



Gwinnett Village
Community Improvement District

Jimmy Carter Blvd Corridor Study

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Gwinnett Village Community Improvement District

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INTRODUCTION

Jimmy Carter Corridor Program Overview

In partnership with the Gwinnett County Board of Commissioners, the Gwinnett Village Community Improvement District (CID) conducted a Corridor Study along Jimmy Carter Boulevard and modeled the study after the Atlanta Regional Commission's (ARC) Livable Centers Initiative (LCI) program. The Jimmy Carter corridor includes and meets the objectives and goals of a LCI community. The CID, Gwinnett County and the City of Norcross understand the importance of completing a study that will link transportation improvements with land use strategies to improve mobility and livability for the corridor. The findings and recommendations of this study will become the supporting documents needed to help educate decision-makers when seeking out necessary funding to implement enhancement projects throughout the corridor.

The primary goals of the corridor study Program are to:

- Encourage a diversity of mixed income residential neighborhoods, employment, shopping, and recreation choices.
- Provide access to a range of travel options including buses, roadways, walking and biking.
- Engage the community's stakeholders in the planning, including groups not previously involved in community planning activities.

(2004 LCI Report, Atlanta Regional Commission)

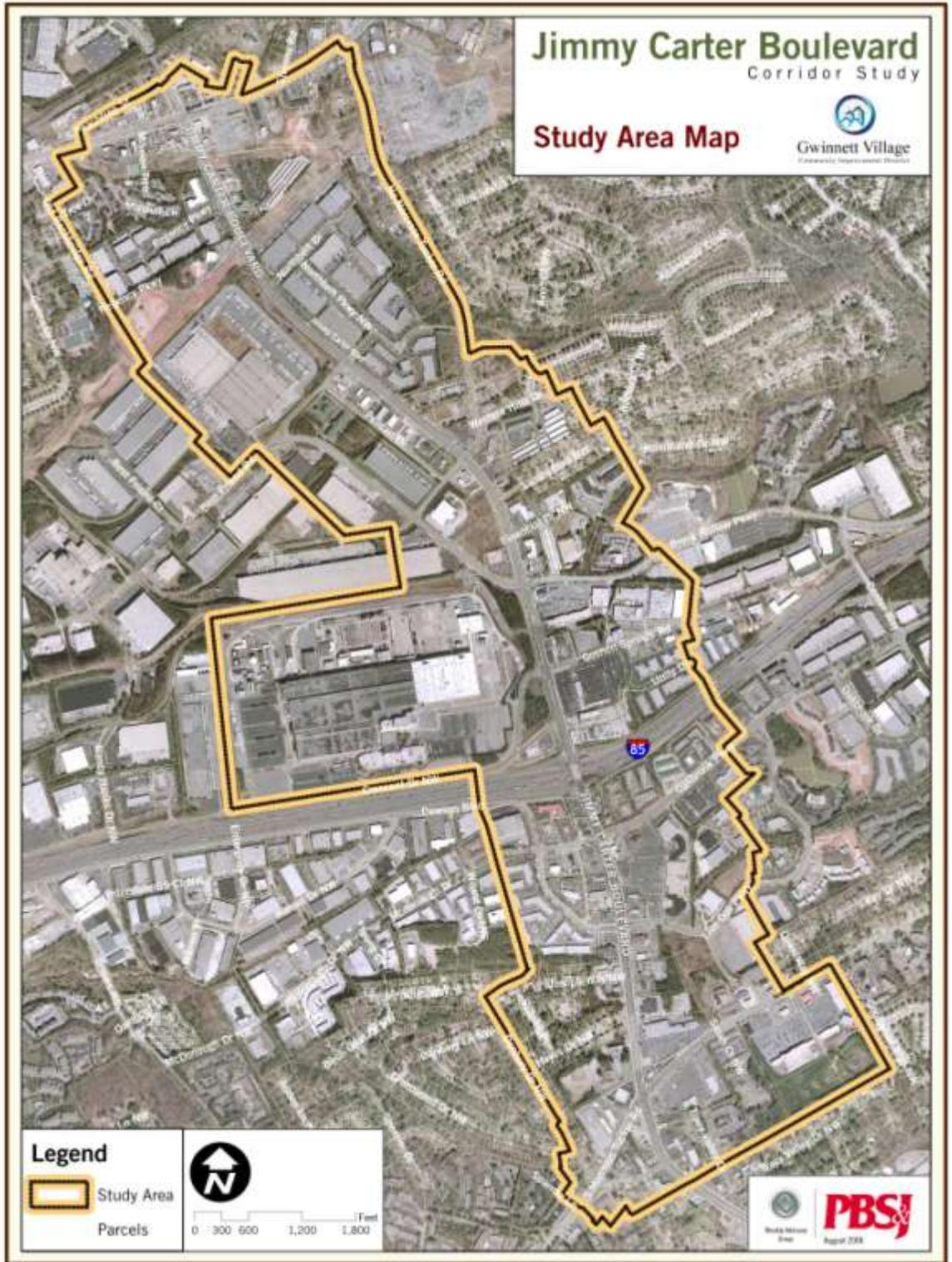
Study Area

The Jimmy Carter Corridor study area is a 2.4-mile segment of the Jimmy Carter Boulevard Corridor and includes properties within approximately a quarter mile of either side of Jimmy Carter Blvd. The Jimmy Carter Boulevard Corridor is located just outside of the perimeter (I-285) with access to the I-85 corridor which makes it an integral area of the Gwinnett Village Community Improvement District. The majority of the study area lies within unincorporated Gwinnett County with a section of the study area to the northeast within in the limits of the City of Norcross. The segment has its termini at Singleton/South Norcross Tucker Road and Buford Highway, adjacent to the Norcross LCI study area.





Gwinnett Village
Community Improvement District





Study Need

During the late seventies and into the eighties, the Jimmy Carter Boulevard community experienced an explosive period of population growth and economic vitality. However, as time progressed the trend for new development in Gwinnett County occurred in the communities north of the Jimmy Carter community. Businesses looked to the north for newer larger properties with newer infrastructure and residents began leaving the area due to a fear of declining property values. They left behind a growing inventory of vacant properties and an aging built environment. The once prosperous Jimmy Carter Boulevard corridor began slipping into economic decline.

The community's rapid growth period of the 70's & 80's was an explosive time for the County. As a result, traffic congestion along Jimmy Carter Boulevard became a major issue for the County and in 1987 the County Commissioners approved the installation of a concrete median along Jimmy Carter Boulevard from Singleton Road to Buford Highway. The purpose of the median project was to reduce traffic congestion by improving the flow of traffic and by eliminating the numerous left turn crashes. The median became known as the "Great Wall of Gwinnett" to residents and business owners in the area. While the median may have been successful with eliminating left turn crashes, the congestion in the area has continued to increase throughout the years.



The residential and business communities along the Jimmy Carter Boulevard corridor are experiencing different growing pains today than in previous decades. The focus has shifted and the challenges are different. However, the present day conditions present different challenges to the corridor, such as increased traffic congestion, aging or lack of infrastructure, end of life-cycle shopping centers, declining property values, ethnic diversity, and security issues for the business and residential communities in the corridor. It is critical to the future economic vitality of the Jimmy Carter Boulevard corridor to plan for and implement projects that will promote revitalization and redevelopment of the corridor. As stated in the Gwinnett County Revitalization Task Force¹ study, "We must focus our energy and resources on reclaiming, re-energizing, redeveloping, and revitalizing those areas in the County that are aging and declining."

The Gwinnett Village Community Improvement District (CID) was formed in an effort to ensure the challenges that are threatening the viability of the area receive the proper solutions. A primary goal of the Gwinnett Village CID is to improve the area's infrastructure, increase safety, enhance visual appeal and create a sense of place that will improve the quality of life for all those that

¹ The Revitalization Task Force Committee was appointed by the Gwinnett County Board of Commissioners to evaluate and establish recommendations to help the County address the challenges of suburban redevelopment/revitalization for areas of the County that are aging and declining. There is more discussion of the Revitalization Task Force's study under the regulatory Framework section of this study.

live, work and play in the village. In support of the Gwinnett Village CID's goal, the Gwinnett Village CID in partnership with Gwinnett County and the City of Norcross elected to sponsor the Jimmy Carter Boulevard Corridor study. The purpose of the study is to plan and implement improvements within the Jimmy Carter Corridor resulting in an efficient transportation corridor as well as a distinctive place that serves both residents and businesses.

Public Participation

Public participation was an integral part of the corridor study. The goal was to design an outreach process to disseminate information and relevant facts about the corridor and the study, facilitate dialogue, and build consensus among stakeholders and citizens throughout the project. Due to the ethnically diverse area, it was very important to identify and work with recognized leaders in the minority communities to ensure minority property and business owners were included in the process.

The Jimmy Carter Boulevard Project Team consisted of the consultants, Gwinnett County, and the Gwinnett Village CID. The team met on a monthly basis to discuss the study's progress, including ways to encourage thoughtful public involvement. The CID utilized several tools to inform the public of project meetings and updates, including the Gwinnett Village CID website, mass e-mails and mailings, press releases, meeting notices hand delivered to residents and businesses, and informational signs with upcoming meeting details posted throughout the corridor.



An important preliminary step of the public participation program involved working with the GV CID, Gwinnett County, and the City of Norcross to identify key leaders in the corridor to serve as stakeholders. The stakeholder committee represented a broad cross section of the local diverse community, including residents, business owners, property owners, developers, churches, and representatives of local government and transportation agencies. The PBS&J team looked to this group and the public to help identify issues, opportunities, and policies throughout the development of the corridor plan. One-on-one stakeholder interviews, stakeholder meetings, and a series of public meetings were conducted by the consulting team. The interviews and public meetings guided the team to understand the particular issues of concern of the community and the community's vision for the study area.

The following public meetings were held during the course of the study (see Appendix for meeting notes):

- Kick-off Meeting (Stakeholders/Public): June 26, 2006
- Market Study Presentation (Stakeholders): July 24, 2006



- Two-Day Design Charrette (Open to the Public): August 23 & 30, 2006
- Review of Draft Action Plan (Stakeholders/Public): October 23, 2006
- Final Recommendations Open House: December 6, 2006

The Kick-off meeting was held June 26, 2006 at the Global Mall. The purpose of the kick-off meeting was to present to the participants the purpose of the corridor study and provide them an opportunity to let the project team know what they're greatest concerns are for their community. The top issues the participants identified for the corridor are public safety, redevelopment of underutilized, blighted, or vacant properties, decreased traffic congestion, and code enforcement.

The two-day design charrette for residents and business owners provided an excellent opportunity for public input on the future of the corridor. The interactive exercises resulted in a community consensus land use and transportation Framework Plan for the entire study area as well as conceptual Development Diagrams for three nodes: Singleton/JCB, I-85 Interchange, and Buford Hwy/ JCB.

Study Components

The study was divided into the following major components:

1. Real Estate/Demographic Analysis (Market Overview)
2. Land Use/Urban Design Analysis
3. Transportation Analysis
4. Implementation Plan

Real Estate/Demographic Analysis (Market Overview)

The Market Overview provides an inventory and analysis of real estate and demographic trends affecting both current development patterns in the study area as well as the redevelopment of the Jimmy Carter Corridor through the implementation of the 5-Year Action Plan. This analysis provides the framework for the study's recommendations regarding land use and transportation improvements that together will create a vibrant, balanced mix of uses benefiting local residents, employees, and businesses. The report includes the following:

- **Demographic Characteristics** – The first section provides an overview of the population, households and housing stock in the Jimmy Carter corridor, the 2-mile market area and Gwinnett County. In addition, it presents information on the businesses and their employment within the study area.
- **Real Estate Market Conditions** – The second section includes an analysis of the current inventory and recent market trends for residential, retail and commercial uses within the corridor.
- **Future Real Estate Demand** – Based on the above data and analysis, the team believes that the area can support additional development in the corridor over the next decade. The third section presents the anticipated level of new development that can be supported in the study area by land use category.





- **Key Recommendations** – The success of redevelopment will depend on the quality and form of new projects. This section includes recommendations regarding mix of uses, location and other factors which should be considered in the implementation of the corridor plan.

Land Use/Urban Design Analysis

An essential part of the inventory and assessments phase of the corridor plan is an analysis of the Jimmy Carter Corridor’s physical features and characteristics, including topography, views, districts and neighborhoods, linkages to surrounding uses, and building design and details. Utilizing the existing conditions analysis and stakeholder input, the planning team identified development opportunities along the corridor, focusing on the intersections at Singleton Road, I-85 Interchange, and Buford Highway.

A detailed analysis and visioning for these three “nodes,” or activity centers, was achieved at a two-day design charrette. This workshop involved a series of engaging, interactive exercises, including a Density and Development Character exercise, which was used to help define the potential character of the study area. Hands-on exercises were employed to plan future land use, circulation and connectivity to and within the corridor, and to refine the vision for redevelopment opportunities at the three primary nodes along Jimmy Carter Boulevard.

The results of the workshop formed the basis for creating the Community Consensus Framework Plan, a graphic representation of the community-defined vision. The planning team illustrated potential development along the corridor and within the nodes, addressed strategies for rehabilitating “end of lifecycle” retail centers, and identified methods to enhance overall connectivity and mobility. Drawings reflect the potential redevelopment of the three Nodes and include detailed site designs, parking, street networks, pedestrian and bicycle facilities and open space opportunities.

Market trends and feasibility were taken into account at every step of formulating future land use and in the program and design of the nodes. In addition, the Community Consensus Framework Plan and node plans were supported by a comprehensive review of the existing development environment, as well as the current Gwinnett County and City of Norcross comprehensive plans, relevant zoning ordinances, and the Gwinnett County Revitalization Task Force Report. There was also project coordination with the project team working on the Atlanta Regional Commission’s Buford Hwy Multi-Modal Corridor study that was taking place simultaneously.

Transportation Analysis

In order to improve mobility and safety and to accommodate redevelopment efforts, an in-depth analysis of transportation conditions and solutions was conducted. Particular focus was given to the development of a comprehensive Access Management Plan. This plan is especially important due to Jimmy Carter Blvd facilitates heavy truck traffic as well as serving as a commuter roadway and a commercial corridor. It recommends alternative routes and access drives as well as intersection improvements. The plan also helps





facilitate non-vehicular transportation options in its recommendations, which contributes to the goal of providing alternatives to navigating the corridor.

The transportation element entailed technical analyses as well as public involvement. The Project Team worked with the community to identify traffic operation and safety issues and to record their perceptions of access problems. Public input was evaluated throughout the technical process to provide a strong basis upon which to make recommendations. The final corridor study recommendations address the following transportation elements:

- Interparcel Access/Driveway Management
- Intersection Improvements
- Roadway Construction
- Pedestrian/Bicycle/Multi-Use Paths
- Public Transportation

Implementation Plan

The corridor Study's recommendations are presented in a Five-Year Implementation Plan. The plan identifies projects, funding estimates and sources, and the organization(s) responsible for implementation. Projects are classified as *Transportation, Housing, and Other Local Initiatives*. Regulatory changes are included under *Other Local Initiatives*.



REAL ESTATE/DEMOGRAPHIC ANALYSIS

Introduction

Methodology

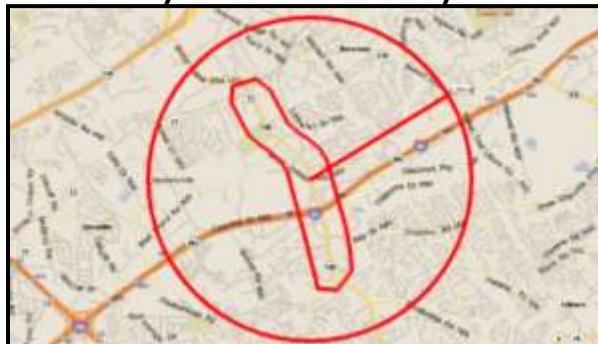
As part of the Jimmy Carter Corridor Study, this Market Conditions report provides an inventory and analysis of demographic and real estate trends affecting both current development patterns in the study area as well as the redevelopment of the Jimmy Carter corridor. This analysis provides the framework for the consulting team's recommendations regarding land use and transportation improvements that together will create a vibrant, balanced mix of uses benefiting local residents, employees, and businesses. The report includes the following:

- **Demographic Characteristics** – The first section provides an inventory of the population, households and housing stock in the Jimmy Carter corridor, the 2-mile market area and Gwinnett County. In addition, it presents information on the businesses and employment within the study area.
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Study Area

The following market conditions report examines a 2.4 mile segment of Jimmy Carter Boulevard, from Buford Highway in the northwest to Singleton Road in the southeast, detailed in the map that follows. For the purposes of the market overview, data was compiled for: the Jimmy Carter corridor (defined as 1/4 mile to either side of Jimmy Carter Boulevard), the 2-mile market Area (a 2 mile radius from the center of the Jimmy Carter corridor), and for Gwinnett County.

Jimmy Carter Market Study Area



DEMOGRAPHIC CHARACTERISTICS

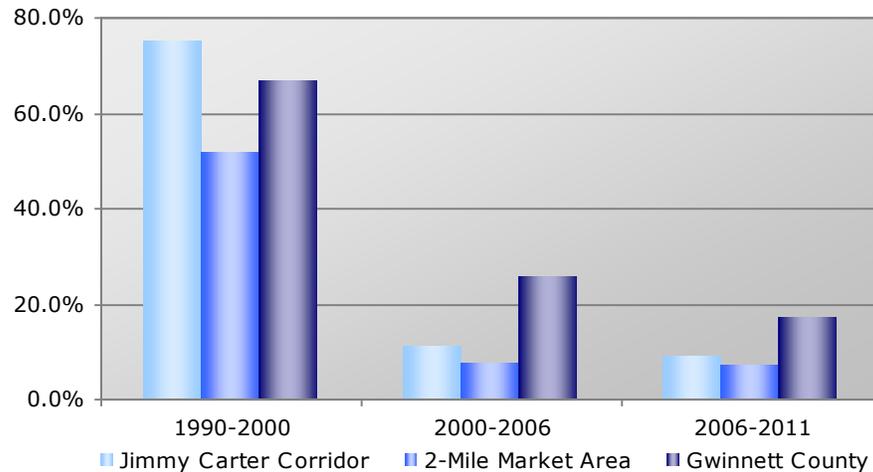
Population Characteristics

The purpose of the following section is to describe the population living in the Jimmy Carter boulevard corridor and the 2-mile market area. It includes an analysis of population growth, race and ethnicity, age distribution and educational attainment. The data source is Claritas, a nationally recognized socioeconomic and demographic information source. For a full presentation of the following demographic data, see the Appendix.

Population Growth

An estimated 1,230 residents live in the Jimmy Carter Boulevard corridor study area, which is projected to grow by 8.9 percent to 1,339 residents by 2011. In 2006, the corridor study area represents 0.17 percent of Gwinnett County's population of 739,171. By 2011, the corridor study area will represent 0.15 percent of the county's projected population of 865,681. There are an estimated 55,137 residents living in the 2-mile market area, which is projected to grow by 6.9 percent to 58,953 residents by 2011. In 2006, the 2-mile market area represents 7.4 percent of Gwinnett County's population and in 2011, the two-mile market area will represent 6.8 percent of the county's projected population.

Population Growth

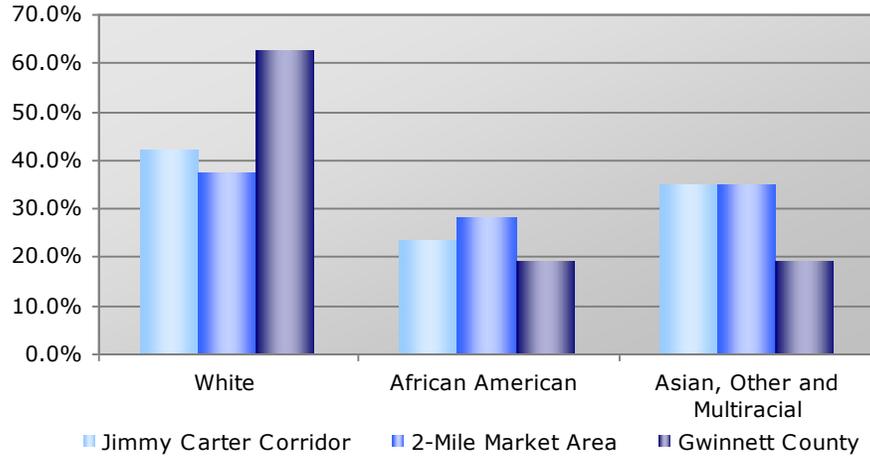


Race and Ethnicity

According to Claritas estimates, in 2006, 41.9 percent of corridor residents identify themselves as white, 23.3 percent as African American and 17.6 percent as other. The remainder of the corridor's population identify themselves as either multiracial (17.6 percent) or Asian (13.5 percent). In 2006, 37.2 percent of residents of the 2-mile market area identify themselves as white, 28.0 percent as African American and 20.7 percent as other. The remainder of the corridor's population identify themselves as either Asian (9.8 percent) or multiracial (4.2 percent). Both the corridor and the 2-mile market

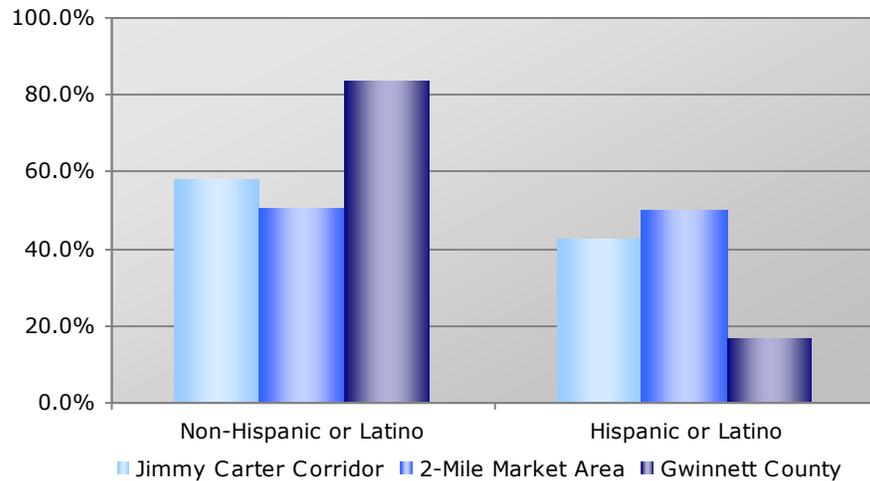
area are more diverse than Gwinnett County, where 62.3 percent of residents identify as white.

Population Race



Hispanic presence in the Jimmy Carter Boulevard corridor and the 2-mile market area is higher than Gwinnett County. As shown below, 42.2 percent of corridor residents identify themselves as Hispanic or Latino, somewhat lower than the two-mile market area where 49.9 percent of residents identify as Hispanic or Latino. In Gwinnett County, 16.4 percent of residents identify themselves as Hispanic or Latino.

Population Ethnicity



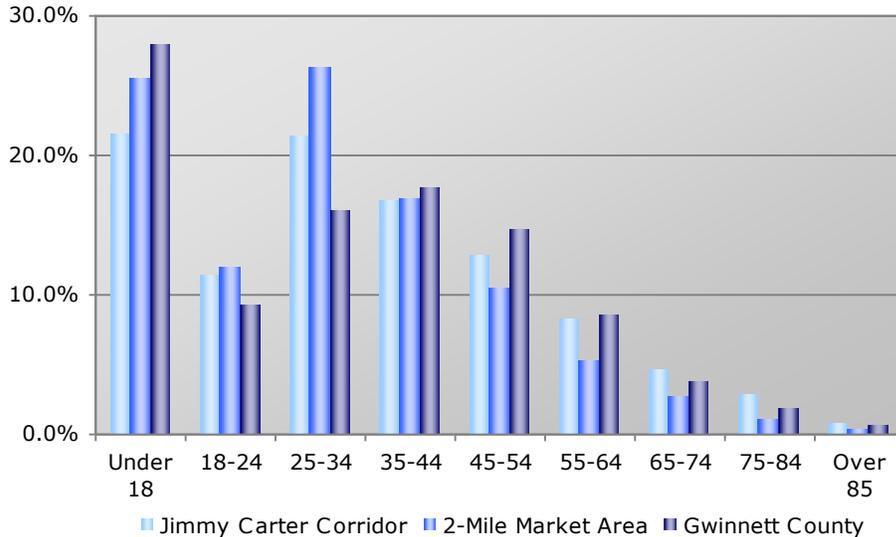
Age Distribution

The median age of the Jimmy Carter Boulevard corridor residents is 33 years, comparable to the median age in Gwinnett County (also 33). The largest proportion of corridor residents, 21.5 percent, are under the age of 18, a

smaller proportion than Gwinnett County where 28.0 percent of residents are under the age of 18. There is also a significant proportion of residents between the ages of 25 and 34, 21.4 percent, which is a higher proportion than Gwinnett County at 16.0 percent. The proportion of residents over the age of 65 is higher in the corridor than the county, at 8.0 and 6.1 percent, respectively.

The median age of residents in the 2-mile market area is 29.8, over three years younger than in Gwinnett County. In the market area, the largest proportion of residents are between the ages of 25 and 34, 26.4 percent, compared to 16.0% in Gwinnett County. The second largest proportion of residents, 25.5 percent, are under the age of 18; however, this is a smaller proportion than Gwinnett County at 28.0 percent. Only 3.6 percent of market area residents are over the age of 65, compared to 3.6 percent in Gwinnett County.

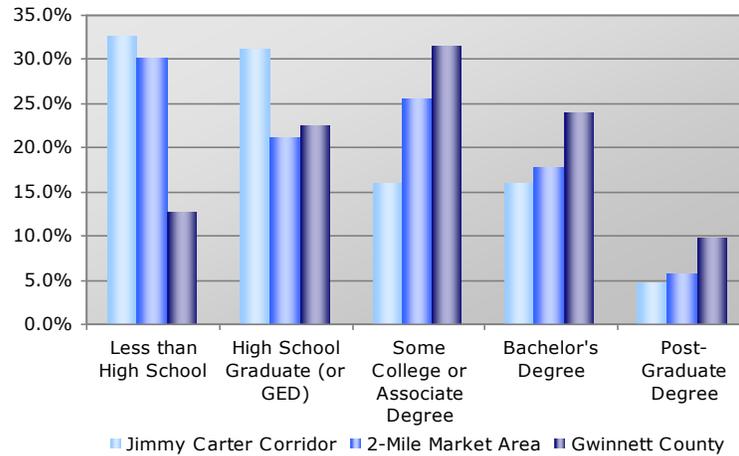
Age Distribution



Educational Attainment

The residents of the Jimmy Carter Boulevard corridor and the 2-mile market area have slightly lower levels of educational attainment than residents of Gwinnett County. In the corridor, 32.6 percent of residents lack a high school diploma (or GED), compared to 12.6 percent of county residents who lack a high school diploma. Within the 2-mile market area, 30.0 percent of residents lack a high school diploma or GED. Conversely, fewer corridor and market area residents have obtained a bachelor’s or post-graduate degree (20.4 and 23.2 percent, respectively) than in Gwinnett County, where 33.6 percent of residents have a bachelor’s degree or higher.

Educational Attainment



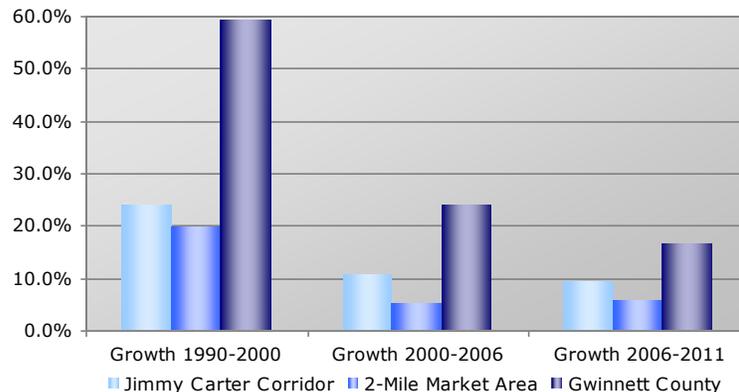
Household Characteristics

The purpose of the following section is to describe the households living in the Jimmy Carter Boulevard corridor and 2-mile market area. It includes an analysis of household growth, household size and type, household income and households by number of vehicles.

