FINAL REPORT

Cobb Community Transit Service and Marketing Study

December 2011

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Prepared For:

Cobb County Department of Transportation
1890 County Services Parkway
Marietta, GA 30008

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Executive Summary

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In February 2011, Cobb County contracted with a project team lead by HDR Engineering, Inc. to develop this comprehensive service and marketing study for Cobb Community Transit (CCT). Since CCT's last comprehensive short-range transit plan was completed in 2006, CCT has implemented a number of changes including the deletion of several local routes due to budget constraints resulting from the economic downturn. In light of these new budget realities facing the County, CCT is pro-actively seeking new ways to enhance its current service offerings while improving its cost-effectiveness and increasing revenues.

The Service and Marketing Plan described in the following sections has three primary focuses: (1) improving the efficiency of existing operations, (2) developing a plan to guide service modifications over the next ten years, and (3) identifying creative ways to increase CCT revenues and generate new riders. This report documents the results of this effort and provides recommendations for improving CCT over the next ten years.

ES-1. Public Involvement Summary

A comprehensive public outreach effort was conducted in order to engage and solicit input from CCT riders, employees, the general public, community organizations, local agencies and organizations, and regional planning partners. The public involvement effort included strategies, tools and techniques specifically targeted to various segments of the population. The public involvement campaign consisted of the following outreach activities:

- Technical Advisory Committee (TAC) – The TAC reviewed and commented on study findings and assisted in identifying potential impacts on other plans, programs and procedures
- Transit Advisory Board (TAB) – The study team provided briefings to the TAB throughout the study process. Input was solicited from TAB and Accessibility Advisory Committee (AAC) members and incorporated into the development of recommendations.

- CCT Driver Interviews – The study team interviewed CCT drivers as they reported to work at the CCT garage. The drivers provided valuable insight into the ridership patterns and effectiveness of their routes.
- Municipalities Meetings – The consultant team presented draft service plan recommendations to local municipalities.
- Informal Community Conversations – The consultant team conducted informal conversations with community stakeholders to receive opinions and suggestions regarding service improvements.
- Latino Focus Group – The team conducted a focus group session with local Latino community leaders to better understand how the growing Latino community can be better served by CCT.

ES-2. Fixed Route Services Review and Recommendations

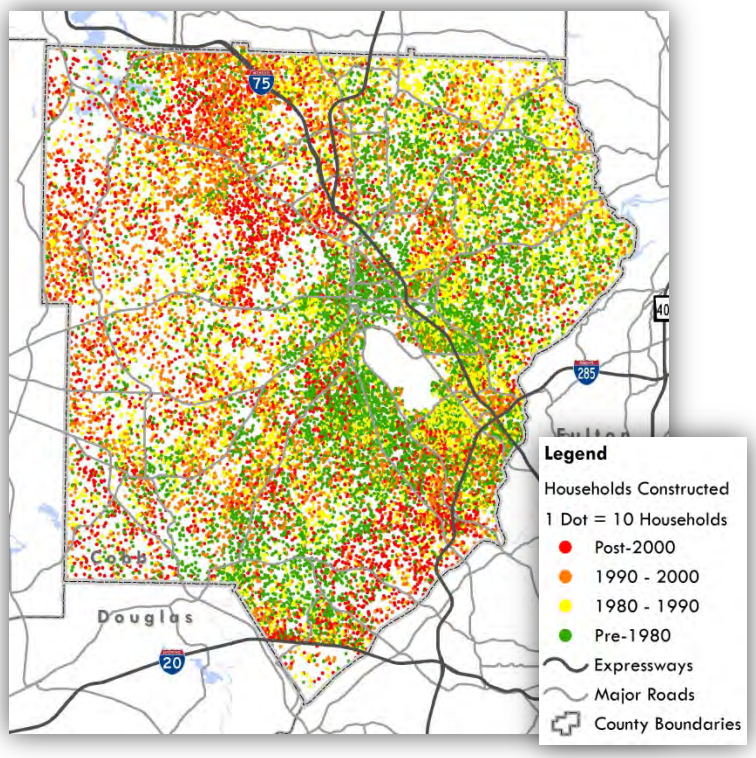
The core element of the Service and Marketing Study is the evaluation of CCT's existing local and express bus system and the development of recommendations for near-term improvements. First, a market analysis is presented which assesses demographic and employment trends within Cobb County. Next, the team compared CCT's current fixed route performance metrics to a group of peer transit systems using recent operations and financial data. In addition, CCT's cost-effectiveness and productivity trends were analyzed for the past ten years. Finally, the recommended service plans are presented for Near-Term (1-2 years), Mid-Term (3-5 years), and Long-Term (6-10 years) periods.

Market Analysis

The Market Analysis presents baseline socio-economic information used to evaluate the CCT's fixed route operations. Demographic data was geospatially analyzed to ensure that route coverage serves those areas which have high propensity for transit ridership.

Prior to 1980, much of Cobb County's population and housing stock was located in and around Marietta, which is the county's largest incorporated municipality. During the 1980s and 1990s, substantial growth occurred in the Cumberland area, at the crossroads of I-285, I-75, and US-41, as well as throughout East Cobb.

Figure ES-1: Cobb County Housing Growth



After 2000, much of the county's housing growth after 2000 has occurred in and around Vinings, Acworth and Kennesaw, and west Cobb County.

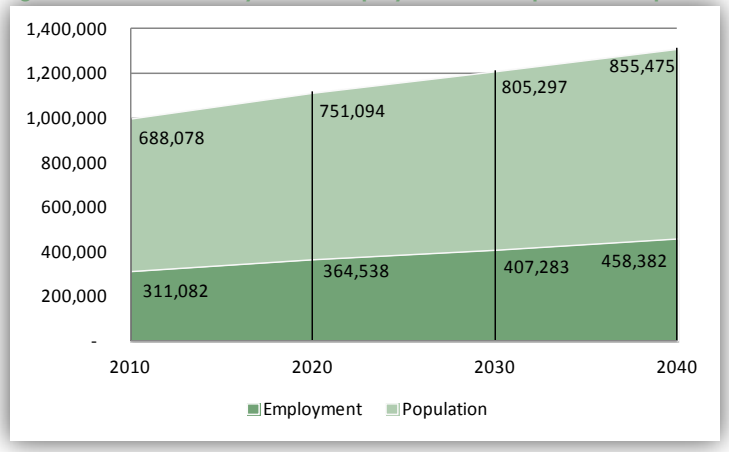
Cobb County's employment has increased over 200% since 1980. Today, over 311,000 jobs are located in Cobb County, which is just over 16% of the total regional employment base.

CCT's fixed routes serve the densest areas of the county, which are generally in the southeast quadrant of the county and the cities of Marietta and Smyrna. An analysis of 2010 census data indicates that 17% of the county's population lives within ¼ mile from a CCT fixed route, and 29% lives within a ½ mile.

The majority of Cobb's County's employment is located along the I-75 corridor, with the highest densities located in the Cumberland and Town Center activity centers. These areas are generally well-served by the current local and express route network. According to 2009 Census employment data, 49% of the jobs in Cobb County are located within ¼ mile of a fixed route, and 58% within a ½ mile.

According to Atlanta Regional Commission (ARC) projections, Cobb County is expected to add approximately 60,000 residents over the next 10 years (9.1%). Much of the projected population growth is expected along the I-75 corridor, which is currently well-served by CCT's local and express services.

Figure ES-2: Cobb County Future Employment and Population Projections



Cobb County's employment base is projected to expand 17% over the next 10 years to just over 360,000 employees. Much of this growth is projected to occur along the I-75 / US-41 corridors and in South Cobb. Moderate employment growth is projected in the southwest Cobb communities of Powder Springs and Austell, suggesting that future transit investment should be focused on increasing current service levels and developing new service corridors throughout these areas.

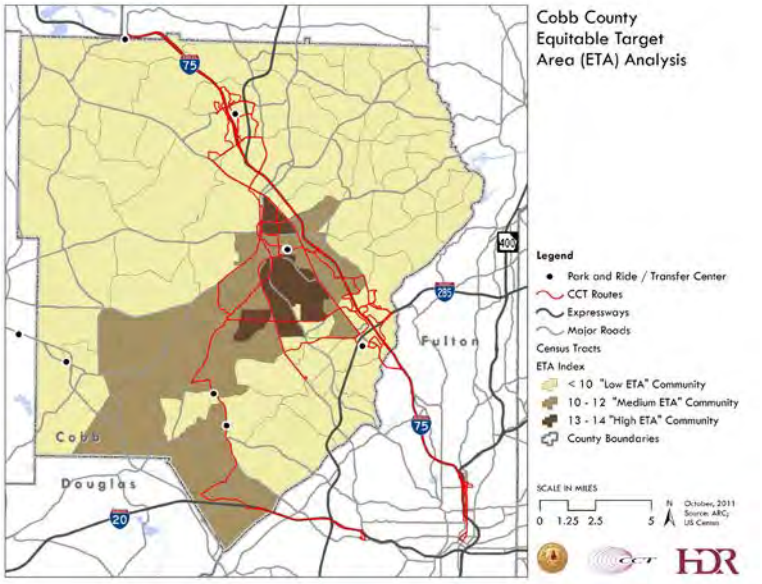
Transit Propensity Indicators

Several demographic indicators were assessed in order to identify areas of high transit dependency, including: vehicle availability, disability status, and elderly population. The Atlanta Regional Commission (ARC) has developed a tool, the Equitable Target Area Analysis (ETA), to assess environmental justice concerns. The ETA is an index of five demographic measures: elderly, education attainment, median household value, poverty status, and minority status.

Because environmental justice communities also tend to have high transit ridership, these indicators provide insight into areas which may benefit from new or expanded transit service.

Much of the county is considered a "Low" ETA community according to ARC's analysis. However, areas within and just south of Marietta are considered "High" ETA communities, and areas stretching southwest along Austell Road and Powder Springs Road into South Cobb are considered "Medium" ETA communities. For the most part, the High ETA communities are currently well served with transit, while the Medium ETA communities in southwest Cobb have limited transit service.

Figure ES-3: Cobb County Equitable Target Area Analysis

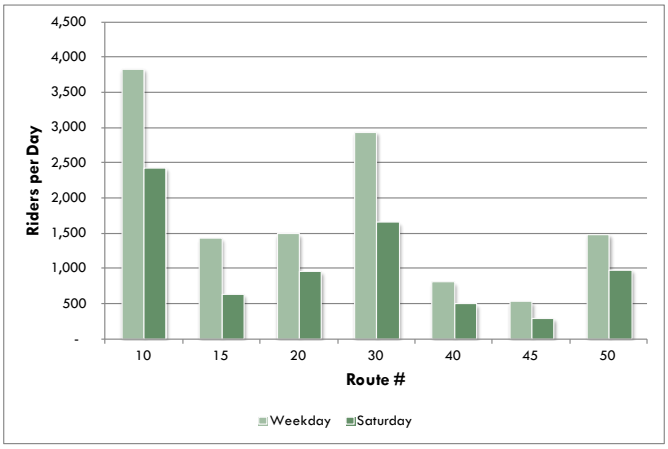


CCT Fixed Route Services

Currently, CCT operates seven local fixed routes throughout Cobb County, with service to MARTA's Hamilton E. Holmes and Arts Center transit stations in Fulton County. The routes are:

- 10: Cobb Parkway
- 15: Windy Hill Road
- 20: South Cobb Drive
- 30: Austell Road
- 40: Bells Ferry Road
- 45: Barrett Parkway
- 50: Powers Ferry Road

Figure ES-4: Daily Local Riders by Route, 2010



From a cost-effectiveness standpoint, routes 10 and 15 have the highest farebox recovery ratio, which measures the amount operating expenses covered by fare revenues.

Figure ES-5: Cost per Passenger by Route, 2010

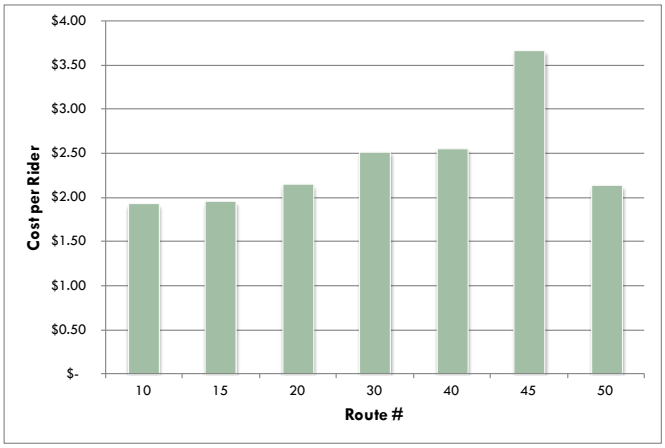
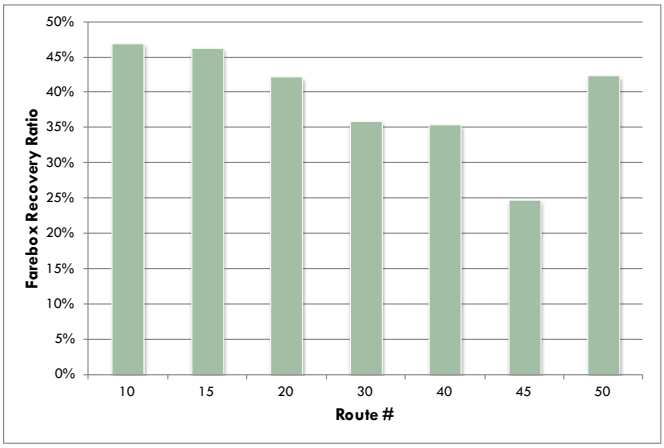


Figure ES-6: Farebox Recovery by Route, 2010



Express Routes

CCT operates 12 express routes between various park and ride lots throughout Cobb County and destinations in midtown and downtown Atlanta. Six of these routes are funded by Cobb County (10 A/B/C reverse commute routes and 100-series commute routes) and six are funded by the Georgia Regional Transportation Authority's (GRTA) Xpress commuter service (400-series routes). The express routes operate only on weekdays in the morning and evening peak periods. The express routes include:

- 100: North Cobb Express
- 101: Marietta Express
- 102: Acworth PnR
- 10A: Atlanta to Delk Road
- 10B: Atlanta to Windy Hill
- 10C: Town Center to Arts Center
- 470/47: Hiram to Downtown
- 475: Austell/Mableton to Downtown
- 477: Hiram to Downtown
- 480: Acworth PnR to Downtown
- 481: Town Center PnR to Midtown

Figure ES-7: Daily Express Riders by Route, 2010

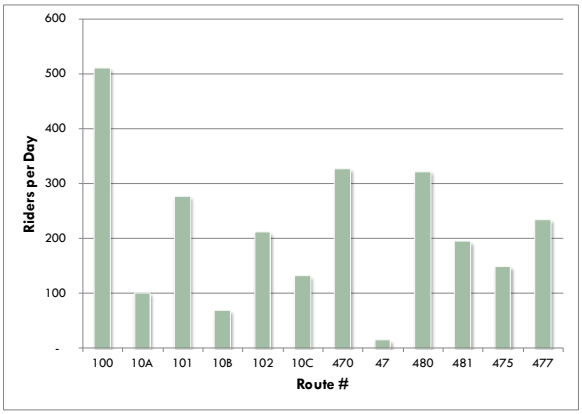


Figure ES-8: Cost per Rider by Express Route, 2010

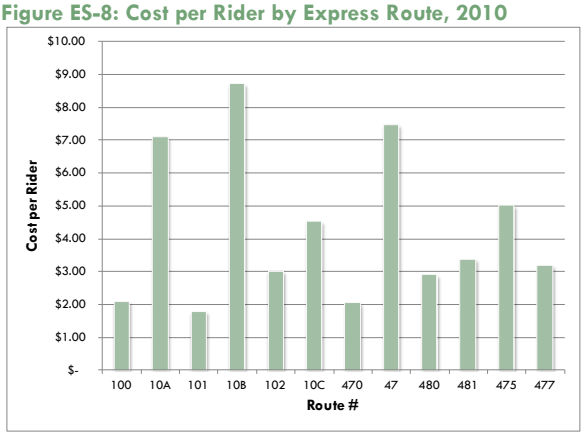
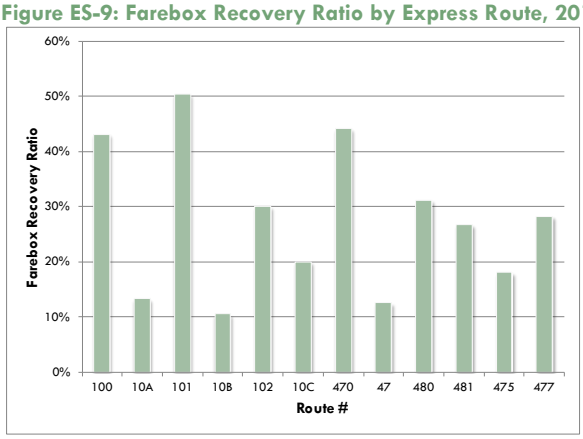


Figure ES-9: Farebox Recovery Ratio by Express Route, 2010



Comparison of CCT to Peer Transit Systems

Ten peer transit systems were selected based on urban area population, annual vehicle revenue hours, and annual ridership. System performance measures were computed for each peer system using 2009 National Transit Database (NTD) data (at this time, fiscal year 2009 is the most recent year that NTD data is available for each peer system). This peer analysis is useful for identifying broad trends and comparisons of efficiency, effectiveness and coverage.

- CCT's service productivity, expressed in terms of weekday passenger trips per revenue hour, is significantly higher than the peer average.
- CCT is more cost effective than the average peer system in terms of operating expenses per passenger trip, revenue mile, and peak vehicle.

System-wide and Route-Level Service Modification Strategies

Next, recommended service modification strategies and improvements for CCT's local and express bus service were developed. The following goals and objectives serve as guiding principles in the development of the recommended service plans:

- **Customer Focused:** Ensure that service meets travel needs of existing customers and new customers to the system.
- **Efficiently Delivered:** Provide service that is reliable, on-schedule and delivered in the most efficient manner.
- **Cost Effective:** Employ a level of service and coverage matched with ridership demand, while maximizing resources and adhering to current financial constraints.
- **Innovatively Designed:** Encourage service hours, service levels, and new service delivery models that best meet future transit markets.

Service plans were developed on a system-level and route-level based on near-term, mid-term and long-term periods over the next 10 years. These short-range service plans will provide the foundation for higher-capacity transit projects like the proposed Northwest Corridor Light Rail

Transit (LRT) project that will be included in the 2012 Transportation Investment Act (TIA) referendum. A future high-capacity transit line in the Northwest Corridor is currently being studied in Cobb County's Northwest Corridor Alternatives Analysis Study.

"Maximize Efficiency" Service Plan

Recommended near-term (1-2 years) service modification strategies focus on increasing the efficiency and cost-effectiveness of service and generating new revenues. The "Maximize Efficiency" service plan strategies include:

- Tailor existing service to demand by re-allocating resources from unproductive service to routes in need of additional service.
- Streamline routes to address on-time performance and schedule issues.
- Improve the peak period service frequency from 60 to 30 minutes on Route 40 Bells Ferry Road and Route 45 Barrett Parkway.
- Generating new revenue sources (refer to 5.0 Advertising Plan).

"Modest Increase" Service Plan

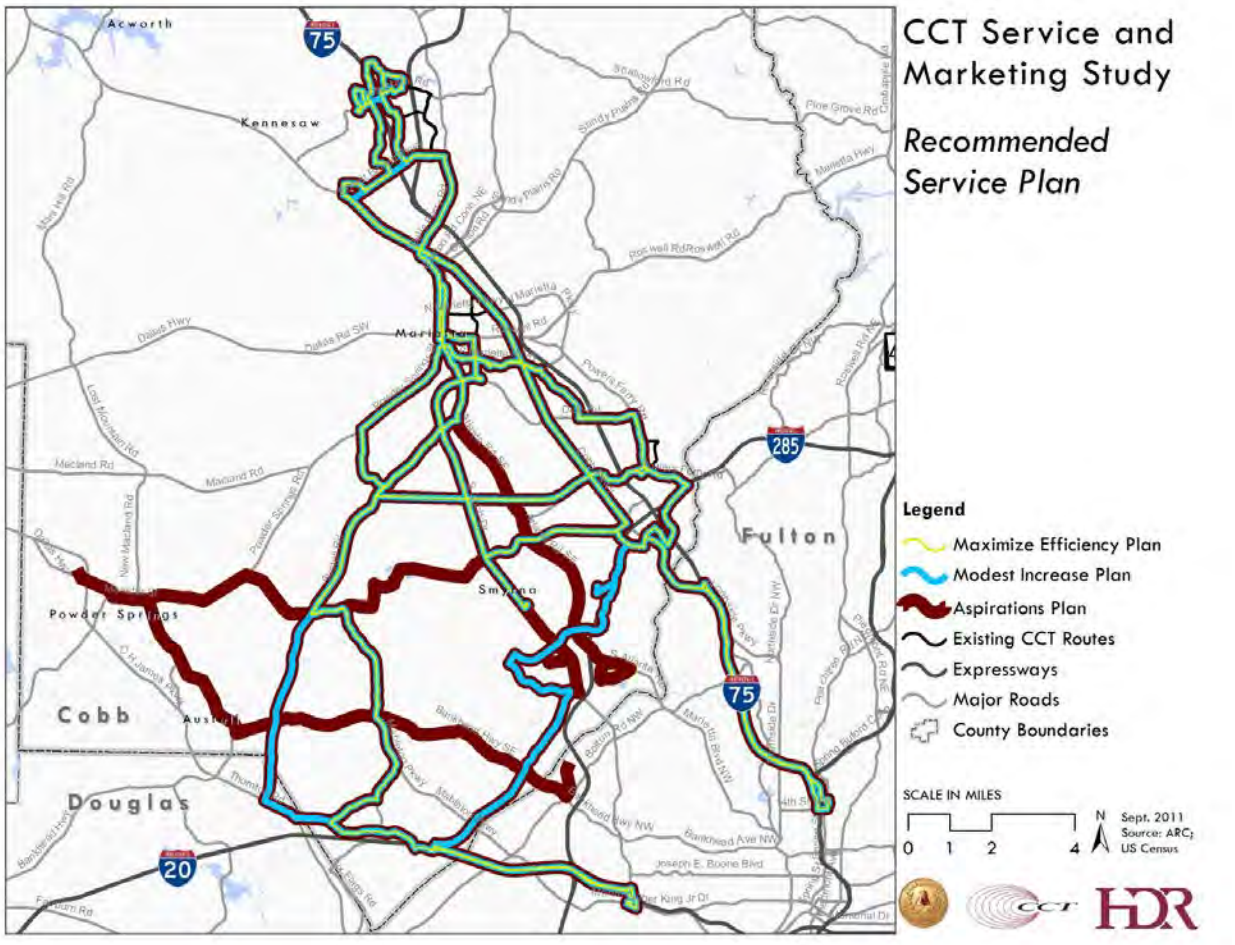
Mid-term recommendations (3-5 years) build on the near-term efficiency improvements by introducing new premium transit service concepts and expanding service to growing areas of south and west Cobb County. Mid-term service plan strategies include:

- Introduce Bus Rapid Transit (BRT) on US 41/Cobb Parkway as a new service delivery model. The US 41 BRT would operate in mixed traffic and semi-exclusive lanes between Kennesaw State University and MARTA's Arts Center Station with intermediate stops at Town Center Mall, Marietta Transfer Center, Cumberland Mall and other stops along US 41/Cobb Parkway. BRT is a new approach to traditional bus travel that will provide fast, reliable and attractive service. BRT buses will have a stylized design that will provide a superior ride quality compared to standard city buses. Transit signal priority will be used to reduce delays at congested intersections. BRT stops will be customized with real-time bus arrival and departure information and attractive shelters. The goal for the BRT project is to provide a premium quality service that benefits existing transit riders and attracts new customers. BRT buses would run every 15 to 20 minutes during peak periods and every 30 minutes during the midday.
- A new local Route 80 is proposed in the mid-term with 60 minute service between the Cumberland Transfer Center and HE Holmes MARTA Rail Station along Cumberland Boulevard, E-W Connector, Highlands Parkway, Oakdale Road, Discovery Boulevard, Lee Industrial Boulevard and I-20.
- A new limited stop Route 130 is proposed along Austell Road, Maxham Road, Thornton Road, Oak Ridge Road, Six Flags Drive and I-20 on weekdays. This new route would alleviate overcrowding on local Route 30 and provide faster, premium service in the Austell Road corridor to MARTA's H.E. Holmes Station.

"Aspirations" Service Plan

Long-term recommendations (6-10 years) will further expand service in south and west Cobb County and provide service levels that will support the introduction of future high-capacity transit service in the Northwest Corridor. "Aspirations" service plan strategies include:

- Introduce Sunday service on major local routes
- A new local Route 55 is proposed in the long-term with 60 minute service between the Powder Springs Park & Ride and Atlanta Industrial Park along Powder Springs/Dallas Road, Marietta Street, Austell-Powder Springs Road, Jefferson Street, Veterans Memorial Highway, D.L. Hollowell Parkway and Atlanta Industrial Parkway.
- A new local Route 85 is proposed in the long-term with 60 minute service between the Powder Springs Park & Ride and Cumberland Transfer Center along Powder Springs/Dallas Road, Marietta Street, Powder Springs Road, E-W Connector, Hurt Road, Concord Road, Spring Road and Cumberland Boulevard.
- A new local Route 90 is proposed in the long-term with 60 minute service between the Marietta Transfer Center and Vinings area along South Marietta Parkway, Atlanta Road, N. Church Lane and Plant Atkinson Road.
- Implement new Super-Stops at locations where passengers transfer between local routes. A Super-Stop is an enhanced bus stop that can accommodate multiple buses, but is smaller than a full-scale transfer center. Super-stops are often equipped with a pull-out lane and expanded shelters with extra seating. Locations which may be candidates for super-stops and/or stop consolidation are Cobb Hospital at Austell Road and East-West Connector, Austell Road at Arkose Drive, Cobb Parkway at Windy Hill Road, Cobb Drive at Austell Road, Roswell Street at Anderson Street (Courthouse / downtown Marietta), and Cobb Avenue at Marietta Drive (Kennesaw State University).



ES-3. Paratransit Services Review and Assessment

The study also included an assessment of CCT's current paratransit system operations, performance, and procedures and the development of a ten year-plan that will guide future operations. The HDR Team interviewed CCT and contract service provider (Veolia Transportation) staff, observed current reservations and scheduling practices, compared CCT performance to peer transit systems, and projected future service demand for disabled and elderly passengers.

A formal certification process that meets FTA's approval for ADA compliancy is in place to determine whether or not a Cobb County citizen meets the disability requirement for curb-to-curb, demand response service. Currently, CCT has about 3,000 persons that are certified, i.e. eligible for paratransit transports. On any given weekday approximately 300 one-way passenger trips are made (before August 2011 service cuts).

Paratransit Recommendations

In order to increase efficiency and productivity of its paratransit operations, it is recommended that CCT take the following steps:

- Upgrade the RouteMatch software to the vendor's latest version and obtain the services of RouteMatch for on-site training of personnel.
- Conduct an evaluation of the Dispatcher and Scheduler job positions, determining the skills and proficiencies required for each position.
- Acquire advanced technology (AVL and MDT) for the entire paratransit fleet. Implement technology and train staff to ensure maximum benefits are realized.
- Postpone any planned vehicle acquisitions until a thorough evaluation of the conditions of the existing fleets (both CCT and CSS) is conducted.

ES-4. Transit Marketing Plan

Since its inception, CCT has not developed or maintained a transit marketing program. HDR team member R&R Partners conducted two Marketing Workshops on July 29, 2011 for Cobb County staff as well as managers and employees of CCT. These workshops provided the basis for development of a transit marketing strategy for CCT.

The biggest challenge facing CCT is that this *is* a cost-effective, well managed transit system, however the general public either perceives the system to be less than optimum, or there is no opinion or even awareness of the system. General perceptions of CCT seem to be somewhat lower than the actual realities of the quality of this transit system. Therefore, a challenge is to raise awareness of CCT and build positive attitudes for both users and non-users alike.

Marketing Objectives

- Define a brand identity that elevates CCT's position in the mind of current and potential riders as well as build positive attitudes of those who may not currently ride CCT.
- Increase awareness of existing CCT services to promote on-going ridership.
- Inform and educate the general public about the importance of public transportation and CCT's role in the greater Atlanta long-term transportation plan.
- Possibly use local "champions" to be the face for CCT's marketing program.

Strategies to Meet These Objectives

- Conduct additional research to assess the current favorability of CCT, establish a market data benchmark, and aid in providing additional information for the development of an effective brand message.
- Develop a campaign to communicate and focus on valuable services provided to the community by CCT, and begin to build a meaningful CCT brand.
- Promote and market efforts designed to induce trial (offers, incentives, reasons to ride).

- Deliver public education and pro-transit messages to all key audience segments.
- Leverage marketing funds with earned media, the use of social media, and grass roots efforts.
- Conduct ongoing research to gauge effectiveness of CCT's messages and level of support.

Marketing Plan recommendations were developed at two budget levels, $200,000 and $500,000. In order to increase positive awareness of CCT's contribution to the quality of life in Cobb County, a comprehensive, multimedia approach will be required. This will include traditional, social, and new media. In addition to paid advertising CCT must take full advantage of free and/or earned media and publicity as well. Cobb County needs to tell the CCT story, via a diverse set of earned and paid media.

ES-5. Transit Advertising Plan

As the universe of portable media devices and wireless communications continue to unfold, the advertising industry is becoming acutely aware of non-traditional media mechanisms to reach emerging consumer markets that traditional media may no longer reach regularly. Television and radio advertising, while still the dominant forms of advertising across the country (based on gross advertising sales records), are now regularly competing with non-traditional media sources including the Internet and applications ("apps") for portable electronics. As new multimedia platforms continue to open communication lines between people, markets, private companies, and public agencies, advertising agencies are continuing to look for affordable and easily implemented media opportunities to communicate with the public.

Depending on the types of advertising and the local advertising market, CCT can expect to receive 35% to 60% of the advertising profits generated by a qualified third party vendor. Recent market survey data suggest that advertising along line-haul express routes typically covering longer distances and highly traveled local fixed routes within the CCT system display strong indicators for advertising revenue. With over 100 vehicles to leverage, several park and rides and transit centers, there are strong opportunities to generate additional revenue. The HDR team estimates that Cobb County could generate between $50,000 and $100,000 in the first year (FY 2012) and up to $200,000 to $300,000 per year as the advertising market matures.

ES-6. Financial Plan

Figure ES-10 summarizes the projected annual service hours and CCT's projected Service Contractor expenses, by service type. Costs of the express bus service operated by CCT under contract to GRTA are included in the annual O&M cost estimates. Annual O&M costs are projected to increase by 29% from $14.8 million in FY 2009/2010 to $19.1 million in the Long-Term Plan.

Figure ES-10: Estimated Annual Bus-Hours and Contractor O&M Cost (2011 Dollars)

Plan Period	FY 2009/10 (1)	Near-Term Plan	Mid-Term Plan	Long-Term Plan
Local Bus-Hours	152,561	131,592	184,676	227,992
Express Bus-Hours	32,820	32,820	32,820	32,820
Paratransit Hours	50,625	36,706	49,169	59,330
Total Hours	**236,005**	**201,118**	**266,665**	**320,142**
Annual O&M Cost (Millions)	**$14.79**	**$12.15**	**$16.02**	**$19.14**

Notes and Assumptions:

(1) Existing Service is for FY 2009/2010 (prior to 2011 service cuts and 2010 and 2011 fare increases).
(2) Local and Express bus service cost based on $61.90 per bus-hour.
(3) Paratransit service cost based on $33.57 per passenger trip.
(4) O&M costs include Service Contract costs; do not include CCT management or fuel.
(5) Costs are presented in 2011 constant dollars.

ES-7. Implementation Plan

Figure ES-11 shows the year-by-year implementation schedule for the recommended service plans. Implementation of the recommended service and capital improvements will depend on funding and implementation decisions by Cobb County policy-makers and managers. This schedule will need to be regularly revisited and updated, as future conditions change. The attached schedule provides a road map for actions to implement the plan on an annual basis.

Table ES-11: Implementation Plan Summary

Plan Period	Fiscal Year	Transit Services	Equipment/Facilities
Near-Term Plan	**2011/12**	• Implement AVL & MDT technology on buses • Issue RFP for advertising vendor • Launch transit marketing campaign	• Begin Very Small Starts planning and NEPA action for US 41 / Cobb Parkway BRT
	2012/13	• Modify/streamline route alignments • Re-allocate resources from unproductive service to improve service frequencies where needed • Environmental/design of US 41/Cobb Pkwy BRT • Begin transit advertising program	• Begin procurement/construction of US 41/Cobb Pkwy BRT
Mid-Term Plan	**2013/14**	• Introduce new Route 80 local route	• Procurement/construction of US 41/Cobb Pkwy BRT • Replace 15 local buses • Replace 18 paratransit buses
	2014/15	• Modify Route 10 local service • Begin operations of US 41/Cobb Pkwy BRT service	• Implement US 41 / Cobb Pkwy BRT • Replace 8 paratransit buses • Enhance pedestrian connectivity to stops
	2015/16	• Introduce new Route 130 limited-stop express service	• Replace 20 local buses • Purchase 2 new paratransit buses
Long-Term Plan	**2016/17**	• Introduce new Route 85 local service • Improve service frequencies	• Replace 9 local buses • Replace 11 express buses • Purchase 1 new paratransit buses • Begin planning and NEPA action for super-stops
	2017/18	• Implement Sunday service	• Begin procurement / construction of super-stops • Purchase 1 new paratransit bus
	2018/19	• Introduce new Route 55 local service	• Purchase 1 new paratransit bus • Implement super-stops
	2019/20	• Introduce new Route 90 local service	• Replace 6 local buses • Replace 34 express buses
	2020/21		• Replace 19 paratransit buses

1. Introduction

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In February 2011, Cobb County contracted with a team lead by HDR Engineering, Inc. to develop this comprehensive service and marketing study for Cobb Community Transit (CCT). Since CCT's last comprehensive short-range transit plan was completed in 2006, CCT has implemented a number of changes including the deletion of several local routes due to budget constraints resulting from the economic downturn. In light of these new budget realities facing the County, CCT is pro-actively seeking new ways to enhance its current service offerings while improving its cost-effectiveness and increasing revenues.

This report documents the results of this effort and provides recommendations for improving CCT over the course of the next ten years.

1.1. Study Methodology and Approach

The Comprehensive Service and Marketing Study provides an evaluation of CCT's existing fixed route and paratransit services, identifies opportunities for improving productivity and cost-effectiveness, and recommends short-range (ten-year) service plans for improving existing services and implementing new services. Specifically, this report includes the following sections, which follow generally follow the tasks:

- **Section 1: Introduction**
  Section 1 provides the background for the study and an overview of the report.

- **Section 2: Public Involvement Summary**
  Section 2 provides a brief overview of the public involvement tasks associated with the Comprehensive Service and Marketing Study. Detailed results of this task can be found in **Appendix 4 – Public Involvement Results**.

