with the minimal use of single-occupant automobiles; and
- Allowing and encouraging development densities and land use intensities that are capable of making productive use of alternative transportation modes such bus and rail transit.

The Stonecrest Overlay District includes the same pedestrian-friendly design guidelines as the I-20 Overlay District. This overlay, like the I-20 Overlay District, is supportive of premium transit service along the I-20 East corridor through higher-densities, mixed-use development, and pedestrian-friendly design. The boundaries of the overlay are centered around the Mall at

Stonecrest and roughly run from Covington Highway in the north, DeKalb Medical Parkway in the west, Rockland Road in the south and Lake Capri Road in the east.

DeKalb County's other land use policies are very supportive of transit service in the corridor. The county has adopted transit supportive polices and strategies in its most recent comprehensive plan update (*The DeKalb County Comprehensive Plan 2005-2025*). Some examples of these include policies encouraging the strengthening of "pedestrian linkages between residential areas and MARTA stations" and supporting the "expanded use and improvement of the current MARTA system including express bus service routes, additional park and ride lots, and cross-town links." Some specific strategies that were identified include constructing new sidewalks in areas served by MARTA, working with MARTA to expand service hours and locations, and working with MARTA to increase ridership by linking station improvements with surrounding community improvements.

In addition to these policies and strategies, the Comprehensive Plan contains a Future Development Map that establishes appropriate land uses in the corridor. The Future Development Map serves as the official guide for decision-makers for rezonings and development approvals. It divides the county into specific character areas. Each character area corresponds to appropriate land uses, implementation measures, and design criteria described in the plan.

The Future Development Map shows a series of mixed-use "Town Center" character areas along I-20 at Gresham Road, Candler Road, Wesley Chapel Road and Panola Road. The Town Center classification permits a wide variety of land uses including high-density residential and high-intensity commercial. Residential densities up to 60 units per acre are permitted in this category. A large portion of the study area in DeKalb County is shown as the Suburban character area. These character areas permit low to medium residential densities. Up to eight units per acre is permitted for the Suburban character area. The Traditional Neighborhood category is shown in neighborhoods adjacent to Glenwood Avenue and Moreland Avenue and permits up to 12 units per acre within this category.

The combination of high-density mixed-use and higher-density residential future land uses suggests the Future Development Map supports development at sufficient densities to support premium transit service in numerous locations.

The Future Development Map also illustrates special planning corridors in the study area. The County establishes Scenic Corridors, Highway Corridors, and Commercial Redevelopment Corridors in the study area. These are shown in the preceding **Figure 5-15.** Commercial Redevelopment Corridors are comprised of areas of declining, unattractive, vacant, or underutilized commercial strip centers with the potential to accommodate redevelopment as office, condominiums, townhouses, mixed-use land uses. These are along Memorial Drive, Glenwood Avenue, and Covington Highway. Densities of up to 18 dwelling units per acre are allowed in these corridors.

Scenic Corridors are located near the Arabia Mountain Nature Preserve along Klondike Road and S Goddard Road. These corridors consist of scenic areas that have been identified for protection from the negative effects of development. These areas are targeted to ensure development does not negatively impact scenic views and natural resources. Land uses identified as appropriate along these corridors include single-family residential, parks, and mixed-use.

Highway Corridors are located along I-20 East and I-285 in the study area and are defined as areas adjacent to limited access interstates. These areas frequently contain intense commercial, office, industrial and residential development. Primary land uses include

commercial, industrial, high-density residential and mixed-use development. Densities of up to 30 units per acre are permitted in these corridors.

The comprehensive plan is also supportive of TOD. DeKalb County has identified TOD as a land use strategy to be actively pursued and encouraged in appropriate locations. The plan encourages continuing coordination with MARTA to ensure future transit routes and stops are incorporated and reflected in the county's future land use plans.

DeKalb County has been a strong advocate for TOD, actively planning for this at existing transit stations within the county. The county has spearheaded numerous ARC LCI planning studies for MARTA station areas around the county, including Avondale, Brookhaven, Kensington and Dunwoody stations. These studies have all recommended TOD for these areas. The county has carried these recommendations over into their land use plans. The plan shows high-density mixed-use future land uses in station areas, with the expressed intent of promoting TOD in these locations.