Household Growth

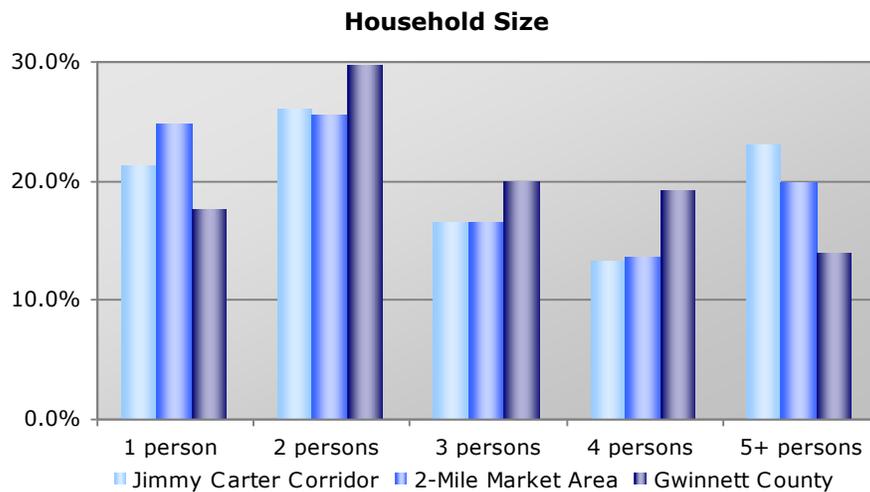
There are an estimated 334 households in the Jimmy Carter Boulevard corridor study area, which is projected to grow by only an additional 31 households by 2011, a projected growth rate of 9.3 percent. In 2006, the corridor study area represents 0.13 percent of Gwinnett County's 250,610 households, and is projected to represent the same proportion of Gwinnett County households. In 2006, there are an estimated 17,871 households in the Jimmy Carter 2-mile market area, which is projected to grow 5.6 percent to 18,870 households by 2011. The 2-mile market area represents 7.1 percent of Gwinnett County households and, by 2011, is projected to represent 6.5 percent of county households.

Household Growth



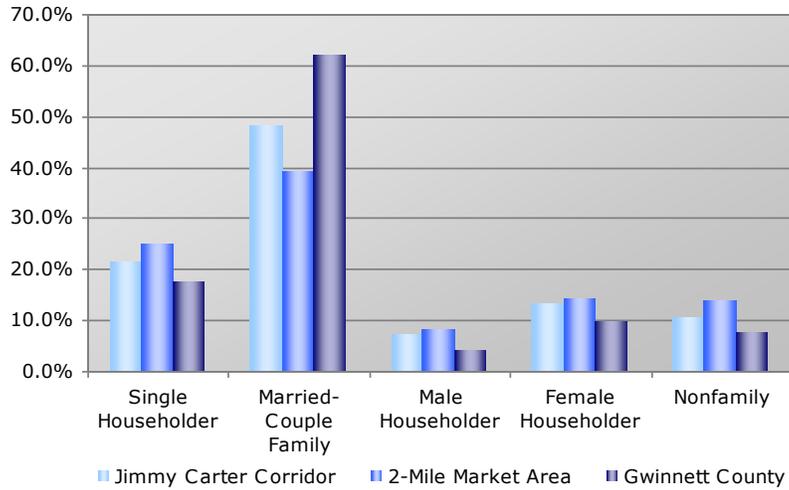
Household Size and Type

The average household size in the Jimmy Carter Boulevard corridor study area is 3.26 persons per household, somewhat larger than the average 2.92 persons per household in Gwinnett County. The corridor study area has a higher proportion of one person households than the county (21.3 percent versus 17.5 percent) but also a higher proportion of households of five persons or more (23.1 percent versus 13.8 percent), indicating that there are a number of singles in the study area as well as larger households. The 2-mile market area has an average household size of 3.05 persons per household which is smaller than the corridor, but still larger than Gwinnett County. As in the corridor, there are a larger number of one-person households (24.7 percent) as well as a higher proportion of large households (5 or more persons) at 19.8 percent than in Gwinnett County.



The largest proportion of households in the Jimmy Carter Boulevard corridor study area, 48.3 percent, consists of married-couple families. However, this proportion is significantly smaller than in Gwinnett County at 61.8 percent. The corridor study area has a relatively high proportion of single householders, 21.3 percent compared to 17.5 percent in Gwinnett County as well as non-family households, 10.5 percent compared to 7.2 percent in Gwinnett County. The two-mile market area is similar to the corridor in terms of household type. The largest proportion of households, 39.2 percent, is married couple families significantly lower than Gwinnett County with 61.8 percent married-couple family households. The 2-mile market area also has a higher percentage of single householders (24.7 percent) and non-family households (13.8 percent).

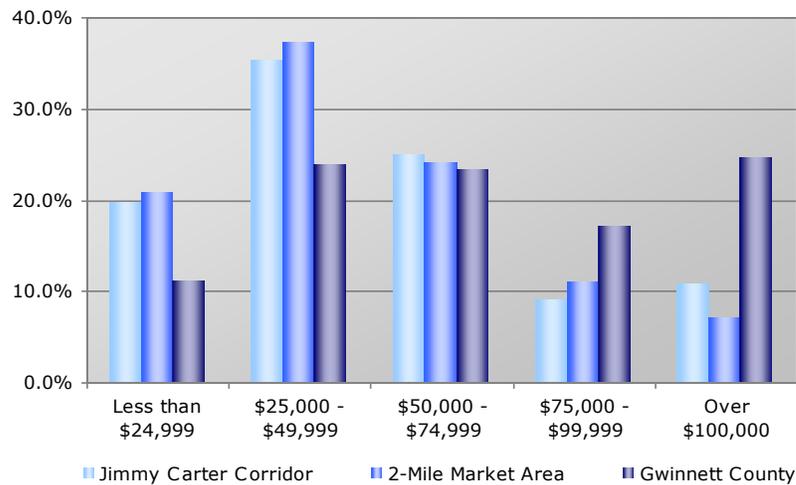
Household Type



Household Income

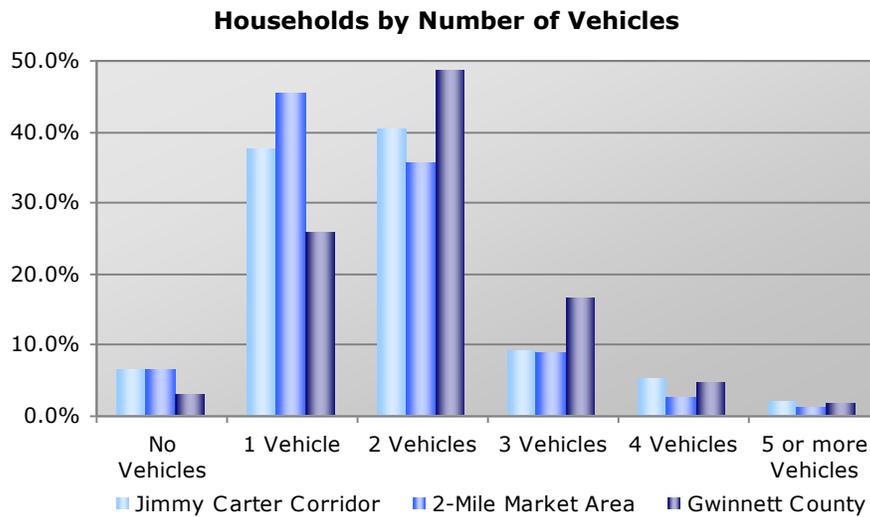
The median household income in the corridor study area is \$43,143 or 69.9 percent of Gwinnett County’s median household income of \$66,036. The largest proportion of households in the corridor, 35.3 percent, earn between \$25,000 and \$49,000 annually. The proportion of corridor households earning over \$100,000 per year, 10.8 percent, is significantly lower than the 24.6 percent of county residents in that income bracket. In addition, a higher percentage of corridor households earn less than \$25,000 per year (19.8 percent compared to 11.2 percent in the county). The Jimmy Carter two-mile market area median household income, \$44,530, represents 67.4 percent of Gwinnett County’s median household income. The household income distribution is very similar to the corridor study area, with a higher proportion of households in the lowest income bracket, 20.8 percent, and a smaller proportion of households in the over \$100,000 income bracket at 7.0 percent.

Household Income



Households by Number of Vehicles

In the Jimmy Carter Boulevard corridor, 93.7 percent of households own at least one vehicle, a slightly lower percentage than Gwinnett County, where 97.1 percent of households own at least one vehicle. The majority of corridor households, 77.8 percent, own one or two vehicles. In the 2-mile market area, 93.7 percent of households also own at least one vehicle, with the majority, 81.3 percent, owning one or two vehicles.



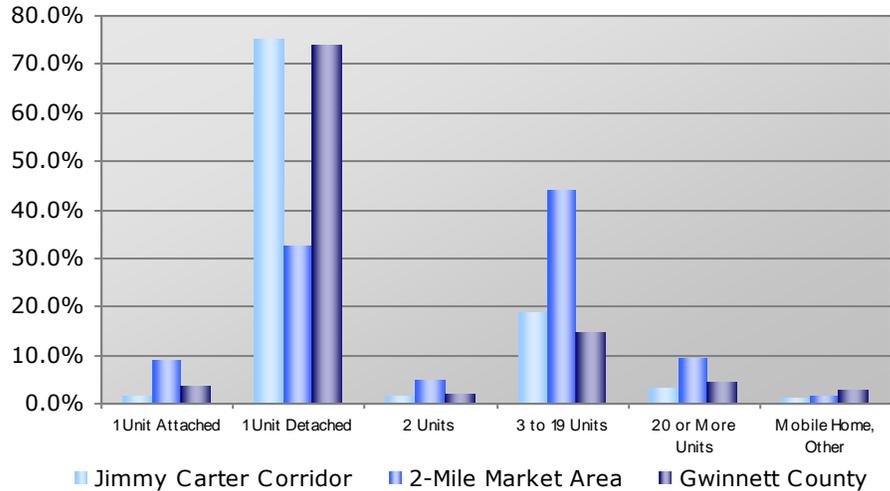
Housing Characteristics

The following section describes the existing housing inventory in the Jimmy Carter Boulevard corridor and in the 2-mile market area. It includes an analysis of housing type, housing tenure, owner-occupied housing values and housing by year built.

Housing Type

The largest proportion of housing in the Jimmy Carter Boulevard corridor, 74.9 percent, is single family homes, which is a slightly higher proportion than Gwinnett County, where 74.0 percent of homes are single family detached units. Multifamily homes represent 21.6 percent of housing units in the study corridor, compared to 18.4 percent in Gwinnett County. In the 2-mile market area, 57.3 percent of housing is multifamily and only 32.3 percent of housing is single family.

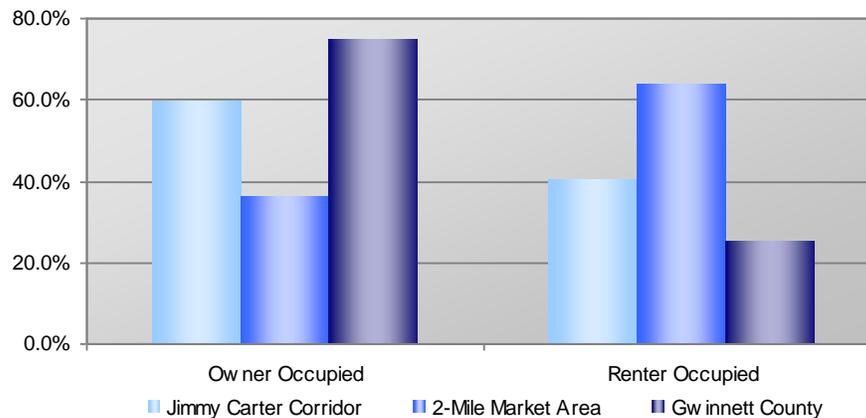
Housing Type



Housing Tenure

In the Jimmy Carter Boulevard corridor, 59.6 percent of housing is owner-occupied, a smaller proportion than in Gwinnett County at 74.8 percent. In the 2-mile market area, 63.7 percent of housing is renter-occupied, a significantly larger proportion than Gwinnett County at 25.2 percent.

Housing Tenure

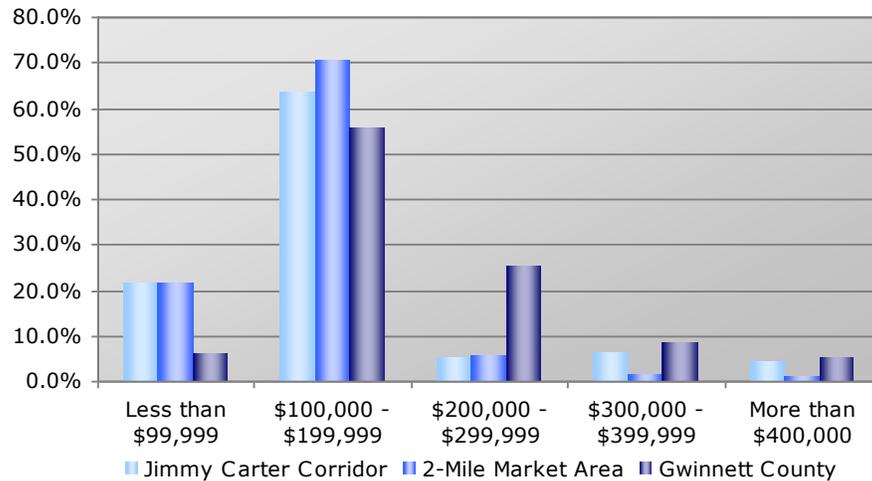


Owner-Occupied Housing Values

The median owner-occupied housing value in the Jimmy Carter Boulevard corridor is \$132,022, or just 72.7 percent of the Gwinnett County median housing value of \$181,539. Over one in five homes are valued under \$100,000, compared to 5.7 percent in Gwinnett County. In the corridor, 83.9 percent of owner-occupied homes are valued under \$199,999, compared to Gwinnett County where 61.5 percent of homes are valued under \$199,999.

Within the two-mile market area, the median value for owner-occupied housing is \$129,513, or 71.3 percent of the Gwinnett County median value. As in the corridor, the largest proportion of homes, 92.1 percent, are valued under \$199,999.

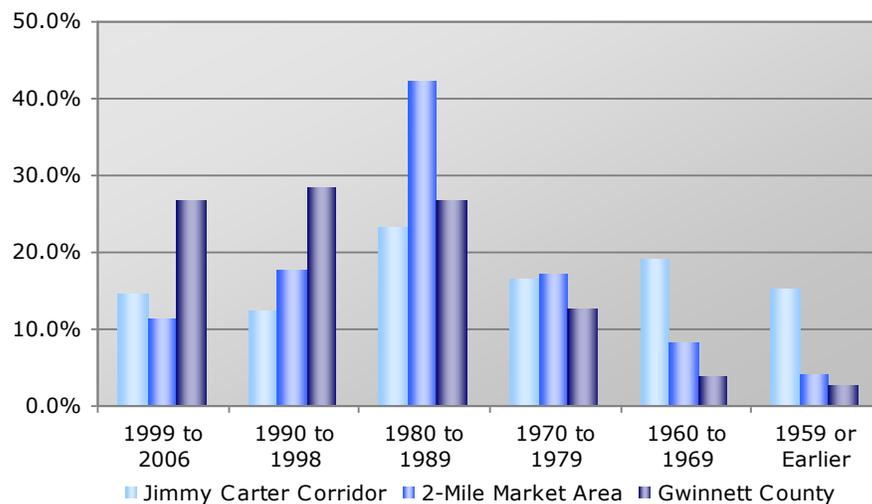
Owner-Occupied Housing Values



Year Built

The median age of homes in the Jimmy Carter Boulevard corridor study area is 26 years old, significantly older than in Gwinnett County at 14 years old. Only 26.4 percent of corridor homes were built since 1990, significantly less than Gwinnett County where 43.6 percent of homes were built since 1990. In the two-mile market area the median age of housing is 21 years; similar to the corridor, a much smaller proportion of housing, 28.7 percent, was built since 1990 compared to Gwinnett County.

Year Built



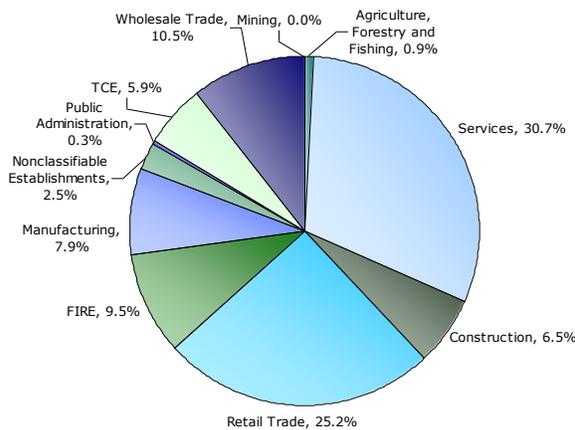
Business and Employment Characteristics

Employment patterns and the local area workforce are essential to sustaining economic growth and vitality for a region. Not only do local businesses use goods and services in the local economy, but their employees spend money that they have earned during the workday in the local area generating income for local businesses. This section focuses on the daytime workforce of the Jimmy Carter Boulevard two-mile market area, which is composed of the businesses and their employees who work in the study area.

Business Establishments and Employment

According to Claritas, in 2006 there were an estimated 2,622 businesses employing 37,733 people in the Jimmy Carter Boulevard 2-mile market area. Of those businesses, the largest number, 817 (30.7 percent), were classified as services. The second largest category of businesses was the retail trade, with 670 establishments (25.2 percent) of all establishments. Within the services category, the largest number of establishments was categorized as business services and auto repair, services and parking, with 6.3 percent and 4.2 percent of all establishments, respectively.

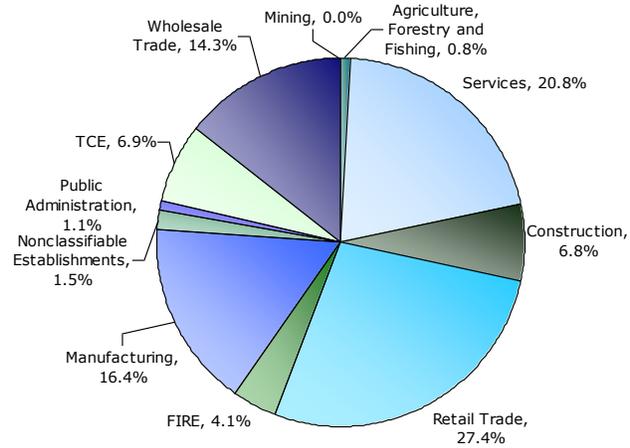
Business Establishments by Category



In terms of employment, of the 37,733 employees in the Jimmy Carter Boulevard 2-mile market area, the largest number, 10,324 (27.4 percent), are employed by retail establishments. The second largest number of employees (20.8 percent) worked in services. Within the retail category, the largest number of employees was in Home Furniture and Furnishings and Eating and Drinking places, with 7.9 percent and 7.3 percent of all employees, respectively.



Business Employments by Category



Jobs/Housing Balance

Within the Jimmy Carter 2-mile market area, there are 37,733 jobs and 19,395 housing units, a jobs/housing ratio of 1.94, indicating a ratio of almost two jobs for every household in the market area, indicating a strong balance of housing and employment opportunities in the area and the importance of the Jimmy Carter Boulevard as an employment center.





Key Demographic Trends

The following conclusions are derived from the preceding evaluation of resident, household and housing characteristics, as presented above.

The population living in the Jimmy Carter Boulevard corridor study area is small, however the 2-mile market area has a significant population base. The Jimmy Carter corridor contains only 1,230 residents, representing 0.17 percent of Gwinnett County's population of 739,171 and the 2-mile market area contains 55,137 residents, representing 7.4 percent of Gwinnett County's population.

Both the Jimmy Carter Boulevard corridor and 2-mile market area will experience moderate population growth. The corridor and market area are projected to grow 8.9 percent and 6.9 percent, respectively, over the next five years while Gwinnett County is expected to grow 17.1 percent over the same time period. This reflects the highly developed character of the corridor and surrounding area.

Residents of the Jimmy Carter Boulevard corridor and the 2-mile market area are younger, more racially diverse and less well educated than residents of Gwinnett County as a whole. There is a substantial African-American, Hispanic and Asian presence in both the Jimmy Carter corridor and the market area versus Gwinnett County as a whole. In Gwinnett County, 62.3 percent of residents are White, compared to 41.9 percent and 37.2 percent in the corridor and market area, respectively. In Gwinnett County, 16.4 percent of residents are Hispanic or Latino, compared to 42.9 percent and 49.9 percent in the corridor and market area, respectively. The median age in the 2-mile market area is 29.3 years, younger than Gwinnett County at 33.0 years. Approximately 30 percent of the corridor and 2-mile market area lack a high school diploma, compared to 12.6 percent in Gwinnett County.

Households in the corridor and the market area are larger and have lower incomes than those in Gwinnett County. The average household in the Jimmy Carter corridor and market area is 3.26 and 3.05 persons, respectively, compared to Gwinnett County at 2.92 persons per household. The median household income in the market area is \$46,145, or 69.9 percent of Gwinnett County's median income of \$79,172. The 2-mile market area has a median household income of \$44,530, or 67.4 percent of Gwinnett County's median income.

The housing stock of the corridor and the 2-mile market area vary significantly. In the corridor, 74.9 percent of housing is single family, compared to 32.3 percent of housing in the market area and 74.0 percent in Gwinnett County. In the corridor, a higher proportion of housing is owner-occupied at 59.6 percent than in the market area where 36.6 percent of housing is owner-occupied. Both the corridor and the market area have a lower proportion of owner-occupied housing than Gwinnett County at 74.8 percent. Owner-occupied housing values in the corridor and market area are lower than Gwinnett County, representing 72.7 and 71.3 percent of Gwinnett County's median housing value of \$181,539.





The Jimmy Carter Boulevard 2-mile market area is a significant employment center. The market area contains 2,622 business establishments employing 37,733 people. The jobs/housing ration is 1.94 jobs per household.

REAL ESTATE MARKET TRENDS

Residential Market Trends

In this section, the performance of the Jimmy Carter Boulevard corridor real estate market is examined in terms of several key land uses; residential, retail, office and industrial. The purpose of this section is to present an overview of the corridor real estate market to serve as the basis to project growth and redevelopment potential in order to inform transportation and land use decisions along the Jimmy Carter Boulevard corridor.

As discussed in the preceding section, there are 19,395 housing units in the 2-Mile market area, of which 17,871, or 92.1 percent, are occupied. Of the total units, there are 6,262 single family homes. Multifamily housing total 10,299 units, of which an estimated 1,545, or 15 percent, are owner-occupied and 8,754, or 85 percent, are rented. The following section presents building permits, new home sales and major planned projects in order to determine the current and future growth of residential units in the 2-mile market area.

Building Permits

According to the U.S. Census, during the six-year period from 2002 to 2006, 50,906 new housing units were authorized by building permits in Gwinnett County, where the Jimmy Carter Boulevard corridor is located. (Building permits for 2006 are reported through June and annualized.) As shown in the table below, an average of 10,181 units were permitted annually. The total number of permits issued increased from 10,362 units in 2002 to 10,526 in 2006, an increase of 1.5 percent in five years. Single family permits declined at a rate of 1.6 percent, while multifamily permits increased 31.6 percent. The building permits issued have been predominately single family units, 92.1percent, while 7.9 percent have been for multifamily units. There are 265,457 existing housing units in Gwinnett County indicating that, on average, new construction in the county increased the housing stock by 3.8 percent annually from 2002 to 2005.

Building Permits Issued in Gwinnett County

Unit Type	2002		2003		2004		2005		2006*	
	Build.	Units								
Single Family	9,371	9,371	9,029	9,029	9,384	9,384	9,894	9,894	9,222	9,222
2 Family	3	6	0	0	3	6	0	0	2	4
3 & 4 Family	1	4	0	0	0	0	0	0	0	0
5 + Family	39	981	20	588	44	1,073	4	44	44	1300





Total	9,414	10,362	9,049	9,617	9,431	10,463	9,898	9,938	9,268	10,526
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* Through June, annualized

Source: US Census

New Home Sales Trends

Data is provided below on new single family, townhome and condominium sales in the Jimmy Carter Boulevard corridor, the 2-mile market area and Gwinnett County.

Single Family Sales Trends

In the corridor from 2003 to mid-year 2006, there were five new single family homes sold, or an average of 1.25 units per year. Single family homes represented 100% of all sales in the corridor over the same period. There were 49 single family sales in the 2-mile market area, or an average of 12.25 per year. Single family homes represented 9.8 percent of all sales in the 2-mile market area. In Gwinnett County from 2003 to 2006, there were 28,731 new single family sales, representing 81.6 percent of all new sales in Gwinnett County. The Jimmy Carter 2-mile market area represented 0.2 percent of all Gwinnett County single family sales.

Single Family Sales, 2003-2006

	Jimmy Carter Corridor	2-Mile Market Area	Gwinnett County
2003			
Sales	-	12	7,617
Average Price	\$ -	\$ 297,783	\$ 227,461
2004			
Sales	1	10	7,576
Average Price	\$ 200,000	\$ 350,440	\$ 249,661
2005			
Sales	4	21	7,290
Average Price	\$ 181,575	\$ 373,479	\$ 273,702
2006			
Sales*	-	6	6,248
Average Price	\$ -	\$ 391,689	\$ 296,996

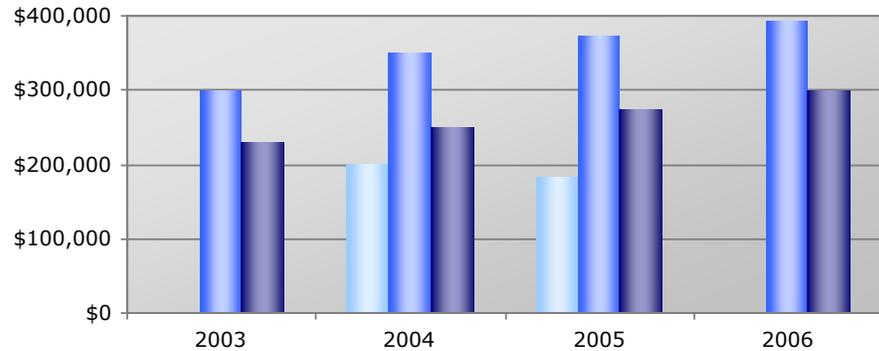
* Through June, annualized

Source: SmartNumbers

The average sales price for a single family in the Jimmy Carter corridor decreased from \$200,000 in 2004 to \$181,575 in 2005, a decrease of 9.2 percent (there were no sales in 2003 and have been no sales in 2006). The average sales price for a single family in the 2-mile market area increased from \$297,783 in 2003 to \$391,689 in 2006, an increase of 31.5 percent. In Gwinnett County, the average price for a single family home has increased

30.1 percent, from \$227,461 in 2003 to \$296,996 in 2006. In 2005, the average sales price for a single family home in the corridor was only 66.3 percent of the average sales price in Gwinnett County. In 2006, the average sales price for a single family home in the market area had increased to 131.8 percent of the average sales price in Gwinnett County, primarily due to new development in downtown Norcross.

Single Family Average Sales Price



■ Jimmy Carter Corridor ■ Jimmy Carter 2-Mile Market Area ■ Gwinnett County

Townhome Sales Trends

There were no townhomes sold in the Jimmy Carter corridor from 2003 to mid-year 2006. There were 450 townhome sales in the 2-mile market area, or an average of 112.5 per year. Townhomes represented 90.2 percent of all sales in the 2-mile market area. In Gwinnett County from 2003 to 2006, there were 6,213 townhome sales, representing 17.6 percent of all new sales in Gwinnett County. The Jimmy Carter 2-mile market area represented 7.2 percent of all Gwinnett County townhome sales.