- **Section 3: Fixed Route Services Review and Recommendations**
  Section 3 documents a review of CCT's existing fixed route system, including local and express services, and provides recommended service plans for three planning horizons (1 to 2 years, 3 to 5 years, and 6 to 10 years). This section also provides the baseline data which guided the formulation of the service plans, including a market analysis, peer

review, facilities review, and a system-wide and route specific services review. Detailed route profiles are found in **Appendix 3 – Route Profiles**.

Following the baseline data collection and analysis, route-by-route service recommendations are presented along with projected operating requirements and annual operating costs for each scenario.

- **Section 4: Paratransit Services Review and Recommendations**

  Section 4 presents the findings of the paratransit services review and recommendations. A description of CCT's existing paratransit services is provided along with a review of peer transit agency paratransit operations, an evaluation of possible technology upgrades, and an assessment of CCT's strengths and opportunities for improvement. A ten-year paratransit plan is provided which reflects the recommended fixed route service area and service plan.

- **Section 5: Transit Marketing Plan**

  Section 5 outlines the key components of a transit marketing plan for CCT. In July 2010, a marketing workshop was conducted in which the main elements of a marketing strategy were formulated. The results of this effort and detailed components of the marketing plan are documented in this section.

- **Section 6: Transit Advertising Plan**

  The potential for leveraging CCT assets to generate an additional revenue stream through advertising revenue was investigated. Section 6 presents the benefits of implementing an advertising plan, describes the array of transit advertising media available to CCT, and provides an estimate of the potential revenue that might be generated if an advertising program was implemented.

- **Section 7: Transit Finance Plan**

  Section 7 presents a finance plan, including 10-year projections of ridership and passenger revenue, annual operating costs, and bus replacement and expansion costs.

- **Section 8: Implementation Strategies**

  There are several ongoing initiatives that may affect implementation of the recommended service plans: (a) Cobb DOT is presently procuring automatic vehicle location (AVL) and automatic passenger count (APC) units for its fleet of buses, (b) Atlanta region recently included a $689 million premium transit project in the Northwest Corridor for the upcoming Transportation Investment Act (TIA) referendum, and (c) the County is studying premium transit options in the Northwest Corridor. This final section describes the relation between these projects and strategies to implement the recommended service plans.

2. Public Involvement Summary

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A comprehensive public outreach effort was conducted throughout this study in order to gather input from a variety of stakeholders. The approach utilized a variety of public outreach tools to engage and solicit input from CCT riders, employees, the general public, community organizations, local agencies and organizations, and regional planning partners. In order to ensure sufficient input from a cross-section of the community and to ensure that the recommendations address the needs and desires of this diverse county, the public involvement effort included strategies, tools and techniques specifically targeted to various segments of the population. The outreach effort targeted formal and informal groups and individuals to gather, analyze, review and comment on findings and suggestions throughout the study process. The public involvement campaign consisted of five major components as listed below.

1. Technical Advisory Committee (TAC) – The TAC reviewed and commented on study findings and assisted in identifying potential impacts on other plans, programs and procedures
2. Transit Advisory Board (TAB) – The study team provided briefings to the TAB throughout the study process. Input was solicited from TAB members and incorporated into the development of recommendations.
3. Municipalities Meetings – The consultant team presented draft service plan recommendations to staff members of municipalities which are served by CCT in order to gather feedback and garner support for the recommended service improvements.
4. Informal Community Conversations – The consultant team conducted informal conversations with community stakeholders to receive opinions and suggestions regarding service improvements.
5. Communication Tools and Collateral Materials
    - Project Website – Study materials, announcements and other pertinent information were posted on the Cobb DOT website
    - Project telephone number, fax number, mailing and email address – This contact information will be widely distributed through a variety of media
    - Project Fact Sheet – An initial fact sheet was published to briefly describe the study, its purpose, the expected outcomes, schedule and the contact information
    - Cobb County Communications Media – The study team worked closely with the Cobb County Communications Department as well as CCT controlled media to distribute information about the study to as wide an audience as possible
    - Mass Media – The consultant team worked in close coordination with the County Communications Department to maximize use of the mass media, including outlets that serve special populations

Results of the public involvement campaign are presented in **Appendix 4** at the conclusion of this report.

3. Fixed Route Services Review and Recommendations

3. Fixed Route Services Review and Recommendations

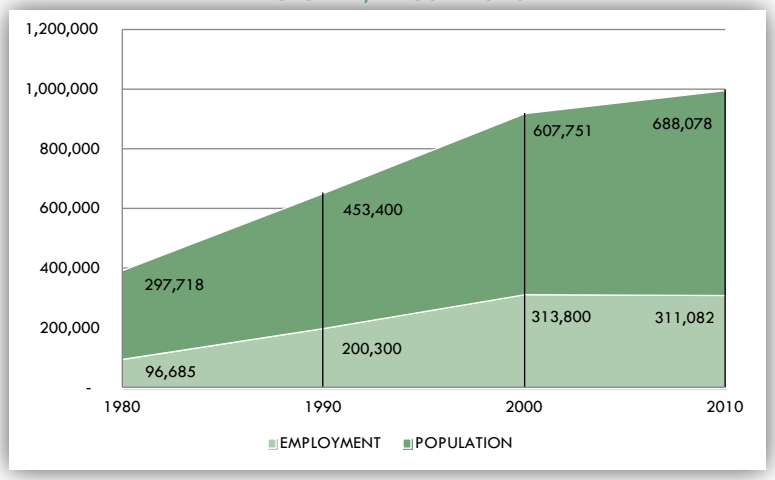
This section details the tasks that comprised the fixed route services review and the methodology used to develop future fixed route service plans. First, a market analysis is presented which assesses demographic and employment trends, both present and future, within Cobb County. Next, a review of CCT's current fixed route operations and facilities is presented followed by a peer analysis analyzing CCT's fixed route performance relative to a group of peer transit systems based on recent operations and financial data. In addition, CCT's cost-effectiveness and productivity trends were analyzed for the past ten years. Finally, the recommended service plans are presented for Near-Term (1-2 years), Mid-Term (3-5 years), and Long-Term (6-10 years) periods.

3.1. Market Analysis

In Fiscal Year 2010, over 4.6 million transit passengers used local and express bus service operated by CCT. CCT bus operations consist of seven (7) local routes that travel along the major thoroughfares of Cobb County and local streets within the municipalities of Marietta, Smyrna and Kennesaw, eight (8) express routes that operate between Cobb County and midtown or downtown Atlanta (including five express routes operated on behalf of GRTA), and three (3) reverse commute routes from downtown and midtown Atlanta to employment centers in Cobb County. These routes serve approximately 900 bus stops and nine (9) park and ride lots with over 2,300 parking spaces. CCT also operates two major transfer centers, the Marietta Transfer Center located on South Marietta Parkway in Marietta and the Cumberland Transfer Center located on Cumberland Boulevard adjacent to Cumberland Mall.

This section presents the baseline information used to evaluate the CCT's fixed route operations. The analysis presented herein provides the basis upon which service optimization and development strategies have been developed as part of the overall scope of the Service and Marketing Study. The environment in which CCT operates is assessed in a socioeconomic analysis presented in the following subsections. As part of this task, demographic data was geospatially analyzed to ensure that route coverage serves those areas which have high propensity for transit ridership.

Figure 1: Cobb County Population and Employment Growth, 1980 - 2010



3.1.1. Historic Trends and Current Conditions

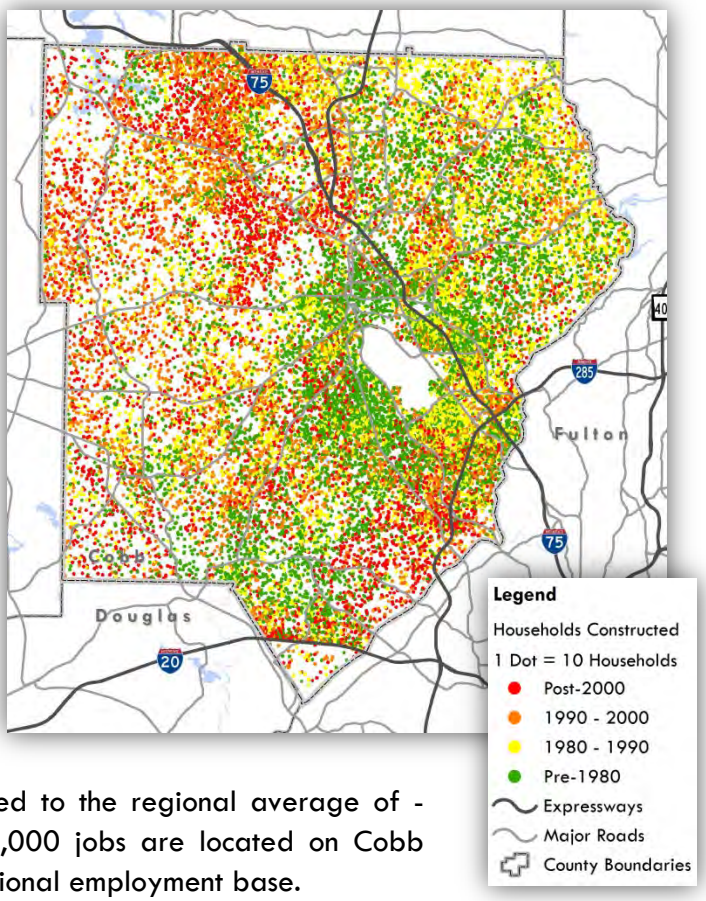
Cobb County has experienced substantial growth over the past 30 years. In terms of population added since 1980, Cobb County is ranked second only to Gwinnett County among the 10

metropolitan Atlanta counties. Between 1980 and 2011, Cobb County added nearly 400,000 residents (a 133% increase), which constitutes 18% of the region's total population gain over that period.

Table 1: Atlanta Region Population Growth by County, 1980 - 2011

	1980	1990	2000	2010	2011	Change	% Change
Atlanta Region	1,896,182	2,557,800	3,429,379	4,107,750	4,142,300	2,246,118	118%
Gwinnett	166,808	356,500	588,448	805,321	814,100	647,292	388%
Cobb	**297,718**	**453,400**	**607,751**	**688,078**	**693,600**	**395,882**	**133%**
Fulton	589,904	670,800	816,006	920,581	928,200	338,296	57%
DeKalb	483,024	553,800	665,865	691,893	694,400	211,376	44%
Henry	36,309	59,200	119,341	203,922	207,800	171,491	472%
Cherokee	51,699	91,000	141,903	214,346	218,500	166,801	323%
Clayton	150,357	184,100	236,517	259,424	260,000	109,643	73%
Douglas	54,573	71,700	92,174	132,403	133,000	78,427	144%
Fayette	29,043	62,800	91,263	106,567	107,100	78,057	269%
Rockdale	36,747	54,500	70,111	85,215	85,600	48,853	133%

Figure 2: Cobb County Housing Growth



Prior to 1980, much of Cobb County's population and housing stock was located in and around Marietta, which is the county's largest incorporated municipality. Substantial growth occurred in the Cumberland area, at the crossroads of I-285, I-75, and US-41, during the 1980s and 1990s, as well as throughout East Cobb. Much of the county's housing growth after 2000 has occurred in and around the Vinings community in southeast Cobb and in the communities of Acworth and Kennesaw in northwest Cobb.

Cobb County's employment has increased over 200% since 1980. Compared to the rest of the 10-county region, Cobb has fared relatively well throughout the recession. Between 2006 and 2009, the county lost 3.1% of its employment, compared to the regional average of -5.4% during that period. Today, over 311,000 jobs are located on Cobb County, which is just over 16% of the total regional employment base.

Figure 3 through Figure 6, below, display Cobb County's current population density, household density, employment density, and land use, along with the current fixed route network and park-and-ride facilities. At present, CCT's fixed routes serve the densest areas of the county, which are generally in the southeast quadrant of the county and throughout the cities of Marietta and Smyrna. East Cobb has moderate population and household density relative to the rest of the county; however, its service was discontinued upon elimination of Route 65 in August 2011. An analysis of 2010 census data indicates that 17% of the county's population lives within ¼ mile from a CCT fixed route, and 29% within a ½ mile.

The majority of Cobb's County's employment is located along the I-75 corridor, with the highest densities located in the Cumberland and Town Center activity centers. These areas are generally well-served by the current fixed route network. According to 2009 Census employment data, 49% of the total jobs in Cobb County are located within ¼ mile of a fixed route, and 58% within a ½ mile.

3.1.2. Future Conditions

According to Atlanta Regional Commission (ARC) projections, Cobb County is expected to add approximately 60,000 residents over the next 10 years (9.1%). While most of the county is expected to experience some degree of residential growth, a portion of East Cobb is projected to experience a slight lose of population over the next decade. Most of these negative-growth areas are currently not served by CCT and likely will not merit fixed route transit investment in the near future.

Much of the projected population growth is expected along the I-75 corridor, which is currently well-served by CCT's local and express services. West Cobb, which is not currently well served by CCT, is also projected to gain population, albeit at a lower rate than central Cobb communities. However, because much of northwest Cobb's future development is slated for Low Density Residential and Very Low Density Residential, it is not a likely candidate for fixed route bus service within the next several years. Southwest Cobb, on the other hand, is projected to have transit-supportive land uses in the future, including City, Community and Regional Activity Center, and Industrial zones. Furthermore, other demographic factors gauging transit-dependent populations indicate that the southwest Cobb is a strong candidate for expanded transit service in the future.

Figure 3: Cobb County Population Density by Block Group, 2010

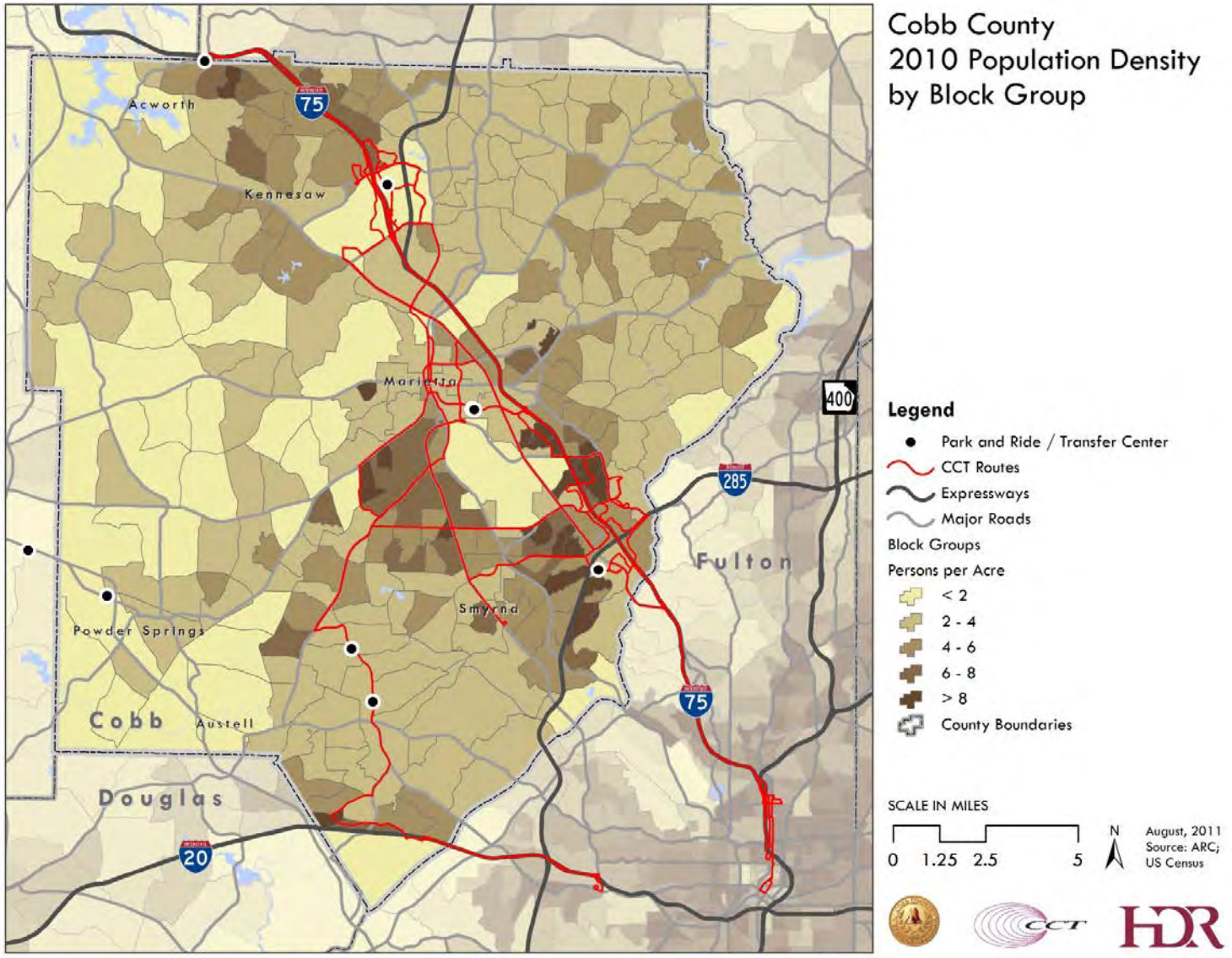


Figure 4: Cobb County Household Density by Block Group, 2010

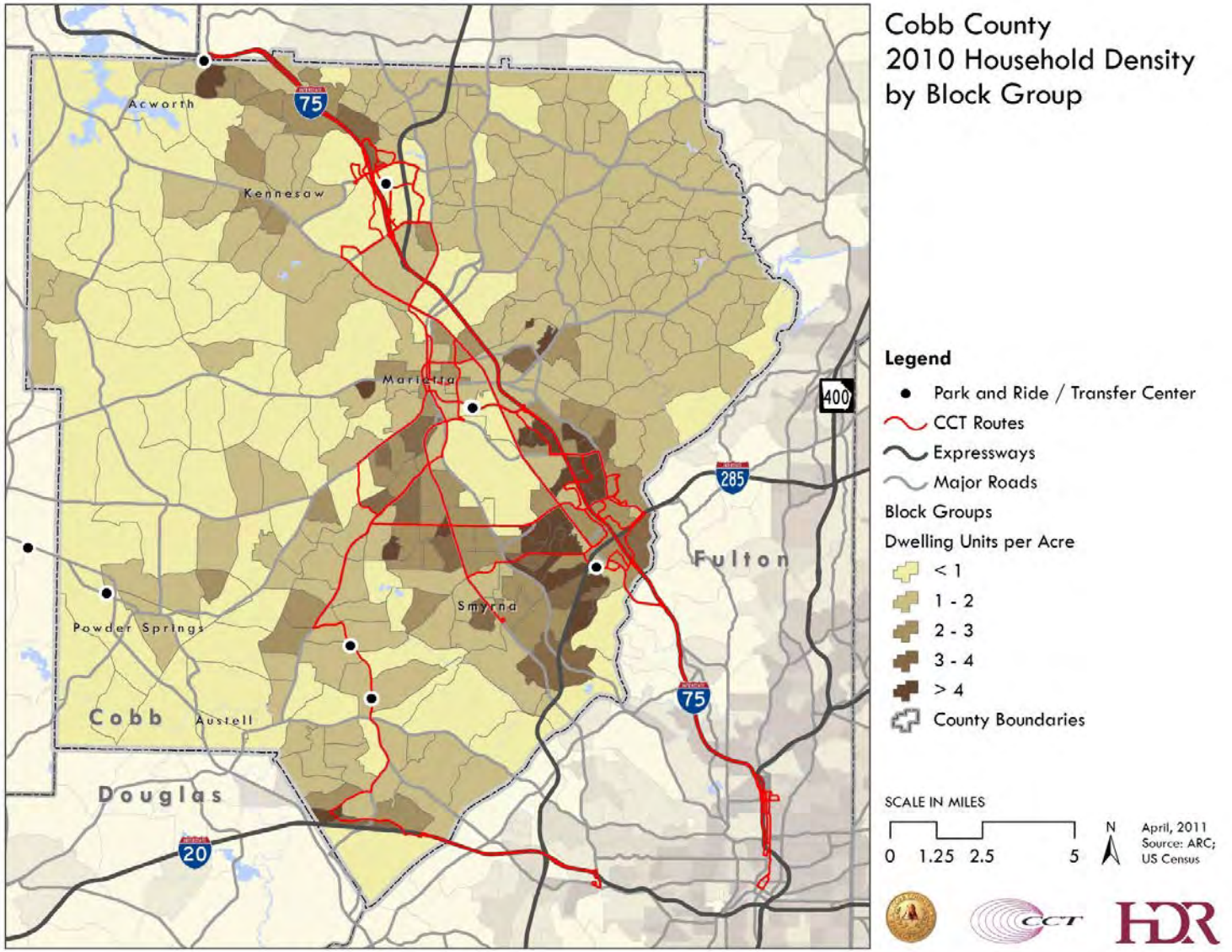


Figure 5: Cobb County Employment Density by TAZ, 2010

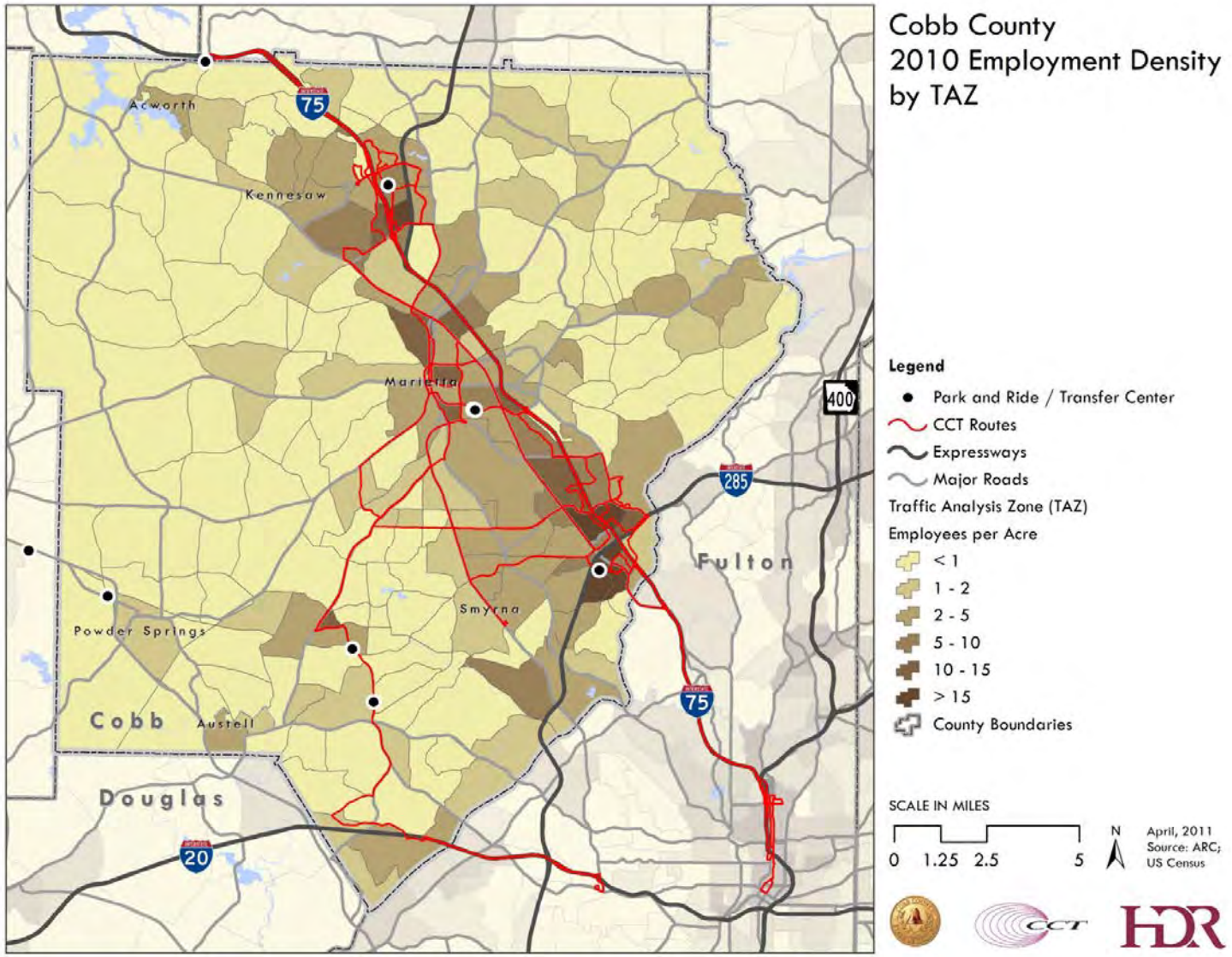
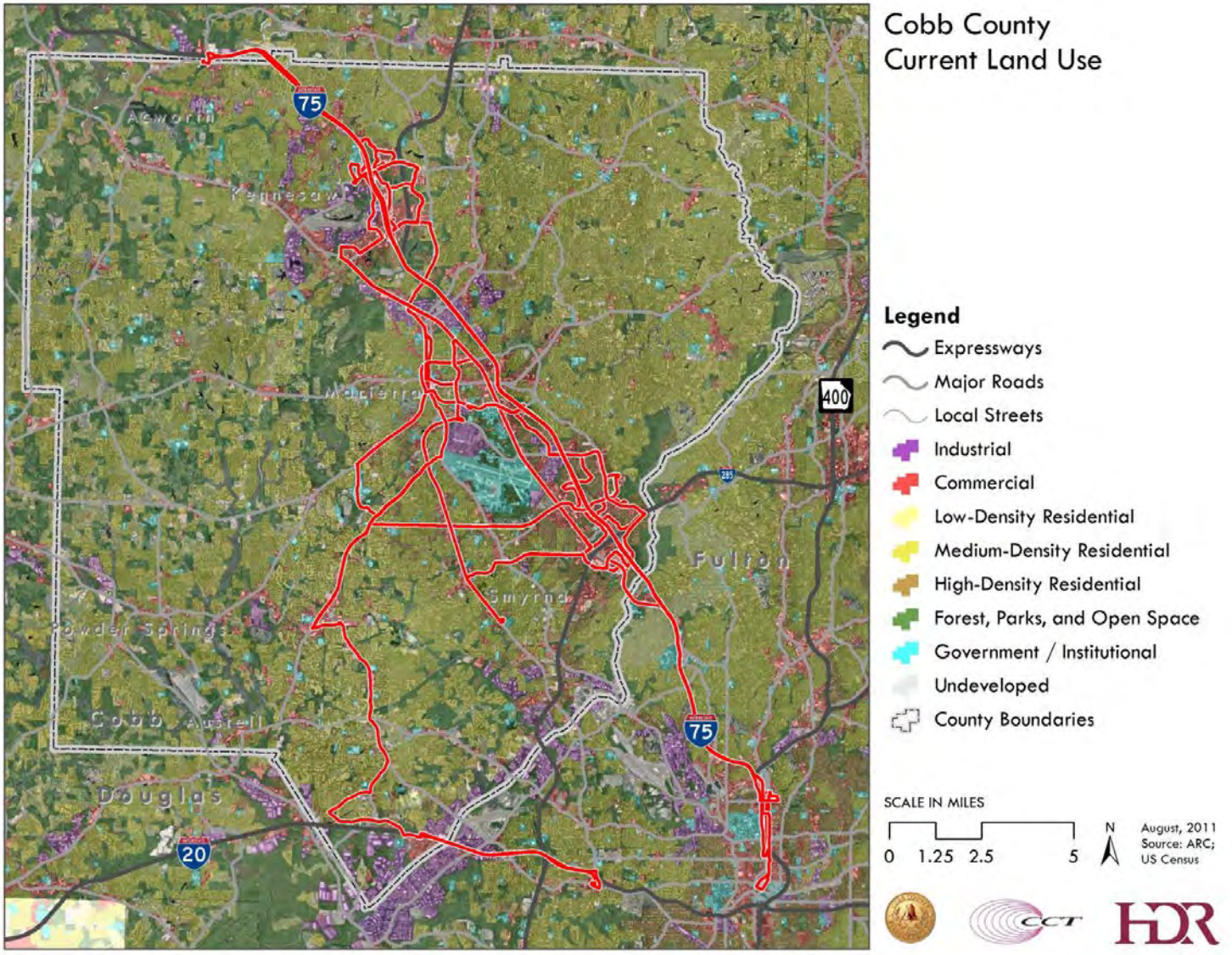
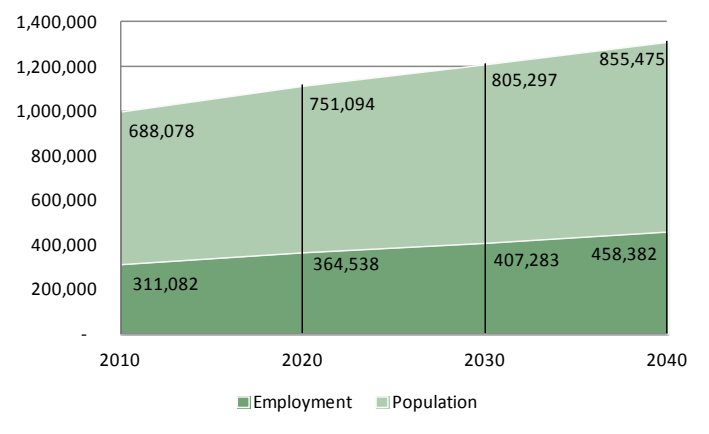


Figure 6: Cobb County Current Land Use



Cobb County's employment base is projected to expand 17% over the next 10 years to just over 360,000 employees. Much of this growth is projected to occur along the I-75 / US-41 corridors and in South Cobb. Moderate employment growth is projected in the southwest Cobb communities of Powder Springs and Austell, suggesting that future transit investment should be focused on increasing current service levels and developing new service corridors throughout these areas.

Figure 7: Cobb County Future Employment and Population Projections



3.1.3. Transit Propensity Indicators

Several demographic indicators were assessed in order to identify areas of high transit dependency, including: vehicle availability, disability status, and elderly population. Another tool developed by ARC to identify environmental justice (EJ) communities in the Atlanta region, the Equitable Target Area Analysis (ETA), was also assessed. The ETA is an index of five demographic measures: elderly, education attainment, median household value, poverty status, and minority status. Evaluated together, these indicators provide insight into areas which may benefit from new or expanded transit service.

Much of the county is considered a "Low" ETA community according to ARC's analysis. However, areas within and just south of Marietta are considered "High" ETA communities, and areas stretching southwest along Austell Road and Powder Springs Road into South Cobb are considered "Medium" ETA communities. Two other indicators- vehicle availability and disability- tend to follow the patterns exhibited in the ETA analysis. An independent analysis of elderly populations shows that a high concentration exists in northwest Marietta due to the presence of several assisted living facilities in that area. East Cobb also has moderate to high concentrations of elderly populations. For the most part, the High ETA communities are currently well served with transit, while the Medium ETA communities in southwest Cobb have less or no service.