City of Atlanta

The City of Atlanta comprises the western most portion of the study area and is a major component of the total corridor. The policy framework of Atlanta is very supportive of transit service and features transit supportive policies and implementation strategies within its Comprehensive Plan.

The city's most recent comprehensive plan update, the *Atlanta Strategic Action Plan* (ASAP), adopted in April of 2008, promotes increased transit use and TOD through policy and strategy statements. The City clearly states its support for the further expansion of the MARTA rail and bus system. It is a policy of the city to be "committed to the development of mixed-uses around MARTA transit stations in an effort to minimize urban sprawl, to reduce traffic congestion, to provide efficiency in public services, and to encourage the development of self-contained living and working environments. Mixed-use development should be promoted around all MARTA transit stations, as well as future transit stations."

The plan goes on to advocate for mixed-use nodal development at the Buckhead, Lenox, and Lindbergh Center MARTA stations, maintaining a land use mix with a balance of residential uses. Mixed-use development is also desired for the Bankhead MARTA station. The highest density of development permitted in the city is supported for the downtown stations of Garnett, Five Points, Dome/GWCC/Philips Arena/CNN Center, Georgia State, Peachtree Center, and Civic Center.

Increased ridership is encouraged through improved station signage, additional entrances, and connecting non-motorized facilities. The city also seeks to achieve this through the continued placement of mixed-use development and regional entertainment and cultural facilities around MARTA stations. The city's land use policies steer high-density residential development into major arterials and corridors with existing transit service and good access to the rail system.

Atlanta has a proven track record of promoting and planning for TOD that has resulted in the development of nationally-acclaimed TOD. A prime example of this is the successful Lindbergh Center Station TOD, which boasts 47 acres of current and future mixed-use development. In 2000, the city developed a *Lindbergh Transportation Urban Design Plan*, creating a special public interest zoning district to ensure TOD at this station.

The city has also been involved in TOD planning through numerous LCI studies. These include the station areas of Hamilton. E. Holmes, West Lake, Bankhead, Civic Center, King

Memorial and other stations in the city center. The city is committed to promoting TOD adjacent to stations and amending land use regulations to ensure this. Within the study area, the Future Land Use Map provides for mixed-use, high-density residential or very high-density residential future land uses around the Garnett, West End, King Memorial and Inman Park-Reynoldstown stations.

The City of Atlanta maintains a Future Land Use Map as a component of the comprehensive plan. The map features many transit-friendly future land use categories and corresponding zoning codes. With the city's strong commitment to TOD, it is likely changes will be made to reflect transit-supportive land uses in areas planned to be new station areas.

5.3 Major Findings

- The projected 46.5 percent increase in study area employment establishes the basis for an increasing need for additional capacity in the transportation system. Furthermore, through discussions with area stakeholders, the I-20 East Transit Initiative has identified inadequate access to existing employment centers as a corridor issue.

- The projected 26 percent increase in study area population reveals an opportunity to plan for the integration of premium transit services into study area communities while the growth is occurring. This is particularly true in the eastern portion of the study area, which is currently underserved by transit.

- The analysis of projected land use changes demonstrates that there is sufficient land area to accommodate the projected growth and redevelopment. Much of the projected 117,000 new residents to the study area between 2005 and 2030 will be accommodated in the 56 percent growth in Low to Medium Density Residential land uses located primarily in the eastern portion of the study area.

- There are neighborhoods of minority and low-income populations located throughout the study area. It will be important through the planning process to ensure these neighborhoods are not impacted disproportionately and that any transit improvements serve these neighborhoods where the population has been traditionally underserved.

- The study area has a higher percentage of zero-vehicle households (15.4 percent) than the Atlanta metropolitan area (7.3 percent) or the State of Georgia (8.3 percent). Although many of these zero-vehicle household neighborhoods are located along existing MARTA rail lines, there are numerous neighborhoods throughout the study area particularly along on near I-20.

- There are neighborhoods within the study area where the elderly and disabled populations make up between 15 to 25 percent of the population. Much of both the elderly and disabled populations in the western end of the study area reside near existing MARTA rail lines. However, in the eastern end of the study area, there are large areas with significant elderly and disabled populations that do not have access to premium transit. These areas would benefit from improvements in transit service. Increasing the accessibility of service to these populations would address a major need for the I-20 East Transit Initiative.