Townhome Sales, 2003-2006

	Jimmy Carter Corridor	2-Mile Market Area	Gwinnett County
2003			
Sales	-	51	1,091
Average Price	\$ -	\$ 128,688	\$ 141,937
2004			
Sales	-	52	1,280
Average Price	\$ -	\$ 165,354	\$ 162,922
2005			
Sales	-	201	1,910
Average Price	\$ -	\$ 171,920	\$ 179,166
2006			
Sales*	-	146	1,932

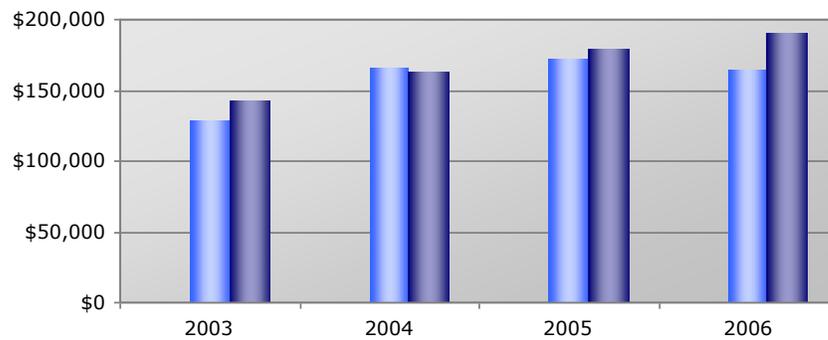
Average Price \$ - \$ 163,649 \$ 190,029

* Through June, annualized

Source: SmartNumbers

The average sales price for a townhome in the 2-mile market area increased 27.2 percent, from \$128,688 in 2003 to \$163,649 in 2006. By comparison, in Gwinnett County, the average price for a townhome has increased 33.9 percent since 2003. In 2006, the average sales price for a townhome in the 2-mile market area is 86.1 percent of the average sales price in Gwinnett County.

Townhome Average Sales Price



■ Jimmy Carter Corridor ■ Jimmy Carter 2-Mile Market Area ■ Gwinnett County

Condominium Sales Trends

From 2003 to mid-year 2006, there were no condominium sales in either the Jimmy Carter corridor or the 2-mile market area. Gwinnett County had 287 condominium sales over the time period, or an average of 72 units per year. The number of condominiums sold in Gwinnett County has increased 355 percent from 4 sales in 2004 to a projected 146 sales in 2006. The average price for a condominium in Gwinnett County increased 37.8 percent, from \$127,633 in 2003 to \$175,802 in 2006.

Condominium Sales, 2003-2006

	Jimmy Carter Corridor	2-Mile Market Area	Gwinnett County
2003			
Sales	-	-	4
Average Price	\$ -	\$ -	\$ 127,633
2004			
Sales	-	-	46
Average Price	\$ -	\$ -	\$ 146,109
2005			
Sales	-	-	91
Average Price	\$ -	\$ -	\$ 127,633

2006

Sales*	-	-	146
Average Price	\$ -	\$ -	\$ 175,802

* Through June, annualized

Source: SmartNumbers

Rental Apartments

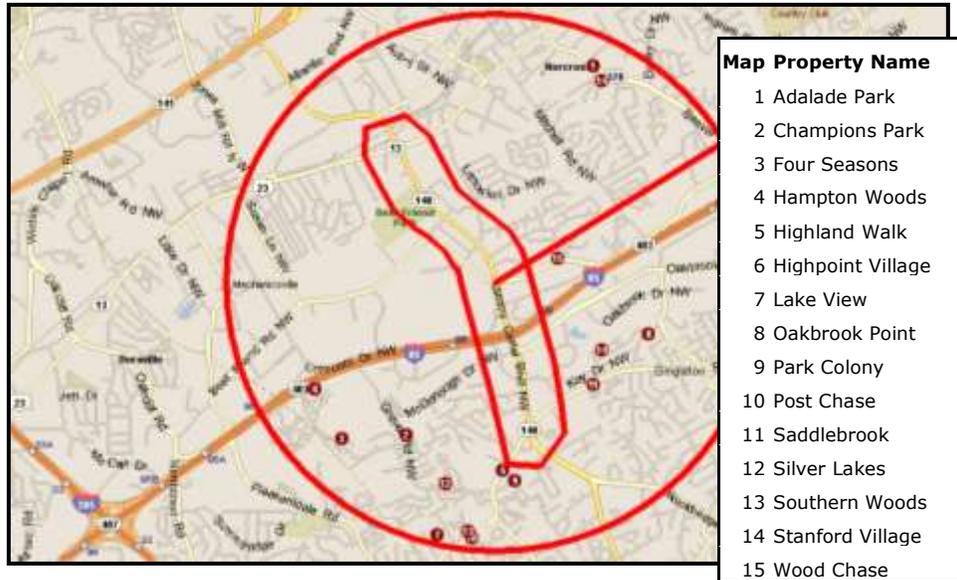
There are currently 11,384 renter-occupied units in the market area. The following data is for a sample of 15 apartment complexes in the 2-mile market area with over 4,000 rental units. The apartment complexes range in age from 9 to 28 years old with an average age of 22 years. There have been no complexes built since 1987. However, 41.3 percent of area apartments are Class "A" and 58.7 percent are Class "B/C" in terms of quality with Class "A" being the newest, highest quality.

2-Mile Market Area Apartments

Property Name	Size (units)	Year built	Class	Rent/Unit	Vacancy Rate	1BR		2BR		3BR	
						Rent/ Month	Size (S.F)	Rent/ Month	Size (S.F)	Rent/ Month	Size (S.F)
Adalade Park	318	1978	A	\$840	18.2%	\$670	694	\$831	1,025	\$940	1,203
Champions Park	252	1987	A	\$726	4.4%	\$628	715	\$799	1,050	\$0	-
Four Seasons	357	1986	BC	\$742	12.9%	\$632	963	\$733	1,325	\$842	1,458
Hampton Woods	140	1985	BC	\$758	10.7%	\$655	850	\$780	1,075	\$925	1,300
Highland Walk	176	1979	BC	\$716	6.3%	\$624	765	\$716	1,147	\$910	1,488
Highpoint Village	182	1982	BC	\$707	7.1%	\$633	850	\$758	1,175	\$0	-
Lake View	320	1986	BC	\$636	6.6%	\$546	738	\$712	1,317	\$770	1,360
Oakbrook Point	300	1984	BC	\$802	13.7%	\$707	774	\$798	1,016	\$955	1,224
Park Colony	352	1984	BC	\$634	16.5%	\$506	815	\$722	1,155	\$0	-
Post Chase	410	1986	A	\$820	12.9%	\$723	710	\$924	1,163	\$0	-
Saddlebrook	305	1985	BC	\$710	10.8%	\$618	800	\$735	1,040	\$970	1,178
Silver Lakes	310	1978	A	\$770	10.3%	\$690	800	\$798	1,175	\$999	1,300
Southern Woods	104	1981	BC	\$745	10.6%	\$680	850	\$774	1,175	\$0	-
Stanford Village	135	1985	BC	\$696	5.2%	\$577	718	\$682	949	\$915	1,234
Wood Chase	380	1987	A	\$846	10.5%	\$738	782	\$864	1,204	\$1,000	1,419
Average	269	1984		\$749	11.1%						

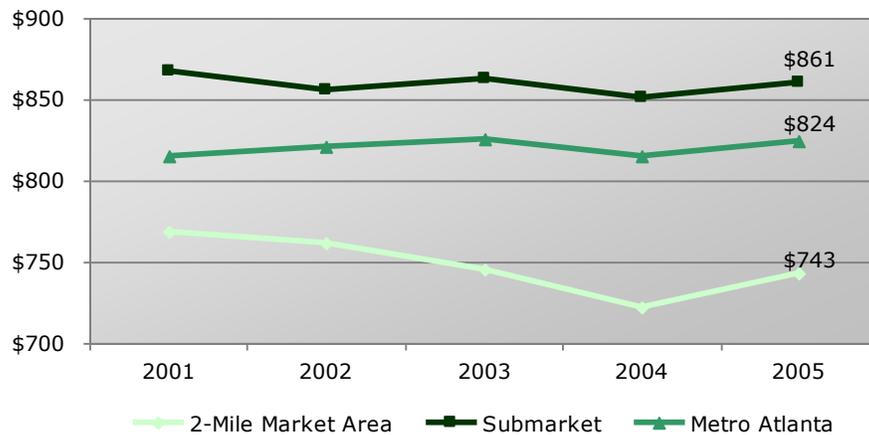
Source: Reis, Inc.

2-Mile Market Area Apartments



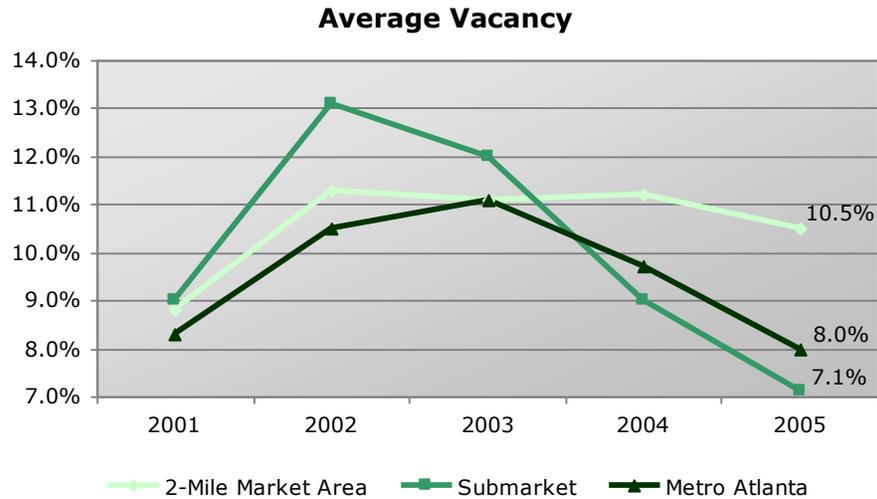
In 2006, the average rent in the market area is \$749. Rents range broadly from \$506 for a 815 square foot one bedroom to \$1,000 for a 1,419 square foot three bedroom. Rent per square foot ranges from a minimum of \$0.54 to \$1.02, with an average of \$0.74 per square foot. In 2005, the average rent in the 2-Mile market area was \$743, or 9.8 percent lower than the South Gwinnett Submarket and 13.7% lower than the Atlanta Metro as a whole.

Average Asking Rent



In 2006, the average vacancy in the market area is 11.1 percent. Vacancy rates range broadly between complexes from a low of 4.4 percent to a high of 18.2 percent. In 2005, the average vacancy in the 2-Mile market area was 10.5 percent, which was higher than vacancy in the South Gwinnett Submarket at 6.7 percent and the Atlanta Metro vacancy rate at 8.0 percent. While vacancies in the Atlanta Metro and the South Gwinnett submarket have

decreased significantly recently, the 2-mile market area has not experienced the same rapid decline.



Residential Pipeline

There is one large residential development proposed in the 2-mile market area. There is a proposed 103-unit townhome project proposed for the 4900 block of Jimmy Carter Boulevard, in the southwest portion of the market area. The project would be located on 13+ acres. The site is currently in the process of rezoning.

It is important to note that the beginning of the OFS site redevelopment could occur in the future. While the project is currently on-hold, previous redevelopment plans called for significant residential development on the site. It is most likely that any redevelopment of the site would contain a mix of residential and commercial development.

Commercial Market Trends

The purpose of the following section is to describe the existing inventory of commercial space in the Jimmy Carter corridor and in the 2-mile market area. It includes an analysis of retail, office, hotel and industrial development.

Retail Market Trends

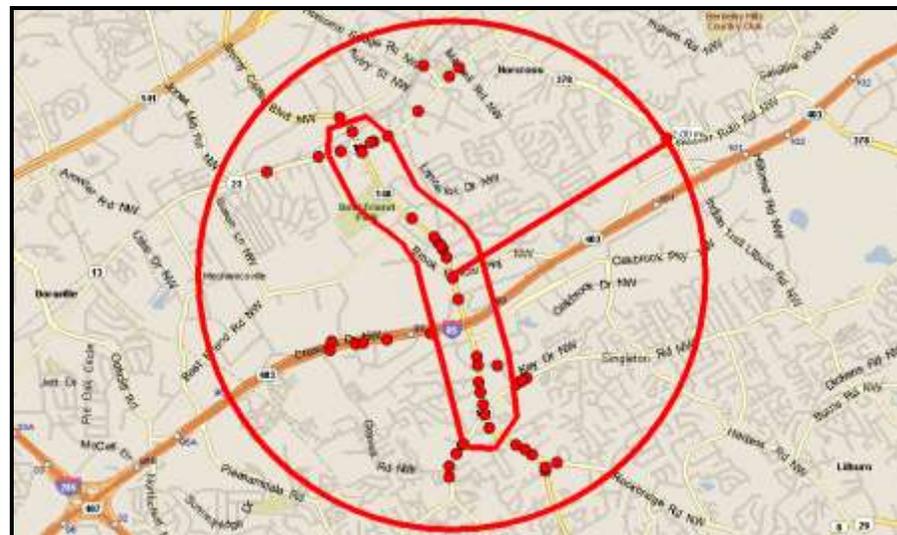
The Jimmy Carter corridor is a highly-developed area with a significant amount of retail space. The corridor has 985,123 square feet of retail space, representing 3.2 percent of Gwinnett County's 30,339,535 square feet of retail space. The 2-mile market area contains 2,337,318 square feet of retail space, representing 7.7 percent of Gwinnett County's retail space. The location of the major retail centers are presented in the map below. For a full listing of these centers, see the Appendix.

Retail in Major Centers, 2006

	Jimmy Carter Corridor	2-Mile Market Area	Gwinnett County
Square Feet	985,123	2,337,318	30,339,535
% of Market Area	42.1%	100.0%	
% of County	3.2%	7.7%	100.0%
Vacant	53,149	93,829	2,143,851
Vacant %	5.4%	4.0%	7.1%
Min Rent	\$ 12.00	\$ 12.00	\$ 8.00
Max Rent	\$ 18.00	\$ 16.50	\$ 60.00
Avg Rent	\$ 14.72	\$ 13.53	\$ 19.53
Avg Year Built	1989	1986	1992

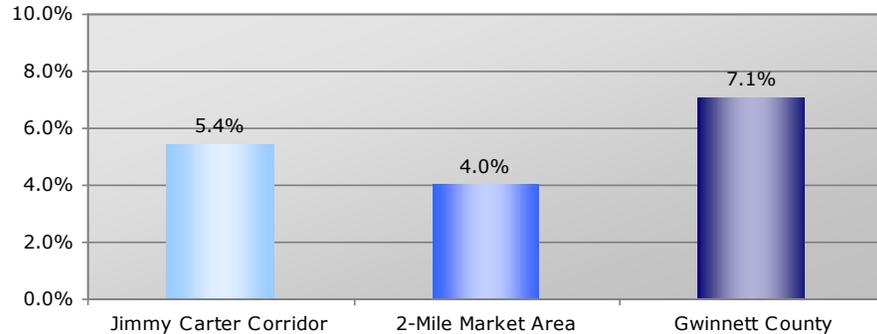
Source: Dorey's

Existing Retail in Major Centers



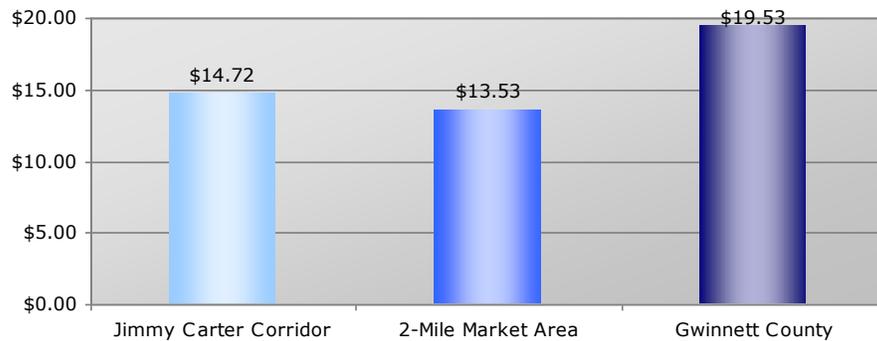
Within the Jimmy Carter corridor, 53,149 square feet, or 5.4 percent, of space is vacant in major centers, a somewhat lower vacancy rate than Gwinnett County at 7.1 percent. The 2-mile market area contains 93,829 square feet of vacant retail space, or 4.0 percent.

Average Retail Vacancy



Rental rates for retail space in the Jimmy Carter corridor range from \$12.00 to \$18.00 per square foot, with an average rent of \$14.72 per square foot. This compares to Gwinnett County with an average retail rent of \$19.53. Rent for retail space in the 2-mile market area ranges from \$12.00 to \$16.50, with an average rent of \$13.53.

Average Retail Rent



The average age of retail centers in the corridor is 17 years, three years older than Gwinnett County. The average age of retail space in the 2-mile market area is slightly older than the corridor at 20 years old.

Currently, 18,000 square feet of retail development is under construction in the Jimmy Carter corridor, at Carter Norcross Plaza located at 5860 Jimmy Carter Boulevard. There is 3,125,739 square feet of proposed retail development planned for Gwinnett County.

Office Market Trends

The Jimmy Carter corridor has only 215,115 square feet of office space, representing 1.1 percent of Gwinnett County's 20,241,817 square feet of office space. The 2-mile market area contains 630,555 square feet of office space, representing 3.1 percent of Gwinnett County's office space. The location of

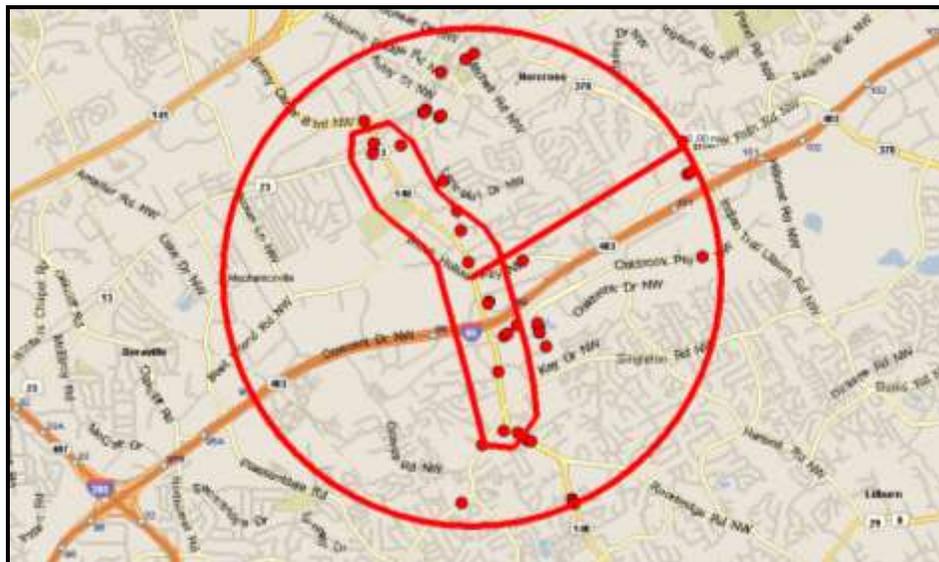
the existing office development is displayed in the map below. For a full listing of these centers, see the Appendix.

Existing Office in Major Centers, 2006

	Jimmy Carter Corridor	2-Mile Market Area	Gwinnett County
Square Feet	215,115	630,555	20,241,817
% of Market Area	34.1%	100.0%	
% of County	1.1%	3.1%	100.0%
Vacant	33,513	146,313	3,786,561
Vacant %	15.6%	23.2%	18.7%
Min Rent	\$ 8.00	\$ 8.00	\$ 6.50
Max Rent	\$ 16.00	\$ 18.00	\$ 27.00
Avg Rent	\$ 13.88	\$ 14.49	\$ 16.13
Avg Year Built	1979	1983	1992

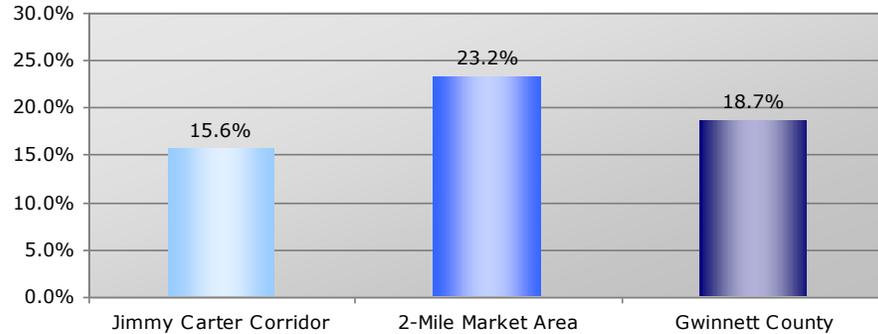
Source: Dorey's

Existing Office in Major Centers



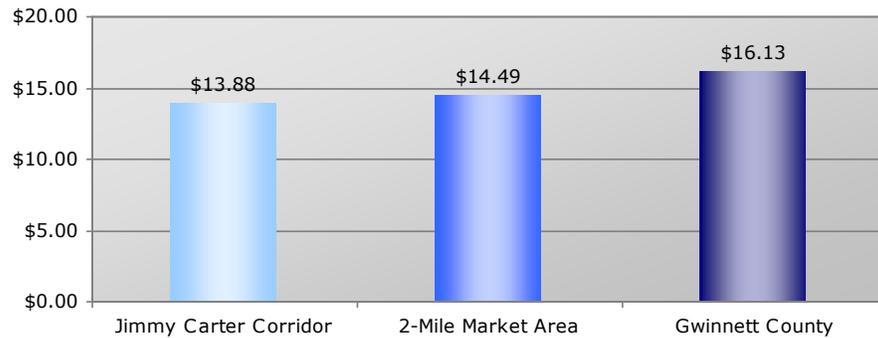
Within the Jimmy Carter corridor, 33,513 square feet, or 34.1 percent, of the office space is vacant, a higher office vacancy rate than in Gwinnett County at 18.7 percent. The 2-mile market area contains 146,313 square feet of vacant office space, or 23.2 percent of its inventory. The high vacancy reflects the current "soft" conditions of the office market.

Average Office Vacancy



Rent for office space in the Jimmy Carter corridor ranges from \$8.00 per square foot to \$16.00 per square foot, with an average of \$13.88 per square foot. Rent for office space in the 2-mile market area ranges from \$8.00 to \$18.00, with an average rent of \$14.49. This compares to Gwinnett County with an average office rent of \$16.13.

Average Office Rent



The average age of office space in the corridor is 27 years, thirteen years older than Gwinnett County, where office space has an average age of 14 years. The average age of office space in the 2-mile market area is comparable at 23 years old.

There is no office space reported in the development pipeline for Jimmy Carter corridor or in the 2-mile market area; however 1,669,838 square feet of new office space in under development elsewhere in Gwinnett County.

Hotel Market Trends

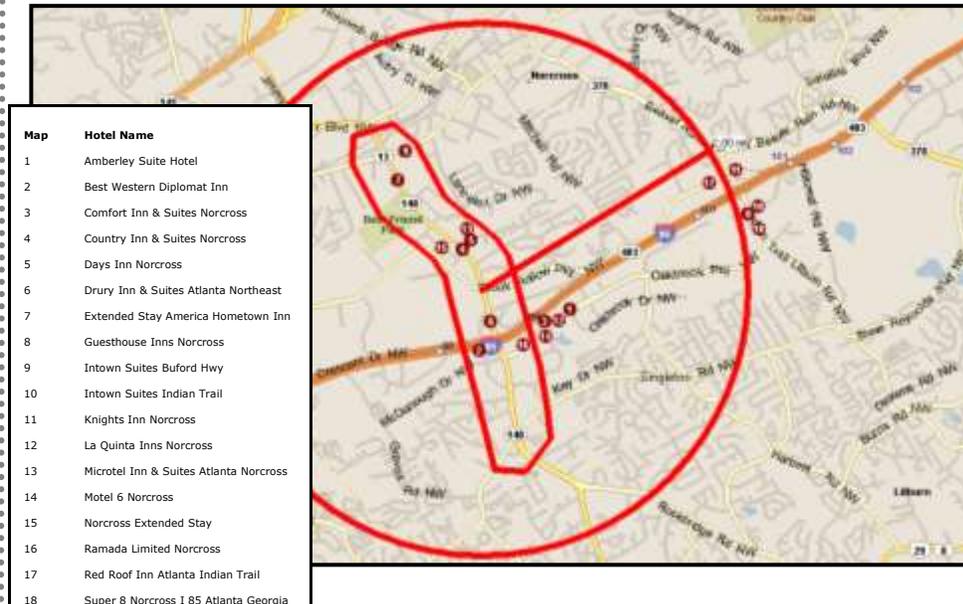
Hotels are an important land use in the Jimmy Carter corridor, particularly at the intersection with I-85. In order to determine the performance of the hotels in the market, a sample of eighteen hotels surrounding the corridor was selected. The eighteen hotels have a combined 2,308 hotel rooms, or an average of 128 rooms per property. The age of the hotel inventory ranges from 5 years to 23 years, with an average age of 16 years.

Performance of Jimmy Carter Area Hotels, 2006

	Occupancy Rate		Average Daily Rate		RevPar	
	Jimmy Carter	Atlanta MSA	Jimmy Carter	Atlanta MSA	Jimmy Carter	Atlanta MSA
2000	65.6%	65.7%	\$ 37.25	\$ 80.09	\$ 24.42	\$ 52.62
2001	59.0%	60.9%	\$ 36.75	\$ 79.30	\$ 21.68	\$ 48.29
2002	52.1%	57.7%	\$ 36.93	\$ 76.54	\$ 19.23	\$ 44.16
2003	49.4%	65.1%	\$ 34.67	\$ 73.79	\$ 17.14	\$ 41.40
2004	51.2%	58.7%	\$ 34.51	\$ 76.18	\$ 17.66	\$ 44.72
2005	55.6%	61.8%	\$ 36.76	\$ 79.10	\$ 20.45	\$ 48.86
2006	56.7%	66.2%	\$ 39.08	\$ 86.81	\$ 22.15	\$ 57.51

Source: Smith Travel Research

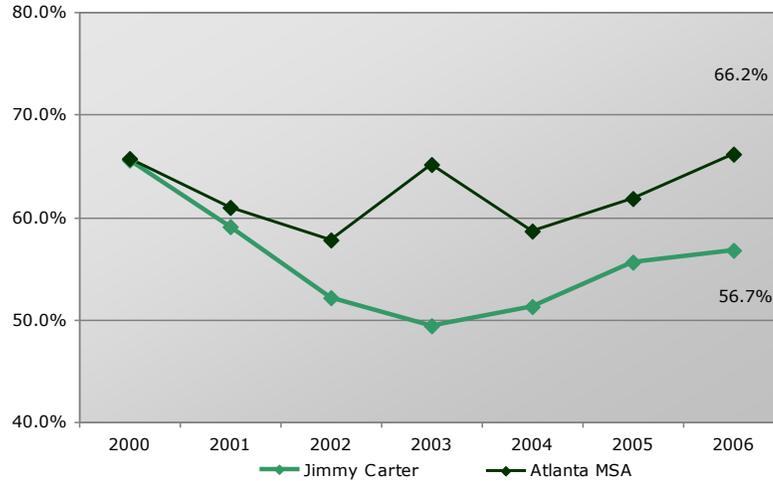
Existing Hotels





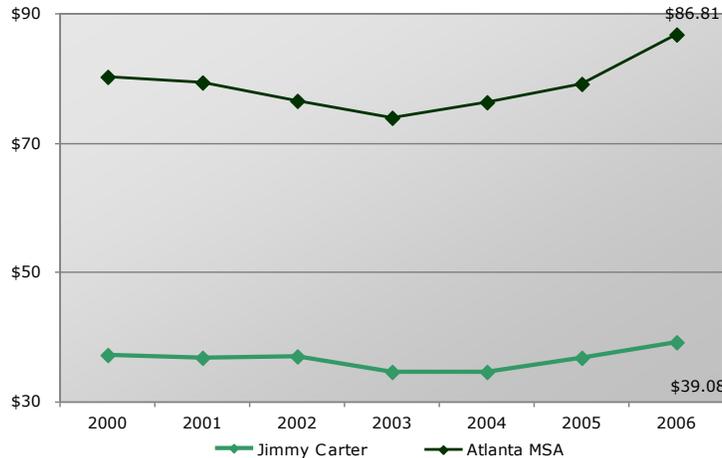
In the first quarter of 2006, occupancies in the Jimmy Carter area hotels averaged 56.7 percent, a decrease of 13.5 percent from 2000. However, after a period of decline, occupancy rates in the corridor have been increasing, growing 14.7 percent since their low in 2003. Still, the average daily occupancy in the corridor in 2006 is 16.7 percent lower than the 66.2 percent occupancy level for the Atlanta Metro area.