Figure 8: Cobb County Projected Population Change by TAZ, 2010 - 2020

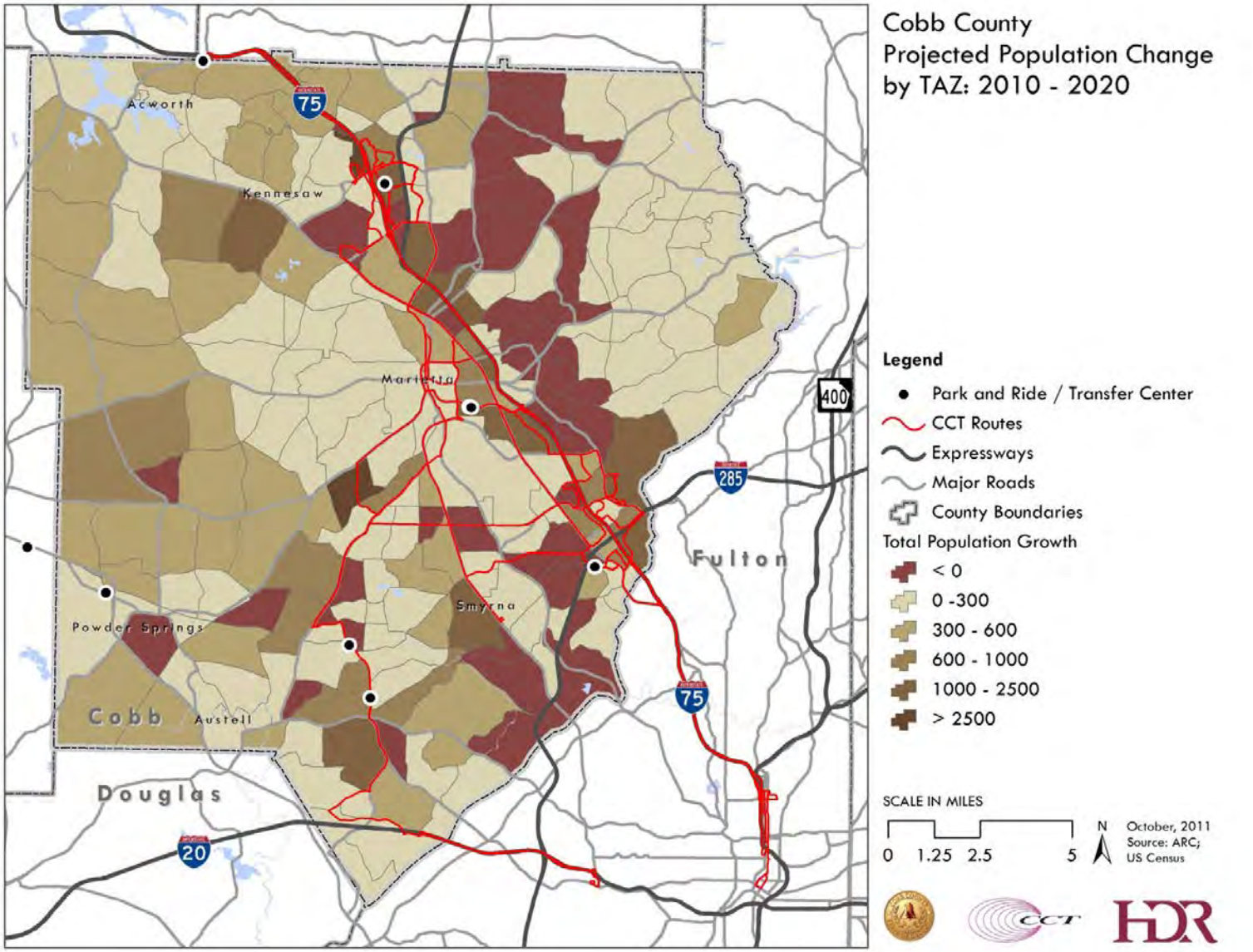


Figure 9: Cobb County Projected Employment Change by TAZ, 2010 - 2020

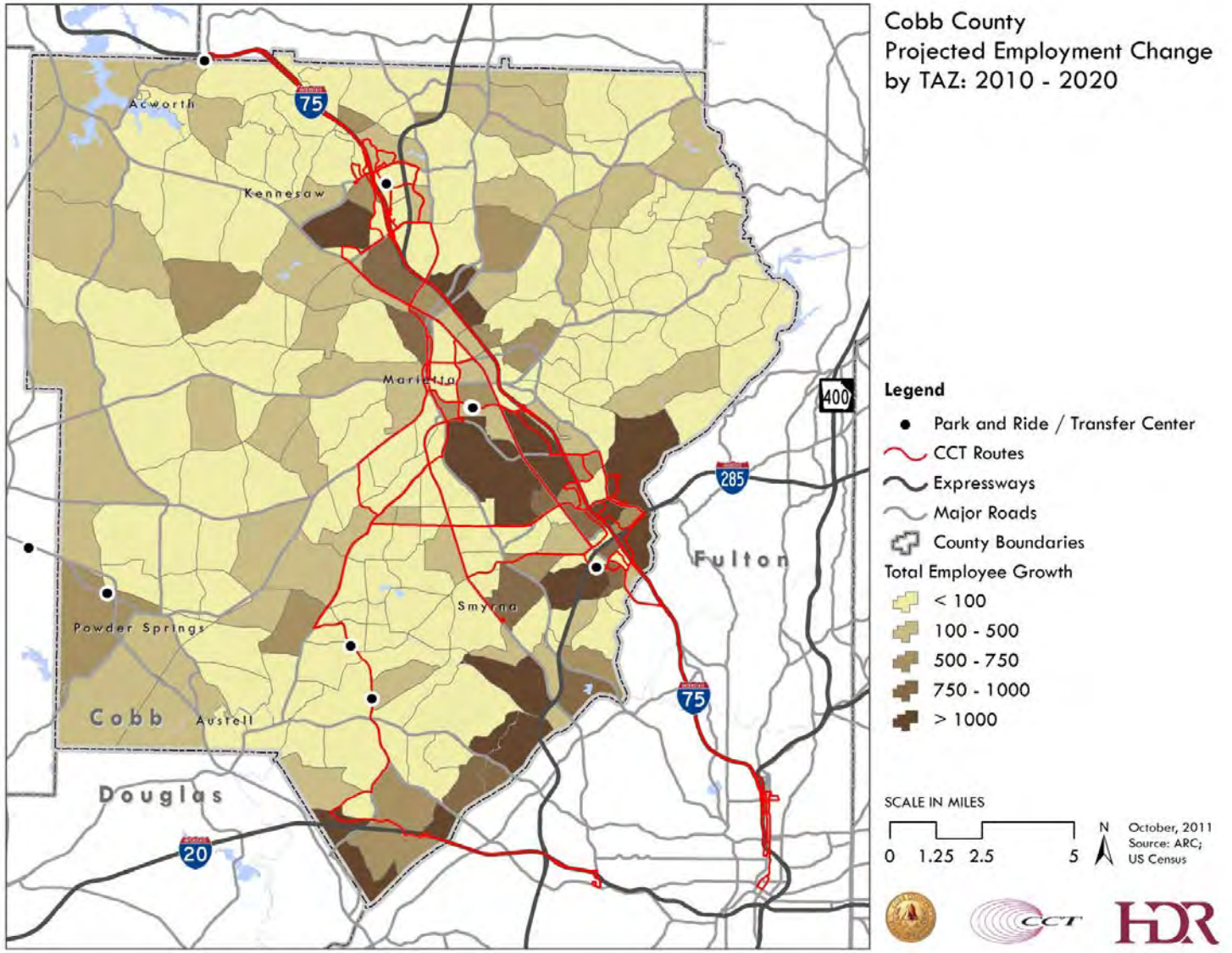


Figure 10: Cobb County Future Land Use

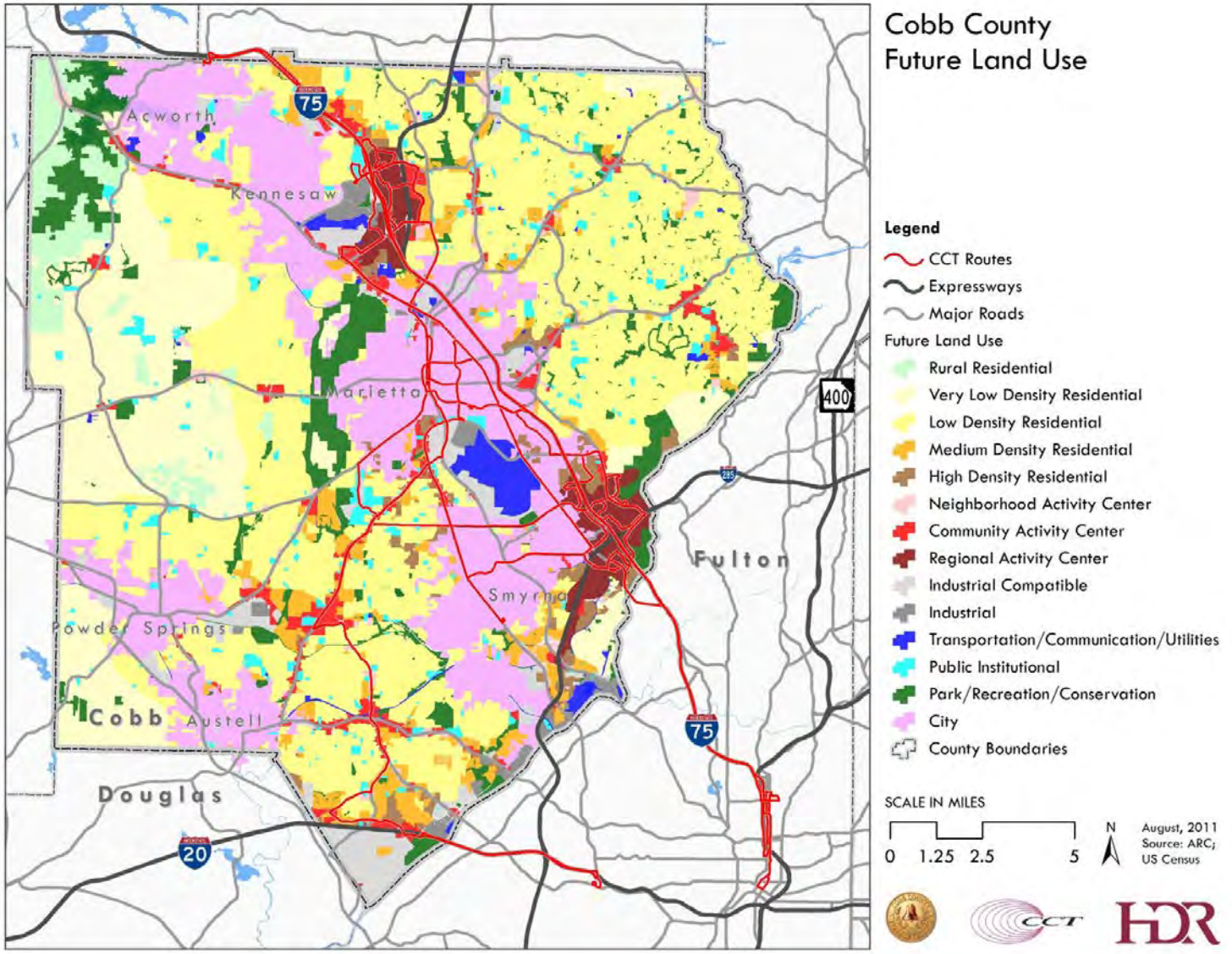


Figure 11: Cobb County Vehicle Availability by Census Block Group, 2009

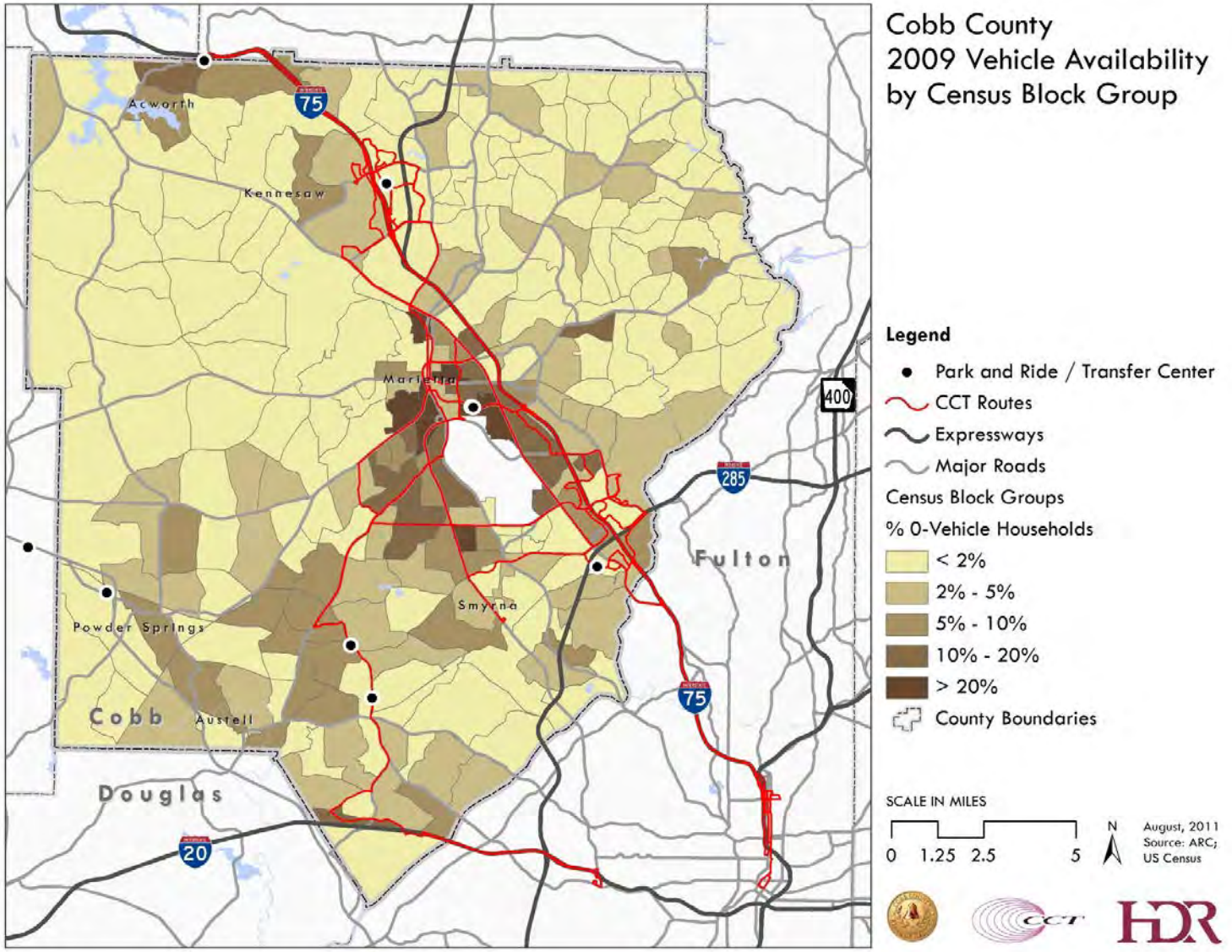


Figure 12: Cobb County Disabled Population by Census Block Group, 2000

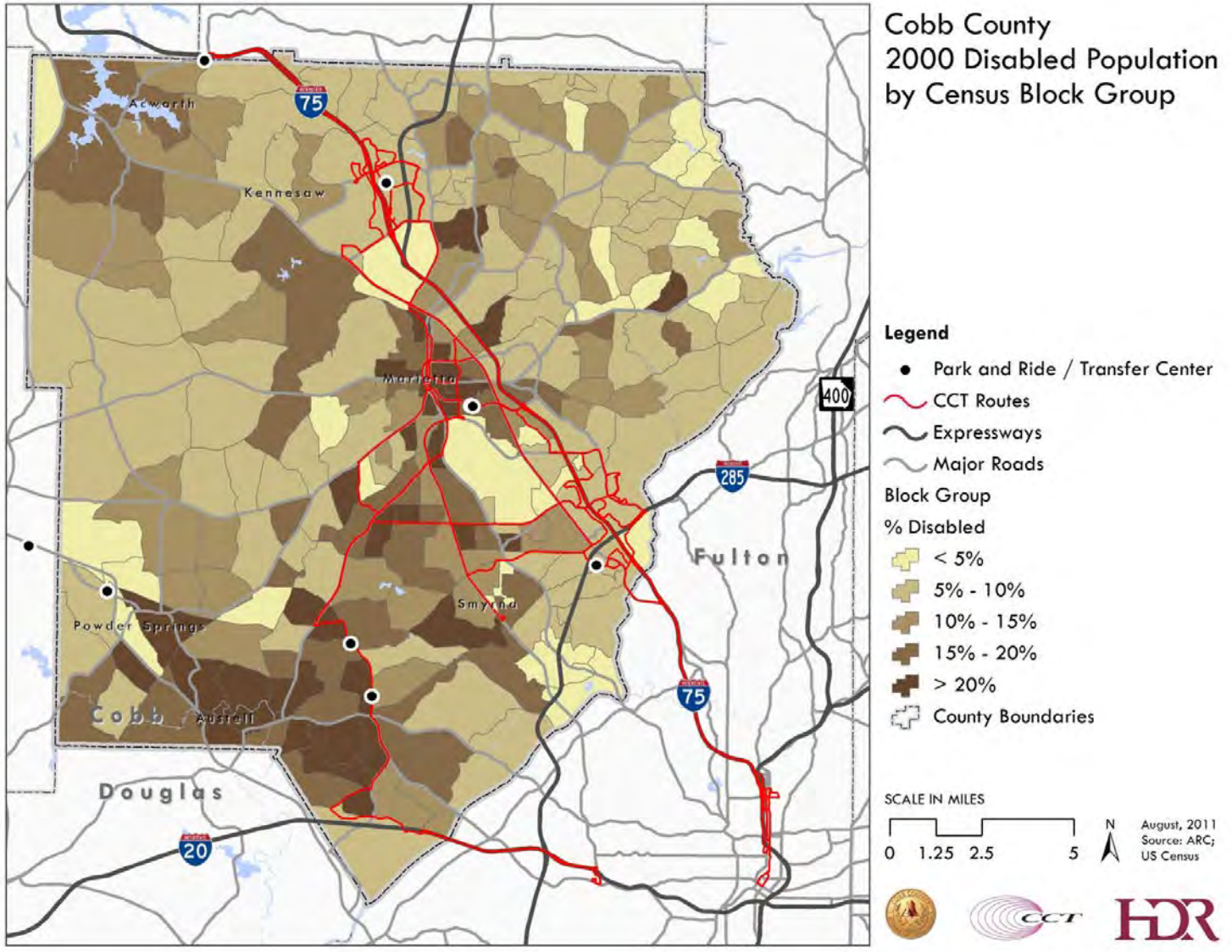


Figure 13: Cobb County Elderly Population by Block Group, 2010

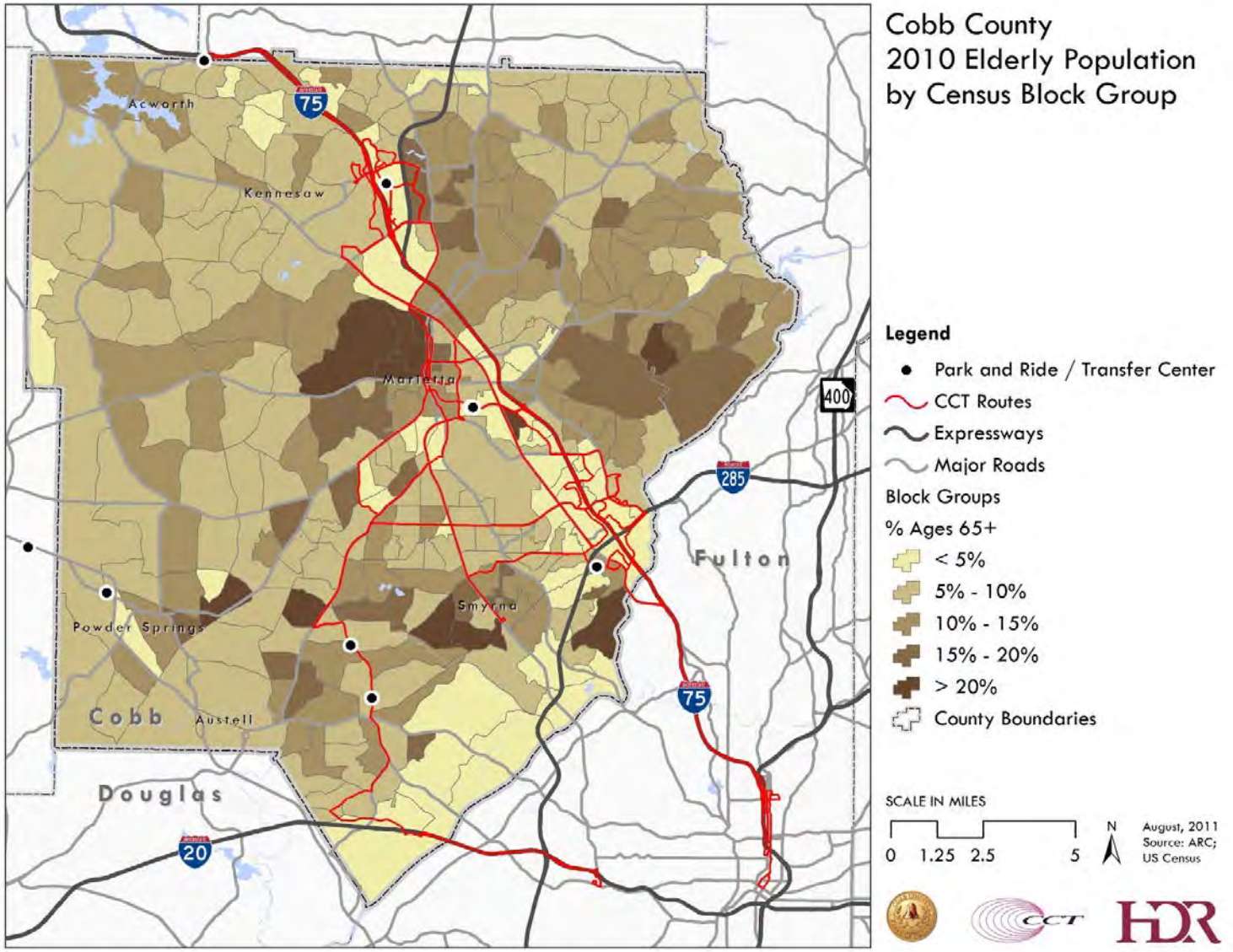
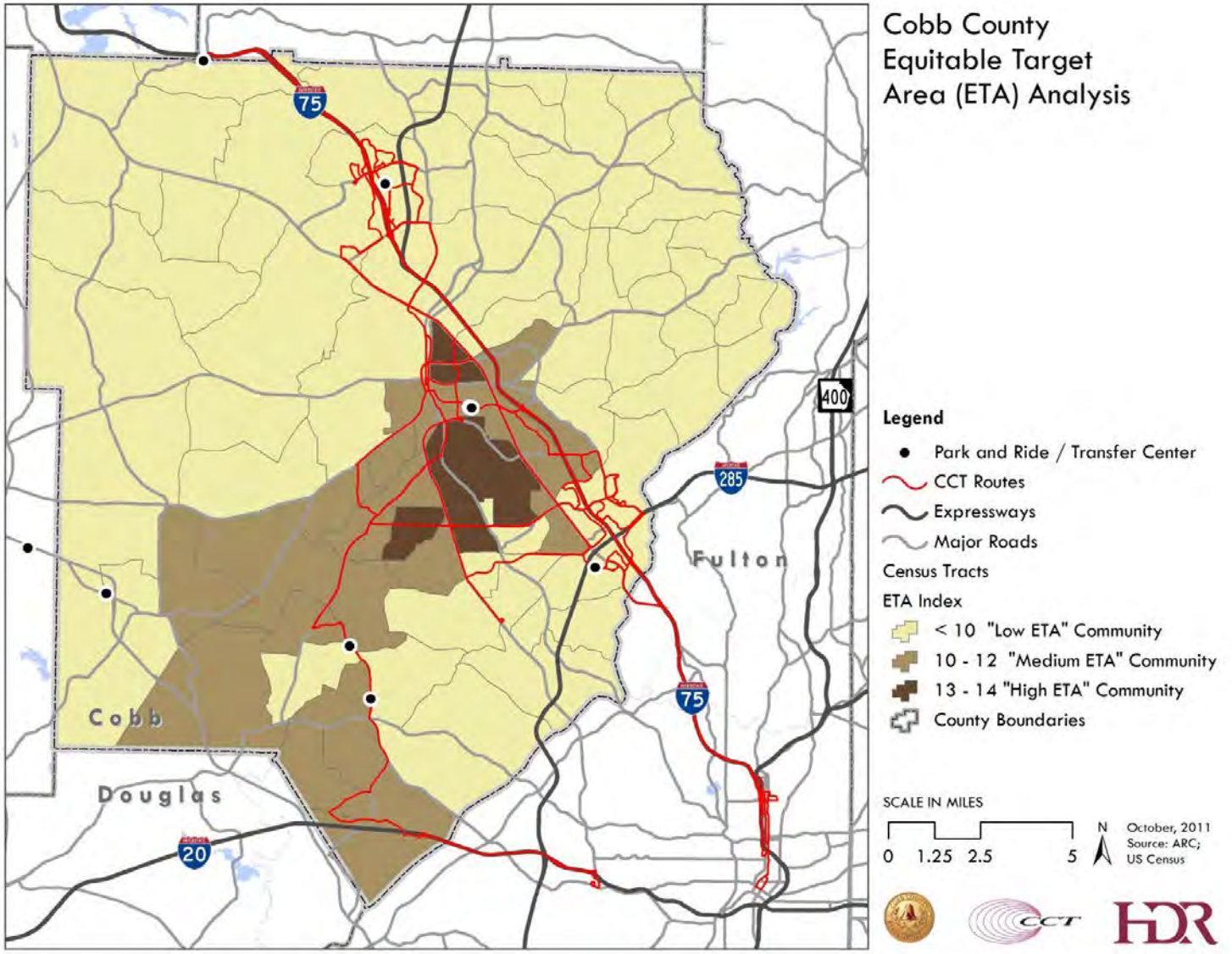


Figure 14: Cobb County Equitable Target Area Analysis



3.2. CCT Fixed Route Services Description

This section provides an overview of CCT's fixed route services, including local and express buses.

3.2.1. Local Fixed Routes

Currently, CCT operates seven local fixed routes throughout Cobb County, with service to MARTA's Hamilton E. Holmes and Arts Center transit stations in Fulton County. The routes are:

- 10: Cobb Parkway
- 15: Windy Hill Road
- 20: South Cobb Drive
- 30: Austell Road
- 40: Bells Ferry Road
- 45: Barrett Parkway
- 50: Powers Ferry Road

Of the local fixed routes, routes 10 and 30 have the greatest service levels and highest ridership. In particular, Route 10 is the "workhorse" route and provides the backbone of the system. Routes 15, 20, and 50 comprise the middle tier of service levels and ridership and serve the heavily-populated communities of central Cobb County. Routes 40 and 45 have the lowest service levels and ridership and provide service throughout the north US-41/I-75 corridor.

In terms of service productivity, routes 10, 15, 20, and 50 all average between 28 and 32 passengers per revenue hour on weekdays, which is above the system average (27). Routes 40, 30, and 45 are below the system average. Saturday service is quite productive on most routes, with all but the 40 and 45 averaging greater than 30 riders per revenue hour.

Figure 15: Daily Local Riders by Route, 2010

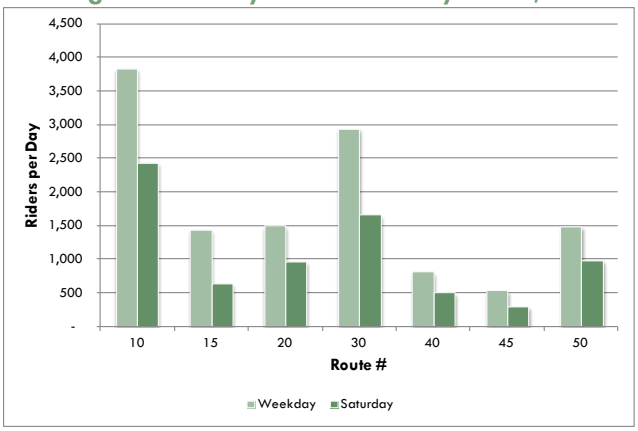


Figure 16: Daily Revenue Hours by Route, 2010

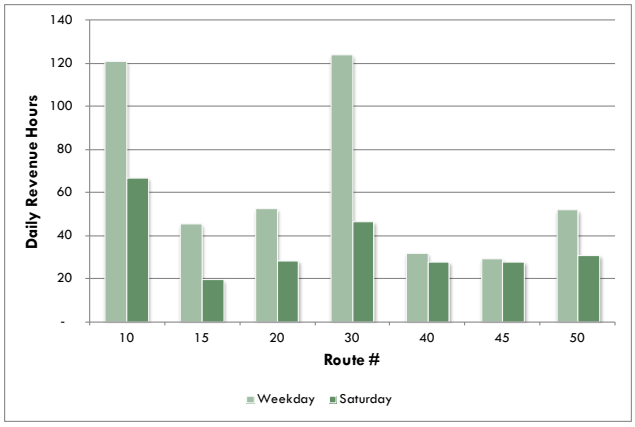
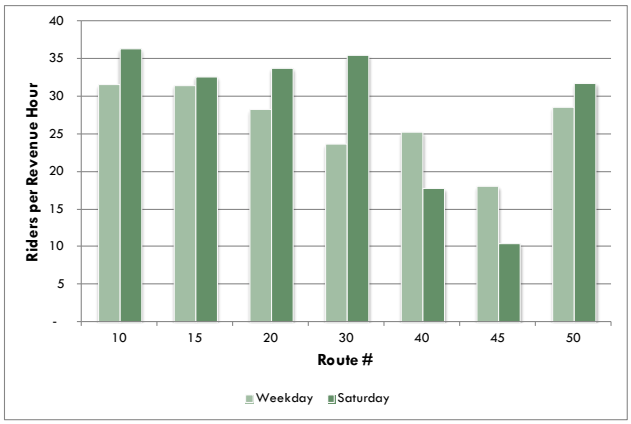


Figure 17: Riders per Revenue Hour by Route, 2010



Financially, routes 10 and 30 require the greatest operating expenses, but also generate the most farebox revenue. Routes 15, 20, and 50 require the middle range of operating expenses, while route 40 and 45 require the least. This is generally consistent with the service levels operated on each route.

From a cost-effectiveness standpoint, routes 10, 15, 20, and 50 have a lower cost per passenger-trip than the system average ($2.42). Routes 30, 40, and 45 have higher than average costs per passenger-trip. Despite having strong ridership, Route 30 is a relatively long route which increases its operating cost and thus lowers its overall cost-effectiveness. Route 45's low ridership accounts for its relatively poor cost per rider.

Routes 10 and 15 have the highest farebox recovery ratio, which measures the amount operating expenses covered by fare revenues. Routes 20 and 50 are also above the system average (39%). Route 45 has the lowest recovery ratio, which is attributable to its low ridership.

Figure 18: Annual Operating Expenses by Route, 2010

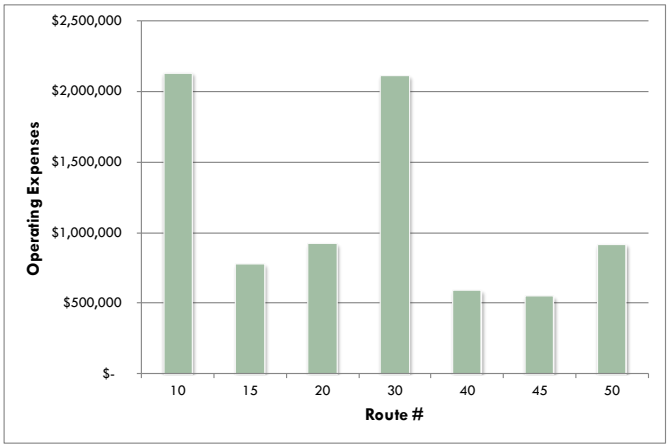


Figure 19: Farebox Revenue by Route, 2010

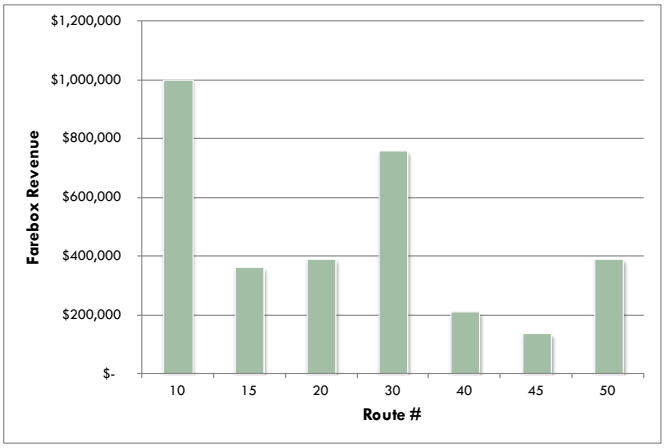


Figure 20: Cost per Passenger by Route, 2010

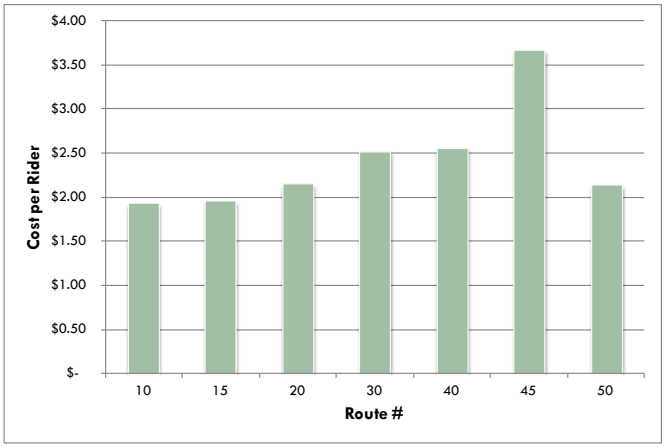
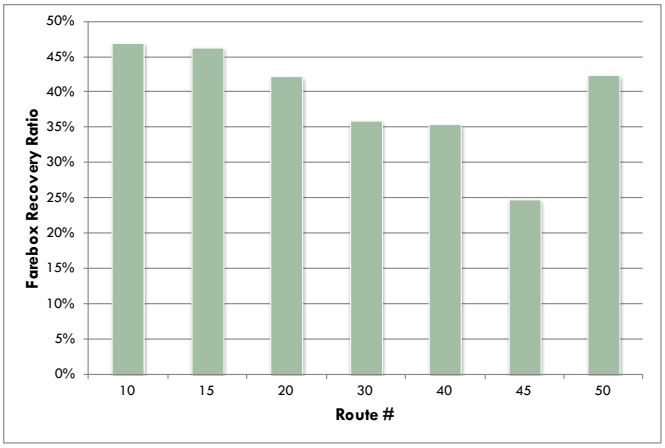


Figure 21: Farebox Recovery by Route, 2010



Route Profiles

More in-depth analysis of each route is found in **Appendix 3: Route Profiles.** Each route profile includes a description of the route, a service snapshot including key service statistics, and detailed boarding and alighting data.

3.2.2. Express Routes

CCT operates 12 express routes between various park and ride lots throughout Cobb County and destinations in midtown and downtown Atlanta. Six of these routes are funded by Cobb County (10 A/B/C reverse commute routes and 100-series commute routes) and six are funded by the Georgia Regional Transportation Authority's (GRTA) Xpress commuter service (400-series routes). The express routes operate only on weekdays in the morning and evening peak periods. The express routes include:

- 100: North Cobb Express
- 101: Marietta Express
- 102: Acworth PnR
- 10A: Atlanta to Delk Road
- 10B: Atlanta to Windy Hill
- 10C: Town Center to Arts Center
- 470/47: Hiram to Downtown
- 475: Austell/Mableton to Downtown
- 477: Hiram to Downtown
- 480: Acworth PnR to Downtown
- 481: Town Center PnR to Midtown

Figure 22: Daily Express Riders by Route, 2010

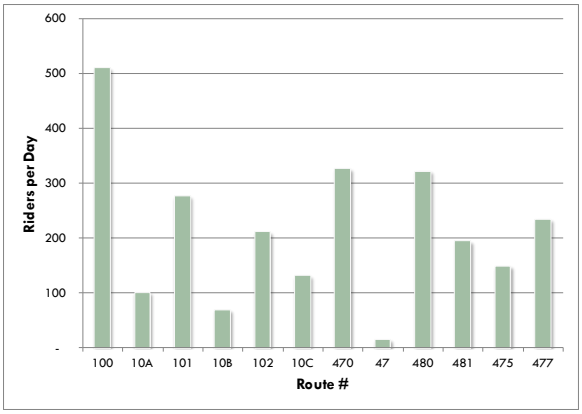
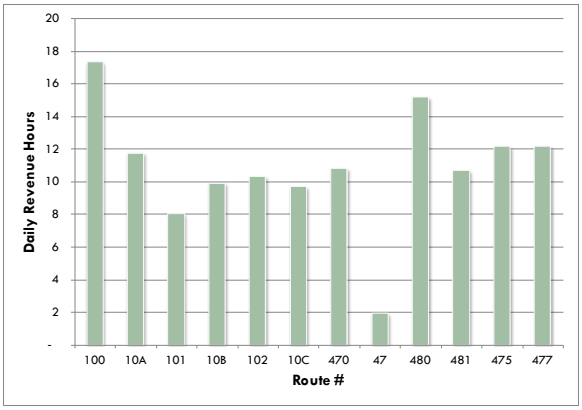


Figure 23: Daily Express Revenue Hours by Route, 2010



Route 100, from Busbee PnR to downtown Atlanta generates the most ridership of the express routes at just over 500 riders per day. Five other routes - the 101, 102, 470, 480, and 477 - are above the system average (212 daily trips). Route 47, which only operates two daily trips, has the lowest ridership at 17 daily trips.

Route 100's ridership is matched by its service level, which is the highest among the express routes as measured by daily revenue hours and trips. Route 480 is the second-highest at 15 hours and 16 trips per day, while the remaining routes, except for 47, average between 8 and 12 daily revenue hours and trips.

In terms of productivity, the average riders per hour is 19. Route 101 has the highest productivity at 34, followed by Route 100 at 29. Routes 102, 470, 480, and 477 are all above average. Routes 10A, 10B, and 47 have the lowest productivity at fewer than 10 passengers per hour.

Routes 100 and 480 have the highest annual operating costs at over $200,000 per year, while Route 47 has the lowest. The remaining routes cost between $100,000 and $200,000 per year to operate. Routes 100, 470, and 480 generate the most fare revenue, followed by the 101 and 477. The remaining routes are below the express system average of $49,390 in revenue.