- Since the previous AA study was conducted in 2004 numerous major developments have been constructed or proposed in the study area. This indicates continued growth and development interest in the I-20 East corridor. A large portion of this planned growth has been large-scale mixed-use development, which is particularly supportive of transit service.

- A series of planning studies within the study area has recommended redevelopment activities along the I-20 East corridor, an example of which is the Candler Road/Flat Shoals Parkway Livable Centers Initiative, completed in 2007. This study, like many of the others have envisioned, and are supportive of, transit supportive land uses comprised of high-density mixed-use centers.

- The previously identified light rail and bus rapid transit alignment and stations along I-20 are supported by the land use policy framework of DeKalb County. The policy framework calls for the redevelopment of commercial areas adjacent to I-20 as a series of mixed-use higher-density areas. The I-20 Overlay District lays the framework for ensuring TOD at proposed station areas along the alignment.

- Redevelopment and reinvestment is a major identified need in the corridor. Major redevelopment areas include the South DeKalb Mall area and other commercial centers adjacent to I-20. Additional premium transit service in the corridor would represent a major new investment in the area and has the potential to catalyze new development in these areas.

- The land use policy framework of DeKalb County and the City of Atlanta is very supportive of additional transit service in the corridor through their land use plans, which permit high-density and mixed-use development, their stated policies encouraging transit use and their commitment to ensuring TOD around transit stations.

6.0 PROJECT PURPOSE AND NEED

6.1 Transportation Challenges

As presented in this report, the I-20 East Corridor faces several major challenges. This document details how the study area's unique existing and planned transportation system, travel markets, demographics, land uses, and development trends all contribute to the challenges facing this corridor both today and in the future. The data presented here illustrates the need for transit investments that address these challenges. These challenges are summarized below.

Traffic congestion causes delay and slow travel times

- The ARC model estimated a total of 2.6 million daily person trips that originated and terminated within the study area in 2005. By 2030, the number of trips associated with the corridor is expected to increase to 3.5 million trips, an increase of 36 percent. These levels of growth within the corridor will continue to drive a steady increase in traffic volumes and congestion, further increasing delay and reducing travel times.
- Traffic volumes on study area roadways are projected to increase significantly by 2030 as development in the area continues to increase. Volumes on I-20 in 2005 ranged from 76,800 AADT in the rural, eastern end of the study area to 195,000 AADT in Downtown Atlanta. By 2030, AADT on I-20 is projected to increase by up to 64 percent to volumes of up to 269,100 vehicles per day. Similar or greater increases in volume are projected for many of the area major roadways.
- A degradation in LOS is projected for most major roadways in the study area. The LOS on I-20 in 2005 ranged from D to F among study area roadway segments. By 2030, LOS is projected to worsen on more than half of these roadway segments, and only one segment is projected to operate at D or better, the level considered acceptable for urban areas. This projection for 2030 roadway conditions is typical in the study area for major east-west roadway segments, most of which are projected to operate at LOS E or F.

Inadequate access to downtown and other employment centers

- Downtown and Midtown Atlanta represent the largest concentrated destination for travel within the corridor. The results of this analysis reveal that the largest concentration of peak hour trips originating in the corridor are destined for Downtown and Midtown Atlanta. This is especially true for transit trips, with 49 percent of transit trips originating in the corridor destined for Downtown and Midtown Atlanta. As automobile and transit travel times to central Atlanta continue to lengthen, access to this important employment center will become increasingly difficult.
- The projected 46 percent increase in study area employment establishes the basis for an increasing need for additional capacity in the transportation system. Furthermore, through discussions with area stakeholders, the I-20 East Transit Initiative has identified inadequate access to existing employment centers as a corridor issue.
- Automobile and transit travel times limit mobility and access within much of the corridor. These travel times are expected to increase significantly by 2030. Much of the study area already experiences long travel times to and from downtown. These

travel times are expected to increase significantly in the future. By 2030, most of the corridor west of I-285 is expected to experience automobile travel times to central Atlanta of greater than 50 minutes with much of this area experiencing travel times of 60 - 80+ minutes. Because transit in the corridor is projected to continue to consist of bus service in 2030, the same is true for transit travel times.