Hotel Occupancy Rate



In the first quarter of 2006, the Jimmy Carter hotels had an average daily rate of \$39.08, an increase of 4.9 percent from 2000. In contrast, the average daily rate in the Atlanta Metro Area has increased 8.4 percent in the same period. The average daily rate (ADR) in the corridor is 55.0 percent lower than the average daily rate in the Atlanta Metro area, and reflects the age of the inventory, its large supply of limited service/budget properties and the extended stay format which generates lower ADR's. The slow increase in Jimmy Carter area ADR's in the past two years while they were increasing dramatically across the region is not a positive sign for the long term health of the hotel sector in the Jimmy Carter market area.

Hotel Average Daily Rate



Industrial Market Trends

The corridor has 2,748,657 square feet of industrial space, representing 2.6 percent of Gwinnett County's 106,420,751 square feet of industrial space. The 2-mile market area contains 19,983,064 square feet of industrial space, representing 18.8 percent of Gwinnett County's industrial space. For a full listing of industrial centers in the market area, see the Appendix.

Existing Industrial in Major Centers

	Jimmy Carter Corridor	2-Mile Market Area	Gwinnett County
Square Feet	2,748,657	19,983,064	106,420,751
% of Market Area	13.8%	100.0%	
% of County	2.6%	18.8%	100.0%
Vacant	286,104	2,614,106	19,603,956
Vacant %	10.4%	13.1%	18.4%
Min Rent	\$ 3.40	\$ 2.95	\$ 2.50
Max Rent	\$ 10.50	\$ 10.50	\$ 19.50
Avg Rent	\$ 6.39	\$ 5.65	\$ 5.71
Avg Year Built	1985	1983	1990

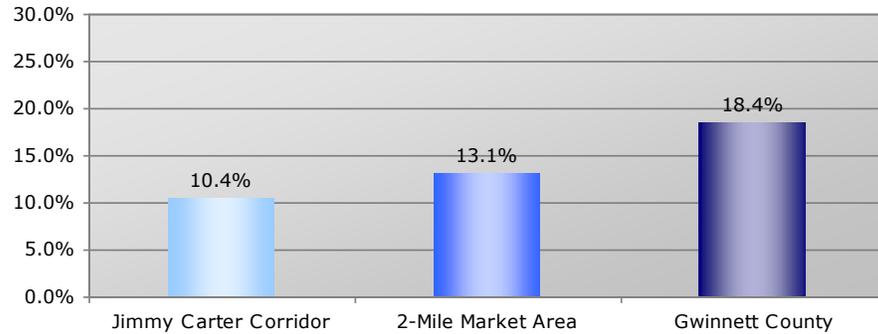
Source: Dorey's

Existing Industrial in Major Centers



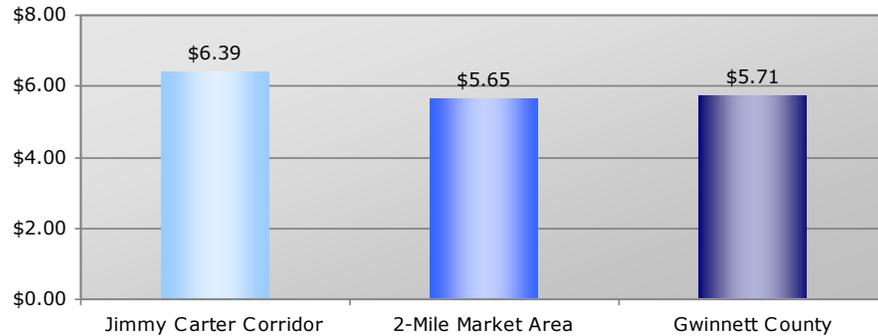
Within the Jimmy Carter corridor, there is 286,104 square feet, or 10.4 percent, vacant industrial space, a somewhat lower vacancy rate than Gwinnett County at 18.4 percent. The 2-mile market area contains 2,614,106 square feet of vacant industrial space, or 13.1 percent of the inventory.

Average Industrial Vacancy



Rent for industrial space in the Jimmy Carter corridor range from \$3.40 to \$10.50 per square foot, with an average rent of \$6.39 per square foot, compared to Gwinnett County with an average industrial rent of \$5.71. Rent for industrial space in the 2-mile market area ranges from \$2.95 to \$10.00 per square foot, with an average industrial rent of \$5.65.

Average Industrial Rent



The average age of industrial space in the corridor is 21 years, five years older than Gwinnett County, where industrial space has an average age of 16 years. The average age of industrial space in the 2-mile market area is slightly older at 23 years old.

There is no industrial space in the development pipeline for the Jimmy Carter corridor or in the 2-mile market area and only 377,002 square feet in the pipeline for Gwinnett County, reflecting the "soft" condition of the industrial market.



Real Estate Market Trends Conclusions

Presented below are the key trends which emerged from the analysis of the real estate market in the Jimmy Carter market area.

The area is dominated by two land use types—industrial and retail.

There is over 2.3 million square feet of retail space in the market area and over 19.9 million square feet of industrial space in the market area. Office space is a minor part of the market and there is a significant number of office tenants renting industrial space.

There are a number of challenges facing the retail sector in the market area:

- Lack of major destination tenants to anchor much of the 2.3 million s.f. of space in the market area.
- Many neighborhood and commercial centers at the end of their lifecycle.
- The major home furnishings retail cluster on Dawson Blvd facing increased competitive pressures, yet remains a major regional draw.
- Many existing retail tenants are fast food and highway convenience oriented, subject to quick obsolescence and changing markets.
- Ethnic retail is a rapidly growing segment of retail market but scattered throughout older centers and often lacking anchors with strong appeal.
- The slowing residential market weakens demand for more retail.

While industrial space dominates the area, it also faces significant challenges:

- Congestion at key intersections due to the high volume of resident and commercial traffic in long term will negatively impact the appeal of area for industrial clients.
- The industrial sector suffers from lack of presence/visibility on major access routes; often hidden down side roads behind fading/unappealing retail centers.
- The large industrial market is comprised of several major parks and as well as many smaller projects.
- The eventual evolution of the OFS site to a mix of uses, will change the largely industrial SW sector of study area.

The residential market is also undergoing significant change and facing challenges:

- The single family inventory is growing slowly due to high land costs and strong appeal of many competitive locations.
- Townhomes are an increasingly popular in-fill option for homeownership—following county trends, the quality of townhome development will determine if this is a long term positive or negative trend.
- The rental market is large with 4,000+units, but very mature, with no new product offerings. As a result new demand is shifting to



- other areas of the I-85 corridor. The market area needs a “Global Village” type of development to provide new upper-end product.
- The redevelopment of OFS site as mixed use activity node will create substantial new residential and commercial momentum in the area. Its redevelopment will be a very positive trend to jump start other redevelopment in the market area.

FUTURE REAL ESTATE DEMAND

Over the next 10 years, the employment and residential demographics will change in the Jimmy Carter market area as modest growth continues, generating demand for new housing, office and industrial development, as well as demand for new commercial development to meet the needs of new residents and employees in the study area. This section discusses the additional real estate demand generated from anticipated residential and employment growth in the study area.

Residential Demand

Trending the Claritas 5-year projections of new households in the Jimmy Carter market area for a ten year period indicates there will be 2,054 net new households in the 2-mile market area by 2016, or an annual growth of 205 new households over the period, as shown in the table below.

Jimmy Carter 2-Mile Market Area Household Growth

2006 Households	17,871
2011 Households	18,870
2016 Households	19,925
Growth Rate	5.6%
Total New Households	2,054
New Households per Year	205

Source: Claritas/BAG

Currently, 63.7 percent of the Jimmy Carter 2-mile market area housing units are renter-occupied and 36.3 percent of units are owner-occupied. For projected household growth, it is assumed that the ratio of owner/renter will be approximately 70 percent owner/30 percent renter. This is due to developer and community preferences for owner-occupied housing, particularly in the infill redevelopment that has begun to occur in the study area.

Household Growth by Tenure, 2006-2011

Total New Households 2006-2011	2,054
New Owner Occupied Households 2006-2011	1,438
New Renter Occupied Households 2006-2011	616

Source: Claritas/BAG



Retail Demand

Between 2006 and 2016, the 2,054 new households in the 2-mile market area will generate approximately \$105 million in additional retail demand, as detailed below. This is based on Claritas estimates that annual retail expenditures of households in the market area will be \$51,311 in 2011. The additional retail demand from household growth in the years 2006-2016 will support approximately 459,709 square feet of retail space.² As noted early, there is currently 2,337,318 square feet of retail space located in the Jimmy Carter corridor study area, of which 93,829 square feet, or 4.0 percent, is vacant. Because the corridor vacancy rate is lower than the county average (7.1 percent), it is unlikely that additional retail demand from future household growth will absorb any of the existing vacant retail space over the next 10 years. Therefore, additional household retail demand in the market area could support 459,709 square feet of new retail square footage in the corridor.

Retail Demand Generated by Household Growth 2006-2016

Total New Households 2006-2011	2,054
Annual Retail Expenditures per Household	\$51,311
Total Annual Retail Expenditures from New HHs	\$105,392,794
Total Retail Demand (Sq. Ft.)	459,709

Source: Claritas/BAG/ULI

Employment Growth

Demand for additional office and industrial space will be driven by employment growth in the Jimmy Carter 2-mile market area over the next 10 years. As detailed in below, in the years 2006-2016, study area employment is expected to grow 9.3 percent from 37,733 to 41,232 employees, an addition of 3,499 jobs in the corridor by 2016.

Jimmy Carter 2-Mile Market Area Employment Growth 2006-2016

2006 Jimmy Carter Employment	37,733
2016 Jimmy Carter Employment	41,232
% Growth	9.3%
Net New Employees	3,499

Source: Claritas/BAG/ARC

² According to the Urban Land Institute's Dollars & Cents of Shopping Centers survey, the median sales per square foot for community shopping centers in the U.S. South is \$229.26 per square foot.





Office Demand

In the years 2006-2016, the market area is projected to add 2,164 new office-related jobs, which are jobs created in the employment categories listed in the table below. Based on a ratio of 300 square feet of office space per employee, overall office-related employment growth over the next 10 years will generate potential demand for 649,091 square feet of additional office space in the market area. If a substantial portion of this demand were met in the Jimmy Carter corridor, it would result in significant growth in the office sector.

Jimmy Carter 2-Mile Market Area Projected Office Demand Growth 2006-2016

	2006 Employment	2016 Employment	2006-2016 Net New Employment	2006-2016 Additional Office Related Demand
TCU*	523	636	113	33,909
FIRE*	1,556	2,092	536	160,759
Services	7,833	9,276	1,443	432,832
Public Admin.	400	472	72	21,592
Total	10,312	12,476	2,164	649,091

Source: Claritas / ARC

* Transportation, Communications, Utilities (TCU) & Finance, Insurance, Real Estate (FIRE)

* 20 % of TCU Employment is considered office-related

Industrial Demand

In the years 2006-2016, the market area is projected to lose 144 industrial-related jobs. Thus, there is no additional industrial demand forecast from industrial employment growth. The loss in industrial demand reflects the current "soft" conditions of the industrial market in the market area.

Jimmy Carter 2-Mile Market Projected Industrial Demand Growth 2006-2016

	2006 Employment	2016 Employment	2006-2016 Net New Employment	2006-2016 Additional Industrial Demand
Agriculture and Mining	307	335	28	17,081
TCU	2,093	2,545	452	271,269
Manufacturing	6,173	5,700	(473)	(283,538)
Construction	2,562	2,413	(149)	(89,551)
Wholesale	5,406	4,671	(735)	(441,087)
Total	16,541	15,664	(876)	(525,826)

Source: Claritas / ARC

* 20 % of Transportation, Communication, Utilities (TCU) Employment is considered office-related



Summary of Future Demand

Overall future demand for residential, retail, office and industrial space is below.

Residential – In the years 2006-2016, population growth in the Jimmy Carter 2-mile market area will create demand for approximately 2,054 new households, of which an estimated 1,438 will be owners and 616 will be renters.

Retail – Due to household growth and related retail expenditures, total retail potential for the market area will increase by \$105 million, which will support 459,709 square feet of retail space.

Office – Office demand over the next 10 years in the market area will be modest and driven by moderate gains in employment. Between 2006-2016, the market area will potentially add 2,164 new office-related jobs, generating demand for 649,091 square feet of office space in the corridor from 2006-2016.

Industrial - The number of industrial jobs in the market area is expected to decline by 876 jobs during the next 10 years. This loss of jobs will result in a 525,826 square foot decrease in employment-based demand for industrial space.

Summary of Future Real Estate Demand 2006-2016

Land Use	Future Demand
Residential (Units)	2,054
Owner-Occupied	1,438
Renter-Occupied	616
Retail (S.F.)	459,707
Office (S.F.)	649,091
Industrial (S.F.)	(525,826)

Source: BAG

MARKET ANALYSIS OF JIMMY CARTER CATALYST PROJECTS

As part of our on-going research for the Jimmy Carter LCI study, we have evaluated the market potential of the two catalyst projects identified in the Framework Plan recently prepared by the consulting team. The following summarizes our conclusions about the market potential of the two catalyst sites, based on the information provided in the earlier Market Conditions report, field research and input from the public involvement process.

The Two Catalyst Projects

The Framework Plan identified two catalyst sites which could be the anchors for the future development of the Jimmy Carter corridor as it transitions from



an aging suburban commercial corridor into a mixed use corridor that can serve as a commercial gateway to the surrounding residential areas. The goal of each catalyst site or project is to stimulate development/redevelopment and provide a model for the types of development we would like to see throughout the corridor. The two catalyst areas identified in the Framework Plan are:

- Commercial/Residential Mixed Use Center at the Former OFS Site
- Commercial Mixed Use Village at Oakbrook and Jimmy Carter



The development plan and market overview of each area follows:

Commercial Mixed Use Center at Former OFS Site

The OFS facility served, for many years, as the economic anchor of the Jimmy Carter Boulevard corridor. At one point, it was one of the largest employers in the county and Atlanta region. The redevelopment of this 144-acre site should seek to replace the OFS facility with a similarly impactful project that can anchor the corridor for the next several decades. Accordingly, the vision for the reuse of the site is as a major mixed-use commercial development, effectively creating a town center for the corridor, combining shopping, office and residential uses.

The goal is to create a vibrant mixed-use commercial and residential center at the southwest corner of the I-85/Jimmy Carter intersection. This area was viewed as supporting the highest density of commercial and residential development with a large inventory of office space, mixed use and retail space on the ground floor. Due to the substantial amount of development for a 144-acre site, build out will likely take fifteen years. The projected development plan for this catalyst area would include a mix of land uses.

As shown below, it is anticipated that the new center would develop over time into a major office concentration with approximately 360,000 s.f. of new office space in two towers built around a new plaza. A 150-room hotel would be located between the office towers and retail/residential component. A significant portion of the site would be devoted to residential uses, adding 400 townhomes, 700 condominiums and 350 apartment units. Ground-floor retail on the bottom of first floor of condo and apartment buildings would account for 100,000 square feet of retail. In addition, stand alone retail would be located on 10 acres of the site and account for an additional 150,000 square feet of retail. The goal would be for the new center to become a new commercial and residential town center for the Jimmy Carter corridor, and serve as the entranceway into the area at the key regional access point at the intersection of Jimmy Carter Boulevard and Interstate 85.

OFS Site Redevelopment Plan					
Acres	Land Use	Density	Total	Pricing	Absorption (Per Year)
10	Office	2 towers with 180,000 s.f.	360,000 s.f.	\$18-\$22/s.f.	24,000
3	Hotel	150 rooms @ 600 s.f./room	90,000 s.f.	\$80/night	6,000
10	Free Standing Retail	15,000 s.f./acre	150,000 s.f.	\$14-\$18/s.f.	10,000
10	Ground Floor Retail	10,000 s.f./acre	100,000 s.f.	\$14-\$18/s.f.	6,666
40	Townhomes	10 units/acre	400 units	\$250K-\$350K/unit	27
20	Stacked Condos	35 units/acre	700 units	\$160K-\$220K/unit	47
10	Apartments	35 units/acre	350 units	\$900-\$1100/month	23
22	Greenspace				
29	Circulation/Setbacks, etc.				
144	Total Acres				

Oak Plaza Redevelopment

The goal for the second catalyst project is to redevelop the existing retail center north side of Jimmy Carter Boulevard at the Oakbrook Parkway intersection. Currently the site of an aging retail center, the redevelopment of this site would create a significant impact on visitor and resident perceptions of the corridor. In addition, redevelopment addressing current infrastructure limitations of the site would create help make Oakbrook Parkway a more viable connector between Jimmy Carter and Indian Trail Road. The plan would add additional land uses in the form of office and hotel space which would increase the level of activity on the site throughout the day and provide a prominent landmark at this critical location of the corridor. The centerpiece of the new development will be a twin-tower complex containing office space and a hotel with ground floor retail. The redevelopment will include a refurbished and expanded Oakbrook Plaza, expanding from one story to two-story retail development in key portions.

As shown below, the redevelopment of the site at the north side of this interchange would result in 82,500 square feet of office, an 82,500 square foot hotel. Retail, including ground floor retail as part of the above development and the refurbished Oakbrook Plaza would total 246,500 square feet of retail space.

Oak Plaza Redevelopment					
Acres	Land Use	Density	Total	Pricing	Absorption (Per Year)
1	Hotel	1 tower	82,500 s.f.	\$65/night	5,500



1	Office	1 tower	82,500 s.f.	\$18-\$20/s.f.	5,500
1	Retail	Ground Floor Retail	22,500 s.f.	\$14-\$16/s.f.	1,500
4	Free Standing Retail		224,000 s.f.	\$14-\$16/s.f.	14,933
7	Circulation/Parking				

Total Development Plan of Two Catalyst Projects

The two projects described above would result in a total of 400 townhomes, 700 condominium units and 350 apartment units for a total of 1,450 residential units over the 15-year period. In terms of commercial development, the two projects could contain 496,500 square feet of retail space, 442,000 square feet of office space and 172,500 square feet of new hotel development.

Total Jimmy Carter Corridor Redevelopment Plan							
	Acres	Residential			Commercial		
		TH	CO	APT	Retail	Office	Hotel
OFS Redevelopment	144	400	700	350	250,000	360,000	90,000
Oak Plaza Redevelopment	14	-	-	-	246,500	82,500	82,500
Total	158	400	700	350	496,500	442,500	172,500

Residential Supply and Future Demand

Recent Sales Activity

Single Family

In the 2-mile market area, there were 49 new single family home sales from 2003-2006³, representing 9.2% of all sales in the market area. In Gwinnett County from 2003 to 2006, there were 28,731 new single family sales, representing 81.6% of all new sales in Gwinnett County. The Jimmy Carter 2-mile market area represented 0.2% of all Gwinnett County single family sales. The average sales price for a single family unit in the 2-mile market area increased from \$297,783 in 2003 to \$391,689 in 2006, an increase of 31.5 percent. In Gwinnett County, the average price for a single family home has increased 30.1 percent, from \$227,461 in 2003 to \$296,996 in 2006. In 2006, the average sales price for a single family home in the market area had increased to 131.8 percent of the average sales price in Gwinnett County, primarily due to new development in downtown Norcross.

Townhomes

From 2003 to 2006, there were 450 townhome sales in the 2-mile market area, or an average of 113 per year. Townhomes represented 90.2 percent of all sales in the 2-mile market area. In Gwinnett County from 2003 to 2006, there were 6,213 townhome sales, representing 17.6 percent of all new sales

³ Through mid-year 2006, annualized

in Gwinnett County. The Jimmy Carter 2-mile market area represented 7.2 percent of all Gwinnett County townhome sales.

The average sales price for a townhome in the 2-mile market area increased 27.2 percent, from \$128,688 in 2003 to \$163,649 in 2006. By comparison, in Gwinnett County, the average price for a townhome has increased 33.9 percent since 2003. In 2006, the average sales price for a townhome in the 2-mile market area is 86.1 percent of the average sales price in Gwinnett County.

Condominiums

From 2003 to mid-year 2006, there were no condominium sales in the Jimmy Carter 2-mile market area. Gwinnett County had 287 condominium sales over the time period, or an average of 72 units per year. The number of condominiums sold in Gwinnett County has increased 355% from 4 sales in 2004 to a projected 146 sales in 2006. The average price for a condominium in Gwinnett County increased 37.8%, from \$127,633 in 2003 to \$175,802 in 2006.

Owner Demand by Type

The demand for owner-occupied housing within the Atlanta region, Gwinnett County and the Jimmy Carter 2-mile market area is changing:

- **Single Family** housing is declining as a percentage of owner-occupied housing, especially in higher cost mixed-use corridors, like the study area.
- **Townhomes** are gaining significantly. They represent 17.6% of new sales in Gwinnett County over the 2003-2006 period and 87.1% in the 2-mile market area over the same period.
- **Condominiums** have a small presence in Gwinnett County but are a growing dramatically, 355% from 2003 to 2006. They are an important and successful property type in other mixed-use suburban districts like the proposed catalyst projects.

We estimate over the next decade in the Jimmy Carter corridor area, that due to changing buyer preferences, increasing land costs and the other costs associated with redevelopment, the future mix of owner units will likely be:

- Single Family: 10-30%
- Townhomes: 50-60%
- Condos: 20-30%

Residential Sales 2003-2006								
	Jimmy Carter 2-Mile Market Area				Gwinnett County, Georgia			
	All	Single Family	Town-homes	Condos	All	Single Family	Town-homes	Condos
2003								
Sales	63	12	51	-	8,712	7,617	1,091	4
Avg Price	\$426,471	\$297,783	\$128,688	\$	\$497,031	\$227,461	\$141,937	\$127,633
2004								
Sales	62	10	52	-	8,902	7,576	1,280	46
Avg Price	\$515,794	\$350,440	\$165,354	\$	\$558,692	\$249,661	\$162,922	\$146,109
2005								
	-	-	-	-	-	-	-	-



Sales	222	21	201	-	9,291	7,290	1,910	91
Avg Price	\$545,399	\$373,479	\$171,920	\$	\$580,501	\$273,702	\$179,166	\$127,633
2006	-				-			
Sales*	152	6	146	-	8,326	6,248	1,932	146
Avg Price	\$555,338	\$391,689	\$163,649	\$	\$662,827	\$296,996	\$190,029	\$175,802

* Through June, annualized

Source: SmartNumbers, Inc.

Rental Apartments

There are 4,041 apartments in fifteen complexes in the 2-mile market area. In 2006, the average rent in the market area is \$749. Rents range broadly from \$506 for a 815 square foot one bedroom to \$1,000 for a 1,419 square foot three bedroom. In 2005, the average rent in the 2-Mile market area was \$743, or 9.8 percent lower than the South Gwinnett Submarket and 13.7% lower than the Atlanta Metro as a whole. The lower rents reflect the lack of new inventory in the market area with none of the 15 complexes built since 2000.

In 2006, the average vacancy in the market area is 11.1 percent. Vacancy rates range broadly between complexes from a low of 4.4 percent to a high of 18.2 percent. In 2005, the average vacancy in the 2-Mile market area was 10.5 percent, which was higher than vacancy in the South Gwinnett Submarket at 6.7 percent and the Atlanta Metro vacancy rate at 8.0 percent. While vacancies in the Atlanta Metro and the South Gwinnett submarket have decreased significantly recently, the 2-mile market area has not experienced the same rapid decline.

Future Residential Demand

This section discusses the level and character of housing demand in the Jimmy Carter market area. The demand analysis is based on an assessment of current conditions and projected growth in the Jimmy Carter market area and Gwinnett County. The key data derived for this analysis is summarized in the following table and presented in detail in the appendix. The analysis focuses on housing demand derived from three main sources:

1. **Household Growth**—Over the next fifteen years, the Jimmy Carter market area and Gwinnett County are projected to add significant numbers of new households. The Jimmy Carter market area market area will be completing for its share of these new households.
2. **Turnover in Jimmy Carter and Gwinnett County Households**—Every year a significant number of households, both renters and owners move for a variety of reasons, such as: changes in income status, changes in marital status, job-related factors and lifestyle preferences. The Jimmy Carter market area will be competing for its share of these turnover-related moves.
3. **Other Sources of Demand**—A small portion of total demand in a market area will come from other sources including lifestyle





preferences, relocation from another region or country, or other factors not captured in the two other demand sources above.

Since the focus of the market analysis is on market rate housing, we are concerned with growth from households with incomes sufficient to afford market rate rental or ownership units. We have defined the income qualified households as earning \$35,000 or more.

Housing Demand for Household Growth

Between 2006 and 2021 the number of households with incomes of \$35,000 or more in the Gwinnett County will increase from 201,349 to 280,696--an increase of 79,347 households over the fifteen year period or 5,289 units annually. In the Jimmy Carter market area, the number of income qualified households is projected to increase by 1,301 over the fifteen year period, or 87 households annually. Of these new households in Gwinnett County an estimated 75% are expected to be owner occupants and 25% renters and 36% owners and 64% renters in the Jimmy Carter market area. This results in demand for 59,824 new owner units from 2006-2021 and 20,824 rental units over the same period. Assuming that the Jimmy Carter market area can capture 80% of its potential demand, and 3% of the demand within broader Gwinnett County, the annual demand for housing in the Jimmy Carter market area due to growth in households is for 144 ownership units and 84 rental units per year over the ten year period.

Housing Demand from Household Turnover

A significant number of households in the Atlanta region move in a given year due to a wide range of factors. Based on an assessment of mobility trends for the Atlanta MSA in 2004 as reported in the American Housing Survey, 16% of Atlanta homeowners move each year. Of these movers 47% go from one owner unit to another; 53% move from being an owner to a renter. Among renters 23% move each year, and among the movers 21% go from renters to owners and 79% stay renters. Applying these metro mobility rates to household characteristics for Gwinnett County and the Jimmy Carter market area indicates that there will be additional income qualified demand due to turnover for 946 owner units and 2,004 rental units annually over the fifteen year period.

Other Demand

The category of other demand measures those households who move for a variety of reasons in addition to those captured above by household growth and turnover, such as lifestyle preferences, relocation from another region or country, and a range of other often highly individual factors that can trigger a move to an area. It is estimated that 5% of total demand will come from other sources of demand. In the Jimmy Carter market area, other demand accounts for an additional 48 owner units and 100 rental units annually.

Total Income Qualified Housing Demand

Owner—Based on an analysis of the three sources of housing demand discussed above, over the 2006-2021 period there will be annual demand for 1,137 income qualified owner units in the Jimmy Carter market area. The estimated annual absorption of the ownership units proposed for Jimmy Carter would average 73 units per year over the 15-year period (1,100 /15 years). Ownership sales at this level represents a capture rate of 6.8% of the annual demand for ownership housing in the market area, and appears achievable.