Figure 24: Daily Express Trips by Route, 2010

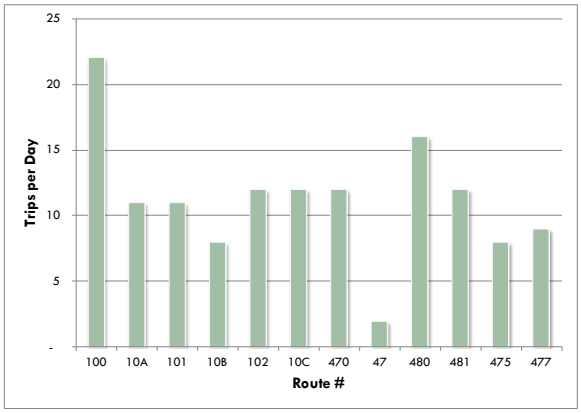


Figure 25: Riders per Express Revenue Hour by Route, 2010

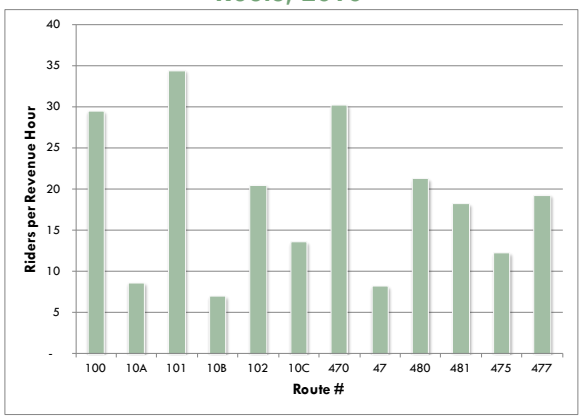


Figure 26: Operating Expenses by Express Route, 2010

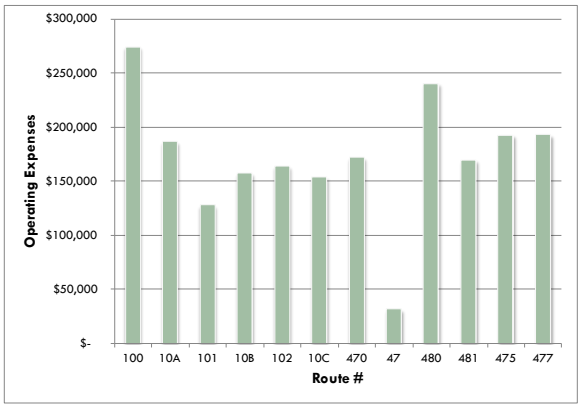


Figure 27: Farebox Revenues by Express Route, 2010

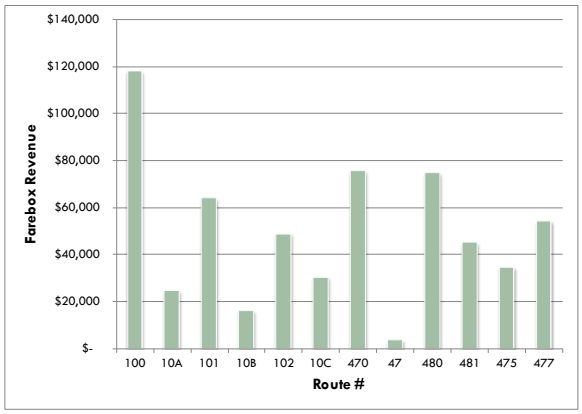


Figure 28: Cost per Rider by Express Route, 2010

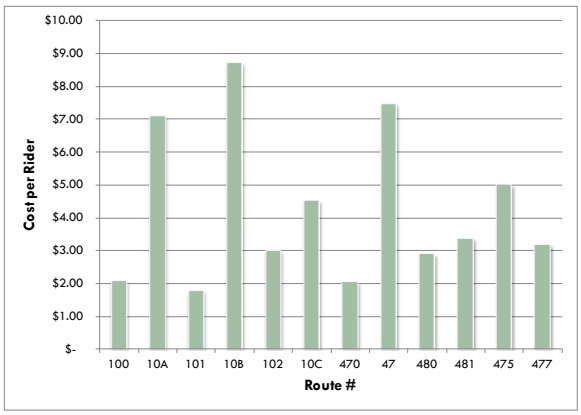
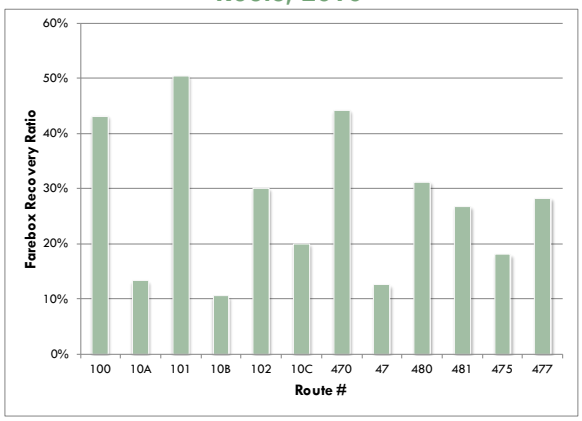


Figure 29: Farebox Recovery Ratio by Express Route, 2010



In terms of cost-efficiency, Route 101 is the top performer with a cost per rider of $1.80. Routes 100 and 470 also perform well with costs per rider just over $2.00. Routes 102, 480, 481, and 477 are all below the express system average of $4.28 per rider. The reverse commute trips tend to perform the most poorly, with average costs per rider around $7.00.

Three routes- the 100, 101, and 470- have farebox recovery ratios over 40%. Routes 102, 481, and 477 also have average recovery ratios above the express system average of 27%.

3.3. Description of Existing Facilities and Infrastructure

CCT owns and operates a number of facilities that support its fixed route and paratransit services. These facilities are described in this section.

3.3.1. Administrative, Operations, and Maintenance Facilities

CCT's main administrative, operations, and maintenance facility is located at 463 Commerce Park Drive, adjacent to the Marietta Transfer Center. This facility houses the fixed route and paratransit administrative offices, customer service center, a storage lot for fixed route and paratransit vehicles, and maintenance facility. All routine and heavy maintenance is performed at this location.

CCT recently renovated 4800 square feet of this facility for a new customer service department. This project also included enclosing CCT's bus wash. A new paratransit facility that will house CCT's paratransit staff and the Cobb Senior Services (CSS) transportation unit is under construction and scheduled for occupancy in July 2012.

3.3.2. Transfer Centers

CCT operates two transfer centers: the Marietta Transfer Center (MTC) and the Cumberland Transfer Center (CTC). All of CCT's local fixed routes operate out of its main hub at the MTC, while local routes 10, 20, and 50 serve the CTC. The MTC also serves express routes 10C and 101 and the CTC serves express routes 10A and 10B.

3.3.3. Park and Ride Lots

CCT operates seven park and ride (PnR) lots which are served by both local and express routes. The combined capacity for these lots is approximately 2,000 spaces. The respective capacity and routes served for each lot is presented in Table 2.

Table 2: CCT Park and Ride Lots Capacity and Routes Served

Park and Ride Lot	Capacity	Routes Served
Acworth PnR	500	102, 480
Busbee PnR	350	40, 100, 480, 481
Marietta PnR	300	10, 10C, 15, 20, 30, 40, 45, 50, 101
Hiram PnR	150	470/47, 477/ 77
Powder Springs PnR	270	470/47, 477/ 77
Floyd Rd PnR	215	30
Mableton PnR	215	475
TOTAL:	**2,000**	

3.4. Peer Analysis

3.4.1. Introduction

In order to gain a better understanding of unmet service needs and potential new service needs, a peer analysis was conducted to compare CCT's bus system to other transit systems that are comparable in terms of size of the transit system (e.g., peak buses), size of the service area (e.g., population), and types of services provided (e.g., local bus, express bus, demand response). This system-level analysis will help identify CCT's strengths and weaknesses with respect to service productivity, cost effectiveness and efficiency, and service coverage. Additionally, a ten-year longitudinal analysis was completed to identify trends in the CCT's service productivity and cost-effectiveness.

This analysis provides a high-level assessment of the CCT's bus operations. The knowledge gained through this assessment will assist the project team in development of service plans and operational policies aimed at improving productivity and efficiency at the system level.

3.4.2. Peer Group Selection

Ten peer transit systems were selected based on system size and regional demographic characteristics. Criteria used to choose the peer systems include urban area population and physical size, annual vehicle revenue hours, and annual unlinked passenger trips. Other factors such as percentage of college students residing in the service area, location of the system relative to a major metropolitan area, and whether the system is operated by a contractor or in-house were also considered. Major college towns, despite some that have transit systems similar in size to CCT, were eliminated due to the unique ridership patterns often associated with universities. Conversely, several suburban systems with a mix of local and express services were included. The final selected peer systems include:

- **Alexandria, Virginia (Washington, D.C.)**: City of Alexandria (DASH)
- **Birmingham, Alabama**: Birmingham-Jefferson County Transit Authority (MAX)
- **Charleston, South Carolina**: Charleston Area Regional Transportation Authority (CARTA)
- **Fort Wright, Kentucky (Cincinnati)**: Transit Authority of Northern Kentucky (TANK)
- **Lawrenceville, Georgia (Gwinnett County)**: Gwinnett Board of County Commissioners (GCT)
- **Largo, Maryland (Washington, D.C.)**: Prince George's County Transit (TheBus)
- **Lewisville, Texas (Dallas-Fort Worth)**: Denton County Transportation Authority (DCTA)
- **Raleigh, North Carolina**: Capital Area Transit (CAT)
- **South Daytona, Florida**: County of Volusia (Votran)
- **Woodbridge, Virginia (Washington D.C.)**: Potomac and Rappahannock Transportation Commission (PRTC)

System performance measures were computed for each peer system using 2009 National Transit Database (NTD) data (at this time, fiscal year 2009 is the most recent year that NTD data is available for each peer system). While the NTD is assembled for the purposes of comparison

and sharing information throughout the transit industry, some variances are expected in comparability among operators. In addition, while there is an effort by FTA to ensure commonality in the data sources and methods of calculation, there are varying degrees of accuracy in the data submitted by the respective transit agencies. For these reasons, this peer analysis is most useful for identifying broad trends and comparisons of efficiency, effectiveness and coverage. Because of the unique operating characteristics of each system and data limitations, this analysis should not be used to draw specific conclusions or findings (i.e., CCT should hire "X" more vehicle maintainers) about CCT service without more detailed analyses of staffing levels, productivity, and other factors.

3.4.3. System Performance Measures

The performance of CCT's bus system was compared to the ten peer systems based on three general categories of evaluation measures: 1) service productivity, 2) cost efficiency effectiveness, and 3) service coverage.

- **Service Productivity**. Service productivity measures indicate how effectively a transit system provides service. The following measures were used to evaluate service productivity:

  - Passenger trips per vehicle revenue hour (Weekday, Saturday, Sunday)
  - Passenger trips per vehicle revenue mile (Weekday, Saturday, Sunday)
  - Vehicle revenue miles per peak vehicle
  - Vehicle revenue hours per peak vehicle
  - Average speed in revenue service
  - Average passenger trip length
  - Weekday peak to base ratio

- **Cost Efficiency and Effectiveness**. Cost effectiveness measures indicate how much an agency spends per passenger trip, while cost efficiency measures indicate the cost required to provide a unit of service (e.g. vehicle hours or miles). The following measures were used to evaluate cost effectiveness and efficiency:

  - Total operating expenses per passenger trip
  - Total operating expenses per vehicle revenue hour
  - Total operating expenses per vehicle revenue mile
  - Total operating expenses per peak vehicle
  - Operating expenses by function (Vehicle Operations, Vehicle Maintenance, Non-vehicle Maintenance, General Administration) per revenue hour
  - Farebox recovery

- **Service Coverage**. Service coverage measures indicate the degree to which a transit operator provides service within its coverage area. For bus service, service coverage

area is defined as three-fourths of a mile on each side of a fixed route. The following measures were used to evaluate service coverage.

- Vehicle revenue hours per square mile of service area
- Vehicle revenue miles per square mile of service area
- Vehicle revenue hours per service area population
- Vehicle revenue miles per service area population
- Passenger trips per service area population

In addition to comparing CCT's performance to its peer systems using FY 2009 NTD data, the project team also analyzed longitudinal trends for key performance measures using for a ten-year period from FY 2000 through FY 2009. The longitudinal analysis was intended to identify trends in CCT's productivity and cost effectiveness.

3.4.4. Motor Bus Peer Analysis

3.4.4.1.Overview – Peer Systems Demographic and Operating Statistics

As displayed in Table 3, the ten peer transit agencies provide fixed route service to a service area population that ranges from 847,000 (Prince George's County) to 135,000 (Alexandria). The average population of the peer systems is 446,500, approximately 9% greater than CCT's service area population. CCT's service area size is also significantly smaller than average, at 210 square miles compared to the peer average (323). In terms of units of service provided, however, CCT is above-average. CCT provides 18% more peak vehicles, 35% more annual passenger trips, and 35% more annual revenue miles than the peer system average, while annual revenue hours are within 1% of the peer average. CCT also generates 35% more fare revenue than average, second only to the PRTC (Woodbridge, Virginia).

These metrics indicate that, despite serving a more compact service area, CCT provides more service and carries more passengers than its peers. This robust level of service is reflected in the service coverage metrics presented in Section 3.4.4.4 Figure 30 through Figure 33 show a comparison of CCT and each of the peer systems for service area population, annual unlinked passenger trips, annual revenue vehicle hours, and annual fare revenue, respectively.

Like CCT, nine of the ten peer systems operate fixed route service on Saturdays (only Largo, MD does not). Unlike CCT, six of the peer systems operate fixed route service on Sundays.

Table 3: Demographics and Operating Characteristics of CCT's Bus Peer Systems

City	Service Area Population	Service Area Square Miles	Vehicles Operated in Maximum Service	Annual Unlinked Passenger Trips	Annual Bus Revenue Hours	Annual Bus Revenue Miles	Annual Fare Revenue
Cobb County (CCT)	406,069	210	79	4,553,004	178,529	3,345,336	4,954,670
PEER AVERAGE	446,486	323	67	3,363,166	177,737	2,482,323	3,280,815
Alexandria (DASH)	135,000	16	49	3,989,844	158,395	1,446,179	2,582,064
Birmingham (MAX)	662,047	186	71	2,805,110	223,521	2,694,228	2,201,289
Charleston (CARTA)	505,879	73	66	3,990,364	231,655	3,093,375	2,839,704
Fort Wright (TANK)	269,680	267	82	3,700,887	212,294	2,962,057	3,831,459
Gwinnett County (GCT)	583,048	351	67	2,304,741	135,974	2,695,435	4,273,216
Largo (TheBus)	847,000	487	67	3,510,433	198,851	2,493,910	1,588,778
Lewisville (DCTA)	234,552	157	52	2,060,146	94,922	1,310,666	2,470,506
Raleigh (CAT)	347,729	125	62	5,019,646	203,508	2,575,576	2,189,561
South Daytona (Votran)	468,670	1,207	46	3,071,247	157,846	2,467,382	2,099,858
Woodbridge (PRTC)	411,258	361	107	3,179,244	160,406	3,084,420	8,731,717

Greater than 25 Below Average	Between 0% and 25% Below Average	At or Above Average

Figure 30: Service Area Population

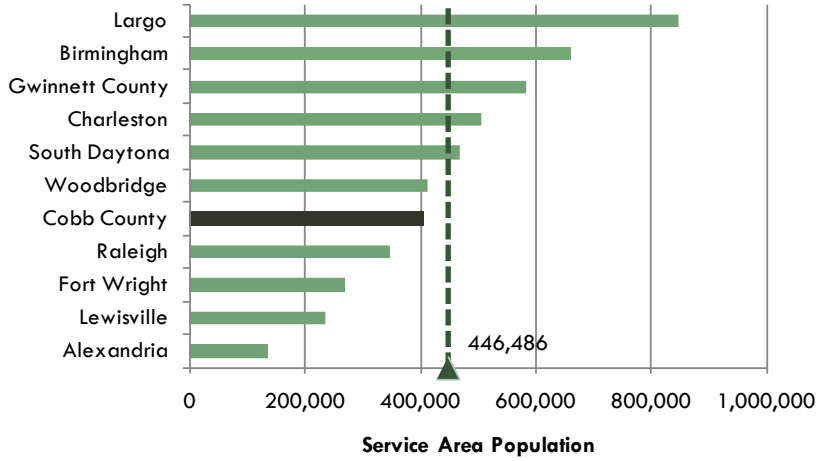


Figure 31: Annual Unlinked Passenger Trips

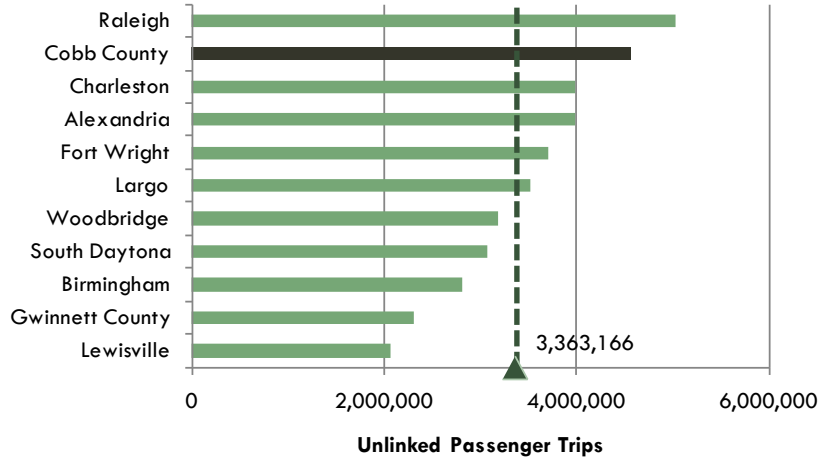


Figure 32: Annual Vehicle Revenue Hours

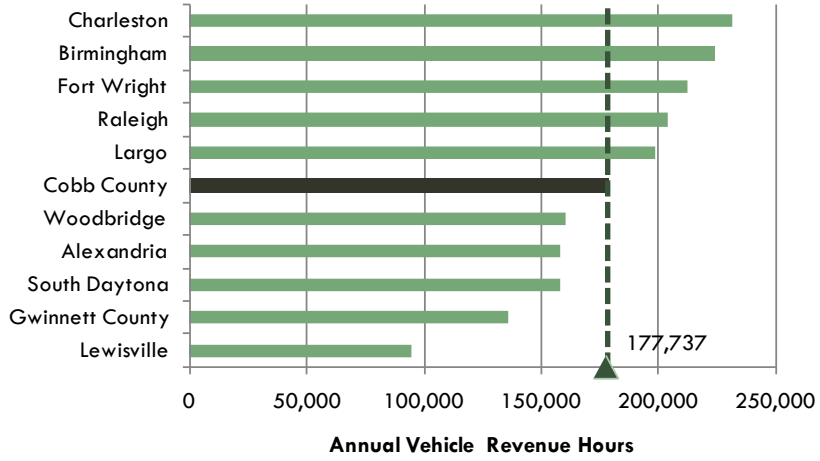
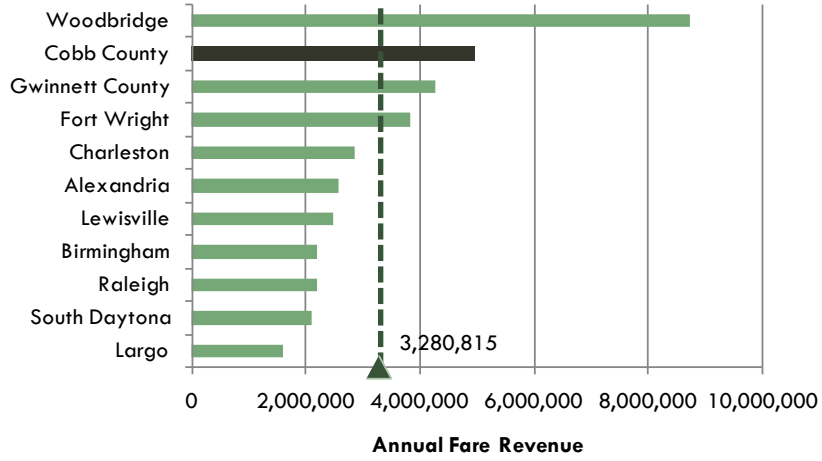


Figure 33: Annual Fare Revenue



3.4.4.2.Service Productivity

CCT's productivity, expressed in terms of weekday passenger trips per revenue hour, is significantly greater than the peer average. However, weekday passenger trips per revenue mile are slightly below average, reflecting the large amount of express bus service operated by CCT.

- CCT provides roughly the same amount of revenue hours as the average peer system; however, it provides 35% more revenue miles. This difference is attributed to CCT's substantial amount of peak period express service (typically longer-haul, high-speed routes) and explains why weekday passenger trips per revenue mile are slightly below average. CCT's extensive express network is also reflected in the average speed in revenue service (35% above average) and average passenger trip length (30% above average) metrics.
- CCT's fleet utilization, as measured by annual revenue miles and hours per peak bus, are 14% above and 15% below average, respectively. This is not only a function of CCT's high volume of express service, but also of the system's high peak-to-base ratio. Peak-to-base ratio is a measure of the volume of service offered during the AM and PM peak periods versus the base, or mid-day, period. CCT focuses its service in the peak periods, both on its local and express routes, as evidenced by these metrics.
- Over the past ten years, CCT's productivity in terms of passengers per revenue hour has been fairly stable and consistently greater than the peer average. Passengers per revenue hour peaked in 2007 at nearly 30, and had a ten-year low of 23.2 in 2001. By 2009, passengers per revenue hour returned to its 2000 level of 25.5.
- CCT's passengers per revenue mile have declined by 17% since 2000, compared to a peer average decline of 11%. However, the bulk of CCT's decline occurred between 2000 and 2001, and has since stabilized over the last nine years.[1]

Figure 34: Passengers per Revenue Hour, 2000 – 2009

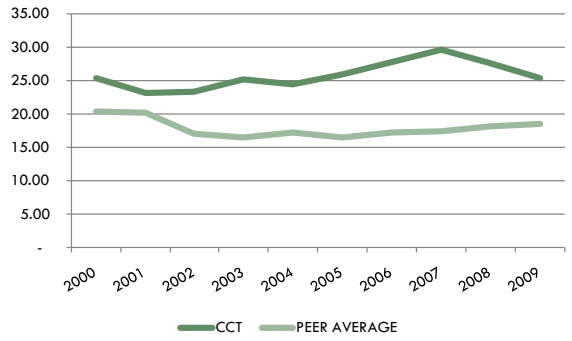
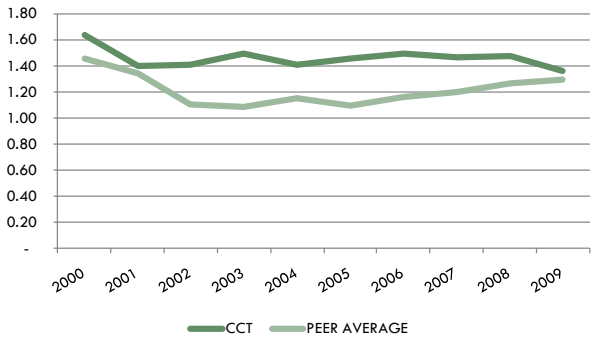


Figure 35: Passengers per Revenue Mile, 2000 - 2009



[1] Total passengers per revenue hour and mile were used for longitudinal analysis, while weekday passengers per revenue hour and mile were used for peer analysis. This accounts for a slight difference in values.

Table 4: Service Productivity Measures

City	Passenger Trips per Revenue Bus Hour			Passenger Trips per Revenue Bus Mile			Vehicle Revenue Miles per Peak Vehicle	Vehicle Revenue Hours per Peak Vehicle	Average Speed in Revenue Service (mph)	Average Passenger Trip Length (miles)	Weekday Peak to Base Ratio
	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday					
Cobb County (CCT)	25.39	26.78	*NA*	1.34	1.70	*NA*	42,346	2,260	19	8.9	2.9
PEER AVERAGE	19.31	15.81	16.89	1.36	1.17	1.38	37,105	2,657	13.97	6.8	1.93
Alexandria (DASH)	26.50	21.18	24.29	2.90	2.42	2.53	29,514	3,233	9	3.0	2.0
Birmingham (MAX)	13.64	5.63	6.07	1.16	0.45	0.72	37,947	3,148	12	5.2	1.2
Charleston (CARTA)	17.79	22.12	14.31	1.26	1.38	1.25	46,869	3,510	13	3.8	1.5
Fort Wright (TANK)	17.18	18.11	19.51	1.21	1.44	1.47	36,123	2,589	14	5.5	2.3
Gwinnett County (GCT)	17.42	8.79		0.87	0.54		40,230	2,029	20	16.8	1.2
Largo (TheBus)	17.65			1.41			37,223	2,968	13	9.4	1.4
Lewisville (DCTA)	21.07	9.70		1.53	0.70		25,205	1,825	14	3.1	1.2
Raleigh (CAT)	24.97	21.12	28.71	1.97	1.70	2.07	41,542	3,282	13	3.9	1.8
South Daytona (Votran)	20.06	16.00	25.84	1.28	1.03	1.56	53,639	3,431	16	4.7	1.0
Woodbridge (PRTC)	19.90	17.05		1.03	1.24		28,826	1,499	19	17.4	5.8

Greater than 25 Below Average	Between 0% and 25% Below Average	At or Above Average

Table 5: Service Productivity Trends, 2000 - 2009

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	% Inc 2000 - 2009
Passenger Trips Per Revenue Hour	25.49	23.19	23.43	25.14	24.47	26.04	27.77	29.73	27.64	25.50	0%
Passenger Trips Per Revenue Mile	1.64	1.40	1.41	1.50	1.41	1.46	1.50	1.47	1.48	1.36	-17%

Figure 36: Weekday Passenger Trips per Revenue Hour

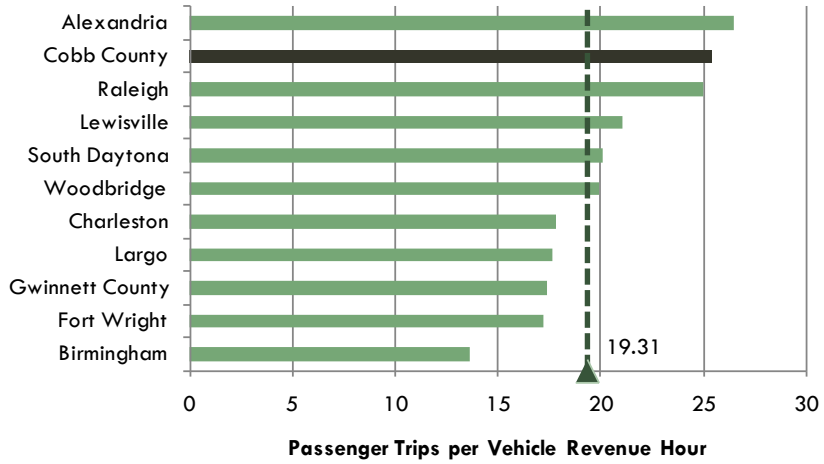


Figure 37: Weekday Passenger Trips per Revenue Mile

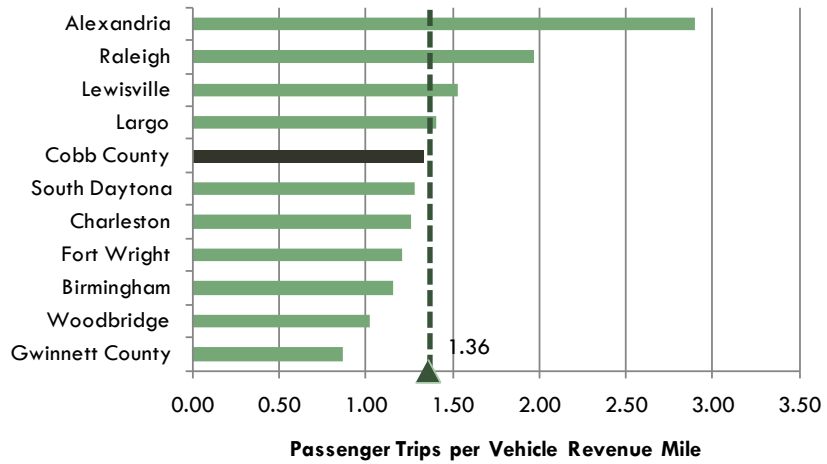


Figure 38: Annual Revenue Miles per Peak Bus

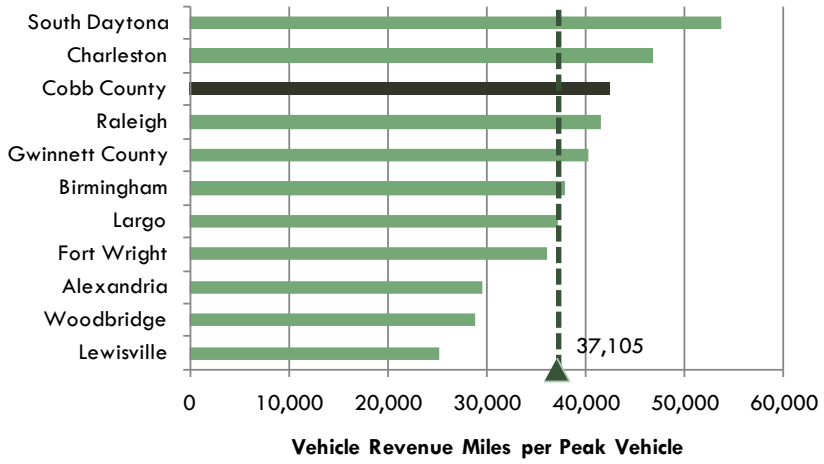
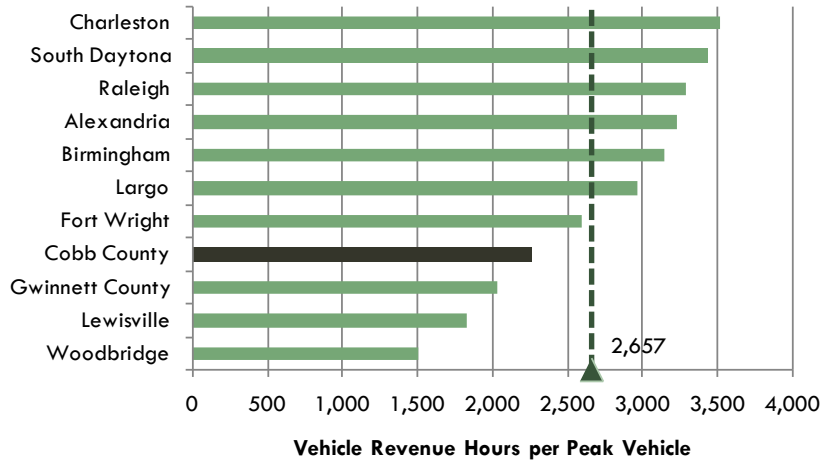


Figure 39: Annual Revenue Hours per Peak Bus



3.4.4.3.Cost Efficiency and Effectiveness

CCT is more cost effective than the average peer system in terms of operating expenses per passenger trip, revenue mile, and peak vehicle.

- CCT's cost per passenger trip and cost per vehicle mile are both 15% below average, while cost per peak vehicle is 3% below average. This indicates that CCT is operated more efficiently than its peers. However, CCT's cost per revenue hour is 14% above average. This likely does not signal a critical inefficiency, because, as previously noted, CCT operates more peak-based express service than most of the systems evaluated.
- When evaluated in terms organizational function, CCT's vehicle maintenance functions are more efficient than average. Revenue vehicle maintenance is 31% below average and non-revenue vehicle maintenance is 2% below average. Vehicle operations expenses per revenue hour are 2% above average, while general administration expenses per revenue hour are 115% above average.
- CCT's farebox recovery ratio (the ratio of fare revenues to total operating cost), a key indicator of cost-effectiveness, is 25% above the peer average.

CCT's cost-effectiveness and cost-efficiency trends were well above the cost of inflation for the ten-year evaluation period.

- Although CCT's operating cost per passenger trip increased 64% during this period, or 6.4% annually, it remains significantly more cost-effective than its peers. This rate of increase is 40% greater than the rate of inflation for the decade, which was approximately 24%, or 2.4% annually.[2] The peer rate of increase for the decade was 7%, although CCT's cost per trip was consistently lower.
- CCT's 10-year increase in cost per revenue hour, at 64%, was also greater than the rate of inflation. The peer rate of increase was slightly lower at 36%. The peer average was greater than CCT's through 2007 when a sharp increase in cost per hour pushed CCT above the peers.

Figure 40: Cost per Passenger Trip, 2000 - 2009

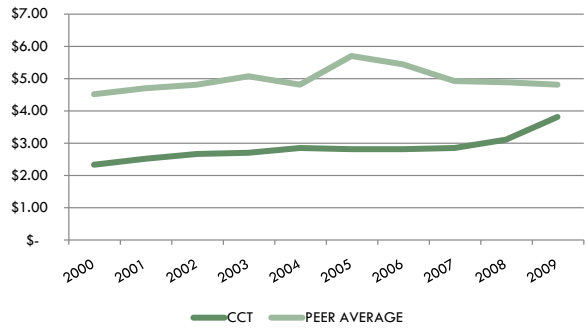


Figure 41: Cost per Revenue Hour, 2000 - 2009

[2] Source: Consumer Price Index – All Urban Consumers, Southern Region, 2000 - 2009. Not seasonally adjusted. U.S. Department of Labor, Bureau of Labor Statistics.