Limited east-west roadways; I-20 is the only real choice

- With the exception of I-20, there are limited roadway options for drivers traveling east-west in the study area, and of these, few extend across a significant portion of the study area or offer multiple lanes. Since the existing transportation network does not provide a viable parallel route to I-20 for traversing the study area, the need exists to increase travel choices for east-west mobility in the corridor.
- East-west travel along I-20 is the predominant travel pattern within the corridor. Results of a select link analysis illustrate that the majority of peak hour automobile trips traveling eastbound and westbound on I-20 continue their trips along I-20 rather than diverting on I-285 to the north or south.
- By 2030, the largest source of trips coming into the study area will be from Rockdale and Newton Counties to the east. Approximately 10 percent of all trips destined for the study corridor will come from these areas. This represents a 113 percent increase in trips from Rockdale and Newton Counties from 2005 to 2030. With I-20 the main option for travel into the study area from these counties, congestion will continue to increase, causing mobility and access to decrease. This confirms the need for transportation improvements to address east-west mobility along I-20.

Limited planned transportation projects in corridor to accommodate growth

- While there are planned and programmed roadway capacity projects in the study area, the lack of east-west movement is projected to remain an issue due to the projects' emphasis on north-south roadways. There are no projects planned to add general use lanes or HOV/managed lanes to I-20 by 2030. With limited planned improvements to I-20 or parallel facilities, east-west mobility in this growing study area will continue to degrade.

Insufficient transit service for a growing demand

- Transit travel is expected to increase significantly in the corridor. In 2005 there were 143,700 daily transit trips in the I-20 East Corridor. By 2030, it is projected that there will be 253,000 daily transit trips in the study area each day, a 77 percent increase from 2005. Transit travel growth will far outpace the 36 percent growth for trips of all modes, which includes automobile trips. Over the past five to ten years, significant increases in ridership have been seen on express bus services offered by GRTA and MARTA that travel on I-20 East. These increases have occurred despite the fact that these buses operate on congested roadways. This demonstrates the strong demand for transit service within the corridor despite the fact that the existing transit service is not travel time competitive.

Automobile and transit travel times limit mobility and access within much of the corridor. These travel times are expected to increase significantly by 2030. Much of the study area already experiences long travel times to and from downtown. These travel times are expected to increase significantly in the future. By 2030, most of the corridor west of I-285 is expected to experience automobile travel times to

downtown of greater than 50 minutes with much of this area experiencing travel times of 60 - 80+ minutes. The same is true for transit travel times.

Express buses operate in normal traffic

- Overall, existing and future transit travel times are considerably longer than automobile travel times, illustrating that current transit service is not travel time competitive.

- Transit travel times surrounding the existing MARTA heavy rail line are not expected to lengthen by 2030. However, by 2030 local and express bus service in much of the eastern portion of the corridor is expected to experience considerably longer travel times, primarily due to the fact that these services operate on congested roadways and there are few capacity-adding roadway improvements planned for the study area by 2030. Furthermore, no managed lanes or HOV lanes are planned along I-20 east of I-285 by 2030. This further highlights the need for travel time competitive transit service to address the mobility and access needs of the study area.

Areas of the corridor are in need of revitalization

- There are land use plans, redevelopment plans, and zoning ordinances in the City of Atlanta and DeKalb County, as well as from Livable Centers Initiatives (LCIs), that support and encourage transit oriented development, a goal of the I-20 East Transit Initiative.
- The analysis of projected land use changes demonstrates that there is sufficient land area to accommodate the projected growth and redevelopment. Much of the projected 117,000 new residents to the study area between 2005 and 2030 will be accommodated in the 56 percent growth in the eastern portion of the study area.
- A series of planning studies within the study area have recommended redevelopment activities along the I-20 East corridor, an example of which is the Candler Road/Flat Shoals Parkway Livable Centers Initiative, completed in 2007. This study, like many of the others, envisioned and is supportive of, transit supportive land uses comprised of high-density mixed-use centers.
- Redevelopment and reinvestment is a major identified need in the corridor. Major redevelopment areas include the South DeKalb Mall area and other commercial centers adjacent to I-20. Additional premium transit service in corridor would represent a major new investment in the area and would have the potential to catalyze new development in these areas.
- The previously identified light rail and bus rapid transit alignment and stations along I-20 are supported by the land use policy framework of DeKalb County. The policy framework calls for the redevelopment of commercial areas adjacent to I-20 as a series of mixed-use higher-density areas. The I-20 Overlay District lays the framework for ensuring TOD at proposed station areas along the alignment.