Renter—The income qualified demand for rental housing in the Jimmy Carter market area is estimated to be 2,189 units annually over the next fifteen years. The estimated annual absorption of the renter units proposed for Jimmy Carter would average 23 units per year over the period (350/15 years). This represents a capture rate of 1.1% of the annual demand for renter housing in the market area, and appears achievable.

Jimmy Carter 2-Mile Market Area Residential Demand 2006-2021			
	Jimmy Carter 2-Mile Market Area	Other Gwinnett County	Total
Owner			
I. Annual demand from household growth 2006-2021	25	119	
II. Annual demand from turnover of existing units	533	413	
III. Other demand @ 5%	27	21	
Total annual demand for owner housing	585	553	1,137
Owner units in 2 catalyst projects			1,100
Annual absorption of owner-occupied units			73
Capture rate of owner units in catalyst projects			6.8%
Renter			
I. Annual demand from household growth 2006-2021	44	40	
II. Annual demand from turnover of existing units	1,345	660	
III. Other demand	67	33	
Total annual demand for rental housing	1,456	732	2,189
Renter units in 2 catalyst projects			350
Annual absorption of renter units			23
Capture rate of renter units in catalyst projects			1.1%

Sources: U.S. Census American Housing Survey, Claritas, Bleakly Advisory Group

Retail Supply and Future Demand

Current Retail Supply

The Jimmy Carter corridor is a highly-developed area with a significant amount of retail space. The 2-mile market area contains 2,337,318 square feet of retail space, representing 7.7 percent of Gwinnett County's retail space. The 2-mile market area contains 93,829 square feet of vacant retail space, or 4.0 percent. Rent for retail space in the 2-mile market area ranges from \$12.00 to \$16.50, with an average rent of \$13.53.

Retail in Major Centers, 2006		
	2-Mile Market Area	Gwinnett County
Square Feet	2,337,318	30,339,535
% of Market Area	100.0%	
% of County	7.7%	100.0%
Vacant	93,829	2,143,851
Vacant %	4.0%	7.1%

Min Rent	\$	12.00	\$	8.00
Max Rent	\$	16.50	\$	60.00
Avg Rent	\$	13.53	\$	19.53
Avg Year Built		1986		1992

Source: Dorey's

Future Retail Demand from New Residents

Between 2006 and 2021, the 5,625 new households in the 2-mile market area will generate approximately \$140.8 million in additional retail demand, as detailed below. This is based on Claritas estimates that households in the market area have annual retail expenditures of \$25,038. The additional retail demand from household growth in the years 2006-2021 will support approximately 614,319 square feet of retail space.⁴ As noted early, there is currently 2.3 million square feet of retail space located in the Jimmy Carter corridor study area, of which 93,829 square feet, or 4.0%, is vacant. Because the corridor vacancy rate is lower than the county average (7.1%), it is unlikely that additional retail demand from future household growth will absorb much of the existing vacant retail space over the next 15 years. Therefore, additional household retail demand in the market area could support an additional 614,319 square feet of new retail square footage in the corridor.

Retail Demand Generated by Household Growth 2006-2021			
	2006-2021 New Households	Additional Retail Demand	Retail Demand (Sq. Ft.)
Jimmy Carter 2-Mile Market Area	5,625	\$140,838,750	614,319

Source: Claritas

The proposed Jimmy Carter catalyst projects would contain up to 496,500 square feet of retail space, representing 80.1% of new total demand for the area. It is likely that the retail demand from new residents will contribute a significant portion of the demand for the new retail space with other sources of demand coming from existing area residents, businesses, employees and visitors.

Office Supply and Future Demand

Current Office Supply

The 2-mile market area contains 630,555 square feet of office space, representing 3.1 percent of Gwinnett County's office inventory. The 2-mile market area contains 146,313 square feet of vacant office space, or 23.2 percent of its inventory. The high vacancy reflects the current "soft" conditions of the office market. Rent for office space in the 2-mile market area ranges from \$8.00 to \$18.00, with an average rent of \$14.49. This compares to Gwinnett County with an average office rent of \$16.13.

⁴ According to the Urban Land Institute's Dollars & Cents of Shopping Centers survey, the median sales per square foot for community shopping centers in the U.S. South is \$229.26 per square foot.



Existing Office in Major Centers, 2006		
	2-Mile Market Area	Gwinnett County
Square Feet	630,555	20,241,817
% of Market Area	100.0%	
% of County	3.1%	100.0%
Vacant	146,313	3,786,561
Vacant %	23.2%	18.7%
Min Rent	\$ 8.00	\$ 6.50
Max Rent	\$ 18.00	\$ 27.00
Avg Rent	\$ 14.49	\$ 16.13
Avg Year Built	1983	1992

Source: Dorey's

Future Office Demand

In the years 2006-2021, the market area is project to add 2,233 net new office-related jobs, which are jobs created in the office-oriented employment categories listed in the table below. Based on a ratio of 300 square feet of office space per employee, overall office-related employment growth over the next 15 years will generate potential demand for 669,955 square feet of additional occupied office space in the market area. If a substantial portion of this demand were met in the Jimmy Carter market area, it would result in significant growth in the office sector.

Jimmy Carter 2-Mile Market Area Projected Office Demand Growth 2006-2021				
	2006	2021	Net Growth 2006-2021	Growth in Office Demand (s.f.)
Transportation, Communication & Utilities	212	287	75	22,510
Finance, Insurance & Real Estate	1,225	1,759	534	160,069
Services	5,420	6,994	1,574	472,278
Public Administration	180	230	50	15,099
Total	7,036	9,269	2,233	669,955

Source: Claritas / ARC

* 20 % of TCU Employment and 75% of Services Employment is considered office-related

The proposed Jimmy Carter catalyst projects would contain 442,500 square feet of office space, representing 66.1% of total area office demand. However, an office concentration of this scale will likely also require attracting demand which seeks to locate in a major mixed-use project with excellent regional transportation access. It is likely that the office component will come as a later phase in the project as its identity is established.

The Impact of a Future TAD on the Catalyst Projects





You asked us to consider the potential impact of a possible future tax allocation district (TAD) in the Gwinnett Village CID on the two proposed catalyst projects for Jimmy Carter Boulevard corridor. Based on the suggested development plan for each of the catalyst projects a preliminary estimate of the potential TAD funds was made. As shown below, the two catalyst projects could support a significant level of TAD funding totaling \$20 to \$40.4 million.

The largest TAD potential is associated with the OFS Site redevelopment, do to the fact that this catalyst project would have the largest taxable value of the two projects. Thus, if in the future the Gwinnett Village CID were able to secure the ability to use TAD funding, it would have strong potential to support the creation of the catalyst projects. The TAD funds could be used for land acquisition, site preparation, and installation of needed new public infrastructure and the creation of structured parking and other transportation improvements as part of the overall LCI initiative.

The TAD has proven in many locations in Georgia to be a very effective incentive to encourage the transition of existing under-performing properties into major new projects of the type contemplated for the three catalyst projects. It has proven particularly effective as an incentive in large-scale redevelopments like the OFS site.

TAD POTENTIAL OF THREE CATALYST PROJECTS, JIMMY CARTER LCI				
	Units/S.F.	Value Unit/S.F.	Total Market Value	TAD Potential
OFS Site Redevelopment				
Residential				
Townhome	400	\$300,000	\$120,000,000	
Condominium	700	\$180,000	\$126,000,000	
Apartment	350	\$125,000	\$43,750,000	
Commercial				
Retail	250,000	\$80	\$20,000,000	
Office	360,000	\$80	\$28,800,000	
Hotel	150	\$150,000	\$22,500,000	
Total			\$357,550,000	\$17,877,500-\$35,755,000
Oakbrook Plaza Redevelopment				
Residential				
Townhouse	0	\$0	\$0	
Condominium	0	\$0	\$0	
Apartment	0	\$0	\$0	
Commercial				
Retail	246,500	\$80	\$19,720,000	
Office	82,500	\$80	\$6,600,000	
Hotel	137	\$150,000	\$20,550,000	
Total			\$46,870,000	\$2,343,500-\$4,687,000

Source: Bleakly Advisory Group



Conclusions of Market Overview

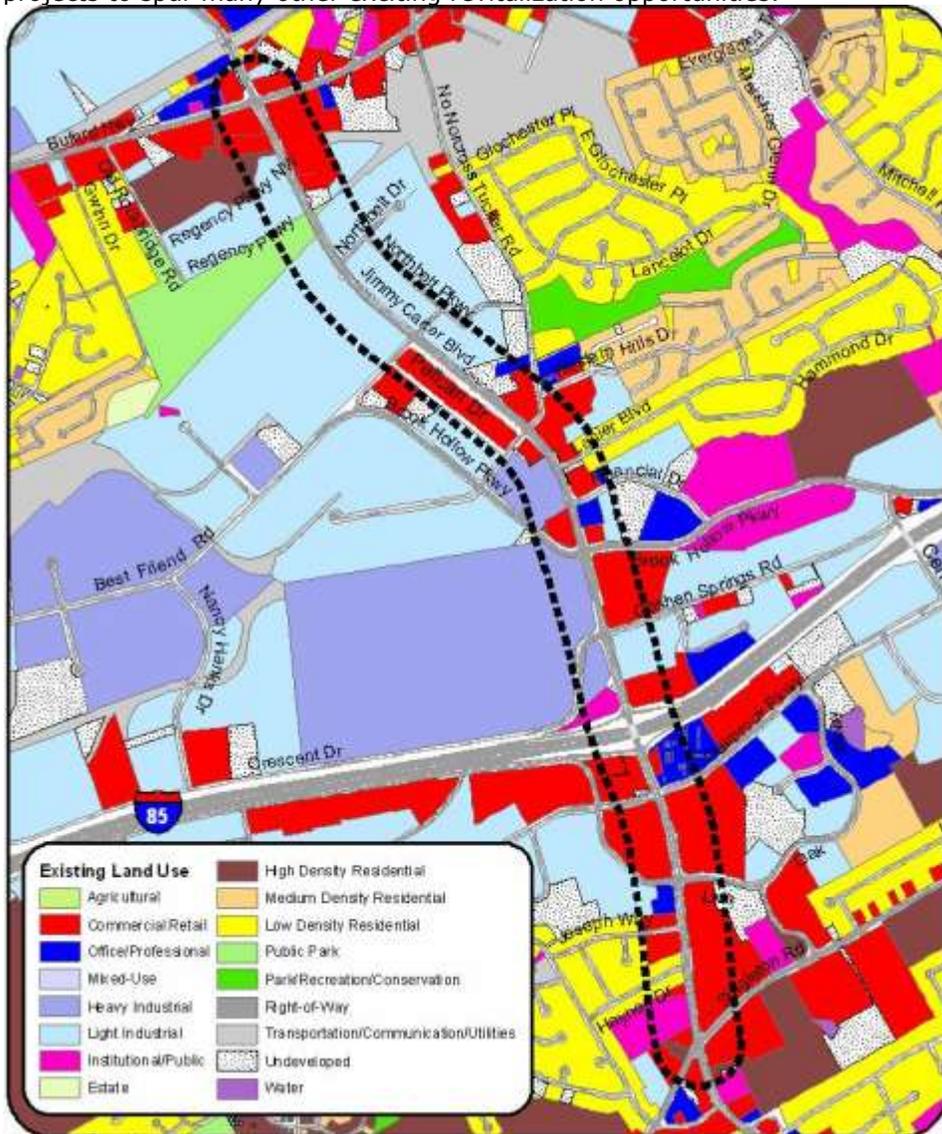
- The proposed catalyst projects would create two exciting new centers within the Jimmy Carter study area which would stimulate the future development of the area consistent with the vision for the corridor expressed in the Framework Plan.
- The two catalyst projects would create a new commercial core for the corridor focused on the Jimmy Carter Boulevard and I-85 interchange, the gateway into the corridor.
- The catalyst projects would result in the creation of 1,450 new housing units, 496,500 s.f. of retail, 442,500 s.f. of new office space in the corridor, and two new hotels totaling 172,500 s.f..
- The catalyst projects would have a combined market value of \$118 million and would support between \$20 to \$40.4 million in potential future TAD funding. The Gwinnett Village CID should support the future creation of this important incentive which could be a critical element in accelerating the pace of redevelopment in the Jimmy Carter corridor.
- There will be sufficient market demand to support the creation of the proposed residential components of the projects.
- The retail spending by new residents in the two projects combined with attracting some additional demand from existing area residents, businesses, employees and visitors appear sufficient to support the proposed unique retail development.
- The creation of a major office concentration at the OFS site will be supported by a combination of growth in office demand in the market area and the appeal of its location as a key component of a new town center for the area in proximity to a major intersection with I-85.



LAND USE/ URBAN DESIGN ANALYSIS

Existing Land Use

The Jimmy Carter Boulevard Corridor runs from Singleton Road north along Jimmy Carter Boulevard to Buford Highway through Gwinnett County and a small portion in the City of Norcross. The corridor is part of one of the older developed areas in Gwinnett County. It is located along the heavily traveled I-85 and the Jimmy Carter and I-85 interchange is the gateway into Gwinnett County from Dekalb County. The character of the area is as an ethnically diverse community with abundant industrial complexes, aging retail centers, low-density residential neighborhoods and multi-family housing. The corridor has several exciting redevelopment opportunities that could serve as catalyst projects to spur many other exciting revitalization opportunities.





The area is dominated by two land use types—industrial and retail. Jimmy Carter Boulevard has several retail centers at various points in their respective life cycles. The content of these centers is widely varied, from ethnic uses to dilapidated and under-utilized strips. Scattered among them are a variety of single-parcel commercial and

retail uses, including gas stations, extended stay hotels, chain restaurants, as well as the occasional church and small office complex.

There are several older low-density single family neighborhoods within the corridor and several directly outside the study area. The housing stock ranges widely in quality, but overall the associated income is relatively low. There is little land available to build new single family detached housing developments. Among the existing, there are multi-family complexes located within or directly abutting the study boundaries.



Greenspace is likewise in short supply, and immediate opportunities for expansion and addition are limited. At the northern end of the study area is Best Friend Park, a popular Gwinnett County multi-use park, provides a good deal of open space. There is a utility easement that runs east to west from Jimmy Carter Boulevard over to North Norcross Road. The utility easement is just south of Buford Highway in the northern portion of

the study area. The easement would be ideal to convert to a linear park/greenway and would provide much needed greenspace for the community.

A recommendation from the Gwinnett County Revitalization Task Force's Beaver Run Pilot Study- Revitalization Plan supports the need for the conversion of easements into passive greenspace. Beyond Best Friend Park, there is little greenspace within the area. Pedestrian and bicycle amenities are sporadic, where they exist at all. Sidewalks are intermittent and rarely connect to parcels off the corridor, and dedicated bike lanes are non-existent. A quick drive reveals that this corridor primarily serves the automobile.

Land Use and Urban Design Issues

The Corridor is typical of similar transitional corridors of similar age in traffic issues; lacking interparcel vehicular and pedestrian connectivity; underutilized strip or plaza shopping centers; poor pedestrian connectivity; changing demographics in age and culture; lacking greenspace; impacted by a major

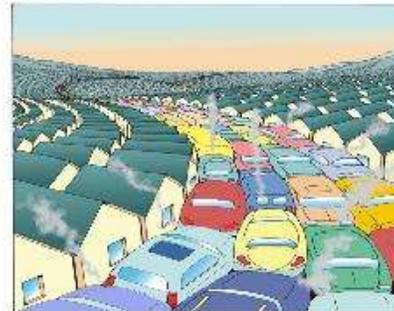


interstate transecting the study area; and concern over crime, safety, and community values. This corridor is dominated by industrial and commercial/retail development with limited existing residential neighborhoods to support the immediate employment base and retail uses. Though these issues and concerns are real, numerous opportunities and signs of commitment exist in the corridor, such as are discussed in nodes and catalyst projects. The OFS site is one major opportunity; and Carter Oak Plaza, near the northeast corner of I-85, is proposed for revitalization as well as a mixed use tower. Opportunities and wishes for public cultural or arts center is a feature to be added.

Real estate market trends and conclusions are presented in the market analysis narrative. The approach is to build upon the market trends by planning for active nodes that will help sustain and encourage new development, addressing the above concerns, adding residential space providing spending dollars, and organizing the nodes and communities into more livable, walkable centers. Enhancements and connectivity along the various corridors, will link the existing and new communities with work and cultural destinations.

Challenges

Some of the primary challenges are access, infrastructure, acceptance of higher density development, the cost magnitude, and the public perception of these issues. Participants in the public process are generally very pleased that planning is being done, however remain somewhat skeptical and focused on the elements and proximity that may impact them most. The synthesis of the planning process



has come a long way toward a larger picture view that identifies real trends and opportunities, providing basic tools for the kit to encourage the redevelopment process, including capture of local resources.

Access revolves around the I85 interchange near the center of the study area and Buford Highway to the north. The intensity and cost of land in the study area deters acquisition and provisions for greenspace, however by building vertical, planners and developers can create more space for outdoor viewing and activities that is pleasant as well as functional, addressing such things as pedestrian connectivity, streetscapes, heat moderation, and stormwater detention and treatment. Access to the industrial and warehouse buildings in the north side of the study area is problematic due to the traffic volume and flow. Planners are working to address better access to I85 from this area.

A notable challenge that is also an opportunity is the potential to capture and confine sprawl that is running out of space to leap the I85 corridor northeast of Atlanta, following a trend for more urban living that is convenient to human needs and cultural resources.

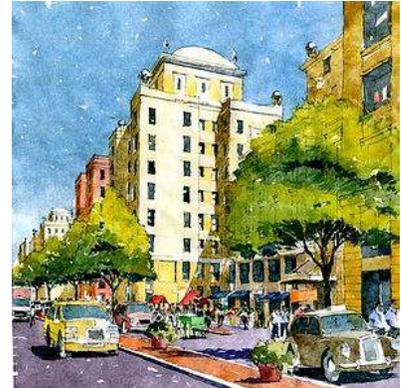


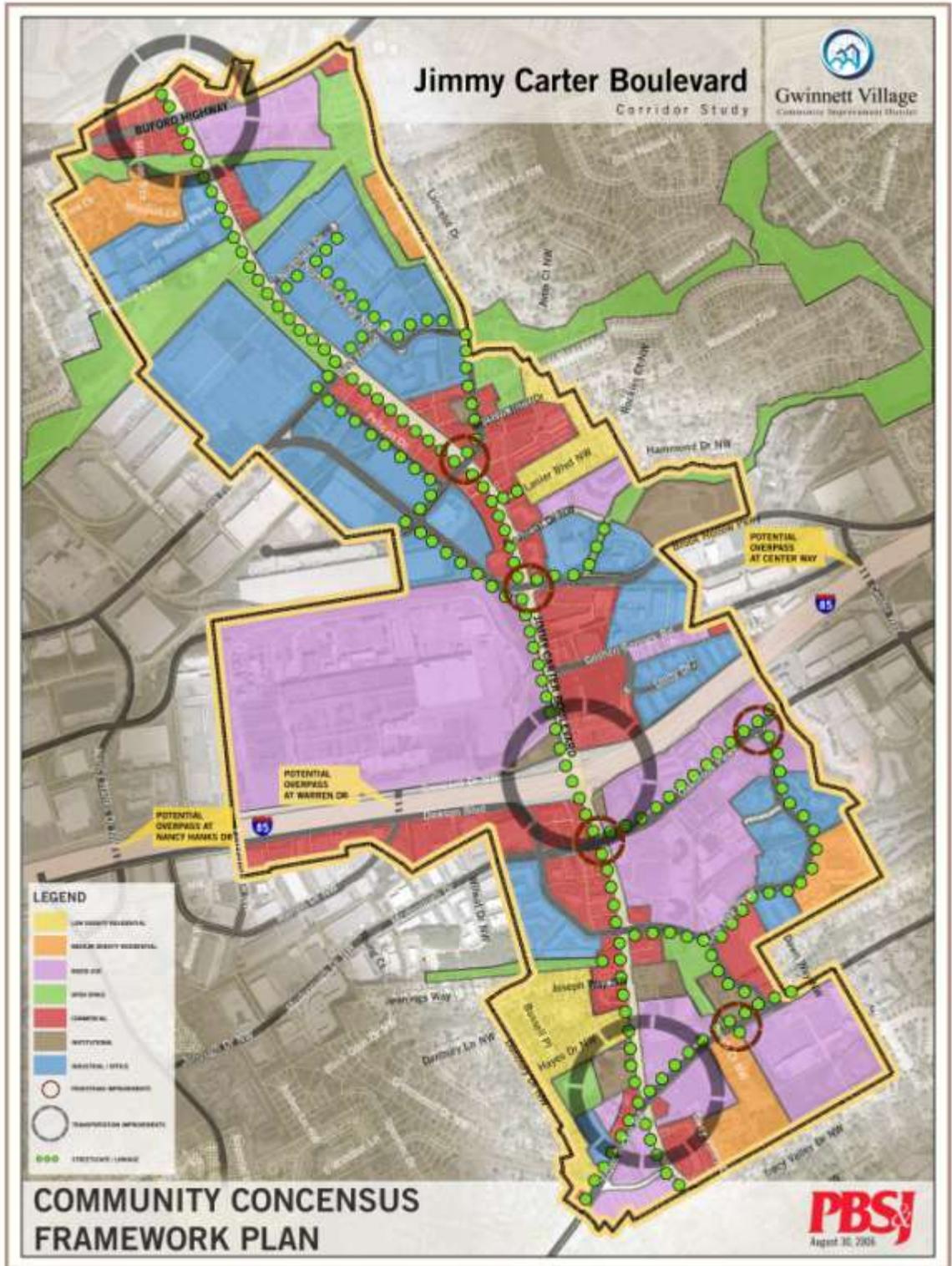
Infrastructure, such as sewer and water capacity, is not addressed in this scope, although vitally important.

The Community Consensus and Node Plans

The plans presented in this report have evolved from the public process, from local leadership, and the expertise of planners guiding and synthesizing these ideas graphically and measurably. The data received was broad and revealed many localized issues. The Community Consensus Plans can largely speak to the input and building upon the knowledge base, sometimes of decades of individual experience. One observation of those community members interviewed was that residents in the study area or nearby neighborhoods firmly wanted to stay and to work to stabilize and improve their neighborhoods. Residents offered that the industrial properties were good neighbors and did not have noisy operations on the weekends that other land uses, such as retail/commercial, may typically have. Existing single family neighborhoods are important to the fabric of the Gwinnett Village area and the community consensus is to retain these neighborhoods. The Community Consensus Framework plan is on the following page.

The Framework Plan will be discussed in further detail in three nodes identified in the planning process: I85 Interchange Node Plan; Buford Highway/ Jimmy Carter Node Plan; Singleton/Jimmy Carter Node Plan.







I-85 Interchange Node Plan

The Jimmy Carter Boulevard at I85 Interchange is a complex location with numerous planning and engineering studies and projects on-going, such as lane improvements, proposed reconfiguration of the interchange, signalization



changes, and landscaping as a gateway for Gwinnett Village. Associated land use depends upon the interchange improvements, visibility for development improvements, and potential transportation improvements such as the Warren Drive overpass or tunnel and other connectivity looping or bypassing the interchange. This node also contains the two catalyst projects discussed, an important streetscape and pedestrian link through the corridor, the

cultural center, and substantial retail. Other improvements of note include lodging and office space, transition of underutilized land along Oakbrook Parkway and I85 to mixed use, and more intensive use of the “go home” side of JCB in both directions from the interchange. The focus is on creating more walkability, pedestrian safety, village feel, and creating green space by more vertical development. *See node plans on following page.*

Buford Highway/ Jimmy Carter Node Plan

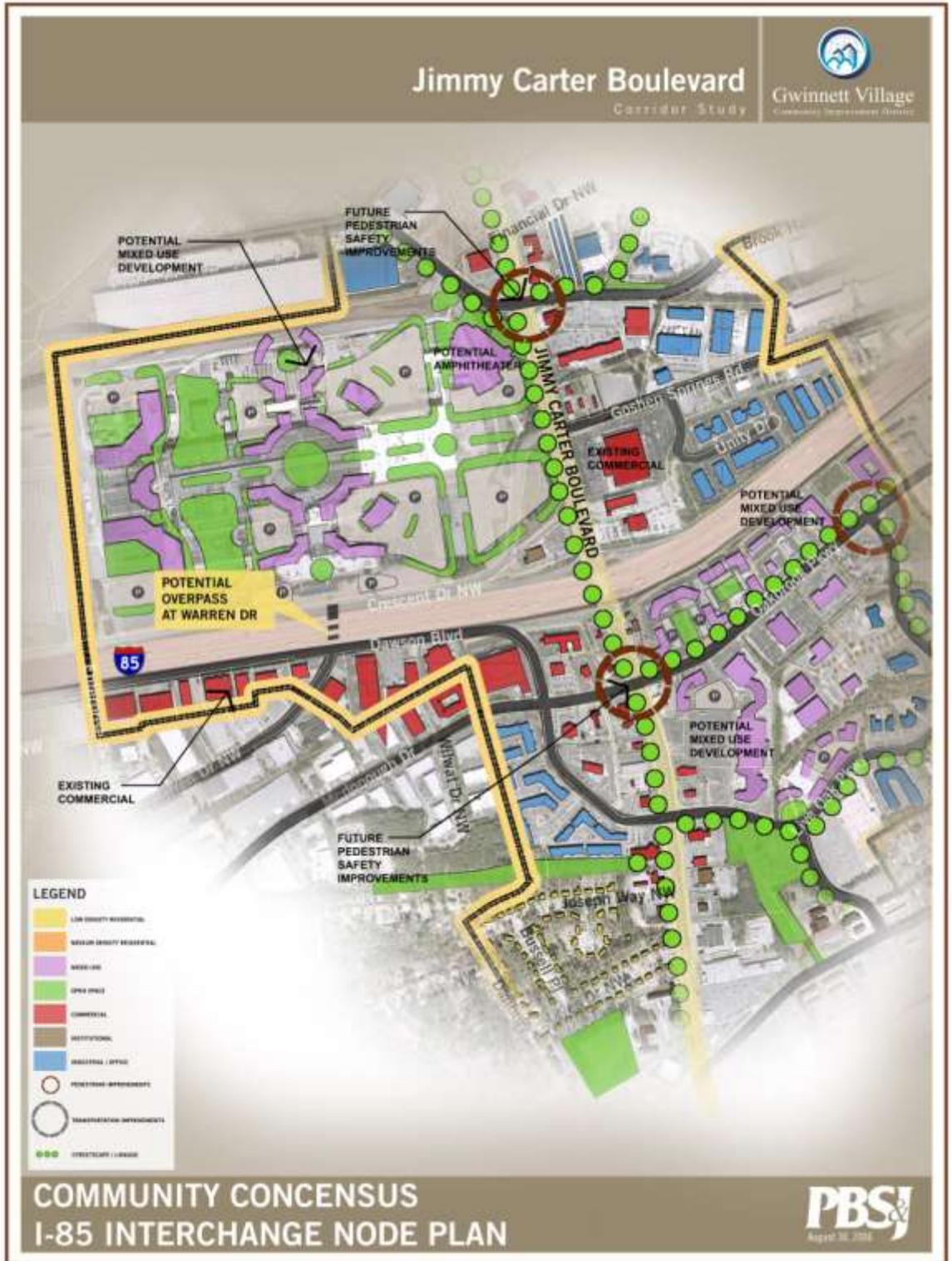
The node study area at Buford Highway lands itself to improvements for pedestrians, transition to mixed use development, intersection improvements, addition of housing units, and greenspace linkages among new and existing residential, work opportunities, and potential outdoor recreation. This node has more greenspace potential, utilizing utility corridors and existing greenspace remnants. These linkages have good connectivity to adjacent neighborhoods and stream corridors for extending the greenways.