Table 6: Cost Effectiveness Measures

City	Total Operating Expenses				Operating Expenses by Function				Farebox Recovery
	Total Operating Expenses per Passenger Trip	Total Operating Expenses per Vehicle Revenue Hour	Total Operating Expenses per Vehicle Revenue Mile	Total Operating Expenses per Peak Vehicle	Vehicle Operations Operating Expenses per Revenue Hour	Revenue Vehicle Maintenance Operating Expenses per Revenue Hour	Non-Revenue Vehicle Maintenance Operating Expenses per Revenue Hour	General Administration Operating Expenses per Revenue Hour	
Cobb County (CCT)	$ 3.84	$ 97.96	$ 5.23	$ 221,367	$ 56.68	$ 10.49	$ 2.62	$ 28.15	28%
PEER AVERAGE	$ 4.52	$ 85.57	$ 6.13	$ 227,348	$ 54.51	$ 15.29	$ 2.69	$ 13.09	23%
Alexandria (DASH)	$ 2.85	$ 71.73	$ 7.86	$ 231,878	$ 48.39	$ 14.96	$ 0.81	$ 7.57	23%
Birmingham (MAX)	$ 6.92	$ 86.82	$ 7.20	$ 273,322	$ 46.56	$ 25.23	$ 2.44	$ 12.58	11%
Charleston (CARTA)	$ 3.47	$ 59.75	$ 4.47	$ 209,726	$ 22.74	$ 22.62	$ 0.96	$ 13.42	21%
Fort Wright (TANK)	$ 4.52	$ 78.88	$ 5.65	$ 204,213	$ 54.24	$ 13.48	$ 1.99	$ 9.17	23%
Gwinnett County (GCT)	$ 4.95	$ 83.93	$ 4.23	$ 170,325	$ 50.76	$ 6.86	$ 9.64	$ 16.66	37%
Largo (TheBus)	$ 5.40	$ 95.39	$ 7.61	$ 283,124	$ 86.64	$ 0.79	$ 2.06	$ 5.90	8%
Lewisville (DCTA)	$ 3.26	$ 70.67	$ 5.12	$ 129,002	$ 33.26	$ 11.93	$ 3.00	$ 22.48	37%
Raleigh (CAT)	$ 3.41	$ 84.09	$ 6.64	$ 276,004	$ 50.67	$ 17.11	$ 0.96	$ 15.35	13%
South Daytona (Votran)	$ 3.57	$ 69.42	$ 4.44	$ 238,216	$ 46.09	$ 10.38	$ 3.40	$ 9.55	19%
Woodbridge (PRTC)	$ 8.05	$ 159.48	$ 8.29	$ 239,077	$ 106.90	$ 23.18	$ 4.48	$ 24.92	34%

Greater than 25 Below Average	Between 0% and 25% Below Average	At or Above Average

Table 7: Cost Effectiveness Trends, 2000 - 2009

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	% Inc 2000 - 2009
Operating Expense Per Passenger Trip	$ 2.34	$ 2.54	$ 2.68	$ 2.72	$ 2.88	$ 2.82	$ 2.82	$ 2.88	$ 3.13	$ 3.84	64%
Operating Expense Per Peak Vehicle	$157,907	$163,085	$173,359	$167,912	$196,364	$197,888	$166,120	$177,760	$192,800	$221,367	40%
Operating Expense Per Revenue Hour	$ 59.68	$ 59.03	$ 62.68	$ 68.36	$ 70.38	$ 73.37	$ 78.21	$ 85.48	$ 86.37	$ 97.96	64%
Operating Expense Per Revenue Mile	$ 3.84	$ 3.57	$ 3.76	$ 4.08	$ 4.05	$ 4.11	$ 4.23	$ 4.23	$ 4.62	$ 5.23	36%

Figure 42: Operating Cost per Passenger Trip

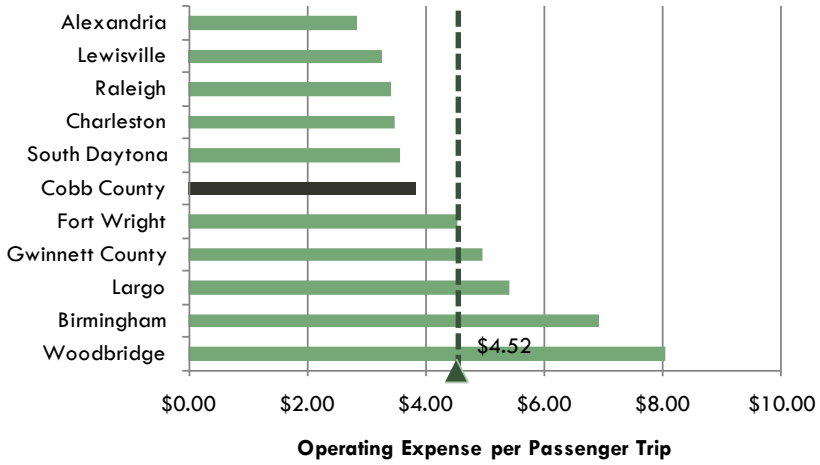


Figure 43: Operating Cost per Revenue Hour

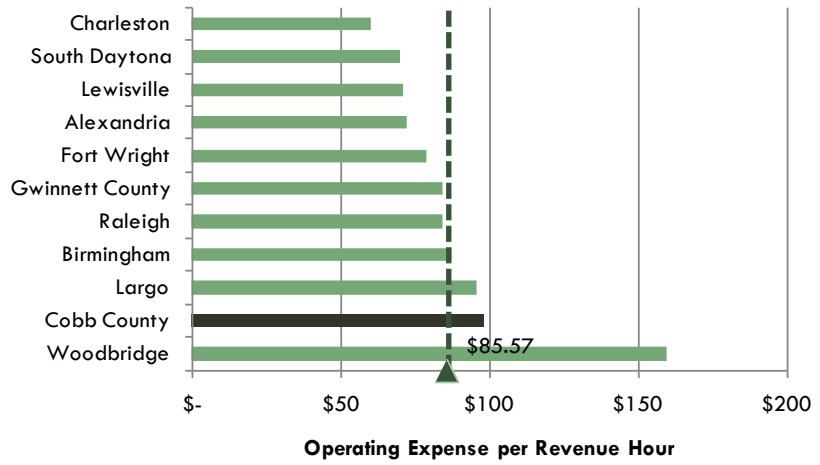


Figure 44: Farebox Recovery

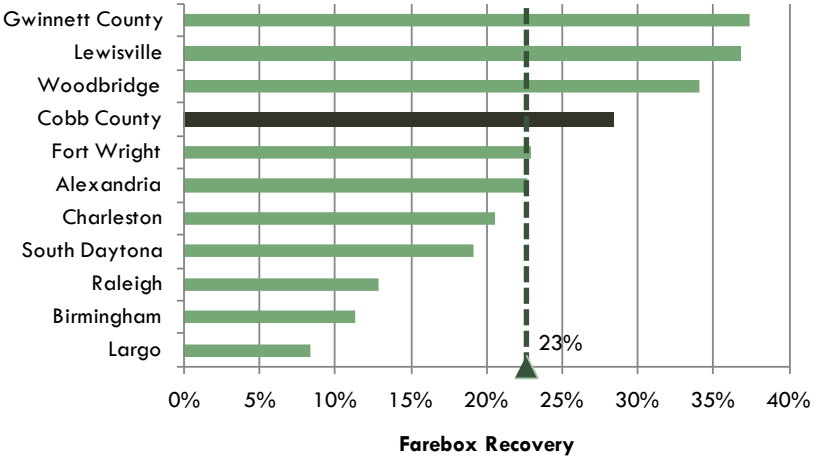
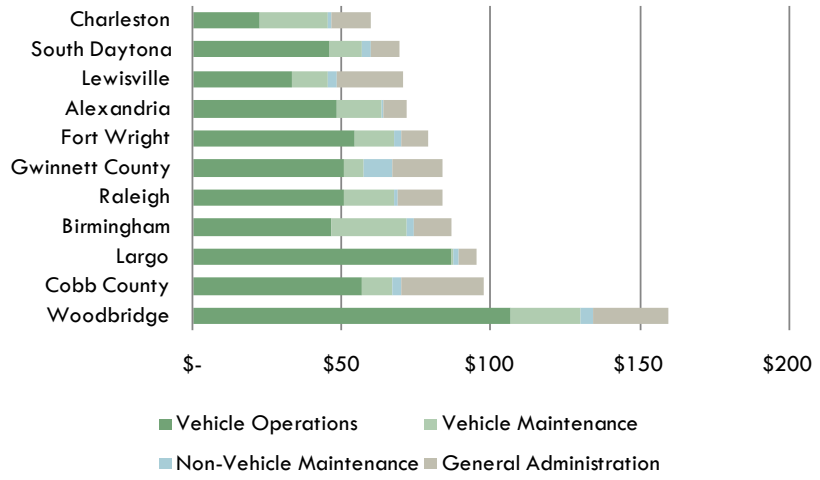


Figure 45: Operating Cost per Revenue Hour by Cost Function



3.4.4.4.Service Coverage

CCT's service coverage per service area size and service area population is well above average compared to its peers. However, this is attributable to the fact that CCT's service area population density is 40% greater than the average peer.

- CCT provides 52% more revenue hours, 107% more revenue miles, and 108% more passenger trips per square mile of service area than the peer average.
- When evaluated with respect to population, CCT provides 10% more revenue hours, 48% more revenue miles, and 49% more passenger trips.

Table 8: Service Coverage Measures

City	Vehicle Revenue Hours per Square Mile of Service Area	Vehicle Revenue Miles per Square Mile of Service Area	Passenger Trips per Square Mile of Service Area	Vehicle Revenue Hours per Service Area Population	Vehicle Revenue Miles per Service Area Population	Passenger Trips per Service Area Population
Cobb County (CCT)	850	15,930	21,681	0.44	8.24	11.21
PEER AVERAGE	550	7,685	10,412	0.40	5.56	7.53
Alexandria (DASH)	9,900	90,386	249,365	1.17	10.71	29.55
Birmingham (MAX)	1,202	14,485	15,081	0.34	4.07	4.24
Charleston (CARTA)	3,173	42,375	54,663	0.46	6.11	7.89
Fort Wright (TANK)	795	11,094	13,861	0.79	10.98	13.72
Gwinnett County (GCT)	387	7,679	6,566	0.23	4.62	3.95
Largo (TheBus)	408	5,121	7,208	0.23	2.94	4.14
Lewisville (DCTA)	605	8,348	13,122	0.40	5.59	8.78
Raleigh (CAT)	1,628	20,605	40,157	0.59	7.41	14.44
South Daytona (Votran)	131	2,044	2,545	0.34	5.26	6.55
Woodbridge (PRTC)	444	8,544	8,807	0.39	7.50	7.73

Greater than 25 Below Average	Between 0% and 25% Below Average	At or Above Average

Figure 46: Revenue Miles per Square Mile of Service Area

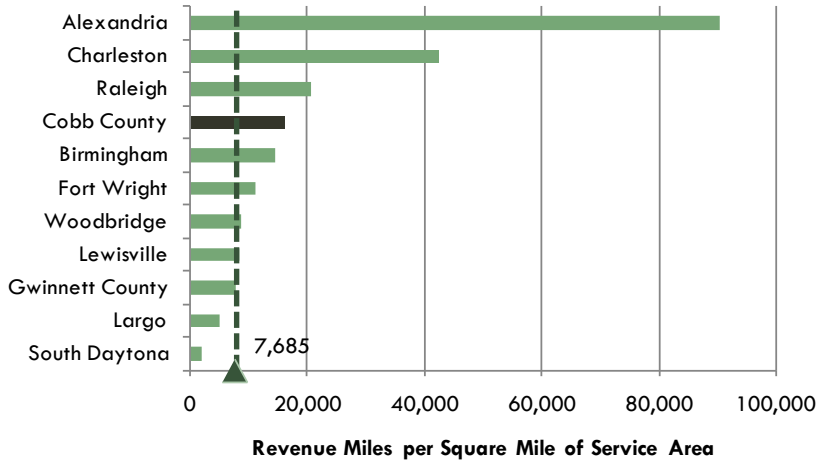


Figure 47: Revenue Miles per Service Area Population

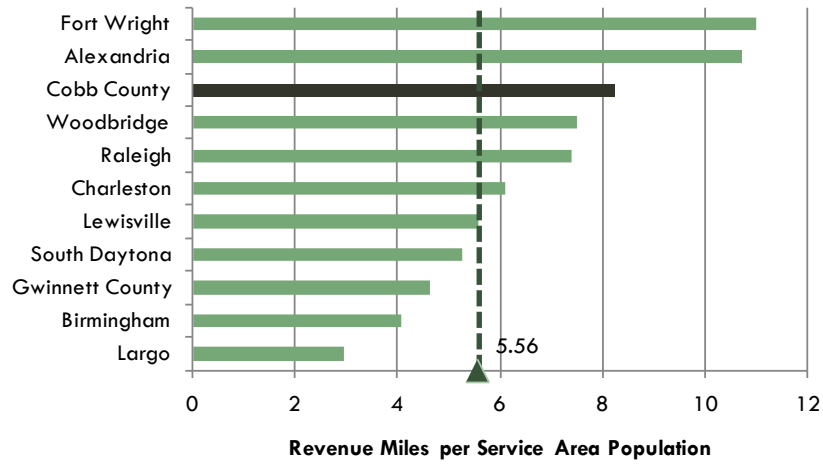


Figure 48: Annual Passenger Trips per Square Mile of Service Area

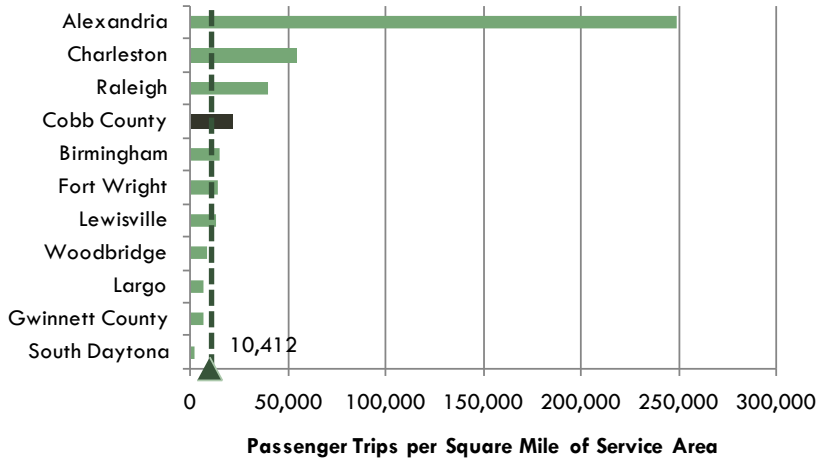
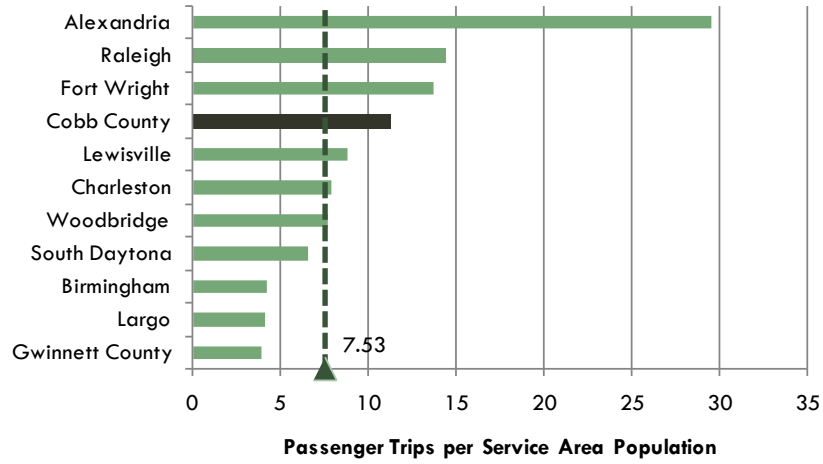


Figure 49: Annual Passenger Trips per Service Area Population



3.5. System-wide and Route-level Service Modification Strategies

This section presents the development of recommended service modification strategies and improvements for CCT's fixed-route bus service at the system and route-level. Service optimization and plan strategies were identified for developing service plans to better serve Cobb County in a more efficient and cost-effective manner as CCT grows in the next 10 years.

The following elements were used to determine existing fixed-route bus service needs and identify opportunities for improvement on both a system-level and route-level. Results and findings from the following activities were used in the development of fixed-route modification strategies and service plans:

- **Community Input:** As presented in Section 2, conversations with bus operators, community stakeholders, focus groups and agency staff provided essential feedback regarding existing CCT fixed-route service and suggestions on how to improve service. Comments received included many suggestions for increasing current service by providing more frequent service frequencies, extended service hours, expanding service in underserved areas and the implementation of Sunday service. Other comments included improving transfers and more pedestrian amenities at bus stops (i.e. shelters, sidewalks, crosswalks).

- **Data Collection and Analysis:** As discussed earlier in Section 3, fixed route data collection and analysis included review of FY 2010 CCT operating statistics and financial data, ARC's 2009-2010 Regional On-Board Transit Survey, market analysis and peer transit system analysis. The route-level analysis was based on a ride check survey and field observation by service planners to better understand bus route alignments, boarding and alighting activity, bus stop locations, major activity and employment centers. Route profiles were developed to provide detailed information regarding:

    - Service – span, frequency trips, revenue hours and miles
    - Ridership – riders per day, revenue hour and trip
    - Cost – cost per passenger, subsidy per passenger and fare box recovery
    - On-time performance data
    - Load Data – average load per trip, average max load, max load
    - Daily ridership and average load by stop
    - Weekday ridership and trips by time of day

A service planning framework was created to guide service plan strategies, modifications and recommendations. The following goals and objectives serve as guiding principles in the development of the recommended service plans:

- **Customer Focused:** Ensure that service meets travel needs of existing customers and new customers to the system.
- **Efficiently Delivered:** Provide service that is reliable, on-schedule and delivered in the most efficient manner.

- **Cost Effective:** Employ a level of service and coverage matched with ridership demand, while maximizing resources and adhering to current financial constraints.
- **Innovatively Designed:** Encourage service hours, service levels, and new service delivery models that best meet future transit markets.

In order to prioritize strategies recommended for implementation over the next 10 years, a multi-layered approach was undertaken to develop a series of service measures, standards and models to guide the development of near-term, mid-term and long-term service plans.

3.5.1. Service Performance Evaluation

An evaluation of service performance is essential to understand how individual routes perform as they relate to the overall transit network. It is important to evaluate how a route is performing on a regular basis to determine if changes need to be made to improve performance. Currently, CCT does not have a defined set of service standards for evaluation purposes of its fixed-route system, but these general evaluation measures will assist in the development of service plans and provide guidance for future changes:

- **On-Time Performance:** Measures if service is provided and delivered on schedule. On-time performance is typically determined by departure at specific bus stops and time points. Buses that depart between one minute early and five minutes late are typically considered on time. On-time performance can identify running time issues based on the route design, schedule, traffic congestion and/or bus operator issues with remaining on schedule. A recommended goal is for a route to achieve 80% or greater for on-time performance.

- **Load Standards:** Passenger loads should be monitored to adjust service levels on routes with over-capacity or underutilization. Adjusting service frequency is often required to maintain the appropriate passenger loads. Routes should adhere to a seated capacity of at or below 100% to avoid the number of standees for long-distance trips.

- **Service Productivity:** A route's performance is typically measured in comparison to other routes. The following key service productivity measures define a standard to determine a route's performance:

    - **Riders per Revenue Hour:** Measures the ridership based on the amount of service provided.
    - **Subsidy per Rider:** Measures the cost of providing service to each passenger beyond the fare revenue received.
    - **Farebox Recovery Ratio:** Measures the percentage of revenue generated through paid fares by the cost of total operating costs.

3.5.2. Service Level Standards

Service level standards for fixed-route bus services reflect the relationship between supply of service and demand based on ridership. General guidelines for service levels should be considered to meet existing and future ridership demand by determining whether more or less frequent service and/or hours of service is required for each service period and day of service. The following service level standards include:

- **Span of Service:** The span of service defines how many hours during the day a route will operate. Increasing or decreasing the span of service based on ridership demand at the beginning and end of service for each route will help maximize the service efficiency and operating resources. CCT currently operates service on weekdays and Saturdays and it is recommended for CCT to explore implementing Sunday service to meet future needs.

- **Service Frequency:** Service frequency measures the service provided to customers by creating a wait time at bus stop for service. More frequent service makes that service more attractive to customers by providing more flexibility to serve travel needs, especially during AM and PM peak periods. However, higher frequencies increase operating costs by requiring more vehicles and bus operators. CCT currently provides clock-face service frequencies (i.e. 15, 30 and 60 minutes) for all routes, which is easier for customers to understand schedules and design operations. It is recommended for CCT to continue providing clock-face service frequencies for its fixed-route service whenever it is practical.

3.5.3. Service Design Standards

Developing specific service design standards ensures that fixed route bus service is delivered effectively and seamlessly throughout the system. These standards provide guidance in preparing service plans that transition current service towards the future, meeting the needs of customers through quality of service and within available resources for CCT operate and maintain. The following design standards were developed to guide the development of service plans:

- **System Coverage:** CCT fixed route bus service should be provided in Cobb County that best meet current and future demand. Service should be available within a 10-minute walking distance (1/2 mile or less) of areas consisting of transit dependent populations (i.e. seniors, disabled, 0 auto households), higher population densities and major activity and employment centers.

- **Route Directness:** Routes should be designed to be more direct and corridor-based for riders to better understand route alignment and for service to be provided in a more efficient manner with less turning movement conflicts and circuitous routing.

- **Connectivity:** Customers should have the opportunity to transfer between routes seamlessly and connect between desired origins and destinations. CCT currently designs and utilizes its fixed route service to make local connections between routes at CCT transfer centers and to the regional system at MARTA rail stations. Opportunities for

better transfers between routes at major intersections should also be explored to increase connectivity.

- **Elimination of Redundant Service:** Routes that overlap should be complementary of each other and not result in competitive, redundant service. Opportunities may exist to re-allocate resources from redundant service to identified areas not currently served or underserved by CCT.

3.5.4. Service Delivery Models

An assessment and evaluation of service delivery models for consideration by CCT bus service was conducted to determine opportunities to design service for future needs. The following service delivery models were reviewed for consideration for CCT fixed-route bus service:

- **Grid Network:** Grid networks are composed of multiple trunk, or crosstown, routes that typically serve arterial corridors and connect major trip generators. Buses travel bi-directionally along the route and serve fixed stops. Grid networks are easy for passengers to understand and navigate, however they typically require dense corridors and frequent service to sustain high levels of ridership. Most successful grid network systems are found in dense urban areas.

- **Hub and Spoke:** Hub and spoke networks are comprised of a series of routes which serve a central transfer center, usually in a downtown area or at a major activity center such as a regional shopping center. A variation of the hub and spoke is the pulse network which involves the timed transfers of routes. Buses arrive and depart at approximately the same time to accommodate transfers between routes. Hub and spoke/pulse networks require a transfer facility with sufficient capacity to accommodate the connecting buses. While this type of route system facilitates passenger transfers, it can often increase travel times due to indirect routing. Pulse systems are typically utilized in small to medium-sized urban settings.

- **Feeder Service:** Feeder bus route are designed to provide customers with frequent direct access to premium transit service (i.e. commuter rail, heavy rail, light rail, bus rapid transit). Feeder service also requires customers to use premium transit to access other parts of a service area.

- **Circulator Service:** Circulators routes are typically designed using a small bus vehicle fleet intended to transport riders within a neighborhood, major activity or employment center that may not be well-served by a regional transit system. Transit circulator services can improve mobility for users, encourage more riders to use the service and provide connections to larger regional transit systems. Even though circulators encourages more customers to use transit with more direct service, they are often less efficient (fewer passengers per mile or hour), require many passengers to transfer from the circulator to the regional transit system, and have low cost recovery.

- **Flex Route Service:** Flex route networks, also called deviated fixed routes, are a hybrid between traditional fixed routes and demand response. Most flex route networks have fixed stops and fixed schedules, though the routing between stops may change based on passenger requests. Flex routes allow for more extensive service coverage and are best suited to low density residential and rural areas; however, flex routes are typically more expensive to operate (cost per passenger trip) and carry fewer passengers than traditional fixed routes. Flex routes are typically used in rural or small urban settings.

- **Limited-Stop Service:** Limited-stop service typically operates along the same route as a local bus service, but only makes certain stops along the route. It offers faster, more frequent service along the route, designed mostly to serve higher ridership commuting trips during peak periods. This service can provided at lower cost by just deploying more local buses or implementing a premium bus rapid transit (BRT) service with enhanced amenities, such as branded vehicles, transit signal priority, queue jumpers, bus shelters/platforms upgrades, and pedestrian improvements. Limited-stop service can require a higher operating cost and additional capital costs for a service provider to implement.

Table 9 provides a matrix comparing and evaluating these service delivery models.

3.6. Fixed Route Service Plans

Service plan options were developed based on CCT's FY 2010 budget and service levels of fixed-route bus operations after the August 2011 service cuts. This included the assessment of modifications to CCT's local and express bus service. The following service plans were developed on a system-level and route-level based on near-term, mid-term and long-term periods over the next 10 years:

- **"Maximize Efficiency" Service Plan:** Near-term recommended service modification strategies and improvements at the route-level for the next 2 years to increase efficiency and cost-effectiveness of service based on current service levels. Near-term service plan strategies include:

  - 0-5% increase from current service
  - Tailor existing service to demand by re-allocating resources from unproductive service to routes in need of additional service
  - Streamline routes with on-time performance and schedule issues
  - Re-allocate redundant service and unproductive service (less than 15 passengers per trip)
  - Restore service area coverage, where feasible

- **"Modest Increase" Service Plan:** Mid-term recommendations that build on efficiency improvements and serves increases service levels and coverage based on ridership demand for the 3 to 5 year period. Mid-term service plan strategies include:

  - 10-15% increase from current service

Table 9: Service Delivery Models Evaluation Matrix

Network Type	Description	Pros	Cons	Typical Applications	Applicable for CCT
Grid Network	Generally corridor-based trunk routes connecting major activity centers. Timed transfers with intersecting routes.	• Straight and direct routes make the system user-friendly and easy to navigate.	• Requires dense corridors to sustain ridership	• Large, dense urban areas	
Hub and Spoke	Routes converge at a central transfer center. Routes arrive and depart at approximately the same time to create a pulse network.	• Central transfer point facilitates route-to-route connections, especially if pulse model is utilized • Passengers can typically complete most trips with one or zero transfers	• Substantial transfer facility required to accommodate all buses • Indirect routing may be required to reach destination, resulting in long travel times for passengers	• Small to medium size urban areas	
Feeder Service	Routes are designed to provide customers with frequent direct access to premium transit stations	• More frequent and direct service to major stations for regional travel	• Requires multiple transfers between modes for crosstown commutes	• Medium to large size urban areas	
Circulator Service	Routes designed using a small bus vehicle fleet to transport riders a short distance within a concentrated area.	• Encourages more transit use for non-traditional riders • Provides more direct service	• Less cost-efficient • Carries fewer riders with smaller fleet	• Neighborhoods, major activity or employment centers	
Flex Route Service	Follows a fixed route and schedule, but can deviate from route to pickup passengers.	• Provides extensive coverage with fewer vehicles • Meets requirements for ADA complimentary paratransit service	• More expensive to operate than traditional fixed routes	• Small to medium size urban areas or rural areas	
Limited Stop, Premium Service	Routes operate along the same route as a local bus service, providing faster service by making select stops.	• More frequent, faster service with greater passenger amenities	• Requires more operating and capital funds to implement	• Large, dense urban areas	

 Most Applicable

 May Be Applicable

 Not Applicable

- Builds on near-term efficiency improvements
- Adjust schedules for more coordinated transfers between routes
- Introduce BRT on US 41/Cobb Parkway as a new service delivery model
- Route alignment modifications to promote more corridor-based service

- **"Aspirations" Service Plan:** Long-term recommendations that continue to improve efficiency, service level and coverage and re-design the system to best achieve connectivity, meeting ridership demand and serving future transit markets for the 6 to 10 year period. Long-term service plan strategies include:

  - 20-30% increase from current service
  - Restructure routes and increase headways
  - Introduce Sunday service on major routes
  - Implement more service delivery models (limited stop, feeder service, high capacity transit)
  - Implement new transit-supportive facilities (superstops, stations, sidewalks/crosswalks)

3.6.1. Route-Level Modifications by Service Plan Period

Route-level proposed modifications were developed for each of the existing local bus routes based on existing needs and opportunities. New local routes were proposed based on an assessment of unserved areas and future needs. Since no major modifications were recommended for express bus service, only local routes and new premium transit service are presented in this section.

Route 10: Cobb Parkway

Existing Needs and Opportunities

Route 10 provides north-south service along US 41/Cobb Parkway between the Marietta Transfer Center and MARTA Arts Center Station in Midtown Atlanta. It has the highest ridership of all routes in the CCT system, carrying over 3,800 riders on weekdays. The route has some standing loads throughout the day on weekdays. The route is direct in design with little opportunity for stream-lining service. The US 41/Cobb Parkway corridor has been identified for future high capacity transit investment between Kennesaw and Midtown Atlanta. This premium transit project is included in the 2012 Transportation Investment Act (TIA) referendum. A future high-capacity transit line in the Northwest Corridor is currently being studied in Cobb County's Northwest Corridor Alternatives Analysis (AA) Study.

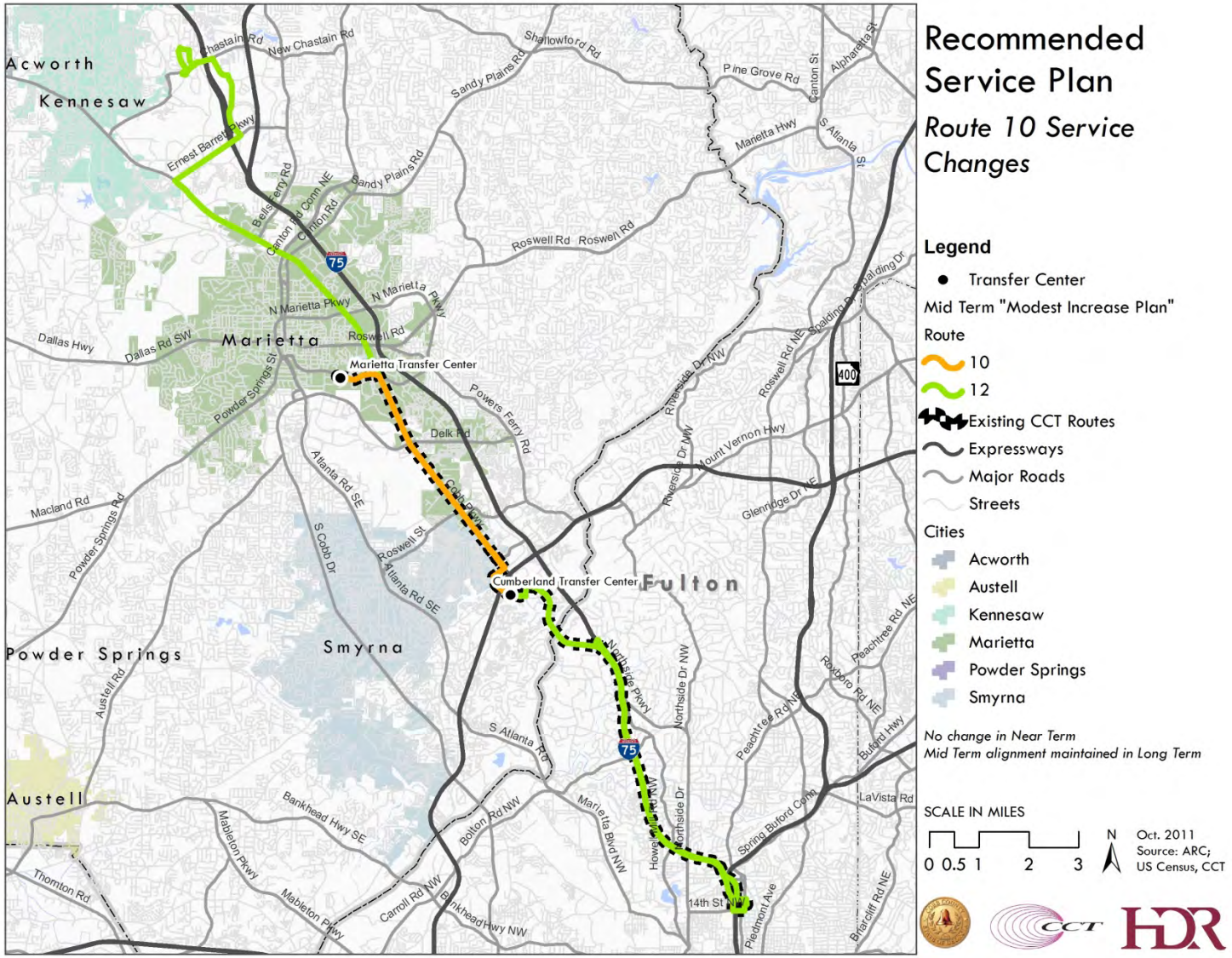
Proposed Changes

It is proposed to introduce a proposed US 41 BRT route and truncate Route 10 local service at the Cumberland Transfer Center to eliminate duplicative service in the mid-term. Service frequencies are recommended to be reduced in the peak and off-peak periods on weekdays and Saturdays to accommodate the BRT service. In the long-term, it is recommended to add Sunday service.

Route 10	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Cobb Parkway	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Sunday
Service Span									
Start	5:00 AM	6:00 AM	5:00 AM	6:00 AM	5:00 AM	6:00 AM	5:00 AM	6:00 AM	6:00 AM
End	12:50 AM	11:47 PM	12:50 AM	11:47 PM	12:50 AM	11:47 PM	12:50 AM	11:47 PM	11:47 PM
Service Headway									
Peak	15	30	15	30	30	60	30	60	60
Base	30	30	30	30	60	60	60	60	60
Service Provided									
Revenue Hours	121	67	121	67	26	18	26	18	18
Revenue Miles	1,738	1,019	1,738	1,019	328	221	328	221	221
Trips	104	61	104	61	52	35	52	35	35
Peak Buses	8	4	8	4	2	1	2	1	1

US 41 BRT	Existing Service		'Maximize Efficiency' (Near-Term Plan)		"Modest Increase (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
South Route	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Sunday
Service Span									
Start					5:00 AM	6:00 AM	5:00 AM	6:00 AM	6:00 AM
End					10:00 PM	9:00 PM	10:00 PM	9:00 PM	9:00 PM
Service Headway									
Peak					20	30	20	30	60
Base					30	30	30	30	60
Service Provided									
Revenue Hours					80	60	80	60	30
Revenue Miles					1192	879	1192	879	432
Trips					80	59	80	59	29
Peak Buses					6	4	6	4	2

Figure 50: Route 10 Service Changes



Route 15: Windy Hill Road

Existing Needs and Opportunities

Route 15 provides east-west service between the Marietta Transfer Center and Wildwood Office Park along Windy Hill Road, County Services Parkway, Powder Springs Road, Roswell Road and South Marietta Parkway. The route has high ridership/transfer activity at the County Services Parkway, Austell Road and Cobb Parkway bus stops. There is low ridership activity on the segment that serves Wildwood Office Park, which is also served during the AM and PM peak periods by Route 10B. Inbound trips suffer from on-time performance from Atlanta Road west to Marietta Transfer Center during the AM peak period due to high ridership activity and east of Atlanta Road due to traffic congestion.