Limited transportation options for traditionally underserved populations

- There are neighborhoods of minority and low-income populations located throughout the study area. It will be important through the planning process to ensure these neighborhoods are not impacted disproportionately and that any transit improvements serve these neighborhoods where the population has been traditionally underserved.

- The study area has a higher percentage of zero-vehicle households (15.4 percent) than the Atlanta metropolitan area (7.3 percent) or the State of Georgia (8.3 percent). Although many of these zero-vehicle household neighborhoods are located along existing MARTA rail lines, there are numerous neighborhoods throughout the study area particularly along on near I-20.

- There are neighborhoods within the study area where the elderly and disabled populations make up between 15 to 25 percent of the population. Much of both the elderly and disabled populations in the western end of the study area reside near existing MARTA rail lines. However, in the eastern end of the study area, there are large areas with significant elderly and disabled populations that do not have access to premium transit. These areas would benefit from improvements in transit service. Increasing the accessibility of service to these populations would address a major need for the I-20 East Transit Initiative.

6.2 Need for the I-20 East Transit Initiative

Given the challenges facing the study area, improved transit service in the I-20 East Corridor is being investigated to address the following needs.

- **Improved Mobility and Accessibility in the Corridor**
  - Traffic congestion causes delay and slow travel times
  - Inadequate access to downtown and other employment centers
- **Additional Travel Options in the Corridor**
  - Limited east-west roadways; I-20 is the only real choice
  - Limited planned transportation projects in corridor to accommodate growth
- **Improved Transit Service in the Corridor**
  - Insufficient transit service for a growing demand
  - Express buses operate in normal traffic
  - Limited transportation options for transit dependent and elderly populations
- **Support Land Use and Development Goals within the Corridor**
  - Areas of the corridor are in need of revitalization

6.3 Purpose and Need Statement

While this Purpose and Need report addresses multiple challenges and needs, per FTA guidance, the following Purpose and Need Statement was developed to clearly and concisely address the primary transportation challenges faced by the I-20 East Corridor.

The purpose of the I-20 East Transit Initiative is to provide transit investments that enhance east-west mobility and improve accessibility to residential areas and employment centers within the corridor. The existing and future roadway congestion in the I-20 East corridor will have an increasingly detrimental effect on automobile and bus transit travel in the corridor. The proposed transit investments are intended to improve travel times and travel reliability by providing a rapid transit service for commuters traveling to and from central Atlanta.

6.4 Goals and Objectives of the I-20 East Transit Initiative

Based on the identified challenges and needs within the corridor and stakeholder input, the following goals and objectives were identified for the I-20 East Transit Initiative. These goals and objectives will guide the development and evaluation of transit alternatives to be considered in this study.

Goal 1: Increase mobility and accessibility

Objectives

- Improve travel times for east-west travel
- Improve accessibility within the corridor
- Improve connectivity with existing and planned transit investments
- Improve travel options within the corridor

Goal 2: Provide improved transit service within the corridor

Objectives

- Provide transit service with sufficient capacity to accommodate growing demand
- Provide travel time competitive transit service in the corridor
- Provide transit service for traditionally underserved populations

Goal 3: Support land use and development goals

Objectives

- Promote economic development/revitalization
- Support adopted local land use plans
- Encourage transit supportive land use and development patterns
- Provide transit investments that are supported by local stakeholders and the general public

In addition to the goals and objectives identified by through stakeholder input, two other goals have been identified for consideration in the development and evaluation of transit alternatives in the corridor. These additional goals and objectives are described below.

Goal 4: Promote cost effective transit investments

Objectives

- Provide transit service that can be implemented, operated and maintained with available resources

Goal 5: Preserve natural and built environment

Objectives

- Minimize impacts to social, natural, cultural and physical resources