Mixed use development would have the “village” concept with a mix of residential and residential over commercial and freestanding retail. Aesthetic improvements to Buford Highway coupled with JCB at Buford Highway intersection improvements will be dramatic as the transition continues to this node. *See node plans on following page.*

Singleton/Jimmy Carter Node Plan

This node is an anchor for the southern end of the study area. The community and the Consultant Team have identified this node as an area of great opportunity due to its excellent location and its apparent underutilization. With proposed streetscape improvements that can connect to the JCB/I85 Node and the businesses and adjacent neighborhoods within walking distance, a new International-themed Village is proposed as a destination. The Village area will include low to mid-rise residential units, adding spending dollars into the corridor. Starting with sensitive site design that is respectful of natural features, this area can be park-like with commercial and activities on the street frontage and interior parking that is screened from view by design and landscaping. Residential areas will be buffered from the street by the commercial village and have direct views of amenities. *See node plans on following page.*







Jimmy Carter Boulevard

Corridor Study



LEGEND

- LOW DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- MIXED-USE
- OPEN SPACE
- COMMERCIAL
- INSTITUTIONAL
- INDUSTRIAL / OFFICE
- PEDESTRIAN IMPROVEMENTS
- TRANSPORTATION IMPROVEMENTS
- POTENTIAL TREE CANOPY

COMMUNITY CONCENSUS
BUFORD HWY / JIMMY CARTER NODE PLAN

PBS&J
August 30, 2018



Jimmy Carter Boulevard

Corridor Study



Gwinnett Village
Community Improvement District



COMMUNITY CONSENSUS SINGLETON / JIMMY CARTER NODE PLAN



Catalyst Projects

Two project areas were identified for further discussion as catalyst projects in the corridor: The OFS Site, and Carter Oak Plaza. The existing character of each is substantially different. The OFS Site is a large 140 acre underutilized urban industrial tract. Once a home for World Energy and then Lucent Technologies, the site has lost its market for full-scale industrial use. Carter Oak Plaza is an existing retail complex anchored by the International Farmer's Market. The management consortium is proposing to renovate the plaza and add mixed-use towers with ground floor retail, office/hotel and residential space, and internal parking decks. Both catalyst sites are opportunities for transit destinations. Incorporating mixed use commercial and increased residential will extend and exploit more evening and weekend economic and cultural activity throughout this Town Center area. Activity should result in a greater sense of security for visitors and residents.

OFS Site

This site is dramatic in its location and presents a large blank slate for creative planning and urban development. In analysis, the site's proximity to I85 must be used to its advantage, but is also a potential negative for some uses, such as residential living and those uses that require heavy access during peak travel times. The parcel is large enough that planners can react to the exposure (or lack thereof) for certain residential and retail/commercial uses. The intent is that this location will be mixed use and substantially self-sustaining as a live/work/play development. Primary uses will be Office



towers, hotels, and living units in townhomes, apartments and stacked condominiums, arranged to be walkable to shopping, cultural activities, and potential employment. Retail shops are to include freestanding upscale specialty stores, and ground floor residential in select residential village buildings. A public cultural center, such as an amphitheater, or enclosed arts center may be located near JCB or interior to the site. The site concept presented intends to take advantage of dramatic urban views, have access to greenspace, amenity views, and landscaped ponds. Parking will serve the development both as heavily landscaped and buffered surface parking and in architectural decks. The foreground of low-rise buildings is to have the character of new urban village design, with minimal setbacks to the street, generous landscaped malls and plaza gathering spaces for outdoor exhibits and entertainment.

The transportation component of the OFS site would have a perimeter collector road that would access the frontage road and potentially connect to a loop that would circumvent the I85 and JCB interchange.



Carter Oak Plaza

The property management team for Carter Oak Plaza is proposing an aggressive renovation of the existing center and the addition of a mixed use tower. The renovations are to be aesthetic and add a more Village feel, including the additions of some second story space, restaurants, small specialty shops, bold entry towers, and landscaped parking improvements, and lighting for safety and enhanced pedestrian scale. The mixed use tower is intended to have ground floor retail shops, restaurants, office/residential space above, underground and above ground parking deck. The project is in conceptual architectural design and market analysis. The potential for additional residents within the project and study area will assist in the viability and success of this project. In design, the site must be pedestrian friendly, while accessible to vehicles. As the node plan represents, adjacent streetscape improvements will provide aesthetic improvement as well as pedestrian connectivity along the corridor and into the adjacent neighborhoods and developments. An overhead transmission line impacts the site. Transportation planning and improvements to JCB and Oakbrook Parkway, as well as the transit orientation, will be essential to the marketability of this space.

Pedestrian Corridor Implementation projects

Jimmy Carter Boulevard from I85 to Live Oak

Streetscape and pedestrian improvements for both sides of JCB including patterned or paver-banded sidewalk; decorative pedestrian-scale lighting; transit adaptations; accessible features; site furniture for pedestrian and bicycle use; striped or paver pedestrian crosswalks; traffic and parking lot separation for pedestrians; pedestrian improvements to Oakbrook Parkway intersection and Live Oak Parkway intersection; and tree, shrub, and ground cover plantings. This description and the implementation estimate does not include pedestrian improvements to the I85 bridge. Utility relocation or undergrounding is not included.

Jimmy Carter Boulevard from Singleton to Live Oak

Streetscape and pedestrian improvements for one side (west) of JCB including a paver-banded sidewalk; decorative pedestrian-scale lighting; transit adaptations; accessible features; site furniture for pedestrian and bicycle use; striped or paver pedestrian crosswalks; pedestrian improvements at Singleton intersection; and tree, shrub, and ground cover plantings. Utility relocation or undergrounding is not included.

Jimmy Carter Boulevard from N. Norcross to I85

Streetscape and pedestrian improvements for both sides of JCB including patterned or paver-banded sidewalk; decorative pedestrian-scale lighting; transit adaptations; accessible features; site furniture for pedestrian and bicycle use; striped or paver pedestrian crosswalks; decorative walls; traffic and parking lot separation for pedestrians; pedestrian improvements to N. Norcross Road intersection and Brook Hollow Parkway; and tree, shrub, and ground cover plantings. This description and the implementation estimate does not include pedestrian improvements to the I85 bridge. Utility relocation or undergrounding is not included.





Jimmy Carter Boulevard from Buford Highway to N. Norcross Road

Streetscape and pedestrian improvements for one side (west) of JCB including a paver-banded sidewalk; decorative pedestrian-scale lighting; transit adaptations; accessible features; site furniture for pedestrian and bicycle use; striped or paver pedestrian crosswalks; traffic separation for pedestrians; decorative walls; pedestrian improvements to Buford Highway intersection and pedestrian crossings at Best Friend Road and Northbelt Drive; and tree, shrub, and ground cover plantings. Utility relocation or undergrounding is not included.

Bicycle/Pedestrian

Power Easement linear park connecting Best Friend Park to neighborhoods and business district.

The intent is to construct an accessible paved walkway surface as a 12' curvilinear path with massed or linear tree plantings where they do not conflict with visibility or overhead transmission lines or other design matters. Pedestrian scale security lighting is to be located at nodes or locations to be determined. The design shall be "park-like", and maintained as an attractive but low-management landscape.

The Design Charrette

On Wednesday, August 23, 2006 from 6:30 pm to 9:30 pm, the Gwinnett Village CID hosted an open design charrette for residents, business owners and stakeholders along the corridor. This interactive workshop began by orienting the attendees to the particular study area and a brief overview of the findings of the corridor's market analysis.

The intention of the workshop was to guide the participants as they literally and figuratively mapped out the future of this portion of Jimmy Carter Boulevard. Land use was addressed, both in the sense of what should change and what should remain. Likewise, the need for open space was considered, and the community members examined strategies for increasing the greenspace available within the study area. Transportation issues were looked at, not just in terms of automobile traffic, but pedestrian and bicycle traffic as well. Extending light rail service into the corridor was a popular concept among the participants. Participants suggested greenways and sidewalks to connect neighborhoods and businesses, as well as the development of additional overpass opportunities to provide an alternative to the heavily congested Jimmy Carter overpass.



Finally, the attendees took part in what is known as a Development layout and character exercise. Three potential development nodes were parsed in detail,



with a desired redevelopment expressed with different scenarios provided to the participants, showing layout and density. The participants also chose the development character/look that they thought was best for redevelopment in the corridor.

One week later, the participants reconvened to review the results of their input and consider an initial draft of the Framework Plan and Development Diagrams based on that input and commentary. The consulting team then took the input from the workshop and the comments from the review and compiled the plans and diagrams that can be found in this report.

The following are among a few of the participants' comments and recommendations they feel are important for the future of the Jimmy Carter Boulevard corridor:

- Redevelopment (OFS & Carter Oak Plaza) is important to the viability of the corridor
- Redevelopment should include greenways, parks, public transit, residential, & commercial
- Encourage more residential development
- Preserve and add greenspace
- Better Code Enforcement
- Connect light rail from Doraville station out to corridor
- Improved pedestrian facilities
- I-85 Interchange Improvements
- Improve signal timing throughout the corridor
- Additional Overpass over I-85
- Truck only access to I-85

Regulatory Framework

Gwinnett County and the City of Norcross regulate development through the use of zoning. While each jurisdiction uses a comprehensive plan for overall development, the specific development standards are contained in the Zoning Resolution. The Zoning Resolution regulates such things as the size and height of buildings, housing units and lots, as well as specific types of uses permitted in the various zoning districts.

Gwinnett County has recently adopted two new zoning classifications intended to promote the development of properties in a manner that integrates land uses, promotes pedestrian accessibility among uses, reduces automobile trips, provides a livable environment for project residents, and enhances the value and aesthetics of the surrounding community. The High Rise Residential (HRR) and the Mixed-Use Development (MUD) zoning classifications are only applicable to development within a Major Activity Center. According to the 2005 Gwinnett County Area Plan Policy Map, the entire unincorporated portion of the





Jimmy Carter Boulevard corridor is identified as a major activity center. Major activity centers are located in the more intense developed areas of the county such as the Jimmy Carter Boulevard Corridor.

The Revitalization Task Force

Gwinnett County Board of Commissioners appointed stakeholders to serve on the Revitalization Task Force and were given the assignment to study the aging communities in Gwinnett County and establish a set of recommendations to enhance the county's aging built environment. In March of 2005, the Gwinnett County Revitalization Task Force presented its final report to the County Commissioners. The Task Force study's intention was to improve the long term economic viability of revitalization areas and to protect the commercial corridors and single-family neighborhoods from declining property values.

The Task Force, charged with creating strategies for redeveloping stagnating portions of Gwinnett County, identified three specific areas: Stone Mountain Hwy 78, Gwinnett Place Mall, and Beaver Ruin/Singleton/Jimmy Carter Blvd area. The Jimmy Carter Boulevard Corridor was included in the Beaver Ruin Pilot Study. The Executive Summary outlined key recommendations, most of which are applicable to the corridor. Among these:

- Create a Protection Zone around each revitalization area to protect surrounding residential areas from intrusion of higher intensity redevelopment.
- The assessment and development of regulations that can accommodate mixed-use development with higher densities, variety of price points and oriented to the pedestrian.
- Strengthen the code enforcement process by increasing focus and resources in designated revitalization areas.
- Incentives offset the higher cost of "brownfield" and "greyfield" development versus the traditional suburban "greenfield" development. Using capital improvements to add value to the infrastructure, and allowing increased density, thereby creating incentives that foster redevelopment.
- Leverage the diverse populations and the businesses located in the revitalization area to benefit these areas and the County as a whole. The cultural diversity is an asset that should be capitalized on and promoted.
- Protect greenspace, build trails and greenways, acquire and create additional parks and recreational facilities.
- Improve pedestrian and vehicular mobility.

Beyond the key recommendations, the Revitalization Task Force examined the Beaver Ruin/Singleton Road/Jimmy Carter Blvd area in detail. The results of this study yielded more detailed recommendations. Among these:

- Protect, revitalize and stabilize neighborhoods.
- Use a market-based approach to revitalize commercial areas and positively impact adjacent neighborhoods.





- Support economically viable neighborhood commercial uses.
- Increase open space and recreational opportunities to enhance neighborhood value and quality of life.
- Provide a balanced transportation system that includes adequate vehicular, pedestrian, transit, and bicycle facilities.
- Support a safe and secure environment.
- Ensure adequate water and sewer improvements to support revitalization efforts.
- Create Revitalization Zoning Districts. These are 'parallel' codes that are optional to the owner, and encourage redevelopment with more density and a mix of uses.

The recommendations outlined by the Task Force are very much in line with the plan outlined by this corridor study, both in philosophy and specifics. The focus is on fostering smart-growth, mixed-use, transit-supportive redevelopment along the corridor, with the end goal of improving the quality of life for all who live, work and play along Jimmy Carter Boulevard.





TRANSPORTATION ANALYSIS

The Jimmy Carter Boulevard Corridor Study addresses principal access management issues and provides the development of improvement recommendations for a portion of Jimmy Carter Boulevard from Buford Highway to Singleton Road. The study corridor is a 2.4-mile segment that includes properties within approximately ¼-mile on each side of the road, as illustrated on Figure 1. Jimmy Carter Boulevard functions as a regional commuter roadway for traffic traveling within Gwinnett County and has developed with a mixture of uses that contains commercial, industrial, office and residential properties. Improvements within the study corridor are intended to enhance mobility and safety by providing various transportation choices. Furthermore, this portion of the study will compliment other improvements that have been developed to address the redevelopment of underutilized properties, the incorporation of balanced mixed-use development with housing alternatives, office uses, open space and the stabilization of existing residential neighborhoods.

Project Overview

As discussed earlier, Jimmy Carter Boulevard was once a vibrant corridor that experienced explosive growth during the late seventies and into the eighties. However, as time progressed, newer development began to occur north of Jimmy Carter Boulevard, in search for larger properties with more modern infrastructure. This shift in the growth pattern has left the study area corridor with the unique task of revitalization and redevelopment. Much different than that of the late seventies and early eighties, today's study area faces challenges such as aging or lack of infrastructure, vacant shopping centers, low home-ownership rates, ethnic diversity, security and increased traffic congestion. This portion of the study is intended to provide "Access Management" for Jimmy Carter Boulevard by focusing on driver safety, motorist delay and roadway capacity.

By the year 1987, traffic congestion along Jimmy Carter Boulevard was a major issue in Gwinnett County and it was in this year that the Gwinnett County Board of Commissioners approved the installation of a concrete median. The concrete median was as an effort to solve the traffic problem by improving traffic flow and eliminating left-turn crashes. However, traffic congestion along Jimmy Carter Boulevard has continued to increase and the median has become known as the "Great Wall of Gwinnett" by local residents and business owners. The current trend of disinvestment along the study corridor may be alleviated by utilizing principles of access management.





Gwinnett Village
Community Improvement District

<Insert Figure 1>





Study Approach

PBS&J based the following Access Management Plan on three basic elements for the Jimmy Carter Boulevard Corridor Study. Improvement strategies that were applied include the following techniques:

- **Signal Coordination** – coordinating signals at intersections improves traffic flow; thereby, preserving capacity and minimizing delay.
- **Driveway Management** – modifying, sharing and closing access driveways reduce conflicts and vehicular crashes.
- **Alternative Access** – because of the necessity to close certain access driveways, alternative access locations from side streets can be a viable option.

These techniques are technical solutions to problems that can be identified through a process of data collection, analysis, solutions and recommendations. An extremely important component of the Access Management Plan is an intensive public and stakeholder program. The Jimmy Carter Boulevard Corridor Study implemented an outreach program that focused on obtaining comments and feedback on existing conditions and future actions. The outreach program concentrated on the following components:

- **Information** – a name and graphic identity was developed for the project corridor, so that press releases, direct mail, meeting notices, project bulletins and newsletters could be easily associated with the study by citizens and business owners/operators.
- **Innovation** – contact with business owners to identify traffic operations and safety issues to owners and record their perceptions of access problems. Follow-up sessions and personal contacts made to discuss and understand business issues and concerns.
- **Involvement** – the involvement of public and private interests was encouraged through public meetings, surveys, and a study specific email address.
- **Integration** – community input and feedback were evaluated and incorporated throughout the technical process to assure the best possible basis upon which to make recommendations.

Plan Elements

The development and implementation of access management principles involves several key elements. High among this list of elements is safety. There is a direct correlation between the number of accidents and their locations with the reduction of speed. The inattentiveness of drivers following vehicles that are slow to enter driveways create conditions that promote rear-





end type collisions. Similarly, left-turning vehicles slowing to enter the existing reversible lane system risk rear-end collisions and potential collisions with traffic approaching from the opposite direction. Drivers are required to be very cautious as they try to find gaps in the opposing traffic stream to cross three lanes of traffic. A portion of this safety issue has been corrected with the installation of a median; however, another solution to mitigating these types of speed differential conditions is the reduction of conflict points through a consolidation of access drives.

Another element worthy of consideration is the relationship of roadway capacity and motorist delay. The effect of left-turns on the main traffic stream can be determined by performing a thorough traffic operations analysis. The existing median should provide for intersection channelization that will work to provide refuge for turning vehicles; thereby, reducing speed differentials along the corridor. Roadways that operate at efficient capacities also experience a reduction in delay. Another benefit of the existing median, works for pedestrians who are faced with crossing six lanes of traffic, particularly at unsignalized intersections. Pedestrian crossings will be able to be performed in two stages, taking refuge in the intersection medians.

Consolidating, sharing and closing access drives will result in fewer left-turns and will significantly reduce the number of potential conflicts. Various access driveway locations have been modified to provide opportunities for right-in/right-out only movements. The social and economic impacts of any treatment to an access driveway location should be considered. Vital concerns for any driveway modification are the effects that such a treatment may have on businesses, access by emergency vehicles, community connectivity and the maintenance of traffic.

Existing Conditions

Jimmy Carter Boulevard is a principal urban arterial in Gwinnett County, Georgia. The facility provides access to the City of Norcross from neighboring communities and beyond and it's proximity to Interstate 85 makes it a highly utilized commuter roadway. Most of the properties along the corridor are highly commercialized and have direct access to Jimmy Carter Boulevard. Most of the turning movements from these properties are restricted to right-in/right-out movements only due to an existing median. As traffic conditions have worsened over the years, there has been a loss of mobility along Jimmy Carter Boulevard. This report will document the existing mobility, access and safety conditions along the study area corridor between Buford Highway and Singleton Road.

The study work plan called for compiling existing traffic, land use and roadway data. Aerial photography of the corridor was obtained and utilized in the capacity of a base map. The aerial provided a framework for identifying roadway geometry, existing land use patterns and adjacent property access conditions. Current and future land uses in the corridor were identified using Gwinnett County's Comprehensive Land Use Plan. Traffic counts were taken at twenty-two (22) key intersections between September 19th and September 21, 2006. Detailed traffic counts are provided in Appendix A. The existing traffic volumes and geometric configurations of each intersection are summarized on Figures 2 through 9.





Weekday turning movement counts were taken during the morning and evening peak hours at the following intersections:

·Jimmy Carter Blvd @ Singleton Rd	·Jimmy Carter Blvd @ N Norcross Tucker Rd
·Jimmy Carter Blvd @ Haynes Dr	·Jimmy Carter Blvd @ Best Friend Rd
·Jimmy Carter Blvd @ Joseph Way	·Jimmy Carter Blvd @ Northbelt Dr
·Jimmy Carter Blvd @ Live Oak Pkwy	·Jimmy Carter Blvd @ Regency Pkwy
·Jimmy Carter Blvd @ Oakbrook Pkwy/ McDonough Dr	·Jimmy Carter Blvd @ Regency Pkwy NW
·Jimmy Carter Blvd @ I-85 NB Ramp	·Jimmy Carter Blvd @ Buford Hwy
·Jimmy Carter Blvd @ I-85 SB Ramp	·McDonough Dr @ Dawson Blvd
·Jimmy Carter Blvd @ Goshen Springs Rd	·Oakbrook Pkwy @ Live Oak Pkwy
·Jimmy Carter Blvd @ Brook Hollow Pkwy	·Oakbrook Pkwy @ Center Way
·Jimmy Carter Blvd @ Financial Dr	·Center Way @ Goshen Springs Rd
·Jimmy Carter Blvd @ Lanier Blvd	·Center Way @ Brook Hollow Pkwy





Gwinnett Village
Community Improvement District

<Insert Figure 2>





Gwinnett Village
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<Insert Figure 3>





Gwinnett Village
Community Improvement District

<Insert Figure 4>





Gwinnett Village
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<Insert Figure 5>





Gwinnett Village
Community Improvement District

<Insert Figure 6>





Gwinnett Village
Community Improvement District

<Insert Figure 7>





Gwinnett Village
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<Insert Figure 8>





Gwinnett Village
Community Improvement District

<Insert Figure 9>





Additionally, a 24-hour directional tube count was taken along Crescent Drive, just east of Nancy Hanks Dr and vehicular classification counts were taken on each entrance and exit ramp at Interstate 85 and Jimmy Carter Boulevard. The classification counts were utilized to incorporate the percentage of trucks that utilize the study area corridor. These data are also provided in Appendix A.

The physical and traffic data within the corridor served as a basis for evaluating the mobility, access and safety provided by Jimmy Carter Boulevard. The crash patterns were reviewed and crash frequency was compared to statewide averages to establish a relationship for crashes along a principal arterial.

Current and Future Function

As previously mentioned, the Jimmy Carter Boulevard Study Corridor, is a 2.4-mile segment that begins at Buford Highway and terminates at Singleton Road. GDOT classifies this roadway as a principal urban arterial. Currently, this section of the roadway is constructed as a six-lane facility with a concrete median. There are three travel lanes for each direction. Access to the City of Norcross and beyond is provided by traveling west along Jimmy Carter Boulevard, while traveling east provides access to Tucker. The roadway facility has a posted speed limit of 45 miles per hour (mph). Access to Interstate 85 along Jimmy Carter Boulevard is located at exit 99.

Geometric Characteristics

There are ten signalized intersections along the 2.4 mile segment of roadway, which are listed below. The geometric configurations of these intersections were illustrated previously; however, their locations within the Jimmy Carter Boulevard Corridor Study are illustrated on Figure 10.

·Jimmy Carter Blvd @ Buford Hwy	·Jimmy Carter Blvd @ I-85 Northbound Ramp
·Jimmy Carter Blvd @ Best Friend Rd	·Jimmy Carter Blvd @ I-85 Southbound Ramp
·Jimmy Carter Blvd @ N Norcross Tucker Rd	·Jimmy Carter Blvd @ Live Oak Pkwy
·Jimmy Carter Blvd @ Brook Hollow Pkwy	·Jimmy Carter Blvd @ Haynes Dr
·Jimmy Carter Blvd @ Goshen Springs Rd	·Jimmy Carter Blvd @ Haynes Dr



Gwinnett Village
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<Insert Figure 10>





The remaining vehicular movements within the Jimmy Carter Boulevard Corridor Study occur at side streets and access driveways. The minor side streets located within the study area corridor include:

- Regency Pkwy NW
- Regency Pkwy
- Northbelt Dr
- Lanier Blvd
- Financial Dr
- Oakbrook Pkwy
- Joseph Way

There are approximately 69 driveways within the study area corridor that serve retail, office and industrial uses. The minor approaches at these locations are restricted to right-turn movements onto Jimmy Carter Boulevard.

Current and Future Bicycle, Pedestrian and Transit Services

Data pertaining to pedestrian amenities along Jimmy Carter Boulevard were obtained through the collection of field data and aerial photographs. Specifically, pedestrian crossings and sidewalks were identified to allow for future provisions. Currently, there are seventeen (17) major intersections along Jimmy Carter Boulevard and only eight (8) of these intersections are constructed with cross-walks. These intersections are listed below and have been further illustrated on Figure 11. Pedestrian crossing upgrades should be incorporated into the study area corridor for the safe and efficient movement of pedestrians.

- Jimmy Carter Blvd @ Buford Hwy
- Jimmy Carter Blvd @ Best Friend Rd
- Jimmy Carter Blvd @ North Norcross Tucker Rd
- Jimmy Carter Blvd @ I-85 Southbound Ramp
- Jimmy Carter Blvd @ I-85 Northbound Ramp
- Jimmy Carter Blvd @ Live Oak Pkwy
- Jimmy Carter Blvd @ Joseph Way
- Jimmy Carter Blvd @ Singleton



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<Insert Figure 11>





An inventory of the sidewalks for the study area corridor has revealed that there is a need for pedestrian connectivity. The majority of the existing sidewalks within the study area corridor are located east of Interstate 85 between Oakbrook Parkway and Singleton Road. The only sidewalk located west of Interstate 85 along Jimmy Carter Boulevard is south of Jimmy Carter Boulevard, between Best Friend Road and North Norcross Tucker Road. As one can see from Figure 11, footpaths have indicated opportunities for additional pedestrian connectivity.

Pedestrian travel is often complimented with the use of transit. Currently, Gwinnett County serves the study area corridor through their local bus route system. As illustrated on Figure 12, Route 20 serves areas within the study area corridor, both east and west of the Interstate.

Current and Future Traffic Operational Data and Projections

Traffic volumes provide the basis for much of the analysis in assessing existing and future traffic conditions. The study methodology for the Jimmy Carter Boulevard Corridor Study included the following tasks:

1. Utilize the traffic simulation model CORSIM to evaluate the existing operating conditions within the study corridor area to establish the baseline condition.
2. Use the traffic analysis software CORSIM to evaluate operating conditions in the study corridor area using 2026 background traffic growth.
3. Use traffic analysis results to identify any necessary roadway system enhancements.

Micro-Simulation Model

Capacity analysis procedures for the Jimmy Carter Boulevard Corridor Study have been performed using the traffic simulation software CORSIM, version 5.1 and the **2000 Highway Capacity Manual**. CORSIM is a computer model developed by the Federal Highway Administration (FHWA) that simulates traffic and monitors the status of each vehicle as it travels through the network. CORSIM tabulates the average delay per vehicle at each intersection within the study area that is used to provide a level of service (LOS) for each approach and intersection. The CORSIM model provided the most accurate tool for assessing traffic operations along the corridor.



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<Insert Figure 12>





Level of Service

LOS is a measure used to describe traffic operations that translates traffic conditions into a letter grade ranging from A to F. Figure 13, which is based on the **2000 Highway Capacity Manual**, illustrates and describes each LOS and lists the criteria used in their determination. The average vehicle delay at each intersection is calculated by CORSIM and then translated to LOS.

Existing Traffic Operations

A CORSIM analysis was performed for the existing conditions. The results from CORSIM provided the LOS determination for the signalized and un-signalized intersections within the study area corridor. These results are summarized in Table 1.

The analysis for the subject property will assume that a LOS D or better will be considered adequate (or acceptable) for the roadways within the study area. It should be noted that when completing traffic analysis for a project within an urban area, a LOS D or better is considered adequate or acceptable. Levels of service worse than LOS D would indicate that an intersection or approach is approaching capacity and cannot accommodate substantial increases in traffic without substantial increases in congestion and delay. Table 1 reveals that several intersections are not currently operating at an acceptable level of service during the am and pm peak periods.

Since a project is currently underway to coordinate the signals along Jimmy Carter Boulevard, signal timing for the intersections in the study area was adjusted to minimize delay. Existing conditions based on signal timing currently in place will have significantly more delay and congestion. The LOS shown in Table 1 is representative of what will occur along the corridor after the signals have been coordinated and optimized.