Proposed Changes

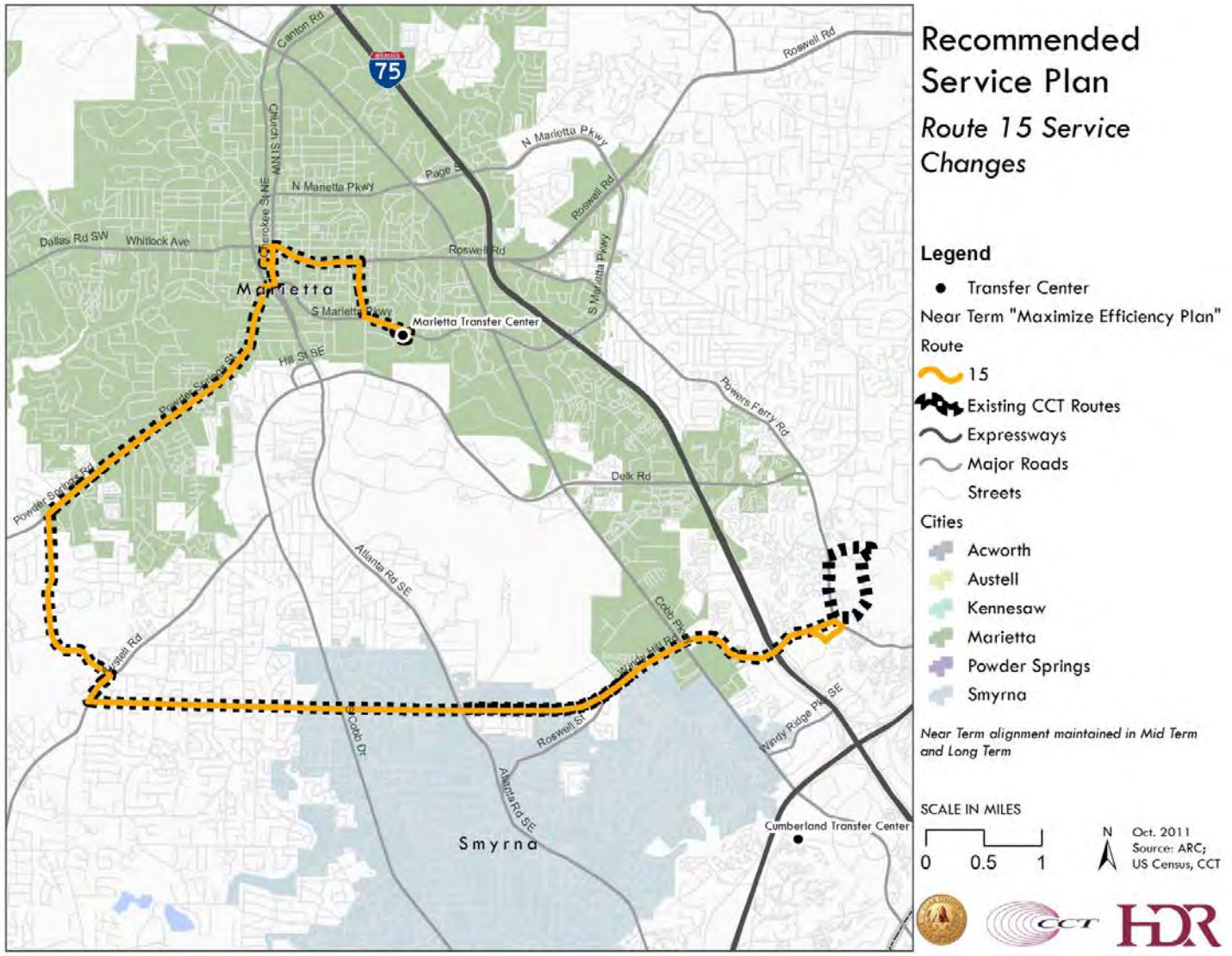
It is proposed in the near-term to discontinue the route alignment in Wildwood Office Park and modify the route to loop eastbound Windy Hill Road, southbound Powers Ferry Road, westbound E. Interstate Parkway, and northbound N. Interstate Parkway. The following unproductive trips should be eliminate to shift resources to other routes needing additional service:

- Weekdays - 5:00 AM, 6:00 AM & 8:00 AM (Outbound); 7:49 PM & 9:05 PM (Inbound)
- Saturday - 6:50 PM & 7:50 PM (Inbound)

In the long-term, it is recommended to increase headways to 30 min peak on Saturdays and introduce 60 min peak/off peak Sunday service. Also, transfer should be coordinated at Austell Road (Route 30) and Cobb Parkway (Route 10) due to high ridership activity with the development of superstops.

Route 15	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Windy Hill Road	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Sunday*
Service Span									
Start	5:00 AM	7:00 AM	6:00 AM	8:00 AM	6:00 AM	7:00 AM	6:00 AM	7:00 AM	8:00 AM
End	9:52 PM	8:30 PM	8:44 PM	7:40 PM	8:51 PM	7:38 PM	8:51 PM	8:38 PM	6:38 PM
Service Headway									
Peak	30	60	30	60	30	60	30	30	60
Base	60	60	60	60	60	60	60	60	60
Service Provided									
Revenue Hours	45	20	40	18	42	25	42	39	21
Revenue Miles	681	385	582	341	596	341	596	540	284
Trips	46	26	41	24	42	24	42	38	20
Peak Buses	4	2	4	2	4	2	4	4	2

Figure 51: Route 15 Service Changes



Route 20: South Cobb Drive

Existing Needs and Opportunities

Route 20 provides service between the Marietta Transfer Center and Cumberland Transfer Center along South Marietta Parkway, Fairground Street, South Cobb Drive, Concord Road, Spring Road and Cumberland Boulevard. The route has high ridership/transfer activity at County Services Parkway, Austell Road and Cobb Parkway bus stops. The route has low ridership activity during weekday evenings. On-time performance is an issue on South Cobb Drive due to traffic congestion and ridership activity during the PM peak period and on Concord Road between S. Cobb Dr. and Atlanta Rd. during the AM peak. High passenger loads occur during midday trips on weekdays, morning outbound and evening inbound trips on Saturdays. The route functions as two routes with ridership activity splitting at Emory Adventist Hospital.

Proposed Changes

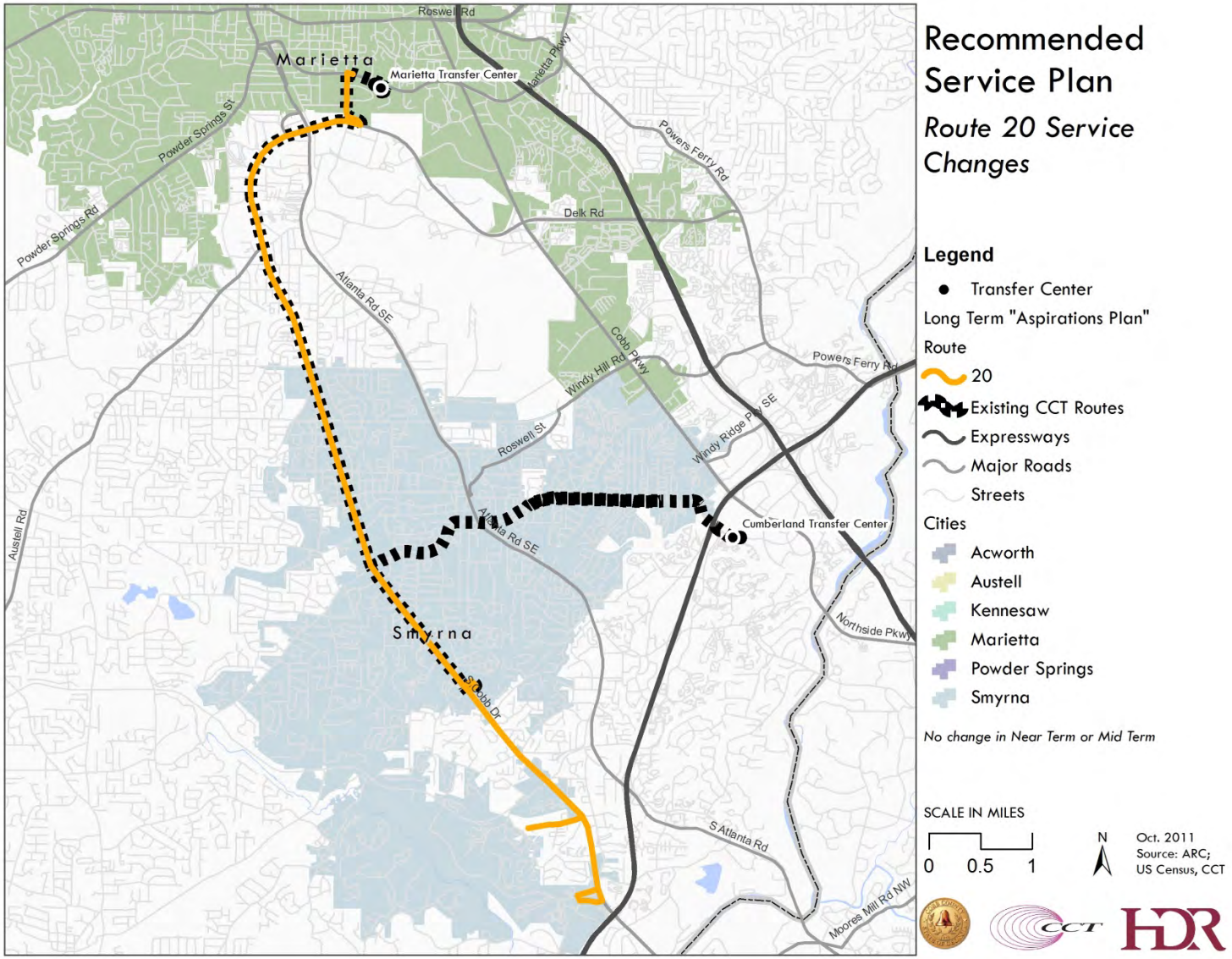
It is proposed in the near-term to increase the Saturday headways to 30 minutes during the peak period and 60 minutes during the off-peak period. It is recommended that the cycle time increases to 180 minutes during the peak periods, which will require the use of an additional peak bus. The following unproductive trips should be eliminated to shift resources to other routes and trips needing additional services:

- Weekdays - 6:15 AM & 7:15 AM (Outbound), 4:45 AM, 7:38 AM & 8:38 AM (Inbound)
- Saturday - 11:18 PM & 11:53 PM (Inbound)

In the long-term, it is proposed to modify alignment to continue south on South Cobb Drive with the route to loop west bound Oak Drive, northbound Oakdale Road, and eastbound Highlands Parkway. Service along Concord Road, Spring Road and Cumberland Parkway would be served by a new Route 85 (Cumberland to Powder Springs). It is recommended to increase headways to 30 min peak on Saturdays and introduce 60 min peak/off peak Sunday service.

Route 20	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
South Cobb Drive	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Sunday*
Service Span									
Start	5:00 AM	7:00 AM	6:00 AM	7:00 AM	6:00 AM	7:00 AM	5:00 AM	7:00 AM	8:00 AM
End	12:33 AM	10:38 PM	11:55 PM	10:38 PM	10:41 PM	10:41 PM	11:41 PM	10:41 PM	6:41 PM
Service Headway									
Peak	30	60	30	60	30	60	30	30	60
Base	60	60	60	60	60	60	60	60	60
Service Provided									
Revenue Hours	53	28	48	27	45	31	37	33	21
Revenue Miles	799	447	728	432	642	432	515	441	210
Trips	56	31	51	30	45	30	49	42	20
Peak Buses	4	2	4	2	4	2	3	3	2

Figure 52: Route 20 Service Changes



Route 30: Austell Road/Floyd Road

Existing Needs and Opportunities

Route 30 is CCT's second busiest route and provides service between the Marietta Transfer Center and HE Holmes MARTA Rail Station along South Marietta Parkway, Atlanta Road, Austell Road, E-W Connector, Floyd Road, Mableton Parkway, Factory Shoals Road, Blair Bridge Road, Six Flags Drive and I-20. The route also has high ridership and passenger loads on Saturdays. On-time performance is an issue during the PM peak period due to the length of the route, high ridership activity at stops and tight schedule.

Proposed Changes

It is proposed in the near-term to eliminate the following unproductive trips and shift resources to other routes needing additional services:

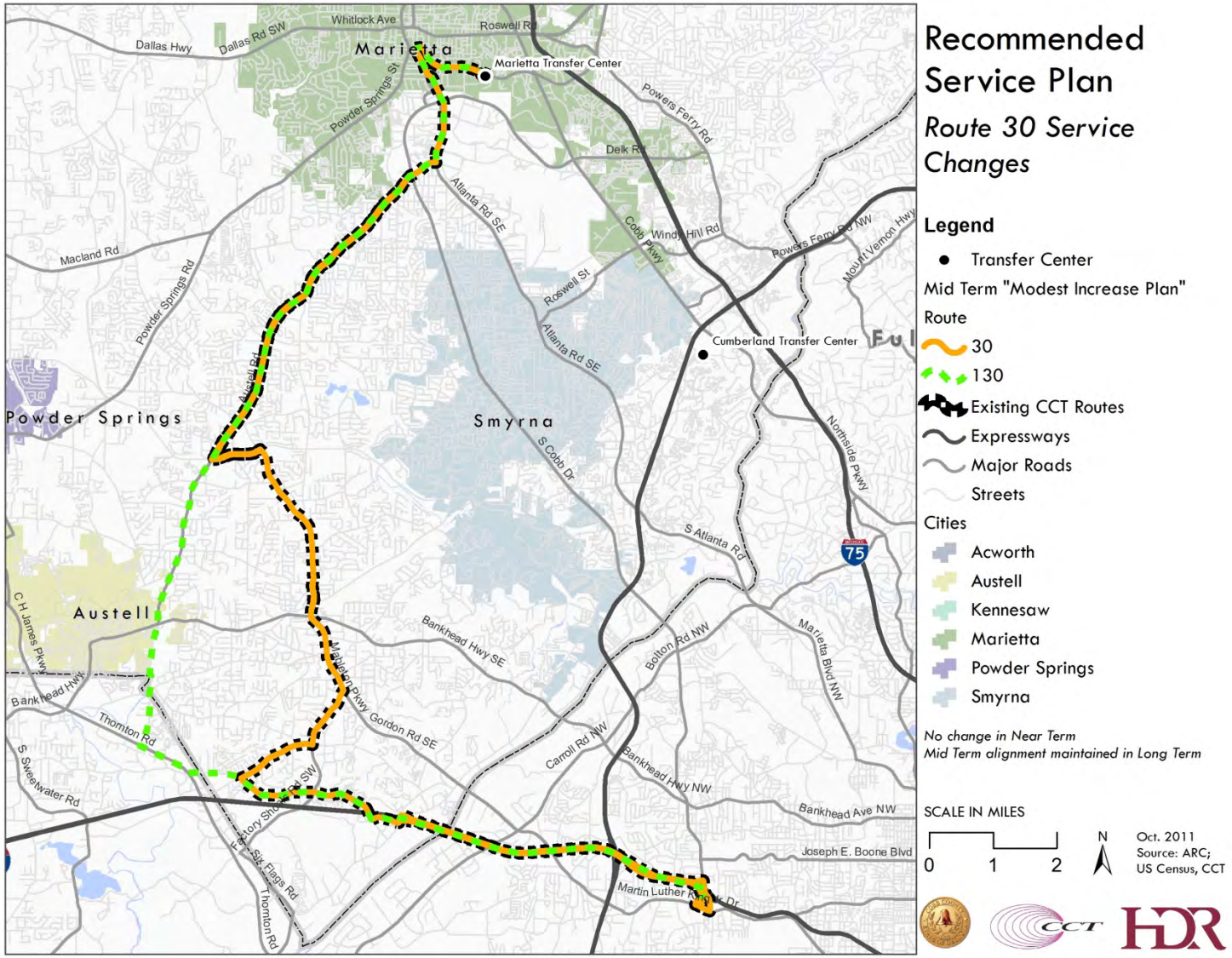
- Weekdays - - 5:00 AM (Outbound), 6:30 AM (Inbound), 6:00 PM (Outbound), 11:00 PM &12:00 AM (Inbound)
- Saturday - 9:00 PM (Inbound)

In the mid-term, it is proposed to introduce a limited stop express service along Austell Road, Maxham Road, Thornton Road, Oak Ridge Road, Six Flags Drive and I-20 on weekdays (Route 130). This would require reducing the weekday headway and increasing the Saturday headway to 30 minutes during the peak period and 60 minutes during the off-peak period on Route 30. New 60 minute Sunday service should be provided in the long-term.

Route 30	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Austell Road-Floyd Road	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Sunday*
Service Span									
Start	4:30 AM	7:00 AM	4:30 AM	7:00 AM	4:30 AM	7:00 AM	4:30 AM	7:00 AM	8:00 AM
End	1:11 AM	11:30 PM	12:11 AM	11:30 PM	1:21 AM	11:21 PM	1:21 AM	11:21 PM	6:21 PM
Service Headway									
Peak	15	60	15	30	30	30	30	30	60
Base	30	90	30	60	60	60	60	60	60
Service Provided									
Revenue Hours	124	47	120	68	72	67	81	67	31
Revenue Miles	2,190	661	1,934	1,038	1,118	1,038	1,258	1,038	466
Trips	94	28	83	44	48	44	54	44	20
Peak Buses	11	3	12	6	6	6	6	6	3

Route 130 Austell Rd-Six Flags (Limited Stop)	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
	Weekday	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Sunday*
Service Span									
Start					5:00 AM		5:00 AM		
End					11:20 PM		11:20 PM		
Service Headway									
Peak					30		30		
Base	No Service		No Service		60	No Service	60	No Service	No Service
Service Provided									
Revenue Hours					61		61		
Revenue Miles					1,176		1,176		
Trips					49		49		
Peak Buses					5		5		

Figure 53: Route 30 Service Changes



Route 40: Bells Ferry Road

Existing Needs and Opportunities

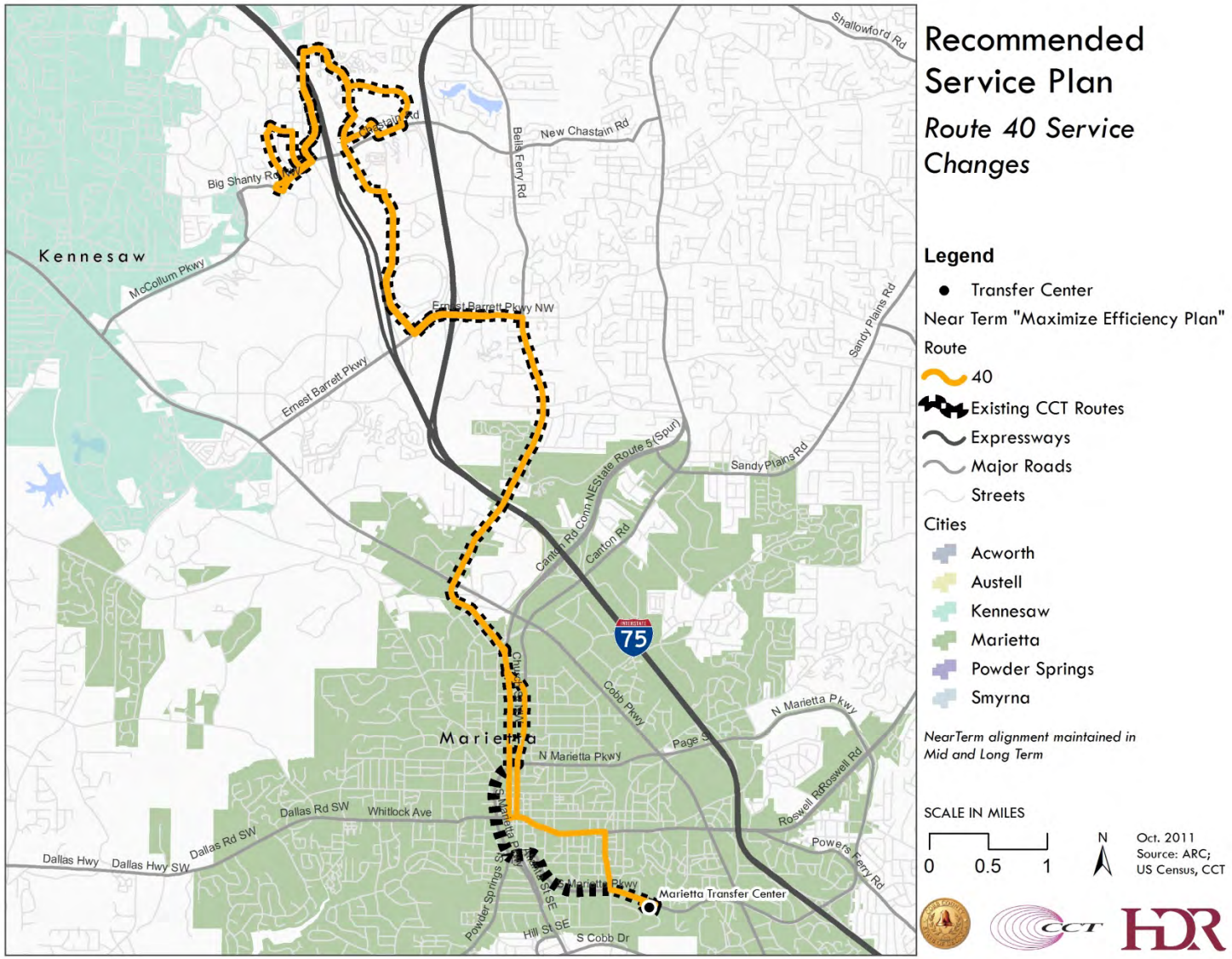
Route 40 provides north-south service between the Marietta Transfer Center and Kennesaw State University/Town Center Mall area along South Marietta Parkway, Church Street, Cherokee Street, Church Street Extension, Bells Ferry Road, Barrett Parkway, George Busbee Parkway and Frey Road. The route has moderate ridership with high passenger loads. On-time performance is below the system average, especially on outbound trips in the AM and PM peak periods and inbound trips in the PM peak.

Proposed Changes

It is proposed in the near-term to re-route through downtown Marietta along Church Street, Cherokee Street, Roswell Road and Fairground Street (currently on Route 45) and increase the service frequency to 30 minutes during the AM and PM peak periods. In the long-term, it is proposed to introduce Sunday service.

Route 40	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Bells Ferry Road	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Sunday*
Service Span									
Start	6:00 AM	7:00 AM	6:00 AM	7:00 AM	6:00 AM	7:00 AM	6:00 AM	7:00 AM	7:00 AM
End	10:40 PM	9:49 PM	10:40 PM	9:49 PM	10:40 PM	9:49 PM	10:40 PM	9:49 PM	9:49 PM
Service Headway									
Peak	60	60	30	60	30	60	30	60	60
Base	60	60	60	60	60	60	60	60	60
Service Provided									
Revenue Hours	32	28	57	28	57	30	57	30	30
Revenue Miles	442	375	594	370	594	383	594	383	383
Trips	33	28	45	28	45	29	45	29	29
Peak Buses	2	2	5	2	5	2	5	2	2

Figure 54: Route 40 Service Changes



Route 45: Barrett Parkway

Existing Needs and Opportunities

Route 45 provides north-south service between the Marietta Transfer Center and Kennesaw State University/Town Center Mall area along South Marietta Parkway, Fairground Street, Roswell Road, Church Street, Cherokee Street, North Marietta Parkway, Cobb Parkway, Barrett Parkway, Barrett Lakes Boulevard, Chastain Road and Chastain Meadows Parkway. The route is relatively long with long cycle times, which results in very poor on-time performance. The highest ridership occurs along Cobb Parkway, Barrett Parkway and at Kennesaw State University.

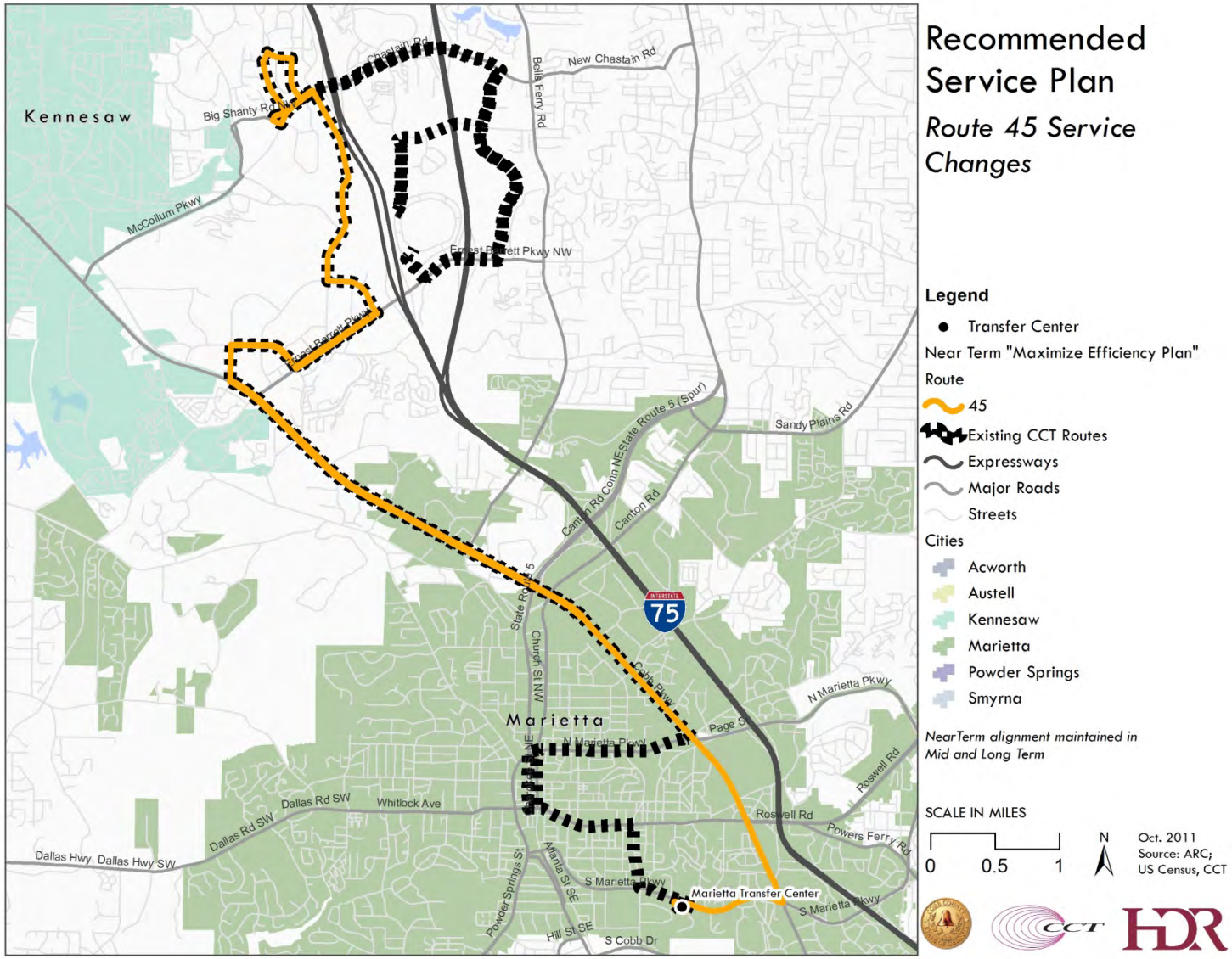
Proposed Changes

It is proposed in the near-term to re-route to serve Cobb Parkway north of South Marietta Parkway to service as the local overlay for the US 41 BRT and truncate the north end of route to terminate at KSU which may alleviate poor on-time performance. The segment through downtown Marietta along Church Street, Cherokee Street, Roswell Road and Fairground Street would be served by the modified Route 40. It is recommended to increase the service frequency to 30 minutes during the AM and PM peak periods. In the long-term, it is proposed to introduce Sunday service.

Route 45	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Barrett Parkway	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Sunday*
Service Span									
Start	6:30 AM	7:00 AM	6:30 AM	7:00 AM	6:30 AM	7:00 AM	6:30 AM	7:00 AM	7:00 AM
End	10:15 PM	9:49 PM	10:15 PM	9:49 PM	10:15 PM	9:49 PM	10:15 PM	9:49 PM	9:49 PM
Service Headway									
Peak	60	60	30	60	30	60	30	60	60
Base	60	60	60	60	60	60	60	60	60
Service Provided									
Revenue Hours	29	28	44	28	44	30	44	30	30
Revenue Miles	442	397	528	240	528	348	528	348	348
Trips	26	20	44	20	44	29	44	29	29
Peak Buses	3	2	4	2	4	2	4	2	2

US 41 BRT	Existing Service		'Maximize Efficiency' (Near-Term Plan)		"Modest Increase (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
North Route	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Sunday*
Service Span									
Start					5:00 AM	6:00 AM	5:00 AM	6:00 AM	6:00 AM
End					10:00 PM	9:00 PM	10:00 PM	9:00 PM	9:00 PM
Service Headway									
Peak					20	30	20	30	60
Base					30	30	30	30	60
Service Provided									
Revenue Hours					133	90	133	90	45
Revenue Miles					2000	1475	2000	1475	725
Trips					80	59	80	59	29
Peak Buses					10	6	10	6	3

Figure 55: Route 45 Service Changes



Route 50: Powers Ferry Road

Existing Needs and Opportunities

Route 50 is provides north-south service between the Marietta Transfer Center and Cumberland Transfer Center along South Marietta Parkway, Fairground Street, Cobb Parkway, Franklin Road, Delk Road, Powers Ferry Road, Cumberland Boulevard, Cobb Galleria Parkway and Akers Mill Road. The routing is circuitous along Fairground Street and Cobb Parkway. The route has strong ridership activity along Cobb Parkway and Franklin Road segments with ridership dropping off considerably during the late evening period. On-time performance is above average compared to the system with room for improvement during all service periods.

Proposed Changes

It is proposed in the near-term to re-route into Marietta Transfer Center directly on South Marietta Parkway from Franklin Road and eliminating the Fairground Street and Cobb Parkway segments to be served by the modified Route 45. This will create shorter, more direct route which will help alleviate poor on-time performance. The following unproductive trips are recommended to be eliminated to shift resources to other routes needing additional services:

- Weekdays - - 5:00 AM (Outbound), 6:30 AM (Inbound), 6:00 PM (Outbound), 11:00 PM &12:00 AM (Inbound)
- Saturday - 9:00 PM (Inbound)

In the long-term, it is proposed to introduce Sunday service.

Route 50	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Powers Ferry Road	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Weekday*	*Saturday*	*Sunday*
Service Span									
Start	6:00 AM	7:00 AM	6:00 AM	7:00 AM	6:00 AM	7:00 AM	6:00 AM	7:00 AM	7:00 AM
End	12:52 AM	10:54 PM	11:00 PM	10:00 PM	11:00 PM	10:00 PM	11:00 PM	10:00 PM	10:00 PM
Service Headway									
Peak	30	60	30	60	30	60	30	60	60
Base	60	60	60	60	60	60	60	60	60
Service Provided									
Revenue Hours	52	31	35	30	35	30	35	30	30
Revenue Miles	688	390	400	245	400	252	400	252	252
Trips	53	30	46	28	46	29	46	29	29
Peak Buses	4	2	3	2	3	2	3	2	2

Figure 56: Route 50 Service Changes

New Local Routes

Route 55: Veterans Memorial Highway (NEW)

A new Route 55 is proposed in the long-term with 60 minute service between the Powder Springs Park & Ride and Atlanta Industrial Park along Powder Springs/Dallas Road, Marietta Street, Austell-Powder Springs Road, Jefferson Street, Veterans Memorial Highway, D.L. Hollowell Parkway and Atlanta Industrial Parkway. This route would serve downtown Powder Springs, downtown Austell and the proposed River View Road mixed-use development.

Route 55	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Veterans Memorial Highway	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Sunday
Service Span									
Start							6:00 AM	7:00 AM	
End							10:44 PM	8:44 PM	
Service Headway									
Peak							60	60	
Base	No Service		No Service		No Service		60	60	No Service
Service Provided									
Revenue Hours							33	27	
Revenue Miles							611	481	
Trips							33	26	
Peak Buses							2	2	

Route 80: Cumberland Boulevard-Discovery Boulevard (NEW)

A new Route 80 is proposed in the mid-term with 60 minute service between the Cumberland Transfer Center and HE Holmes MARTA Rail Station along Cumberland Boulevard, E-W Connector, Highlands Parkway, Oakdale Road, Discovery Boulevard, Lee Industrial Boulevard and I-20. This route would serve commercial and light industrial business in southeast Cobb County.

Route 80	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Cumberland Blvd-Discovery Blvd.	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Sunday
Service Span									
Start					6:00 AM		6:00 AM	7:00 AM	
End					10:15 PM		10:15 PM	8:15 PM	
Service Headway									
Peak					60		60	60	
Base	No Service		No Service		60	No Service	60	60	No Service
Service Provided									
Revenue Hours					49		49	40	
Revenue Miles					611		611	481	
Trips					33		33	26	
Peak Buses					3		3	3	

Route 85: Spring Road-EW Connector (NEW)

A new Route 85 is proposed in the long-term with 60 minute service between the Powder Springs Park & Ride and Cumberland Transfer Center along Powder Springs/Dallas Road, Marietta Street, Powder Springs Road, E-W Connector, Hurt Road, Concord Road, Spring Road and Cumberland Boulevard. This route would serve downtown Powder Springs, Cobb Hospital, retail/shopping along E-W Connector, downtown Smyrna and Cumberland Mall.

Route 85	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Spring Rd-EW Connector	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Sunday
Service Span									
Start							6:00 AM	8:00 AM	
End							8:51 PM	8:15 PM	
Service Headway									
Peak							60	60	
Base	No Service		No Service		No Service		60	60	No Service
Service Provided									
Revenue Hours							30	25	
Revenue Miles							471	377	
Trips							30	24	
Peak Buses							2	2	

Route 90: Atlanta Road (NEW)

A new Route 90 is proposed in the long-term with 60 minute service between the Marietta Transfer Center and Vinings area along South Marietta Parkway, Atlanta Road, N. Church Lane and Plant Atkinson Road. This route would serve downtown Marietta, the proposed Belmont development, downtown Smyrna, and West Village.

Route 90	Existing Service		"Maximize Efficiency" (Near-Term Plan)		"Modest Increase" (Mid-Term Plan)		"Aspirations" (Long-Term Plan)		
Atlanta Rd	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Sunday
Service Span									
Start							6:00 AM	8:00 AM	
End							7:41 PM	6:41 PM	
Service Headway									
Peak							60	60	
Base	No Service		No Service		No Service		60	60	No Service
Service Provided									
Revenue Hours							27	21	
Revenue Miles							284	210	
Trips							27	20	
Peak Buses							2	2	

3.6.2. System-Level Service Plan Summary

Table 10 summarizes peak bus requirements and revenue-bus hours, by route, for each service plan period.