Gwinnett Village
Community Improvement District

<Insert Figure 13>





Table 1
2006 Existing Intersection Analysis

Intersection	Approach	Period Analyzed	
		AM	PM
Intersection #1 Jimmy Carter Blvd @ Singleton Rd	Northbound	C	C
	Southbound	C	F
	Eastbound	D	D
	Westbound	E	D
	Intersection Total:	C	E
Intersection #2 Jimmy Carter Boulevard @Hayes Drive	Northbound	B	A
	Southbound	A	C
	Eastbound	C	D
	Westbound	B	C
	Intersection Total:	B	B
Intersection #3 Jimmy Carter Boulevard @Joseph Way	Eastbound	A	F
	Intersection Total	A	F
Intersection #4 Jimmy Carter Boulevard @Live Oak Parkway	Northbound	C	B
	Southbound	C	F
	Eastbound	C	D
	Westbound	C	D
	Intersection Total	C	D
Intersection #5 Jimmy Carter Boulevard @Oakbrook Parkway	Eastbound	A	F
	Intersection Total:	A	F
Intersection #6 Jimmy Carter Boulevard @I-85 Northbound Ramps	Northbound	D	E
	Southbound	B	C
	Eastbound	B	B
	Intersection Total:	D	D
Intersection #7 Jimmy Carter Boulevard @I-85 Southbound Ramps	Northbound	B	C
	Southbound	C	D
	Westbound	B	C
	Intersection Total:	B	C
Intersection #8 Jimmy Carter Boulevard @ Goshen Springs Road	Northbound	B	D
	Southbound	A	B
	Eastbound	B	C
	Westbound	C	C
	Intersection Total:	B	C
Intersection #9 Jimmy Carter Boulevard @ Brook Hollow Parkway	Northbound	D	C
	Southbound	C	D
	Eastbound	C	F
	Westbound	C	C
	Intersection Total:	C	E
Intersection #10 Jimmy Carter Boulevard @ Financial Drive	Westbound	B	A
	Intersection Total:	B	A
Intersection #11 Jimmy Carter Boulevard @ Lanier Boulevard	Westbound	B	A
	Intersection Total:	B	A



Table 1 continued
2006 Existing Intersection Analysis

Intersection	Approach	Period Analyzed	
		AM	PM
Intersection #12 Jimmy Carter Boulevard @ North Norcross Tucker Road	Northbound	C	D
	Southbound	B	B
	Eastbound	C	D
	Westbound	D	D
	Intersection Total:	C	C
Intersection #13 Jimmy Carter Boulevard @ Best Friend Road	Northbound	B	D
	Southbound	B	A
	Eastbound	C	C
	Westbound	B	C
	Intersection Total:	B	B
Intersection #14 Jimmy Carter Boulevard @ Northbelt Drive	Westbound	A	A
	Intersection Total:	A	A
Intersection #15 Jimmy Carter Boulevard @ Regency Parkway (South)	Northbound	A	A
	Eastbound	A	C
	Intersection Total:	A	C
Intersection #16 Jimmy Carter Boulevard @ Regency Parkway (North)	Northbound	A	A
	Eastbound	A	A
	Intersection Total:	A	A
Intersection #17 Jimmy Carter Boulevard @ Buford Highway	Northbound	B	C
	Southbound	D	D
	Eastbound	F	D
	Westbound	D	C
	Intersection Total:	E	D
Intersection #18 McDonough Drive @ Dawson Boulevard	Northbound	A	A
	Southbound	A	B
	Eastbound	A	A
	Westbound	A	A
	Intersection Total:	A	A
Intersection #19 Oakbrook Parkway @ Live Oak Parkway	Northbound	A	A
	Westbound	A	A
	Intersection Total:	A	A
Intersection #20 Oakbrook Parkway @ Center Way	Northbound	B	B
	Southbound	A	B
	Eastbound	B	B
	Westbound	A	A
	Intersection Total:	B	B
Intersection #21 Goshen Springs Road @ Center Way	Eastbound	A	A
	Intersection Total:	A	A
Intersection #22 Brook Hollow Parkway @ Center Way	Northbound	A	B
	Southbound	C	C
	Eastbound	B	C
	Westbound	B	C
	Intersection Total:	B	C



Future traffic volumes along Jimmy Carter Boulevard were developed for the year 2026 in the study area using an annual growth rate of one and a half percent. This growth rate was also used for volumes on Buford Highway. Other future traffic volumes in the study area were developed using a growth rate of one percent. These growth rates were developed by analyzing historical volumes at four GDOT count stations along Jimmy Carter Boulevard within the study area. Future traffic volumes are shown on Figure 13.

The CORSIM analysis of future traffic volumes show that there is significant delay and congestion along Jimmy Carter Boulevard. Since there currently are not any planned capacity improvements in the study area, traffic volumes will exceed the capacity of the roadway and in many cases, gridlock will occur. Of the 23 intersections in the study area, five would operate at LOS E or F in the am peak period and 12 would operate at LOS E or F in the pm peak period. In this scenario, demand exceeds capacity of the network.

Clearly, something must be done to insure mobility along Jimmy Carter Boulevard, however, existing development makes widening the roadway to eight lanes (four in each direction) an extremely costly alternative. Table 2 shows the corresponding LOS for the am and pm peak periods for the intersections analyzed in the study area based on 2026 future volumes without any capacity improvements.

The following improvements were proposed to improve mobility in the study area:

Jimmy Carter Boulevard at Singleton Road

- Northbound
 - Add an additional 300-foot left-turn bay (2 total)
 - Add a 250-foot right turn bay
- Southbound
 - Add a 450-foot right turn bay
- Westbound
 - Add an additional 240-foot left-turn bay (2 total)
 - Add a 200-foot right turn bay

Jimmy Carter Boulevard at Oakbrook Parkway

- Construct lane that allows for westbound traffic on Oakbrook Parkway to enter onto the I-85 northbound ramp without accessing Jimmy Carter Boulevard





Table 2
2026 Future Intersection Analysis

Intersection	Approach	Period Analyzed	
		AM	PM
Intersection #1 Jimmy Carter Boulevard @ Singleton Road	Northbound	F	F
	Southbound	D	F
	Eastbound	D	F
	Westbound	E	D
	Intersection Total:	E	F
Intersection #2 Jimmy Carter Boulevard @ Hayes Drive	Northbound	A	A
	Southbound	A	C
	Eastbound	D	E
	Westbound	A	B
	Intersection Total:	C	D
Intersection #3 Jimmy Carter Boulevard @ Joseph Way	Eastbound	A	F
	Intersection Total	A	F
Intersection #4 Jimmy Carter Boulevard @ Live Oak Parkway	Northbound	C	B
	Southbound	B	E
	Eastbound	D	D
	Westbound	C	D
	Intersection Total	D	D
Intersection #5 Jimmy Carter Boulevard @ Oakbrook Parkway	Eastbound	A	F
	Intersection Total:	A	F
Intersection #6 Jimmy Carter Boulevard @ I-85 Northbound Ramps	Northbound	D	D
	Southbound	D	D
	Eastbound	C	E
	Intersection Total:	D	F
Intersection #7 Jimmy Carter Boulevard @ I-85 Southbound Ramps	Northbound	C	C
	Southbound	C	E
	Westbound	B	C
	Intersection Total:	C	D
Intersection #8 Jimmy Carter Boulevard @ Goshen Springs Road	Northbound	D	B
	Southbound	B	F
	Eastbound	B	D
	Westbound	C	C
	Intersection Total:	C	E
Intersection #9 Jimmy Carter Boulevard @ Brook Hollow Parkway	Northbound	D	C
	Southbound	E	F
	Eastbound	C	F
	Westbound	D	C
	Intersection Total:	D	F
Intersection #10 Jimmy Carter Boulevard @ Financial Drive	Westbound	F	A
	Intersection Total:	F	A
Intersection #11 Jimmy Carter Boulevard @ Lanier Boulevard	Westbound	F	A
	Intersection Total:	F	C



Table 2 continued
2026 Future Intersection Analysis

Intersection	Approach	Period Analyzed	
		AM	PM
Intersection #12 Jimmy Carter Boulevard @ North Norcross Tucker Road	Northbound	D	C
	Southbound	A	F
	Eastbound	C	F
	Westbound	D	F
	Intersection Total:	F	F
Intersection #13 Jimmy Carter Boulevard @ Best Friend Road	Northbound	D	B
	Southbound	C	F
	Eastbound	C	F
	Westbound	C	F
	Intersection Total:	C	F
Intersection #14 Jimmy Carter Boulevard @ Northbelt Drive	Westbound	A	A
	Intersection Total:	A	A
Intersection #15 Jimmy Carter Boulevard @ Regency Parkway (South)	Northbound	A	A
	Eastbound	A	F
	Intersection Total:	A	F
Intersection #16 Jimmy Carter Boulevard @ Regency Parkway (North)	Northbound	A	C
	Eastbound	A	F
	Intersection Total:	B	F
Intersection #17 Jimmy Carter Boulevard @ Buford Highway	Northbound	F	D
	Southbound	C	E
	Eastbound	D	F
	Westbound	F	E
	Intersection Total:	F	F
Intersection #18 McDonough Drive @ Dawson Boulevard	Northbound	A	B
	Southbound	A	B
	Eastbound	A	A
	Westbound	A	B
	Intersection Total:	A	B
Intersection #19 Oakbrook Parkway @ Live Oak Parkway	Northbound	A	A
	Westbound	A	A
	Intersection Total:	A	A
Intersection #20 Oakbrook Parkway @ Center Way	Northbound	B	B
	Southbound	B	B
	Eastbound	B	B
	Westbound	A	A
	Intersection Total:	B	B
Intersection #21 Goshen Springs Road @ Center Way	Eastbound	A	A
	Intersection Total:	A	A
Intersection #22 Brook Hollow Parkway @ Center Way	Northbound	A	B
	Southbound	C	C
	Eastbound	B	D
	Westbound	B	E
	Intersection Total:	B	F



Jimmy Carter Boulevard at I-85 Northbound Ramps

- Southbound
 - Add an additional thru lane (3 total)
 - Add an additional left-turn bay on the bridge (2 total)
- Eastbound
 - Add an additional 550-foot right-turn bay (2 total)
 - Widen the ramp to accommodate three lanes exiting from I-85 prior to the beginning of the turning bays

Jimmy Carter Boulevard at I-85 Southbound Ramps

- Northbound
 - Add an additional thru lane (3 total)
 - Add an additional left-turn bay on the bridge (3 total)
- Eastbound
 - Add an additional 180-foot right-turn bay (2 total)

Jimmy Carter Boulevard at Brook Hollow Parkway

- Southbound
 - Add an additional 500-foot left-turn bay (2 total)

Jimmy Carter Boulevard at North Norcross Tucker Road

- Northbound
 - Add a 400-foot right-turn bay
- Westbound
 - Add an additional left-turn bay (2 total). This new turning bay should be constructed to be 575 feet. The existing turning bay will remain and is 165 feet.
 - Reconfigure the lane that currently serves all movements to only allow thru and right turn traffic.

Jimmy Carter Boulevard at Buford Highway

- Northbound
 - Add an additional 429-foot left-turn bay (2 total)
- Southbound
 - Add a 250-foot right-turn bay

It should be noted that additional improvements to Buford Highway appear to be required to achieve an acceptable LOS in 2026. This would include the widening of Buford Highway to six-lanes (three thru lanes in each direction). Since this is outside of the study area and a logical beginning point and ending point for this widening cannot be established, this will not be further discussed in this report. Such improvements will be studied in greater detail as part of the Atlanta Regional Commission’s Buford Highway Multi-Modal Corridor study to be completed spring 2007. Eastbound thru traffic operates at LOS F in 2026.

The improvements to Jimmy Carter Boulevard at I-85 will require reconstruction or replacement of the bridge. The improvements shown are strictly for planning purposes as this project would require a detailed study that would provide a detailed analysis of specific improvements for this interchange to achieve an acceptable LOS.

Table 3 presents the LOS for the intersections in the study area with these improvements in place. This table presents the LOS with both a 6-lanes and an 8-lanes on Jimmy Carter Boulevard. Since the widening of Jimmy Carter Boulevard is a very extensive and costly project that will take many years to complete, intersections were improved to optimize without this widening. There are several signalized intersections that have a LOS E with a 6-lane



cross section in the year 2026, but none with an LOS F. There are four unsignalized intersections in the year 2026 that will operate at LOS F as the volume flowing on Jimmy Carter Boulevard is so heavy that right turning vehicles can not complete their movement. The only other movements outside of Buford Highway and the unsignalized intersections that operate at LOS F with a 6-lane cross section to Jimmy Carter Boulevard occur at the ramps from I-85. These movements will likely operate at an acceptable LOS once the interchange has been reconstructed.





**Table 3
2026 Future Improved Intersection Analysis**

Intersection	Approach	6-Lanes on JCB		8-Lanes on JCB	
		Period Analyzed		Period Analyzed	
		AM	PM	AM	PM
Intersection #1 Jimmy Carter Boulevard @ Singleton Road	Northbound	E	D	C	C
	Southbound	C	E	C	D
	Eastbound	D	E	D	D
	Westbound	D	D	D	D
	Intersection Total:	E	D	C	D
Intersection #2 Jimmy Carter Boulevard @ Hayes Drive	Northbound	E	A	A	A
	Southbound	A	D	A	B
	Eastbound	C	D	C	D
	Westbound	D	C	C	B
	Intersection Total:	D	D	A	D
Intersection #3 Jimmy Carter Boulevard @ Joseph Way	Eastbound	A	F	A	C
	Intersection Total:	A	F	A	C
Intersection #4 Jimmy Carter Boulevard @ Live Oak Parkway	Northbound	F	A	D	A
	Southbound	B	E	B	C
	Eastbound	D	E	D	D
	Westbound	D	D	D	C
	Intersection Total:	E	E	D	D
Intersection #5 Jimmy Carter Boulevard @ Oakbrook Parkway	Eastbound	A	F	A	B
	Intersection Total:	A	F	A	B
Intersection #6 Jimmy Carter Boulevard @ I-85 Northbound Ramps	Northbound	D	C	D	B
	Southbound	B	B	B	A
	Eastbound	C	F	C	B
	Intersection Total:	C	C	C	C
Intersection #7 Jimmy Carter Boulevard @ I-85 Southbound Ramps	Northbound	B	C	B	C
	Southbound	C	C	C	C
	Westbound	C	C	C	C
	Intersection Total:	C	C	B	C
Intersection #8 Jimmy Carter Boulevard @ Goshen Springs Road	Northbound	D	C	C	C
	Southbound	C	D	B	B
	Eastbound	B	C	C	C
	Westbound	D	C	C	C
	Intersection Total:	D	D	C	B
Intersection #9 Jimmy Carter Boulevard @ Brook Hollow Parkway	Northbound	B	E	D	E
	Southbound	F	F	E	D
	Eastbound	C	E	C	E
	Westbound	D	C	D	C
	Intersection Total:	D	E	D	D
Intersection #10 Jimmy Carter Boulevard @ Financial Drive	Westbound	C	A	C	A
	Intersection Total:	C	A	C	A
Intersection #11 Jimmy Carter Boulevard @ Lanier Boulevard	Westbound	F	C	C	A
	Intersection Total:	F	C	C	A



Table 3 continued
2026 Future Improved Intersection Analysis

Intersection	Approach	6-Lanes on JCB		8-Lanes on JCB	
		Period Analyzed		Period Analyzed	
		AM	PM	AM	PM
Intersection #12 Jimmy Carter Boulevard @ North Norcross Tucker Road	Northbound	D	C	D	D
	Southbound	D	D	A	D
	Eastbound	C	D	C	D
	Westbound	D	C	D	D
	Intersection Total:	D	D	C	D
Intersection #13 Jimmy Carter Boulevard @ Best Friend Road	Northbound	B	D	D	C
	Southbound	A	A	A	A
	Eastbound	C	C	C	D
	Westbound	C	C	C	C
	Intersection Total:	B	C	C	B
Intersection #14 Jimmy Carter Boulevard @ Northbelt Drive	Westbound	F	A	A	A
	Intersection Total:	F	A	A	A
Intersection #15 Jimmy Carter Boulevard @ Regency Parkway (South)	Northbound	A	A	A	A
	Eastbound	C	B	A	B
	Intersection Total:	C	B	A	B
Intersection #16 Jimmy Carter Boulevard @ Regency Parkway (North)	Northbound	C	B	B	A
	Eastbound	F	B	B	C
	Intersection Total:	E	B	D	C
Intersection #17 Jimmy Carter Boulevard @ Buford Highway	Northbound	F	C	C	C
	Southbound	C	D	C	D
	Eastbound	C	F	F	F
	Westbound	D	D	E	C
	Intersection Total:	E	D	E	D
Intersection #18 McDonough Drive @ Dawson Boulevard	Northbound	B	B	A	B
	Southbound	A	B	A	B
	Eastbound	A	A	A	A
	Westbound	A	A	A	A
	Intersection Total:	A	A	A	A
Intersection #19 Oakbrook Parkway @ Live Oak Parkway	Northbound	A	A	A	A
	Westbound	A	A	A	A
	Intersection Total:	A	B	A	B
Intersection #20 Oakbrook Parkway @ Center Way	Northbound	B	B	B	B
	Southbound	B	B	B	C
	Eastbound	B	B	B	B
	Westbound	A	A	A	A
	Intersection Total:	B	B	B	B
Intersection #21 Goshen Springs Road @ Center Way	Eastbound	A	A	A	A
	Intersection Total:	A	C	A	A
Intersection #22 Brook Hollow Parkway @ Center Way	Northbound	A	C	A	C
	Southbound	C	C	C	D
	Eastbound	E	C	C	C
	Westbound	B	C	B	C
	Intersection Total:	C	C	B	C



One other alternative that was evaluated for the study corridor was the removing of truck traffic. This option was studied for the PM peak period only since the level of congestion in this period was significantly higher than in the AM peak period. Table 4 compares the LOS at the intersections with and without trucks. Jimmy Carter Boulevard was evaluated as a 6-lane roadway.





Table 4
2026 Future Improved Intersection Comparison With and Without Trucks

Intersection	Approach	With Trucks on JCB		Without Trucks on JCB	
		Period Analyzed		Period Analyzed	
		AM	PM	AM	PM
Intersection #1 Jimmy Carter Boulevard @ Singleton Road	Northbound	E	D		C
	Southbound	C	E		E
	Eastbound	D	E		E
	Westbound	D	D		D
	Intersection Total:	E	D		D
Intersection #2 Jimmy Carter Boulevard @ Hayes Drive	Northbound	E	A		A
	Southbound	A	D		C
	Eastbound	C	D		D
	Westbound	D	C		D
	Intersection Total:	D	D		B
Intersection #3 Jimmy Carter Boulevard @ Joseph Way	Eastbound	A	F		F
	Intersection Total:	A	F		F
Intersection #4 Jimmy Carter Boulevard @ Live Oak Parkway	Northbound	F	A		A
	Southbound	B	E		E
	Eastbound	D	E		E
	Westbound	D	D		D
	Intersection Total:	E	E		D
Intersection #5 Jimmy Carter Boulevard @ Oakbrook Parkway	Eastbound	A	F		F
	Intersection Total:	A	F		F
Intersection #6 Jimmy Carter Boulevard @ I-85 Northbound Ramps	Northbound	D	C		B
	Southbound	B	B		B
	Eastbound	C	F		E
	Intersection Total:	C	C		C
Intersection #7 Jimmy Carter Boulevard @ I-85 Southbound Ramps	Northbound	B	C		C
	Southbound	C	C		C
	Westbound	C	C		C
	Intersection Total:	C	C		C
Intersection #8 Jimmy Carter Boulevard @ Goshen Springs Road	Northbound	D	C		C
	Southbound	C	D		D
	Eastbound	B	C		C
	Westbound	D	C		C
	Intersection Total:	D	D		D
Intersection #9 Jimmy Carter Boulevard @ Brook Hollow Parkway	Northbound	B	E		E
	Southbound	F	F		E
	Eastbound	C	E		E
	Westbound	D	C		C
	Intersection Total:	D	E		E
Intersection #10 Jimmy Carter Boulevard @ Financial Drive	Westbound	C	A		A
	Intersection Total:	C	A		A
Intersection #11 Jimmy Carter Boulevard @ Lanier Boulevard	Westbound	F	C		B
	Intersection Total:	F	C		B



Table 4 continued
2026 Future Improved Intersection Comparison With and Without Trucks

Intersection	Approach	With Trucks on JCB		Without Trucks on JCB	
		Period Analyzed		Period Analyzed	
		AM	PM	AM	PM
Intersection #12 Jimmy Carter Boulevard @ North Norcross Tucker Road	Northbound	D	C		C
	Southbound	D	D		C
	Eastbound	C	D		D
	Westbound	D	C		D
	Intersection Total:	D	D		C
Intersection #13 Jimmy Carter Boulevard @ Best Friend Road	Northbound	B	D		D
	Southbound	A	A		A
	Eastbound	C	C		C
	Westbound	C	C		C
	Intersection Total:	B	C		B
Intersection #14 Jimmy Carter Boulevard @ Northbelt Drive	Westbound	F	A		A
	Intersection Total:	F	A		A
Intersection #15 Jimmy Carter Boulevard @ Regency Parkway (South)	Northbound	A	A		A
	Eastbound	C	B		B
	Intersection Total:	C	B		B
Intersection #16 Jimmy Carter Boulevard @ Regency Parkway (North)	Northbound	C	B		B
	Eastbound	F	B		C
	Intersection Total:	E	B		B
Intersection #17 Jimmy Carter Boulevard @ Buford Highway	Northbound	F	C		C
	Southbound	C	D		D
	Eastbound	C	F		D
	Westbound	D	D		C
	Intersection Total:	E	D		D
Intersection #18 McDonough Drive @ Dawson Boulevard	Northbound	B	B		B
	Southbound	A	B		B
	Eastbound	A	A		A
	Westbound	A	A		A
	Intersection Total:	A	A		A
Intersection #19 Oakbrook Parkway @ Live Oak Parkway	Northbound	A	A		A
	Westbound	A	A		B
	Intersection Total:	A	B		A
Intersection #20 Oakbrook Parkway @ Center Way	Northbound	B	B		B
	Southbound	B	B		C
	Eastbound	B	B		B
	Westbound	A	A		A
	Intersection Total:	B	B		B
Intersection #21 Goshen Springs Road @ Center Way	Eastbound	A	A		A
	Intersection Total:	A	C		A
Intersection #22 Brook Hollow Parkway @ Center Way	Northbound	A	C		C
	Southbound	C	C		C
	Eastbound	E	C		B
	Westbound	B	C		C
	Intersection Total:	C	C		C



Traffic Safety

In a study just completed for Gwinnett County, three intersections on Jimmy Carter Boulevard in the study area ranked in the top ten high crash intersections. These intersections and their corresponding rank by number of crashes are: Jimmy Carter Boulevard at Buford Highway (1), Jimmy Carter Boulevard at Singleton Road (2), and Jimmy Carter Boulevard at Dawson Boulevard (4). An analysis of pedestrian related crashes identified two intersections on Jimmy Carter Boulevard as "Hot Spots" in Gwinnett County. These intersections are Jimmy Carter Boulevard at Singleton Road and Jimmy Carter Boulevard at North Norcross Tucker Road. This report also identified four segments on Jimmy Carter Boulevard in the top ten locations for commercial vehicle related crashes. All four of these segments on Jimmy Carter Boulevard are between Buford Highway and I-85.

There are currently no safety related projects planned along the study corridor. Crash data that has been obtained from the GDOT has revealed that safety is an issue within the Jimmy Carter Boulevard Corridor Study boundary. Crash rates for intersections in study corridor for the years 2002 through 2005 were summarized in Table 5. There were 2,361 crashes at the intersections in the study area over the four year period. In these crashes, there were 635 injuries and 8 fatalities.

As the number of access points along a highway increase, the potential for accidents also increase. The crash statistics that were analyzed included the date of crash, location, type of collision and the severity of the collision. The types of collisions that occurred within the Jimmy Carter Boulevard Corridor Study Boundaries are also revealed in the Table 5.

As one can see from the table, the primary crash experience within the corridor have been the rear-end type collisions. These types of collisions account for over half of all accidents and five of the eight fatalities in the study period. Rear-end type collisions can be attributed to many factors. Start and stop vehicle queues, extending back from adjacent intersections, contribute to rear-end accidents. Speed differentials between through traffic and traffic turning into driveways also contribute to this type of accident. Driveway density within the corridor and crash experience can be directly correlated to rear-end type collisions. As the driveway densities increase, the number of rear-end type collisions also increase.

The secondary type of crash pattern within the corridor has been angle collisions. Angle collisions occur from vehicles turning into oncoming traffic and from lane changes. Another factor attributing to the angle collisions is that left-turn movements are allowed permissively to turn into oncoming traffic, as opposed to turning only within a protected phase. By limiting left-turns at various intersections to protected only turn movements, the angle collision experience could be reduced.





Gwinnett Village
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Gwinnett Village
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Congestion Management Strategies

Jimmy Carter Boulevard has been defined as one of the most congested roadways in Gwinnett County, as defined by the *Selected Data from the 2005-2006 Update Atlanta Region Congestion Management Process*, published in July 2006. There are numerous strategies available, within the *Congestion Management System Update 2004*⁵, which address congestion management system performance measures. These strategies are listed below and their applicability to the Jimmy Carter Boulevard Corridor Study follows.

- TDM Measures
- Traffic Operational Improvements
- HOV Measures
- Transit Capital Improvements
- Transit Operational Improvements
- Non-Motorized Modes of Travel
- Congestion Pricing
- Growth Management
- Access Management
- Incident Management
- Intelligent Transportation Systems
- Capacity Expansion

TDM Measures

Transportation Demand Management (TDM) is a technique of addressing congestion by focusing on the need for a single occupant vehicle. Often, the need for travel, increased vehicular occupancy, and alternative modes of travel are addressed to improve system performance by reducing and/or re-distributing the demand for the single occupant vehicle. This technique for reducing congestion is not applicable for this portion of Jimmy Carter Boulevard, as the corridor is 2.4 miles in length. TDM measures are typically implemented on a regional scale.

Traffic Operational Improvements

Traffic Operational Improvements address the operational efficiency of existing roadway facilities. Improvements made to an existing facility are used to preserve or enhance capacity without constructing additional general purpose lanes. Traffic operational improvements are less costly and more feasible than projects that require new construction. Successful traffic operational improvements require extensive engineering studies that identify the sources of congestion and the application of appropriate engineering criteria and design to address these sources. Traffic operational improvements can include traffic signal improvements, roadway geometric improvements, time-of-day restrictions, ramp metering, commercial vehicle improvements and construction management. With exception to the improvements that involve traffic signals and roadway geometric improvements, the remaining types of traffic operational improvements are effective only at a regional scale.

⁵ Atlanta Regional Congestion Management System Update 2004; Task 4 Technical Memorandum: Development of a CMS Strategy Toolbox for the Atlanta Region, Wilbur Smith Associates, Inc., May 2005.



HOV Measures

High Occupancy Vehicle (HOV) Measures provide travelers with an incentive to avoid the single-occupant vehicle. The purpose of these measures is to reduce the number of vehicle trips within a corridor. Ideally, preferential treatment is given to those vehicles that contain multiple occupants, by providing travel time savings. Common measures include providing dedicated HOV lanes to signal priorities at intersection ramp meters. Due to the length of the Jimmy Carter Boulevard Corridor Study and the limited amount of right-of-way, this form of congestion management is not applicable.

Transit Capital Improvements

Public Transit Capital Improvements involve physical improvements solely for transit services. Transit ridership can be enhanced by improving transit infrastructure and/or vehicles. Ideally, improvements made to an existing transit system would reduce the number of vehicle trips made within a corridor. This strategy may be applicable due to the current local bus service provided by Gwinnett County.

Transit Operational Improvements

Transit Operational Improvements are aimed at improving the distribution and level of service of an existing transit system. These improvements can include changes to routes and schedules, along with strategies that would enhance the comfort, reliability and safety of an existing system. Once again, this strategy may be applicable due to Gwinnett Transit's local bus service.

Measures to Encourage the Use of Non-motorized Modes

Non-motorized modes of travel, primarily bicycle and pedestrian travel, address congestion by reducing the numbers of vehicle trips on the roadway. Infrastructure improvements, along with support services can encourage bicycle and pedestrian travel by enhancing the convenience, efficiency and safety for this mode of travel. Specific measures include bicycle paths and lanes, sidewalks, pedestrian signals, bicycle racks and aesthetic improvements. These measures are intended to be applied at facility or corridor levels. This congestion management strategy can be applied to the Jimmy Carter Boulevard Corridor Study.

Congestion Pricing

This strategy, which addresses traffic congestion, is implemented to discourage vehicle travel during peak or congested periods. Direct road user fees or indirect parking fees can be charged at time differentiated rates, unlike a standard toll system. Congestion pricing is intended to reduce congestion by shifting vehicle trips to other times or modes. This strategy may be applied at the corridor level or area wide; however, it does not appear to be an appropriate strategy for the Jimmy Carter Boulevard Corridor. Regionally, a toll system would not be implemented for this 2.4 mile corridor and parking conditions do not permit any opportunities for payment.