Figure 57: New Local Routes

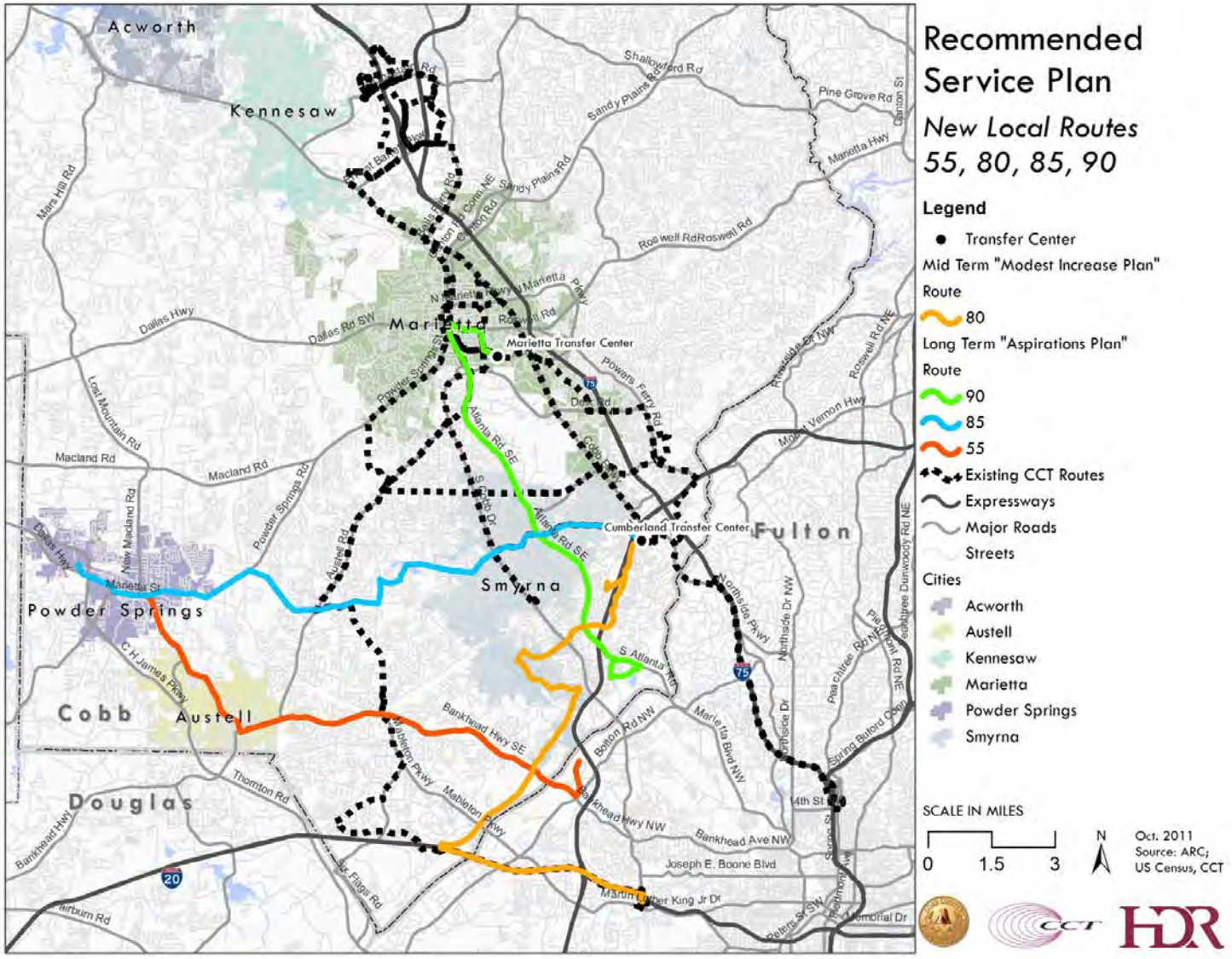


Figure 58: Recommended Service Plan

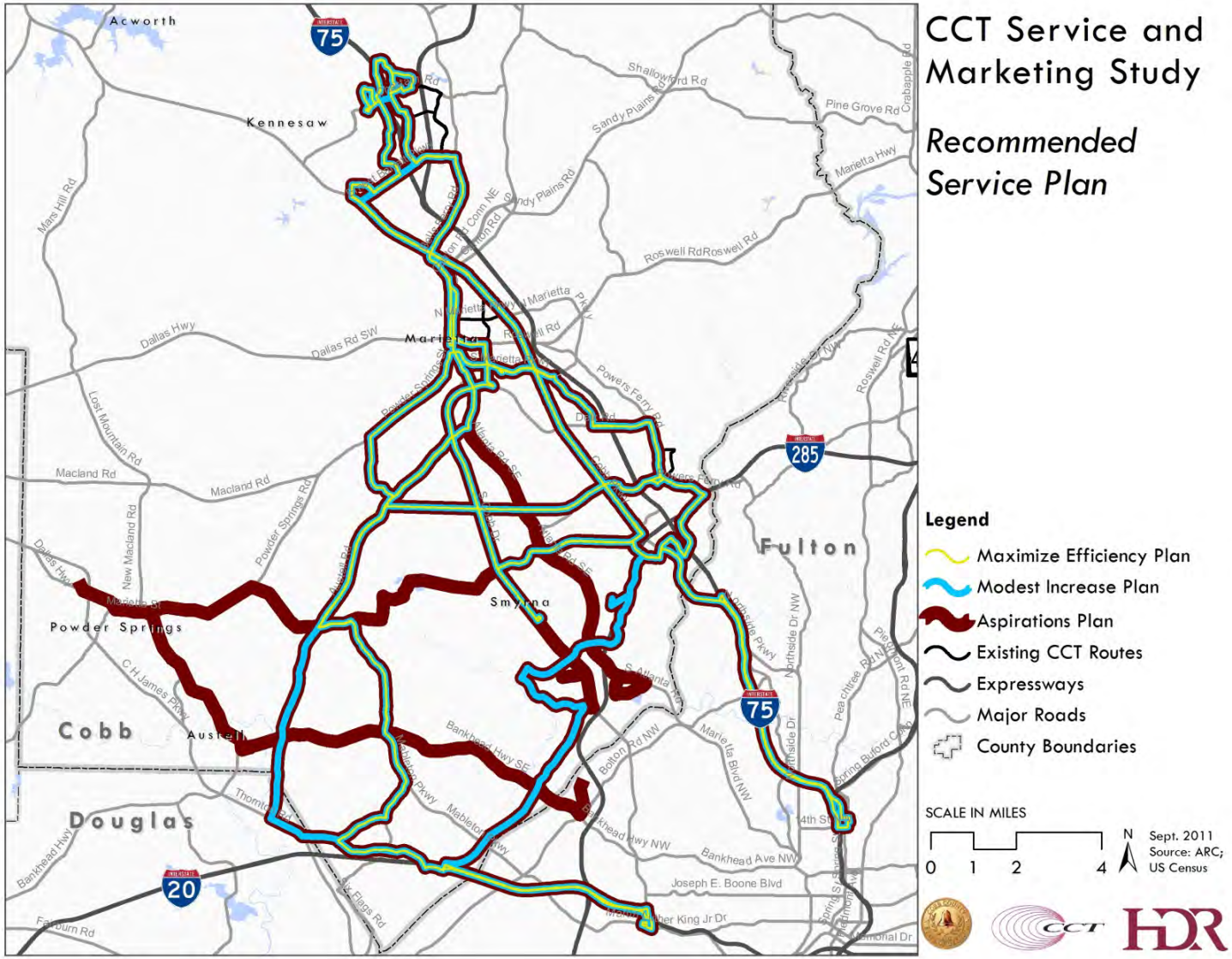


Table 10: Recommended Service Plan Summary

	Weekday		Existing Service			"Maximize Efficiency" Service Plan (Near-Term, 1-2 years)			"Modest Increase" Service Plan (Mid-Term, 3-5 years)			"Aspirations" Service Plan (Long-Term, 6-10 years)		
	Route #	Route Name	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours
Local Service	10	Cobb Parkway	121	8	31,244	116	9	29,696	26	2	6,656	26	2	6,656
	15	Windy Hill Road	45	4	11,620	40	4	10,240	42	4	10,752	42	4	10,752
	20	South Cobb Drive	53	4	13,685	48	4	12,288	45	4	11,520	37	3	9,472
	30	Austell Road-Floyd Road	124	11	32,018	120	12	30,720	72	6	18,432	81	6	20,736
	40	Bells Ferry Road	32	2	8,263	57	5	14,592	57	5	14,592	57	5	14,592
	45	Barrett Parkway	29	3	7,488	44	4	11,264	44	4	11,264	44	4	11,264
	50	Powers Ferry Road	52	4	13,427	35	3	8,960	35	3	8,960	35	3	8,960
	55	***Veterans Memorial Highway***	***No Service***			***No Service***			***No Service***			***33***	***2***	***8,448***
	80	***Cumberland Blvd-Discovery Blvd.***							***49***	***3***	***12,544***	***49***	***3***	***12,544***
	85	***Spring Rd-EW Connector***							***No Service***			***30***	***2***	***7,680***
	90	***Atlanta Rd***							***No Service***			***27***	***5***	***6,912***
	130	***Austell Rd-Six Flags (Limited Stop)***							***61***	***5***	***15,616***	***61***	***5***	***15,616***
		US 41 BRT							***213***	***12***	***54,528***	***213***	***6***	***54,528***
		Local Service Weekday Subtotal	*456*	*36*	*117,744*	*460*	*41*	*117,760*	*644*	*48*	*164,864*	*735*	*50*	*188,160*
Express Service	100	North Cobb Express	*17*	*8*	4,390	*17*	*8*	4,390	*17*	*8*	4,390	*17*	*8*	4,390
	10A	Peachtree via Arts Center	*12*		3,099	*12*		3,099	*12*		3,099	*12*		3,099
	101	Marietta Express	*8*	*4*	2,066	*8*	*4*	2,066	*8*	*4*	2,066	*8*	*4*	2,066
	10B	Peachtree via Arts Center	*10*		2,582	*10*		2,582	*10*		2,582	*10*		2,582
	102	Acworth Park and Ride	*10*	*4*	2,582	*10*	*4*	2,582	*10*	*4*	2,582	*10*	*4*	2,582
	10C	Town Center via MTC to Arts Center	*10*		2,582	*10*		2,582	*10*		2,582	*10*		2,582
	470	Hiram to Downtown	*11*	*5*	2,840	*11*	*5*	2,840	*11*	*5*	2,840	*11*	*5*	2,840
	47	Downtown to Hiram	*2*		516	*2*		516	*2*		516	*2*		516
	480	Acworth to Downtown	*15*	*4*	3,873	*15*	*4*	3,873	*15*	*4*	3,873	*15*	*4*	3,873
	481	Town Center to Midtown	*11*	*4*	2,840	*11*	*4*	2,840	*11*	*4*	2,840	*11*	*4*	2,840
	475	Austell-Mableton to Downtown	*12*	*3*	3,099	*12*	*3*	3,099	*12*	*3*	3,099	*12*	*3*	3,099
	477	Hiram to Midtown	*12*	*4*	3,099	*13*	*4*	3,099	*12*	*4*	3,099	*12*	*4*	3,099
		Express Service Weekday Subtotal	*130*	*36*	*33,567*	*131*	*36*	*33,567*	*644*	*36*	*33,567*	*735*	*36*	*33,567*
		Weekday Total	586	72	151,312	591	77	151,327	1,288	84	198,431	1,470	86	221,727

	Saturday		Existing Service			Efficiency" Service Plan (Near-Term,			"Modest Increase" Service Plan (Mid-			"Aspirations" Service Plan (Long-Term,		
	Route #	Route Name	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours
Local Service	10	Cobb Parkway	67	4	3,514	67	4	3,484	18	1	936	18	1	936
	15	Windy Hill Road	20	2	1,049	18	2	936	25	2	1,300	39	4	2,028
	20	South Cobb Drive	28	2	1,469	27	2	1,404	31	2	1,612	33	3	1,716
	30	Austell Road-Floyd Road	47	3	2,465	68	6	3,536	67	6	3,484	67	6	3,484
	40	Bells Ferry Road	28	2	1,469	28	2	1,456	30	2	1,560	30	2	1,560
	45	Barrett Parkway	28	2	1,469	28	2	1,456	30	2	1,560	30	2	1,560
	50	Powers Ferry Road	31	2	1,626	30	2	1,560	30	2	1,560	30	2	1,560
	55	***Veterans Memorial Highway***	***No Service***			***No Service***			***No Service***			***27***	***2***	***1,404***
	80	***Cumberland Blvd-Discovery Blvd.***										***40***	***3***	***2,080***
	85	***Spring Rd-EW Connector***										***25***	***2***	***1,300***
	90	***Atlanta Rd***										***21***	***2***	***1,092***
	130	***Austell Rd-Six Flags (Limited Stop)***										***No Saturday Service***		
		US 41 BRT							***150***	***4***	***7,800***	***150***	***4***	***7,800***
		Saturday Total	249	17	13,060	266	20	13,832	381	21	19,812	510	33	26,520

	Sunday		Existing Service			Efficiency" Service Plan (Near-Term,			"Modest Increase" Service Plan (Mid-			"Aspirations" Service Plan (Long-Term,		
	Route #	Route Name	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours	Daily Hours	Peak Buses	Annual Hours
Local Service	10	Cobb Parkway	No Sunday Service			No Sunday Service			No Sunday Service			18	1	936
	15	Windy Hill Road										21	2	1,092
	20	South Cobb Drive										21	2	1,092
	30	Austell Road-Floyd Road										31	3	1,612
	40	Bells Ferry Road										30	2	1,560
	45	Acworth to Downtown										30	2	1,560
	50	Town Center to Midtown										30	2	1,560
		US 41 BRT										***75***	***2***	***3,900***
		Sunday Total	0	0	-	0	0	-	0	0	-	256	16	13,312

		System Total	835	72	164,372	857	77	165,159	1,669	84	218,243	2,236	86	261,559
		Increase from Existing Service				*22*	*5*	*788*	*834*	*12*	*53,872*	*1,401*	*14*	*97,188*

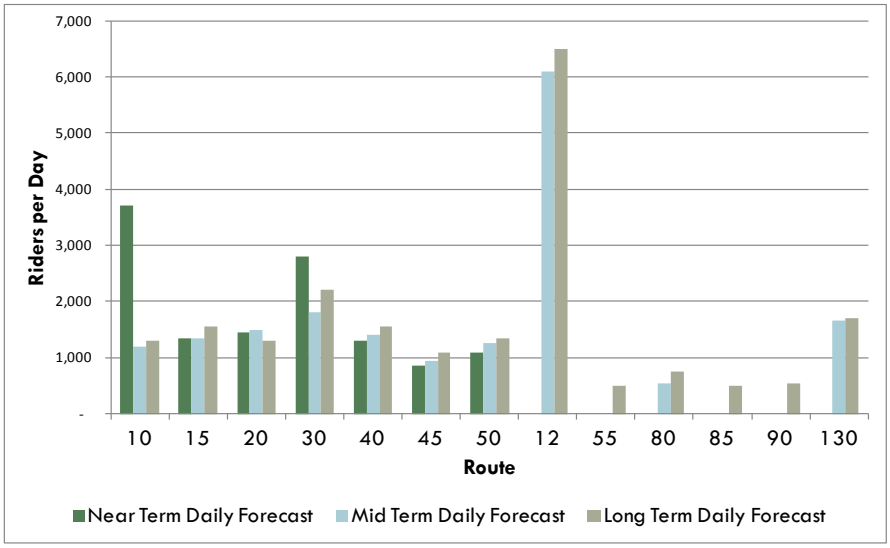
3.6.3. Ridership Estimates

A regression-based forecast model was developed to estimate the ridership impacts of the Recommended Service Plan. The model was based on five variables that are typically strong predictors of transit ridership: service hours, households, employment, percent zero-vehicle households (a proxy for low-income households), and connections to MARTA rail. Fiscal Year 2010 annual service hours and the most recent TAZ and Census-based household and employment data were used as a baseline to construct the model. The resultant regression coefficients were then applied to future year population and employment projections and anticipated service levels to forecast ridership for the future year scenarios. The results of this analysis are found in Table 11 and Figure 59.

Table 11: Estimated Ridership by Service Plan Scenario

ROUTE	Near Term Daily Forecast	Mid Term Daily Forecast	Long Term Daily Forecast
10	3,700	1,200	1,300
15	1,350	1,350	1,550
20	1,450	1,500	1,300
30	2,800	1,800	2,200
40	1,300	1,400	1,550
45	850	950	1,100
50	1,100	1,250	1,350
12 (BRT)	--	6,100	6,500
55	--	--	500
80	--	550	750
85	--	--	500
90	--	--	550
130	--	1,650	1,700
Total	**12,550**	**17,750**	**20,850**

Figure 59: Estimated Ridership by Service Plan Scenario



3.6.4. Capital Investments and Infrastructure Improvements

While CCT's facilities are generally in a state of good repair and adequately support the current operating system, several opportunities exist to provide enhanced passenger amenities and walk-access infrastructure at various stops throughout the system. Furthermore, as the system expands

over the next ten years, there will be a growing need to provide premium bus stops, also known as "super-stops", at high-volume transfer locations.

To indentify priority areas for investment, an inventory of the top-25 stops by total passenger volume (boardings and alightings) was completed and is presented in Table 12 and Figure 61, below. As these stops serve the most passengers, even small investments in bus shelters or benches will provide a highly cost-effective investment in terms of enhancing the customer experience.

Safety and ADA accessibility is also critical concern, especially at high-volume locations. While most of the top-25 stops have sidewalks, several do not, and several are not in close proximity to a crosswalk. Strategies to improve the walk-access to these stops can include moving stops from mid-block locations closer to an existing crosswalk, consolidating stops, or working with local, state, and county officials to determine if there is a need to implement new signalized or unsignalized crosswalks.

3.6.4.1.Super-stops

A Super-Stop is an enhanced bus stop that can accommodate multiple buses, but is smaller than a full-scale transfer center. Super-stops are often equipped with a pull-out lane and expanded shelters with extra seating. High-volume stops that currently serve one or more routes, or are slated to serve one or more routes in the future, were evaluated for potential upgrades to a super-stop. Locations which may be candidates for super-stops and/or stop consolidation are:

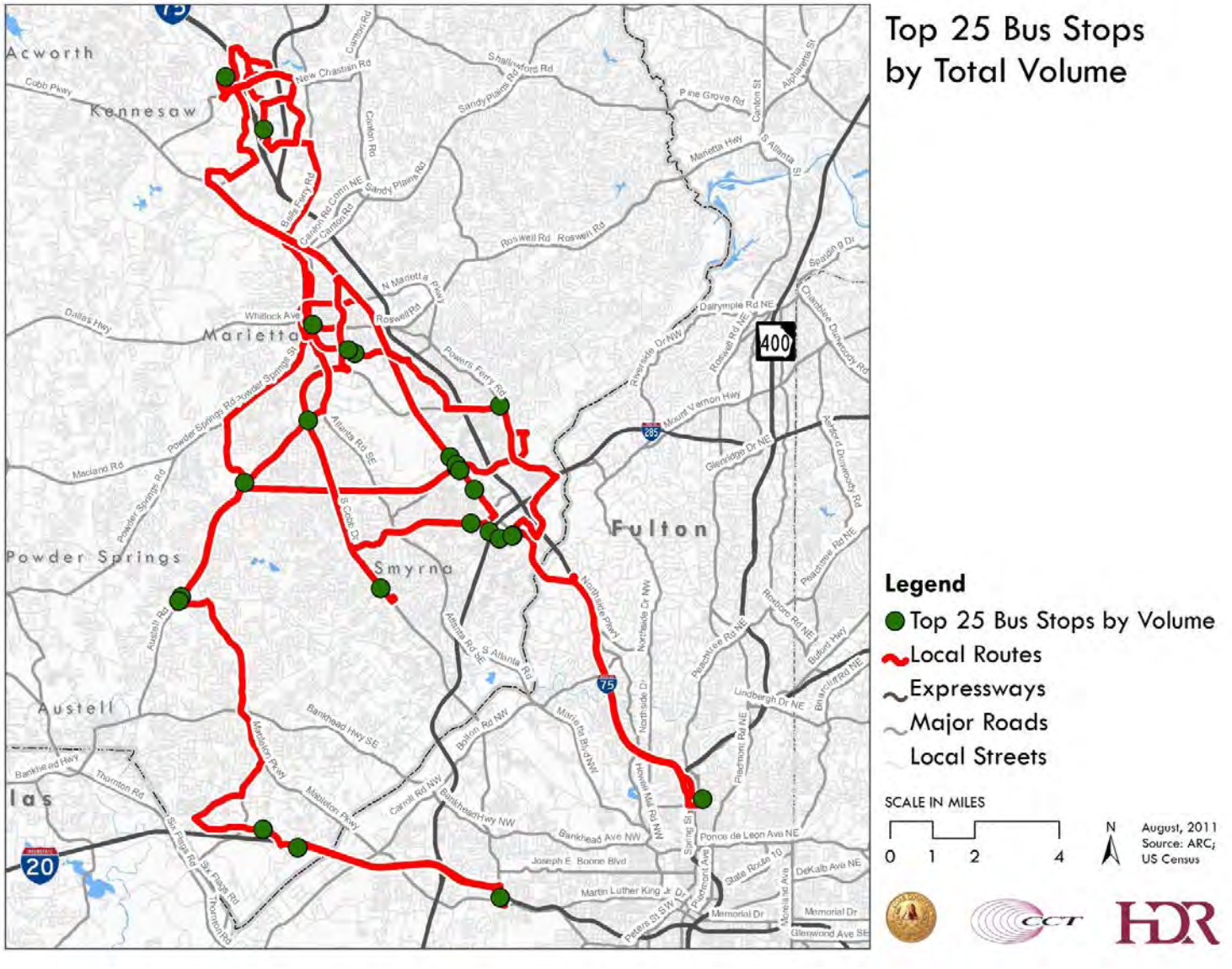
- Cobb Hospital at Austell Road and East-West Connector
- Austell Road at Arkose Drive
- Cobb Parkway at Windy Hill Road
- Cobb Drive at Austell Road
- Roswell Street at Anderson Street (Courthouse / downtown Marietta)
- Cobb Avenue at Marietta Drive (Kennesaw State University)

Figure 60: LYNX SuperStop (Orlando, FL)

Table 12: Top 25 Bus Stops

Rank	Stop ID	Key Destination	Route	Boardings + Alightings	Sidewalks	Crosswalks	Benches	Shelters
1	MARIETTA PKWY @ MTC	Marietta Transfer Center	10,101,10C	3,492	X	X	X	X
2	ARTS CENTER STATION	MARTA Arts Center Station	10 A/B/C, 100, 101, 102	2,354	X	X	X	X
3	CUMBERLAND BLVD @ CTC	Cumberland Transfer Center/ Mall	10,10A,10B,50	1,952	X	X	X	X
4	HAMILTON E HOLMES STATION	MARTA Holmes Station	30,35	557	X	X	X	X
5	AUSTELL RD @ ARKOSE DR	Routes 15, 30 transfer point	15,30	186	X		X	X
6	AKERS MILL RD @ MALL ENTRANCE	Cumberland Mall	10,10B,50	186	X			
7	TOWN CENTER LOOP RD @ TOWN CENTER MALL	Town Center Mall	10C	168	N/A	N/A		
8	COBB PKWY @ AFTER WINDY HILL	Commercial strip, Routes 10,15 transfer point	10	142	X		X	X
9	MARIETTA PKWY @ FOOD DEPOT	Marietta Transfer Center	10,101,10C	123	X			
10	COBB PKWY @ WINDY HILL	Commercial strip, Routes 10,15 transfer point	10	108	X		X	X
11	COBB DR @ AUSTELL RD	Routes 20, 30 transfer point	20,30	104	X	X		
12	ANDERSON ST @ COURTHOUSE PARKING	Downtown Marietta, County Offices	15,40,45,65	103	X	X		
13	AKERS MILL RD @ MALL ENTRANCE	Cumberland Mall	10,10B,50	102	X			
14	AUSTELL RD @ HOSPITAL SOUTH DR	Cobb Hospital	30	100	X	X	X	X
15	COBB AVE @ MARIETTA DR	Kennesaw State University	40,45	98	X	X	X	X
16	COBB PKWY @ AFTER LAKE PARK DR	Target, Apartments	10	88	X	X	X	X
17	SPRING RD @ WOODRUFF DR	Apartments	20	88	X		X	X
18	SIX FLAGS DR @ SIX FLAGS PKWY	Commercial strip, apartments	30	86			X	X
19	COBB PKWY @ TERREL MILL RD	Light industrial, apartments	10	85			X	X
20	DELK RD @ POWERS FERRY RD	Commercial strip	50	85	X		X	X
21	WINDY HILL RD @ COBB PKWY	Commercial Strip, Routes 10,15 transfer point	15	81			X	X
22	AUSTELL RD @ HOSPITAL NORTH DR	Cobb Hospital	30	79	X		X	X
23	SERVICE RD @ SIX FLAGS PKWY	Six Flags	30	77	X	X	X	X
24	CUMBERLAND BLVD @ SPRING HILL PKWY	Commercial strip	10,10A,20	77	X		X	X
25	COBB DR @ MILL POND RD	Commercial strip, apartments	20	75	X		X	X

Figure 61: Top 25 Bus Stops by Total Volume



4. Paratransit Services Review and Assessment

4. Paratransit Services Review and Assessment

4.1. Introduction and Approach

One element of Cobb County's Service and Marketing Plan Study is the assessment of CCT's current paratransit system operations, performance, and procedures and the development of a five and ten year-plan that will guide future operations. The HDR Team, led by Rebecca Cherry of Cherry Consulting of the Carolinas, Inc., interviewed CCT and contracted service provider (Veolia Transportation) staff, observed current reservations and scheduling practices, compared CCT performance to peer transit systems, and projected future service demand for disabled and elderly passengers. This section describes the analysis of current paratransit operations, identifies areas of improvement, and presents the recommended Paratransit Five and Ten Year Plan.

4.1.1. Purpose and Approach

The paratransit operations review commenced in February, 2011 with three days of interviews in both maintenance and operations work areas at the CCT facility. The following staff members were interviewed while they conducted their assigned job responsibilities and duties:

- Paratransit Reservation Clerk;
- Paratransit Scheduler;
- Paratransit Dispatcher;
- Director of Paratransit Operations;
- Veolia Transportation's General Manager;
- Vehicle Maintenance Mechanics;
- Safety and Training Manager

Additional interviews and discussions were conducted with members of Cobb County's DOT (including the Division Manager, a Transportation Planner, and the Communication Coordinator who is involved in Travel Training programs for the elderly and disabled citizens); CCT's Transit Division Manager; Chair of the Accessibility Advisory Committee (AAC); and Cobb County's Director of the Department of Senior Services.

During the interviews, questions were posed to gain some historical information of the paratransit services and its evolution to present day operations. CCT's Transit Division Manager is the most tenured employee in the organization, thus she provided the greatest insight on how the service has increased to not only comply with the FTA's complementary ADA service requirements but also to meet the growing demands of the increasing disabled and elderly population in the County.

4.2. Description of Existing Paratransit Service

Compliant with FTA standards for operations of its fixed route service, CCT provides ADA complementary paratransit service in Cobb County and limited areas in Fulton County, Monday through Saturday, operating the same hours as the local fixed buses. Paratransit riders do not necessarily have to reside within a three-quarters (3/4) of a mile on either side of each of the

fixed route service, but they must be able to board and exit the paratransit vehicle at a safe location inside of the service area. Figure 62 displays a diagram of the ADA service area. Observations during the site visit revealed that no exceptions were made in booking reservations beyond the defined area. Provisions for providing transports, ensuring compliance to the Service Area Policy, are made when an individual first makes a phone inquiry to either the reservation center or the Paratransit Administrative Assistant. The first question asked of an individual is, "What is the address of your residence?". Entry of the address into CCT's routing and scheduling software program, called 'RouteMatch', CCT can quickly determine whether or not the interested party meets the first of multiple 'tests' of eligibility criteria to be transported on the ADA specialized equipment.

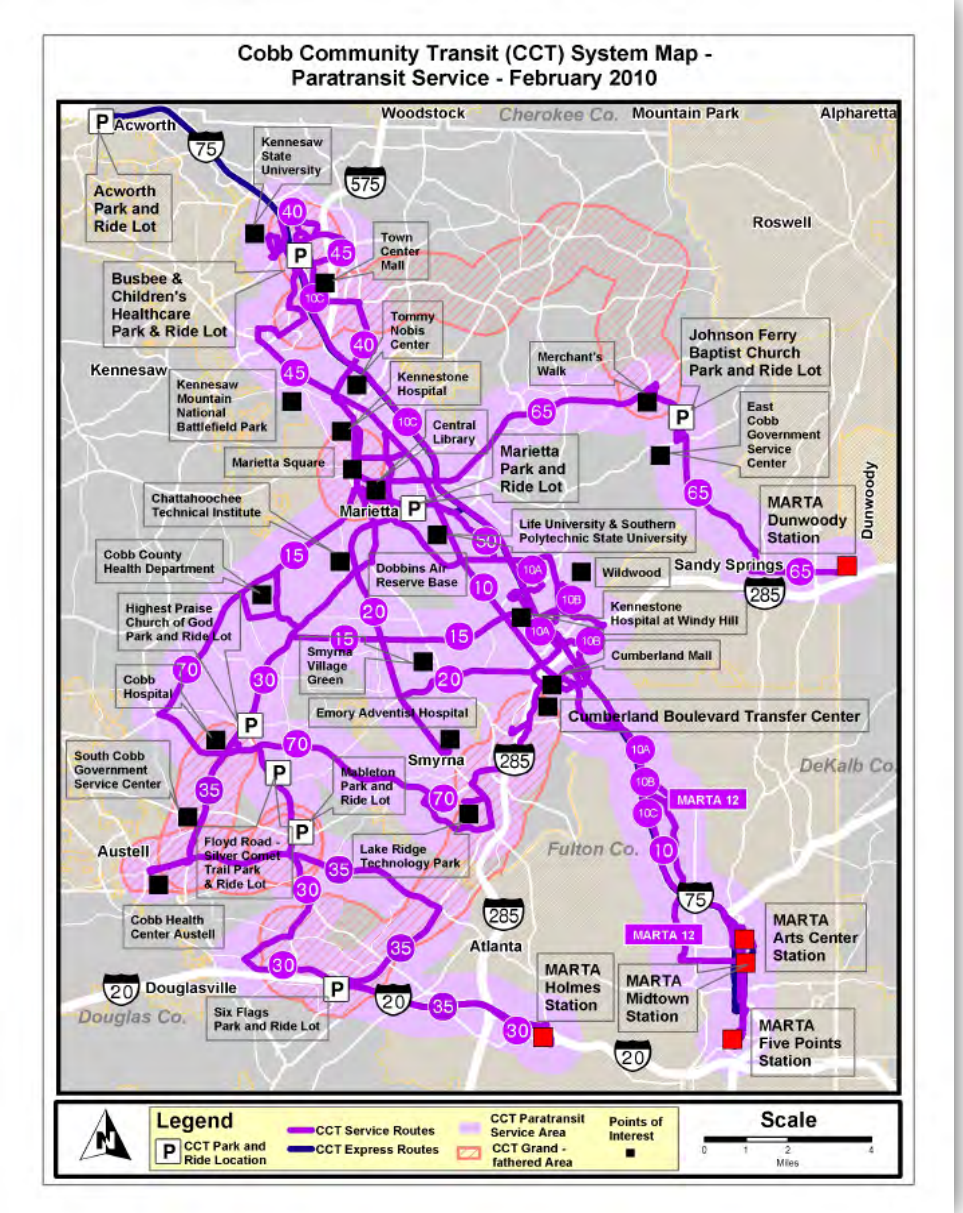
A formal certification process that meets FTA's approval for ADA compliancy is in place to determine whether or not a Cobb County citizen meets the disability requirement for curb-to-curb, demand response service. Part A of the two-part application is completed by the citizen and then returned to CCT for forwarding to a licensed/certified healthcare professional that is familiar with the applicant's history (completing Part B). CCT contracts with a third party, a nationally known paratransit consultant to verify information provided by the healthcare professional and makes a determination on the applicant's certification of eligibility or denial of services. As required by FTA standards, a formal appeals process also exists for any person whose application is denied. CCT publishes and regularly updates, most recently in November 2010, a document called the 'CCT Paratransit Services Passenger's Guide' that provides not only an overview of the ADA paratransit service and the certification process, but also step-by-step details on how to schedule and cancel trip reservations and the operating procedures to make the trip on-time and safe.

Currently, CCT has 2,956 persons that are certified, i.e. eligible for paratransit transports. On any given weekday approximately 300 one-way passenger trips are made. Based upon operating statistics provided to FTA and reported in the National Transit Database report for FY 2009, CCT's unlinked passenger trips totaled 81,086. For each revenue hour of operation, there were 1.61 passengers aboard the fleet of 24 vehicles. More in-depth, detailed ridership analysis of not only CCT's own performance but also comparisons with 'peer' transit systems is in Section 3.

Since the last published report to the NTD, CCT has increased its twelve – passenger, Goshen-manufactured minibus fleet from 24 units to 30. Twenty-four (24) are 2008 models, and the remaining six (6) are 2009 models. All are diesel powered. CCT normally operates 27 vehicles during the peak hours of service.

The current cost for a one-way paratransit transport is $4.00 and includes a transfer to fixed route service. Prior to November 2010, the fare was $2.50 per trip. Fare revenue covers about 4.4% of the total hourly cost of $47.02 to operate the paratransit service. FY 2009 total operating expenses equaled $3,812,530 of which $166,856 was recovered in fares.

Figure 62: CCT Paratransit Service Area



4.2.1. Organizational Structure

CCT Transit Division, an operating unit of Cobb County Department of Transportation, has administrative responsibilities for both fixed route and paratransit services. Specific areas of responsibility include fiscal budgeting, transit planning, route development, policy development, public information, and service contract monitoring. Veolia Transportation, Inc., a private for-profit provider, employs workers to schedule, dispatch, and operate transit services; certify ADA-registrants; and service and maintain the equipment. The current agreement between Cobb County and Veolia Transportation has been in effect from July 1, 2005 through June 30, 2010,

with one of the five (5) optional single-year extensions to end in June 2011. Cobb County recently released a Request for Proposal (RFP) with five components for service contracts; contract award is expected in fall 2011.

4.3. Operations Analysis of Peer Transit Systems

The Project Team identified peer transit systems and performed a comparative analysis of operating procedures and system performance measures. Ten paratransit systems were contacted regarding their reservations, dispatching, and operations procedures. As can be seen in **Appendix 1**, the survey questions centered on not only quantitative information that cannot be obtained (or at least difficult to interpret) from NTD reports but also procedural methods used in the system's day-to-day operations. Some questions were designed to determine whether trends exist as 'best practices' in the area of paratransit services. During the three days of onsite interviews at CCT, interviewees suggested that inquiries be made to validate some of its current practices, such as the taking of 'standing' reservations and its 'No Show' policy. As CCT seeks to increase its efficiency, one question that the private contractor wanted answered is whether or not there is adequate staffing to receive incoming calls in the reservation center.

With regard to operating policies and procedures, such as 'No Shows' and trip cancellations, CCT is comparable to its peers. CCT allows passengers to cancel five (5) same day trips within a 30 calendar days before a 'No Show' violation is assessed. Three 'No Show' violations within 30 business days can result in CCT suspending a passenger's service. Some peers, primarily those with fewer vehicles in the fleet and greater demands for daily rides, have more stringent operating policies. The peers are trying to ensure that transit needs are met and that the costs to operate the trip are shared by the largest number of people. Since CCT does not compensate its contractor for 'No Show' and cancelled trips, the only recognized cost is consumed fuel.

The following summarizes responses to the questions pertaining to industry practices:

- RouteMatch software is used by ½ of the peer systems. Another well-known program, Trapeze, is used by the others.
- All but one of the peers takes standing reservations.
- Six of nine transit systems have automatic vehicle locators (AVL) installed on their units. Only four have mobile data computers (MDC) on the vehicles.

The most obvious finding from the peer analysis is that CCT's statistics for operating costs per passenger trip and per revenue hour ranks next to the highest / most expensive. Figure 63 through Figure 70 display selected performance metrics for the peer systems. CCT's operating expense per revenue hour of operation ($75.75 per hour) in 2009 is slightly less than its ten-year highest rate of $77.43 (2004).

The system's farebox recovery rate is another area where CCT falls somewhat behind its peers, ranking the third lowest rate. Keenly aware of not only cost escalations but also a declining trend from the 2004 rate of 5.34% to 4.38% in 2009, CCT instituted fare increases in November 2010 and October 2011. The impact is not yet known, but an improved recovery rate is expected.