Growth Management

Transportation is directly associated with the use of land. The purpose, number and length of vehicle trips are influenced by land use and this particular strategy aims to achieve concurrency between transportation infrastructure and land development. Ideally, environments can be created that are conducive to other modes of travel and have shorter trip lengths. Growth management strategies are generally implemented through land use plans, policies, incentives, regulations and ordinances. Land use has been addressed for the Jimmy Carter Boulevard Corridor Study.

Access Management

Access management techniques are aimed at improving the operational efficiency of a roadway facility without adding lane capacity. Traffic flow and safety can be improved by reducing the friction caused by vehicles entering or exiting a roadway facility. This reduction in friction can be achieved by managing access to and egress from arterial roadways. Implementing access management strategies as part of roadway expansions or reconstruction projects has proven to be very cost-efficient; therefore, this technique of congestion management has been considered. Access management strategies include driveway management, median management and frontage roads.

Incident Management

Approximately 50 to 60 percent of congested expressway vehicle hours for metropolitan areas with a population greater than one million are due to highway incidents (non-recurring events). Incidents can include accidents, disabled vehicles and special events. Non-recurring congestion results because there is a temporary reduction in the effective capacity of a roadway. Incident management techniques work to minimize the duration of this capacity reduction. Measures that address the detection/verification, response and clearance of incidents include surveillance systems, computerized dispatch systems, inter-agency coordination agreements and documented response procedures. Typically, this form of congestion management is applied to an entire roadway facility or on an area-wide basis; therefore, this technique is not applicable to this Corridor Study.

Intelligent Transportation Systems (ITS)

ITS strategies and technique enhancements can be included as congestion management technique along Jimmy Carter Boulevard. These strategies are intended to improve the transportation system efficiency and operation through technology. Specifically, coordinated traffic signals, traveler information systems and variable message signs can be implemented along the Jimmy Carter Boulevard Corridor.

General Purpose Capacity Expansion

Capacity expansion directly addresses congestion through an increase in roadway capacity. Capacity expansion strategies are applied to individual roadways and include the addition of general purpose lanes or the construction of a new roadway facility. The limited right-of-way along Jimmy Carter Boulevard makes this congestion management technique difficult to implement.

The concept was considered to add new bridges spanning I-85 to the north and south of Jimmy Carter Boulevard. This would lessen the congestion at the





interchange of Jimmy Carter Boulevard and I-85, but it is unlikely that the decrease in volume would reach a level where the existing capacity of the interchange would be adequate. This concept does warrant further study and it is recommended that these bridges be studied further through a feasibility study to determine precise benefits and costs.

These strategies have been inventoried in Table 6, which provides the anticipated level of impact for each congestion management strategy, along with their applicability to the Access Management Plan.

Table 6
Relevant Congestion Management Strategies

CMS Strategy	Level of Impact			Applicable	Not Applicable	Reason
	Facility	Corridor	Regional			
Transportation Demand Management (TDM) Measures			•		✓	Typically implemented on a regional scale
Traffic Operational Improvements	•			✓		Optimization of signal locations and intersection geometrics
Measures to encourage high occupancy vehicle (HOV) use		•	•		✓	Typically implemented on a regional scale
Transit Capital Improvements		•	•		✓	Local Bus Service amenities can be enhanced
Transit Operational Improvements		•	•		✓	Local Bus Service routes can be enhanced
Measures to encourage the use of non-motorized modes	•			✓		Provision of pedestrian amenities
Congestion Pricing		•	•		✓	Typically implemented on a larger scale
Growth Management	•	•	•	✓		Land use and transportation have been examined in a coordinated manner
Access Management	•	•	•	✓		Managing ingress and egress along the Corridor is essential
Incident Management		•	•		✓	Typically implemented on a larger scale
Intelligent Transportation Systems (ITS)	•	•	•		✓	Coordinate traffic signals
Capacity Expansion		•	•	✓		Applicable, but limited right-of-way makes it difficult to implement



Access Management Guidelines

Access management is a set of proven techniques that can assist in the reduction of traffic congestion, the preservation of the flow of traffic, the improvement of traffic safety, the reduction of crashes, the preservation of existing road capacity and the preservation of any existing investment in transportation facilities by managing the location, design and type of access to roadways from adjacent properties.

Access management can extend the function of a roadway to move traffic while still assuring safe and reasonable access to adjacent land uses. Characteristics of poor access management for major arterials include driveways located close together and higher than expected crash rates. Access management not only helps where remediation is the only option, but also is effective in avoiding future deficiencies where intensive land development is planned along an arterial, such as the mixed-use development planned at the OFS Brightwave Site, located just north of Crescent Drive.

A planning process that links access management principles with land use and other corridor planning is the best strategy for resolving and meeting present and future transportation corridor needs. Access management is implemented through review of development proposals under local zoning and subdivision regulations, as well as the driveway permit process. It is also implemented through improvements to roadways with specific capital improvements. Table 7 lists some of the measurable benefits of access management

Table 7
Specific Access Management Benefits

No.	Technique	No.	Effect
1	Add two-way left-turn lane	A	35% reduction in total crashes
		B	30% reduction in delay
		C	30% increase in capacity
2	Add non-traversable median	A	Better than 35% reduction in total crashes
		B	Decrease in delay
		C	Increase in capacity
3	Replace two-way left-turn lane with non-traversable median	A	15 to 75% reduction in crashes on four-lane roads
4	Add a left-turn bay	A	25 to 50% reduction in crashes on four-lane roads
		B	Up to 75% reduction in crashes at intersections
		C	25% increase in capacity
5	Raised left-turn bay	A	67% reduction in crashes
6	Painted left-turn bay	A	32% reduction in crashes
7	Add right-turn bay	A	20% reduction in crashes
		B	Increased capacity
8	Increase driveway turning speed from 5 to 10 mph	A	50% reduction in crashes per maneuver
9	Visual cue and illumination at driveways	A	42% reduction in crashes
10	Longer distances between signals	A	42% reduction in total vehicle hours of delay
		B	59% reduction in delay



Major Benefits of Access Management

There are five major benefits of access management:

Access management improves traffic safety and can reduce vehicular crashes. Over two decades of research have shown that access management techniques result in fewer crashes. By reducing the number of conflict points for vehicles and pedestrians and eliminating speed differentials, the number of crashes is reduced.

- Access management results in shorter travel times and reduced travel costs.
- Access management increases or maintains the capacity of roadways. Excessive numbers of driveways cause conflicts and as vehicles slow to turn off of the roadway, they reduce capacity. Based upon studies from the Florida DOT, a four-lane arterial with good access management can accommodate an additional 10,000 ADT at the same level of service as an arterial with no or poor access management.
- Access management enhances the value of private land development and improves access to property. Businesses with safe and easy access are more attractive to shoppers and increase the value of the facilities.
- Access management improves aesthetics of communities. Improved aesthetics are a result of more green space, signs more attractively located, improved demarcation of driveways and pedestrian friendly design.

Design Techniques and Guidelines

The following techniques should be considered when designing solutions to congestion and traffic safety. Some are best used to prevent future traffic problems. Others will be used to mitigate existing problems. A number of these techniques should be used in combination to achieve optimal results.

Three key principals provide the foundations for the driveway and related standards:

- Limit the number of driveways and conflict points
- Separate driveways and other conflict points
- Improve driveway operations (ingress and egress) by fitting the best design to the need

Technique A - Restrict the Number of Driveways per Lot

Driveway density or the number of driveways per linear distance increases significantly as the number of lots per mile increase. When lots of records have more than one driveway, the number of conflicts increases significantly and the number of crashes will increase accordingly.

Access for an individual parcel, lot or building site or for contiguous parcels, lots or building sites under the same ownership should consist of either a



single two-way driveway or a paired system with one driveway to accommodate ingress traffic and the other egress traffic.

For developments that have a combined driveway approach that exceeds 300 vehicles during peak hour of traffic and having no access to a secondary street, a second driveway may be allowed along the major roadway if it meets the spacing requirements listed under Technique B.

The following priority of alternatives should be considered, when necessary, to provide reasonable access to property fronting on arterial roadways:

- One standard, two-way driveway
- Additional ingress/egress lanes on one standard, two-way driveway
- Two one-way driveways
- Additional ingress/egress lanes on two, one-way driveways
- Additional driveway(s) on an abutting street with lower functional classification
- Additional driveway on the arterial street

Additional driveways must meet spacing requirements. Alternative driveway designs should be considered in conjunction with restricted turns and roadway modifications.

Technique B – Encourage Shared Driveways and Adequate Driveway Spacing

Two or more adjacent properties can often share driveways and limit access point to an arterial. Sharing driveways is particularly valuable when lot frontages are narrow and alternative access is not available. Consolidation of driveways on an individual property can greatly improve the ingress and egress for customers, employees and emergency vehicles as well as making it easier and safer for motorists to find the correct driveway. Driveway consolidation also provides for increased parking, reduced signing and enhanced landscape opportunities.

The following driveway spacing criteria are recommended:

- For minor arterial highways, spacing of 330 feet is desirable. In any case, driveways should have a minimum distance of 200 feet between interior edges. Parcels with a frontage of less than 200 feet should share common access or take access from a local street or collector street.
- For a principal arterial highway, driveways should have a minimum separation of 440 feet.
- For sections of roadways where non-traversable medians exist, shorter driveway spacing may be acceptable for right-in, right-out driveways only.

Technique C – Locate Driveways Away from Intersections (Corner Clearance)

The distance between the corner of two public intersections and the next private driveway is defined as corner clearance. Providing acceptable corner clearance eliminates conflicts from the functional area of an intersection.





When corner clearance distances are not sufficient, high crash rates tend to occur and intersection capacity is reduced.

The recommended practice for corner clearances is shown on Table 8.

Technique D – Locate Driveways and Intersections Away from the Functional Areas of Interchanges

For grade-separated facilities adequate distances need to be provided for traffic to make the transition from a road with a high level of access to roads with at-grade access points. The functional area of an interchange is the area at which merging and diverging of traffic takes place. Drivers using ramp access must find acceptable weaves, change lanes and merge within this functional area distance. Desirable conditions would permit a driver to accelerate, merge into the inside lane and then move laterally into the left-turn lane at an existing downstream intersection. The weaving distance can be determined by:

- Conflicting weaving flows; and
- Desired running speed of weaving vehicles





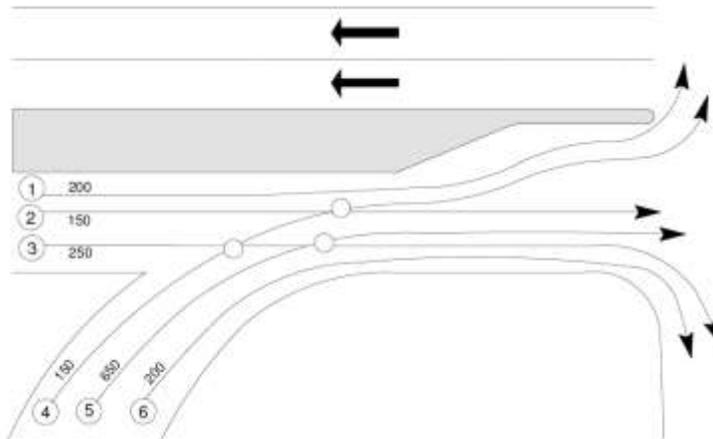
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<Insert Table 8>



The diagram below demonstrates how conflicting movements are determined.

Example of Weave Volumes

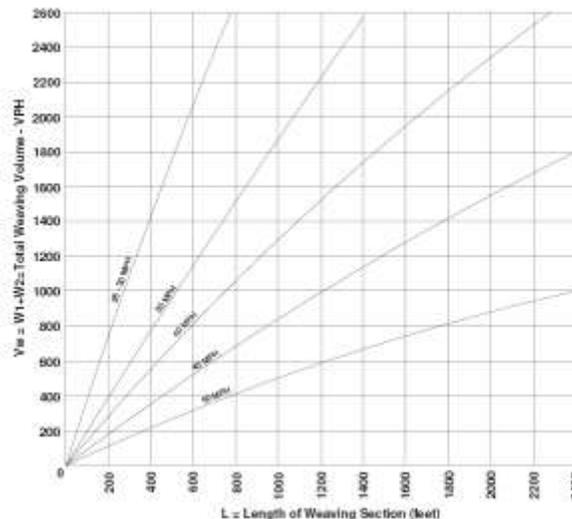


The total volumes for conflicting weave streams are:

<u>Movement</u>	<u>Volume</u>
2	150
3	250
4	150
5	650

The appropriate distance to the first intersection should be based upon FHWA's report "Procedure and Analysis and Design of Weaving Sections". The distance should be based upon the conflicting weaving vehicle flows and the running speeds on the arterials. Typical distances should range from 600 to 1,400 feet as shown in the figure below.

Weaving Section Lengths





Technique E – Provide Adequate Sight Distance

Requirements for safe sight distance are one of the most important access management standards that can be established. Safe sight distance is the distance needed by a driver to verify that the roadway is clear and to avoid conflicts with other vehicles. Clear sight lines should allow the driver to discern when an opening sufficient to safely allow a turn might occur. Maintaining a clear view at street and driveway intersections is important. All structures should be low to the ground and set back an adequate distance to assure a clear view.

The intersection sight distance should be based upon the guidelines shown in Table 9.

**Table 9
Intersection Sight Distance – Divided Arterial**

Operating Speed	Vehicle-to-Vehicle Distance
30	375 feet
35	435 feet
40	500 feet
45	560 feet
50	625 feet
55	690 feet

Technique F – Provide Acceptable Driveway Geometry

Throat Length:

- There should be a minimum of twenty (20) feet of throat length for entering and exiting vehicles at the intersection of a driveway and pavement of the public road or service drive as measured from the edge of pavement.
- For driveways serving between one hundred (100) and four hundred (400) vehicles in the peak hour (two-way traffic volumes) the driveways shall provide at least sixty (60) feet of throat length.
- For driveways serving over four hundred (400) vehicles per hour, throat length should be determined by a traffic study.

Geometry for the throat width, flare angle, radii and slope grade should be based on local or state design standards for driveways.

Technique G – Provide Access to and from Other Roadway Facilities

To the greatest extent possible, access to properties with frontage onto an arterial roadway should be reduced by use of alternative access onto side roads and parallel roadway systems. Construction of a roadway system that runs parallel to the arterial and provides access to the rear of the commercial development will reduce turning volume to and from the arterial. Cross access easements parallel to the arterial street between adjacent properties with compatible uses also reduce the number of turns to and from the arterial street. Parallel streets and easements can be especially beneficial when raised medians that limit turns to right-in and right-out only are considered on the arterial street.

Technique H – Provide Appropriate Signalized Intersection Spacing

The traffic signal spacing standard establishes the distance between signalized at-grade intersections. Adequate spacing preserves the roadway capacity and permits higher speed progressive traffic operations. Also, rear-end collisions are reduced when signals have appropriate spacing. Spacing between signals should not vary by more than 10 percent as indicated in Table 10.

Table 10
Required Signal Spacing for Efficient Traffic Progression

Cycle Length (seconds)	Speed						
	25	30	35	40	45	50	55
	Distance in Feet						
60	1,100	1,320	1,540	1,760	1,960	2,200	2,430
70	1,280	1,540	1,800	2,050	2,310	2,500	2,820
80	1,470	1,750	2,050	2,350	2,640	2,930	3,220
90	1,630	1,980	2,310	2,640	2,970	3,300	3,630
120	2,200	2,640	3,080	3,520	3,950	4,400	4,840
150*	2,750	3,300	3,850	4,400	4,950	5,500	6,050

* Represents maximum cycle length for actuated signal if all phases are fully used. One-half mile (2,64 ft) spacing applies where optimum spacing exceeds one-half mile.

Technique I – Provide Raised Medians

Raised and depressed medians prevent crashes caused by crossover traffic and traffic turning left from through lanes. Separation of left-turning traffic from the through lanes results in higher and more uniform operating speeds. Installation of raised medians generally results in the greatest reduction in crash experience and improvements in operating speeds of any access management strategy on high-volume urban routes. In addition, raised medians provide a safe refuge for pedestrians crossing high volume roadways.

Raised medians with well designed median openings have consistently demonstrated increased safety. Typically, a raised median will reduce accidents by 25 percent or more compared to a multi-lane undivided highway and 15 percent when compared to a continuous two-way left-turn lane.

Generally, the use of raised medians is recommended for routes that exceed an average annual daily traffic of 28,000 and especially where the number of commercial driveways exceeds 24 per mile in both directions. Since it is recognized that economic interests must be balanced with motorist safety, additional public discussion is required prior to considering raised median projects.

Spacing between median openings must be sufficient for adequate left-turn lane lengths and taper lengths between median openings. Where intersections at median openings are likely to be signalized, the spacing between full median openings and signalized intersections should be the same.

Technique J – Provide Well Designed Median Openings



Proper design of median openings and left-turn lanes within raised medians is important to assure that vehicles decelerating and stopped for the median opening have little or no impact on the movement of through traffic. The principal objective is to reduce the frequency and severity of rear-end crashes by eliminating or reducing the speed differential between left-turn vehicles and the through vehicles. There are three critical elements of design for a left-turn lane within a raised median: queue storage, deceleration length and reaction time.

The queue storage length at a minimum should be adequate to handle queued vehicles 90 percent of the time during peak hour, which would typically be about twice the average queue experienced during the peak hour. The minimum length should be 100 feet for uncontrolled intersections to provide storage for four automobiles or one tractor-trailer combination. For left-turning lanes at signalized intersections the required storage should be determined using a queuing analysis. Factors affecting a storage length analysis include the turn volumes, cycles per hour, signal phasing and timing and percent of trucks and buses. The storage should be a minimum of 100 feet or one foot per peak hour left-turning vehicle; whichever provides the longer length.

The length of the left-turn lane should allow turning vehicles to clear the through traffic lane with an acceptable speed differential and decelerate to a stop plus provide storage for vehicles waiting to complete the maneuver. The recommended deceleration length is the braking distance from AASHTO's A Policy on Geometric Design of Highways and Streets, which is the distance required for deceleration at 11 feet per second per second. The deceleration length begins at the beginning of the taper and includes a portion of the full width lane for deceleration. As a minimum, the design length should permit turning vehicles to clear the through lane with a speed differential of 10 mph or less with the deceleration rate of 9.0 feet per second per second. The minimum length of a left-turn lane including taper but excluding storage using a speed differential of 10 mph and a deceleration rate of 9.0 feet per second per second are as follows:

<u>Speed</u>	<u>Length</u>
30	140
35	190
40	250
45	300

Finally, the reaction distance is that distance a vehicle will travel in 2.5 seconds. The minimum distance from the functional area of another intersection to the beginning of the taper should be the reaction distance.

Technique K – Provide Two-Way Continuous Left-Turn Lanes

When used in conjunction with access management techniques, such as driveway consolidation and corner clearance, use of two-way left-turn lanes can be an effective tool. However, they are most effective for streets with low volume (<28,000 ADT), high volume left-turns and low density of driveways. Under these conditions the two-way left-turn lane may be as safe as a raised median.

Technique L – Provide Right-Turn Lanes



Right-turn lanes can be an effective technique at streets and driveways for high volume land uses, such as shopping centers and discount stores. Also, right-turn lanes or tapers can be effective for retrofitting driveways to properties with poor internal site design that cause traffic backups on an arterial. Continuous right-turn lanes are not recommended due to potential driver confusion and use as through lanes.

Right-turn lanes should be considered where poor site design and circulation leads to backups on arterials and rear-end collision experience is unusually high at a location.

Access Management Plan Recommendations

The relationship between transportation and land use underlies all activities referred to as transportation planning. However, the land use-transportation relationship is complex, dynamic and ever changing, which requires specialized techniques and understanding. Two factors contribute to the complexity of the system. First, the relationship is reciprocal; land use patterns affect travel decisions and travel decisions affect land use patterns. Secondly, the activity patterns of business and families change independently; they are not dictated by land use and transportation, but change according to changing values, norms and overall economic development cycles and patterns.

The team's corridor evaluation included a review of the traffic volume and crash data, highway capacity and analysis, circulation and operational issues and existing highway deficiencies. In addition, input from the stakeholders committee has been considered and evaluated in developing strategies for corridor enhancements.

The strategies that have been implemented for this Access Management Plan can be used to manage the corridor by determining their ability to improve safety, maintain speeds, reduce delay, improve access to properties, and improve aesthetics on Jimmy Carter Boulevard. Each of these alternative strategies can be evaluated for their effectiveness to achieve the following desired goals:

- Separate conflict points
- Separate turning movements from through traffic movements
- Locate traffic signals to facilitate traffic movements
- Limit the number of conflict points
- Limit direct access

Cooperation among the different levels of government and community agencies is necessary for successfully implementing a corridor access management plan as an alternative strategy. It is therefore important to identify roles and responsibilities of principal agencies early in the process.

The non-capacity strategies that were implemented for this Access Management Plan combine signal coordination, driveway management and alternative routes of access for plan execution. Signal coordination along the Jimmy Carter Boulevard Corridor will work to preserve capacity by minimizing delay and improving traffic flow. Modifying, sharing and closing various access driveways, through driveway management, reduce points of conflict and enhance driver safety. Subsequent to the driveway management, alternative access points are required as a necessity for viable access management plan recommendations.





Gwinnett Village
Community Improvement District

<Insert Table 11>





IMPLEMENTATION

The Gwinnett Village CID has been working to improve the Jimmy Carter Corridor since the organization's inception. Their efforts include project sponsorship, such as this corridor study, and cooperative ventures with property owners, Gwinnett County, GDOT, and the City of Norcross. These partnerships, coupled with the fact that the CID has full-time staff responsible for implementing the CID's goals, will facilitate the implementation of the improvement projects in the Five-Year Action Plan. The Executive Director of the CID will oversee the plan's implementation and will provide status reports to the CID Board of Directors on a monthly basis. The Board will review the action plan on an annual basis and update it as necessary.

Basis for Identifying Corridor Projects

Recommended projects are based on extensive public input and technical analysis. A series of stakeholder meetings, public meetings, stakeholder interviews, and a two-day design charrette identified concerns, priorities, and a vision for the Jimmy Carter corridor. This information along with an analysis of existing land uses, the transportation network, local regulations and plans, real estate trends, and demographics help to guide the project team and the planning process.

The inventory and analysis of real estate/demographic trends was conducted as part of the Market Overview. The overview is the basis for project recommendations regarding development strategies, land use regulations, and transportation improvements that together will create a vibrant, balanced mix of uses benefiting local residents, employees, and businesses. Key findings include

- **Population** – There are an estimated 1,230 residents living in the Jimmy Carter Boulevard corridor study area, which is projected to grow by 8.9 percent to 1,339 residents by 2011. In 2006, the corridor study area represents 0.17 percent of Gwinnett County's population of 739,171. By 2011, the corridor study area will represent 0.15 percent of the county's projected population of 865,681.
- **Households** – There are an estimated 334 households in the Jimmy Carter Boulevard corridor study area, which is projected to grow by only an additional 31 households by 2011, a projected growth rate of 9.3 percent. In 2006, the corridor study area represents 0.13 percent of Gwinnett County's 250,610 households, and is projected to represent the same proportion of Gwinnett County households. In 2006, there are an estimated 17,871 households in the Jimmy Carter two-mile market area, which is projected to grow 5.6 percent to 18,870 households by 2011. The two-mile market area represents 7.1 percent of Gwinnett County households and, by 2011, is projected to represent 6.5 percent of county households.
- **Employment** – The Jimmy Carter Boulevard 2-mile market area is a significant employment center. The market area contains 2,622 business establishments employing 37,733 people. Within the





Jimmy Carter 2-mile market area, there are 37,733 jobs and 19,395 housing units, a jobs/housing ratio of 1.94, indicating a ratio of almost two jobs for every household in the market area, indicating a strong balance of housing and employment opportunities in the area and the importance of the Jimmy Carter Boulevard as an employment center.

Project Types

Recommended projects are broken down into the three main categories: Transportation, Housing Projects/Initiatives, and Other Local Issues.

Transportation

Transportation recommendations include a range of projects that will improve mobility and safety while accommodating redevelopment efforts along the LCI corridor. The project listing includes the recommendations from the Access Management Plan. Transportation projects in the Five-Year Action Plan reflect the following project types:

- **Intersection Improvements**
 - Benefits: Reduces number of conflict points, maintains traffic circulation, satisfies traffic demand, enhances vehicular and pedestrian safety, and creates identity.
- **Roadway**
 - Benefits: Improves access drive spacing on Jimmy Carter Boulevard, enhances safety, reduces conflict points, improves pedestrian connectivity.
- **Interparcel Access**
 - Benefits: Reduces number of conflict points, maintains traffic circulation and satisfies traffic demand.
- **Pedestrian Facilities**
 - Benefit: Improves pedestrian connectivity, pedestrian safety, and enhances quality of life.
- **Bicycle/Pedestrian**
 - Benefit: Improves pedestrian connectivity, offers alternate mode of transportation, reduces vehicle trips.
- **Public Transportation**
 - Benefit: Offers alternate mode of transportation, reduces vehicle trips.
- **Safety**
 - Benefit: Improves vehicular and pedestrian safety.
- **Operations**
 - Benefit: Improve transportation efficiency and operation.

Implementation of these projects will require the CID to continue their efforts of working with property owners on interparcel access/driveway closures, coordinating with GDOT, communicating with GRTA and Gwinnett County Transit to identify public transit opportunities, and coordinating with Gwinnett



County and the City of Norcross on ventures that are priorities for both the CID and the jurisdictions.

Housing

Housing-related recommendations focus on protecting existing single-family neighborhoods and supporting new opportunities for mixed-use housing at higher densities at specific nodes along the corridor. These new developments are intended to augment the affordable housing options that are already available in the study area. These include detached single-family, apartments, and detached rental housing. The CID can assist with housing-related initiatives by working with the private sector to encourage new mixed-use opportunities that provide a range of housing types and by supporting future land use and zoning designations that protect single-family neighborhoods.

Other Local Initiatives

Other initiatives to support the corridor study address the following areas:

- **Regulatory Issues**

- Work with the County and City planning staffs to create and adopt an overlay district(s) for the study area that will support the type of revitalization recommended in this study as well as the ethnic diversity of the area.
- Support existing and potential code enforcement measures related to commercial building maintenance.
- Support the existing HRR and MUD zoning classifications to encourage the mixed-use / higher density types of redevelopment that is recommended in this study.
- Support County regulations that are consistent with the findings of the Access Management Plan.

- **Marketing Strategies**

- Establish an identity for the corridor and promote the area as a destination.

- **Cooperative Relationships**

- Support the ARC's Buford Highway Multi-Modal Corridor Study's recommendation for the Jimmy Carter Boulevard and Buford Highway intersection.
- Work with the private sector to encourage development of mixed-use nodes, including property acquisition.
- Work with the public sector to encourage implementation of the Gwinnett County Revitalization Task Force study's recommendations.
- Work with residential areas and local businesses to continue to address their traffic and safety related concerns.



LCI Prequalification: 2 Priority Projects

Project #1: Singleton Road & Jimmy Carter Boulevard
(letters correspond with the 5-Year Action Plan on the following page)

- A. Singleton Road and Jimmy Carter Boulevard Intersection Improvements.
- B. Pedestrian Safety Improvements
- C. Pedestrian Corridor (landscaping, street furniture, signage, etc)- Live Oak Parkway to Singleton

Project #2: Jimmy Carter Boulevard Intersection & Pedestrian Corridor Improvements
(letters correspond with the 5-Year Action Plan on the following page)

- D. North Norcross Tucker Road and Jimmy Carter Boulevard intersection improvements
- E. Brook Hollow and Jimmy Carter Boulevard intersection improvements





Gwinnett Village
Community Improvement District

<Insert Action Plan>