Figure 63: Annual Passenger Trips (2009)

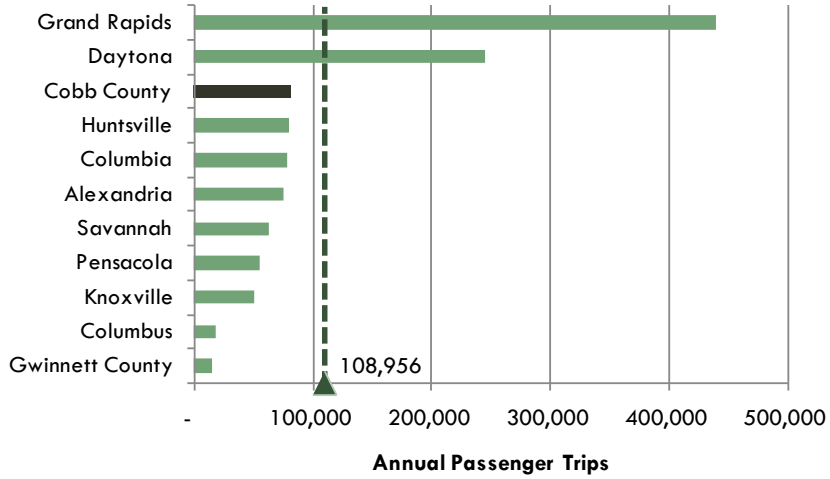


Figure 64: Annual Vehicle Revenue Hours (2009)

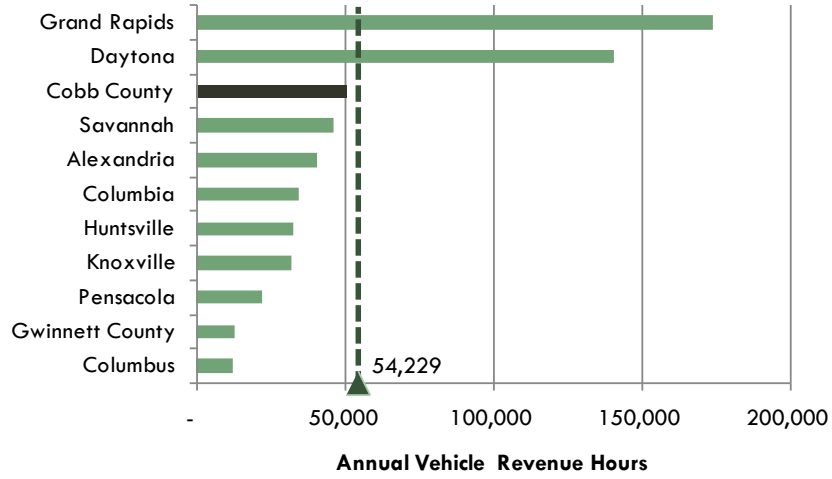


Figure 65: Annual Vehicle Revenue Miles (2009)

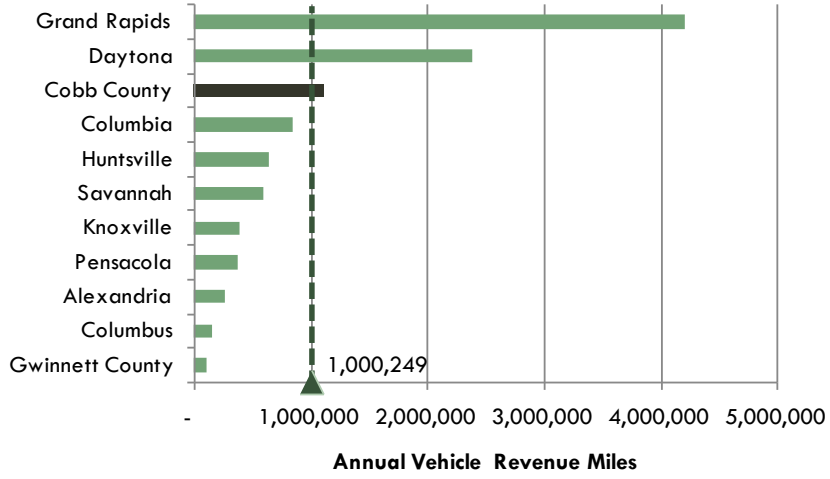


Figure 66: Vehicles Operated in Maximum Service (2009)

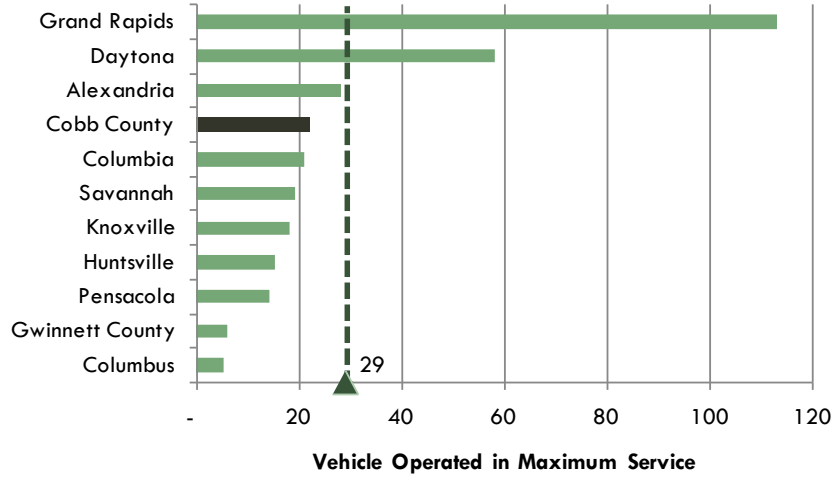


Figure 67: Cost per Passenger Trip (2009)

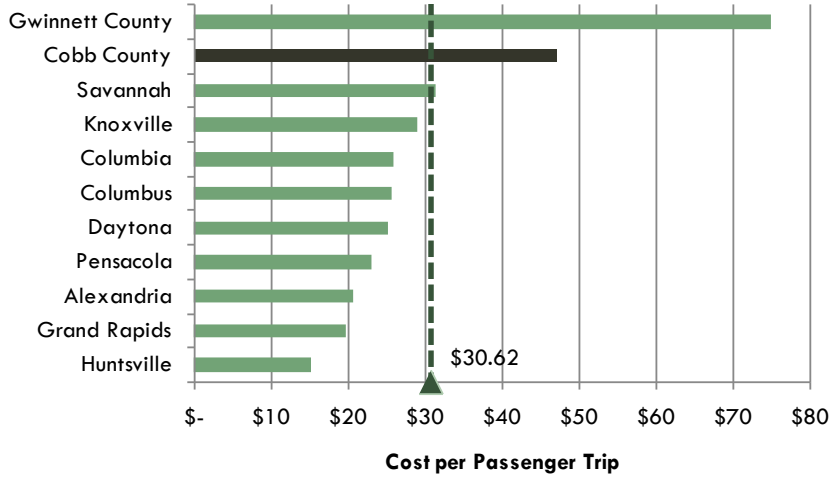


Figure 68: Cost per Revenue Hour (2009)

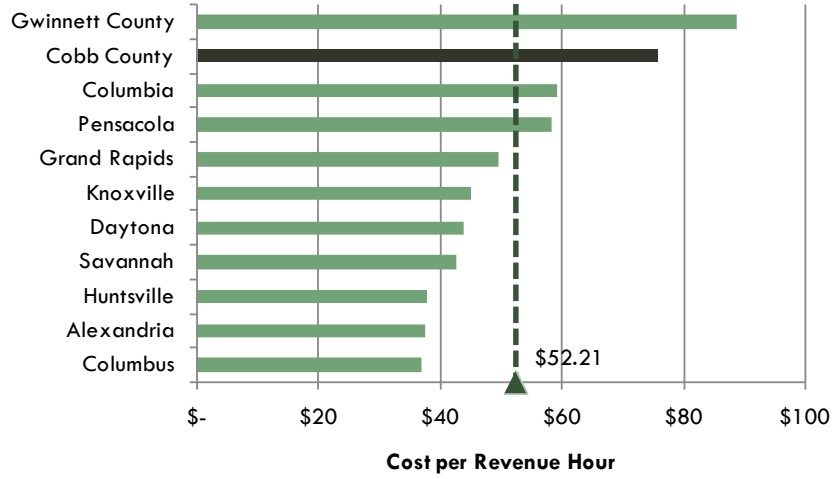


Figure 69: Cost per Revenue Mile (2009)

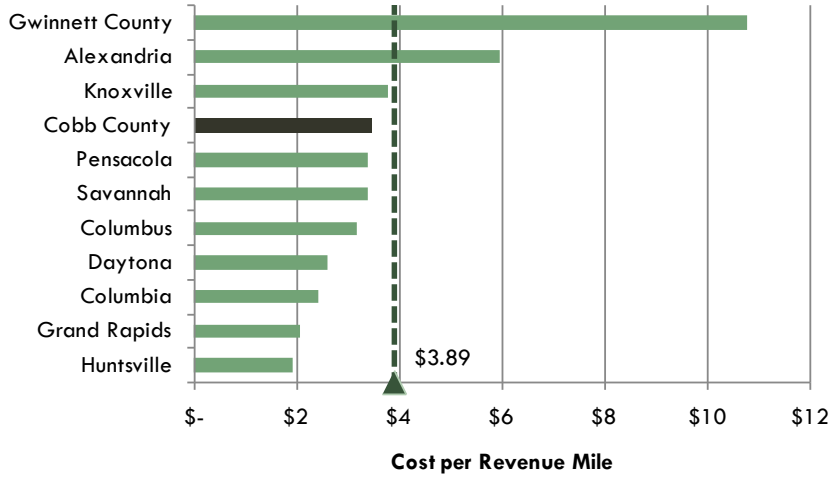
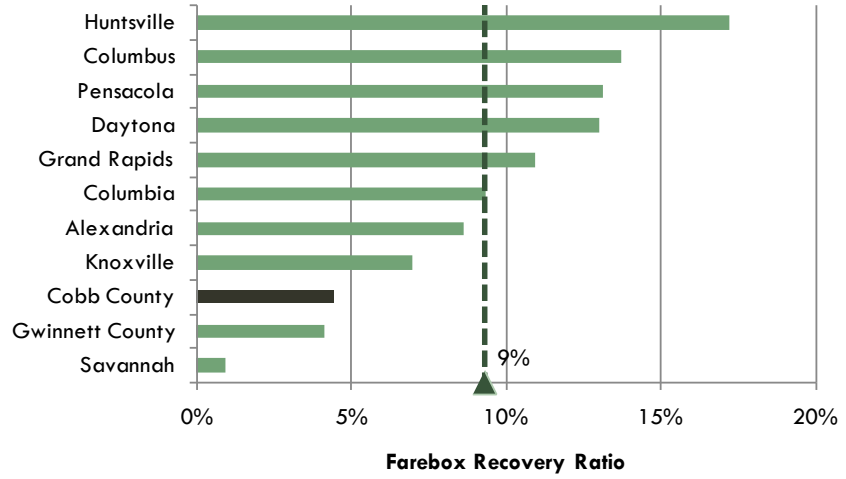


Figure 70: Farebox Recovery Ratio (2009)

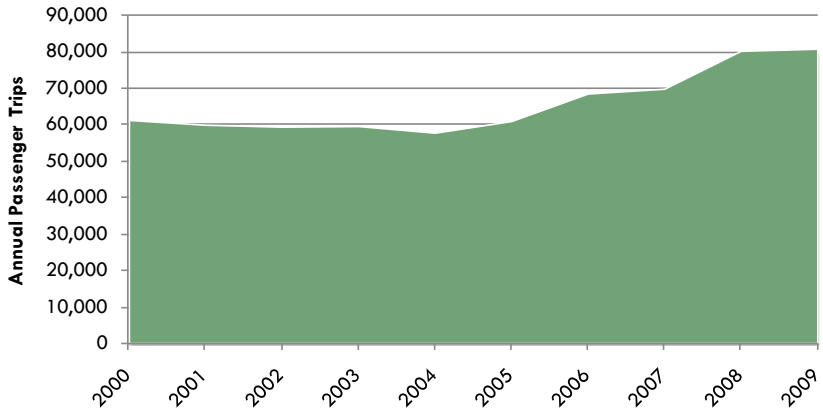


4.4. CCT Paratransit Evaluation

To evaluate CCT's performance through the years, a 10-year longitudinal analysis was developed for various performance metrics. The following bullets summarize the findings:

- Ridership has grown gradually with the greatest increase, a 'spike', occurring between 2007 and 2008. At the same time, however, passenger trips per revenue mile showed a sharp decline. This indicates that the total number of riders was disbursed throughout more vehicles, i.e. more buses in revenue service but transporting far fewer passengers than the buses' seating capacities.

Figure 71: Annual Ridership, 2000 - 2009



- Both revenue hours and revenue miles have fluctuated slightly up and down. During the past three years, however, steady increases have occurred. These may be attributed to the re-design of the fixed route service and the opening of the two transfer centers.

Figure 72: Annual Revenue Miles, 2000 - 2009

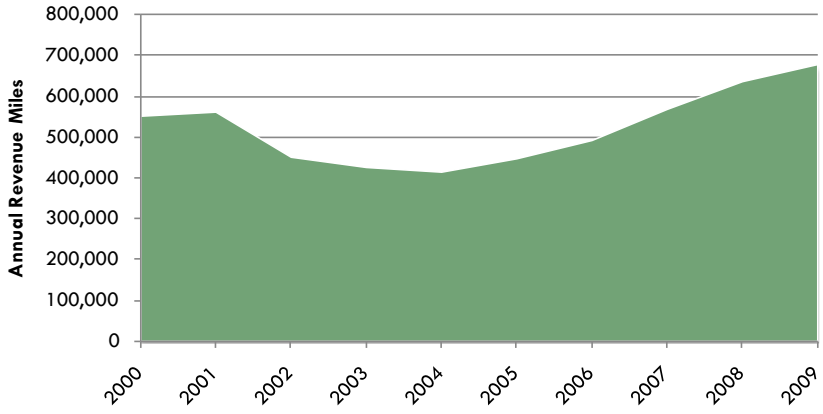
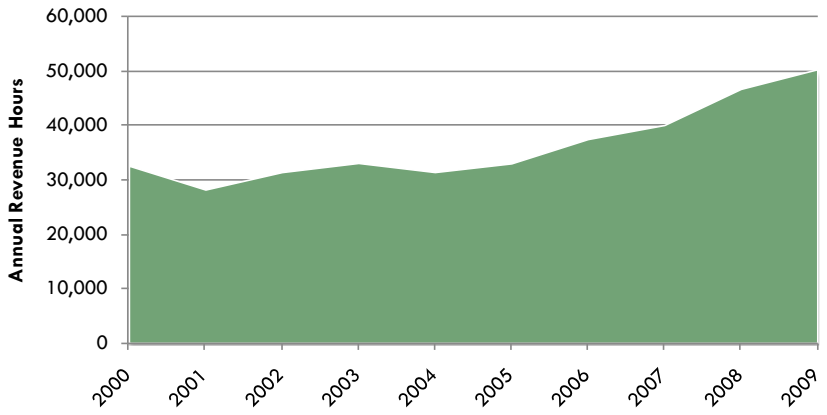
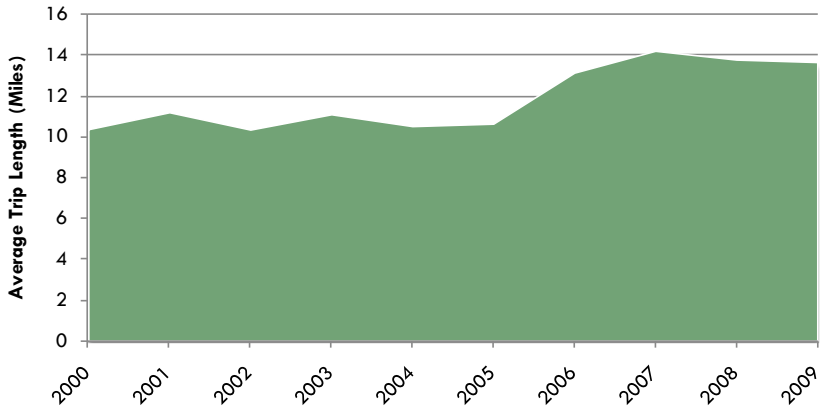


Figure 73: Annual Revenue Hours, 2000 - 2009



- There has also been a steady increase in the length of the trips. In 2009, the riders' average was 13.65 miles. Five years earlier a trip averaged 10.51 miles. This indicates changes in persons' commute patterns, where riders are traveling further distances to reach their destinations. With connectivity to other regional transit providers' services, additional travel options exist.

Figure 74: Average Passenger Trip Length, 2000 - 2009



- Service effectiveness statistics, primarily passenger trips per revenue hour and revenue mile, have been somewhat stable for the past ten years. The highest rate in passenger trips per revenue hour occurred in 2001 when CCT exceeded a rate of more than two passengers riding at a time. The current rate of 1.61 has been relatively constant for the past few years but shows a slight, gradual decline since 2001. Compared to its peers, CCT's performance is average and has room for improvement.

Figure 75: Passenger Trips per Revenue Hour, 2000 - 2009

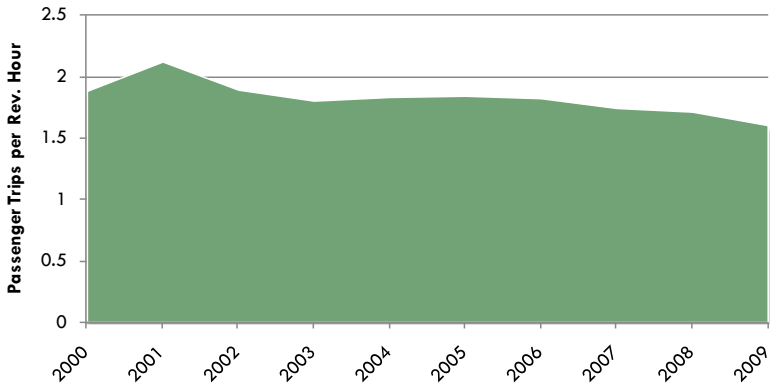
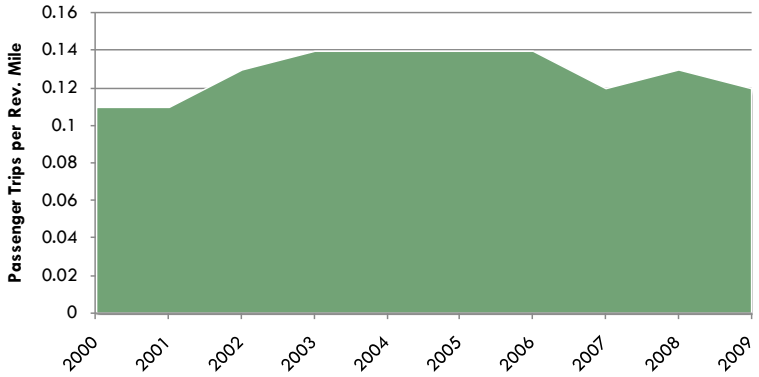


Figure 76: Passenger Trips per Revenue Mile, 2000 - 2009



- The average cost per revenue hour and average cost per revenue mile has increased approximately 4% to 5% each year. While some of this can be attributed to inflation, rising fuel costs and higher maintenance costs associated with an aging fleet also accounted for some increases. The age of the equipment in 2009 was less than two years old.

Figure 77: Cost per Revenue Mile, 2000 - 2009

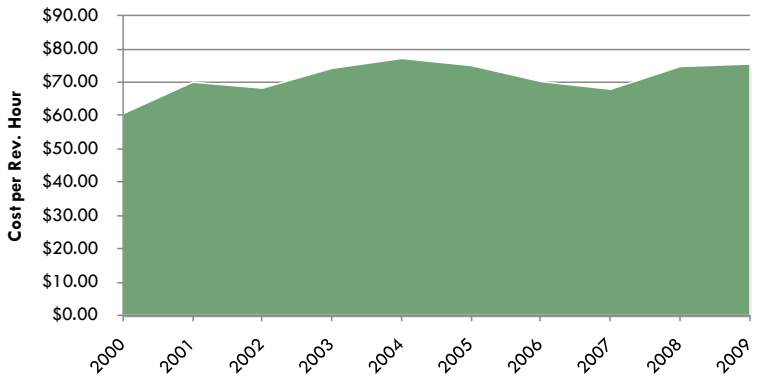
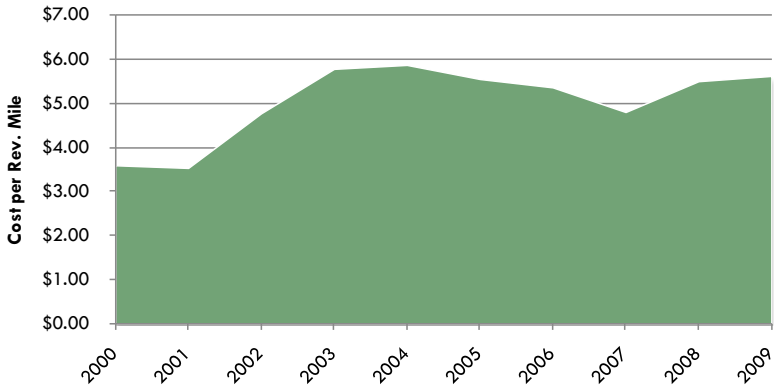


Figure 78: Cost per Revenue Mile, 2000 - 2009



4.4.1. Organization's Strengths

A practice in place by Veolia Transportation that is unique in the industry is the use of one seniority roster for all employees and who are qualified to operate both fixed route and paratransit services. All too often when both services exist, there are two lines of seniority and there are differences in employee compensation between the services. Paratransit drivers quite often receive a lower hourly wage rate; thus, they anxiously await vacancies in the fixed route roster so they can transfer to the higher paid seniority pool of drivers. The result is often a high turnover rate in the paratransit driving force, which then presents other service deficiencies. The most common are customer complaints from the disabled and elderly passengers and, secondly, lack of schedule adherence because new drivers are not as familiar with locations for customers' pick-ups and destinations.

The preventive maintenance program of the paratransit vehicles is exemplary compared to other transit providers. Every two weeks a unit undergoes a bumper-to-bumper inspection ensuring that any and all mechanical components are fully operative. The Ricon-manufactured lifts installed on the Chevrolet 4500 diesel minibuses are cycled to eliminate the need for Drivers to perform manual deployments while in service and minimize the potential for passenger injuries that could result from defective or faulty lift apparatus. There is a cost, however, for having such a progressive preventive maintenance program. This is a cost that CCT is willing to assume for accident avoidance and low numbers of road calls while in service.

Since the Board of Commissioners' inclusion of a transportation / travel mobility program as part of the County's annual FTA 5307 grant, coupled with the establishment of the Mobility Action Council (MAC) following funding, a mobility manager job position was created. A person was hired in August 2007 with a job title of 'Transportation Planner'. This position is responsible for facilitating the MAC and has oversight of all activities and efforts, specifically the travel training for citizens who are not currently users of public transit but are potentially viable riders. In 2009 a Communication Coordinator was hired to assist the Planner in developing training materials that are used in the training programs ('Get On The Bus, Gus' and 'What Happens after the Yellow Bus') to teach both the elderly and all ages of disabled citizens on how to ride public transit

vehicles. The establishment of a mobility management program is impressive. It not only increases citizens' awareness of CCT, but also offers transportation alternatives to persons who otherwise might have confined, less than life-sustaining activities in their lives.

The contract between the County and Veolia Transportation stipulates that the contractor is compensated based upon a passenger trip cost rather than a mileage or hourly service rate. This basis can benefit both the County and the provider, even though there are different perspectives. CCT generates more revenue in fares, thereby deferring the operating costs, and is striving to meet more of the transit demands. The provider increases its profits by increasing the number of passenger trips. Since Veolia Transportation receives no compensation for trip cancellations and 'No Shows', the provider has instituted the practice of telephoning every scheduled rider the evening before a trip to ensure that the transport does occur. The latter is not a common practice in the industry; however, since CCT averages a 6% rate for No Show incidents, the phone calls may prevent a higher rate and thus less lost revenue for the service provider and unproductive vehicle operating time.

4.4.2. Opportunities for Improvement

Several areas of opportunity for improving CCT's paratransit services were identified, including the enhanced use of technology and coordinating with Cobb Senior Services. A detailed explanation of these opportunities is presented below.

4.4.2.1.Enhanced Use of Technology

CCT needs to make full use of the technology that it currently has and strive to maintain software upgrades, particularly those with minimal costs, which are available from technology vendors. One example is the transit agency's paratransit scheduling system. CCT is the licensed owner of RouteMatch, a computerized route planning and scheduling software that is highly regarded in the public transit industry. When this study was initiated in late February of 2011, the Paratransit Director was meeting regularly with the software vendor to implement upgrades to CCT's system that could and should have occurred during the preceding two years (CCT is using version 4.1.6, while the vendor's most current version is 5.2.5). Since upgrades had not been made, the Scheduler was continuing his longstanding practice of manually developing Drivers' daily work schedules rather than having the scheduling software optimize the passengers' requested trips and having electronically generated route manifests for the Drivers. The reliance on one employee who seems knowledgeable of the streets in Cobb County, as well as the travel distances and times to go from one location to another, could have been diminished by using the software program to do the same task in a much more expedient manner. Additionally, the route optimization feature of RouteMatch is designed to enhance the 'shared ride' concept such that equipment utilization is maximized and operating costs are better controlled.

Automatic Vehicle Locators have recently been purchased by CCT and are expected to arrive by late Fall 2011. The recommendation has been made to install this technology on paratransit vehicles before placing the units on fixed route buses. Having the capability to identify the exact locations of idle paratransit vehicles enables passenger trips to be made more expeditiously, thereby possibly increasing the total number of passenger trips that the system makes during a

workday. Also, customer satisfaction levels may improve because the dispatcher can re-route vehicles and reduce customers' wait times for indefinite pick-up times, such as return trips from medical appointments. Installing AVLs on the paratransit vehicles reaps greater benefits than placing them on fixed route buses that already have assigned time points. Since the paratransit service encompasses a larger geographic area and road supervision has been decreased with the elimination of supervisory job positions, it is recommended that AVLs be used to better monitor the paratransit operations.

A mobile data computer (MDC), also known as 'MDT' (Mobile Data Terminal), is another technological enhancement that affords 'real time' communication via data entry between field and office personnel. These devices, used most effectively on paratransit vehicles, are similar to those used for many years by law enforcement agencies and nationally known couriers when information needs to be immediately conveyed to a central dispatch control center. Of course, transit software programs have had to be re-written to accept data sent via the airwaves from auxiliary, multiple sites. The current cost for purchasing not only a MDT but also the AVL unit is estimated at approximately $6,000, much less than the cash outlay from years past, and is attributable to the technological developments in the communications industry.

Currently, CCT paratransit drivers manually record the times of passengers' pick-ups and drop-offs, trip odometer readings, and times when in and out of service. The Dispatcher enters the aforementioned information into the RouteMatch database every evening. During the site visit, the Scheduling Clerk was observed correcting data entry errors made by the Dispatcher in order to generate two management reports (one called the 'Operations Statistics Report' and the other called 'CCT Paratransit Daily Report of Operations') that captures all the operating statistics for the previous workday. It is imperative that the data is accurate because it is the source of all information reported to the CCT Transit Division Manager and ultimately is compiled into the FTA's NTD. The current tasks are labor intensive and prone to human errors. If MDTs were installed on the CCT vehicles, drivers would be responsible for entering mileages and travel times at their intended destinations, and this information is then automatically stored in the computer mainframe. The Dispatcher would also have the means to communicate 'real time' with the drivers, making modifications to the drivers' previously assigned manifests. For example, utilizing the AVL technology and its capabilities, the Dispatcher can determine the exact location of every vehicle in the fleet. When a passenger is assigned a 'Will Call' transport following a medical appointment, the Dispatcher identifies an idle vehicle and sends a message via the MDT to the driver to make the pick-up. The driver that was previously identified for the aforementioned transport is now available for some other assignment. As the master schedule changes, the Scheduler has the opportunity to add unscheduled passenger trips to the day's activities. Coupling the AVL with a MDT not only enhances the productivity of the driving force and maximizes the utilization of the vehicles but it also can improve the on-time performance of the transports. The latter results in improvement in the level of customers' satisfaction with the service.

To expand upon information obtained in the peer system survey, a survey of two transit systems that currently have both the AVL and MDT units installed on their fleets was conducted. The

purpose of the second survey was to evaluate the costs and benefits of purchasing technology enhancements for the CCT paratransit fleet and to gain a sense of potential savings. The following is a chart showing the systems' performance statistics for two years, the first year when the equipment was installed and a year after full utilization of the technologies (purchased from Mentor Engineering, Inc.).

Table 13: Paratransit Peer System Performance Statistics, Before and After AVL/MDT Implementation

Name of System:	ICPTA			ICATS			Average % Change
	2008	2009	% Change	2008	2009	% Change	
Total Passenger Trips	86,941	86,631	0%	114,937	119,941	4%	2%
Peak Vehicles	20	21	5%	20	21	5%	5%
Total Revenue Hours	43,730	42,235	-3%	49,961	44,738	-11%	-7%
Total Revenue Miles	839,367	838,207	0%	905,025	800,617	-12%	-6%
Total Passenger Trips per Hour	1.98	2.05	4%	2.30	2.68	17%	10%
Total Passenger Trips per Mile	0.10	0.10	0%	0.13	0.15	18%	9%
Cost per Passenger Trip	16.98	16.08	-5%	12.05	11.02	-9%	-7%
Cost per Hour	33.58	32.98	-2%	27.72	29.54	7%	2%
Cost per Mile	1.75	1.66	-5%	1.53	1.65	8%	1%
Service Miles per Peak Vehicle	41,968	39,915	-5%	45,251	38,125	-16%	-10%
Trips per Driver FTE	4,506	4,006	-11%	4,957	4,816	-3%	-7%

Both systems improved their operating efficiencies after purchasing the 'Rangers' (name of Mentor Engineering's combined AVL and MDT system). On average, these two systems realized a slight increase in ridership while decreasing service hours and miles during the first full year of implementation. Most notably, trips per hour increased by 10% and trips per mile increased 9%, while cost per passenger trip decreased 7%. The number of service miles per peak vehicles decreased, thereby realizing savings in fuel consumption and labor, or the vehicles were re-assigned to transport new or additional passengers who were currently denied services due to over-capacity levels.

Another operational finding is that the customers' levels of satisfaction improved, which is the result of improved on-time performance. Delays are infrequent occurrences because the Dispatchers can identify vehicles that are in close proximity to the riders (AVLs) and then re-assign (sending messages via the MDTs) the transport to a unit for a pick-up that was not on the driver's original trip manifest. Optimization occurs in the utilization of equipment and manpower.

Savings in administrative costs results primarily because the MDTs reduce the amount of data entry required by an administrative clerk. The two systems were able to eliminate one Data Entry Clerk job position, recognizing a cost savings of approximately $30,000 to $32,000 (fully burdened labor rate). The aforementioned position now is only required to verify drivers' data entries prior to generating Management reports. Also, there are fewer labor hours (cost savings in labor and fringe benefits) spent correcting bad data entries because the drivers enter trips and mileage at the time of pick-ups and drop-offs, i.e. 'real time'.

4.4.2.2.Coordination with Cobb Senior Services

Anticipating the establishment of a Mobility Advisory Committee (MAC), the county has hired a Mobility Manager and an assistant to evaluate the level of coordination that exists between the County's Department of Senior Services – Transportation Unit (CSS) and CCT. CSS has its own fleet of thirty-nine (39) 13-passenger minibuses, of which approximately a third are lift-equipped. Operating Monday through Friday on pre-determined and scheduled routes, CSS has staff to administer, manage, and operate the vehicles. The service is funded through Title 3 Block Grants, County Based Service Grants, Cobb County resources, and fare revenues. The purpose of the fleet is to transport seniors who participate in CSS programs at three of its Neighborhood and Senior Centers facilities.

There are program differences between CCT and CSS. These include the service area, the type of service, and the fares that are charged. CCT provides curb-to-curb service to citizens residing within 3/4th of a mile from the fixed route bus service and the cost is $4.00 per trip. Operating in zones throughout the entire County, CSS provides door-to-door service for $1.00 per trip to persons that have service denial letters from CCT, i.e. reside beyond the ¾-mile fixed route service. CSS has defined trip purposes, but CCT does not.

Even though the aforementioned differences exist, there are opportunities for the two transit providers to coordinate. These are highlighted in a Cobb County DOT-commissioned transportation study ('Cobb County Senior Adult Transportation Study') that was completed in September 2007. Several of the Tier I coordination tasks have already been completed or well underway. A new paratransit facility that will house CCT's paratransit staff and the CSS transportation unit is scheduled for occupancy in July 2012. Having the two staffs in the same workspace promotes greater facilitation and coordinated efforts. The sharing of assets should also recognize cost savings for both providers. Other possible efficiencies include:

- Bring the reservation scheduling and dispatching functions of the paratransit services in-house, i.e. remove these functions from the responsibility of the private contractor. The transit administrators of systems utilizing advanced technology concur that the proficiency of the Dispatcher in utilization of RouteMatch and the skill level of the Dispatcher in monitoring the operations are two of the most critical components to their operations' optimization. Cobb County, more so possibly than the private contractor, has vested interest in customer satisfaction and optimum performance standards.

- With the co-habitation of CCT and CSS transportation services after July 2012 and the potential opportunity of coordinating and/or consolidating some of their respective duties and responsibilities, it is timely to commence actions for combining those management functions that offer the greatest amount of control over service productivity and quality. Effective routing and scheduling of reservations is at the core of service efficiency. Efficiencies occur when vehicles are fully utilized, i.e. greatest seating capacity and the number of passenger boardings per revenue hour or service mile is at the highest level. Since CSS utilizes a reservation and scheduling software program that is not specifically

designed for transportation and logistics, the RouteMatch software owned by CCT is the most adaptable to future coordination activities. If the CCT and CSS fleets are consolidated, the oldest units in the CSS fleet may be sold or re-assigned to other County departments. However, this recommendation presumes that the on-road paratransit service would continue to be performed by a private transportation contractor, specifically the employment, supervision, and management oversight of the driving force.

4.4.2.3.Summary of Opportunities and Recommendations

In order to increase efficiency and productivity of its paratransit operations, CCT should take the following steps:

- Upgrade the RouteMatch software to the vendor's latest version.
- Obtain the services of RouteMatch for on-site training of personnel.
- Conduct an evaluation of the Dispatcher and Scheduler job positions, determining the skills and proficiencies required for each position. Ensure that persons holding the positions are fully qualified.
- Apply for Federal grants to acquire advanced technology (AVL and MDT) for the entire paratransit fleet. Implement technology and train staff to ensure maximum benefits are realized.
- Postpone any planned vehicle acquisitions until a thorough evaluation of the conditions of the existing fleets (both CCT and CSS) is conducted.
- Dispose of inoperative and/or under-utilized vehicles in the CCT and CSS fleet, re-directing fund receipts towards the purchase of advanced technology.

4.4.3. Paratransit Alternatives

Recognizing that the reduction of routes and associated complementary ADA services can possibly adversely affect the lifestyles of the elderly and disabled populations, transportation alternatives that are common throughout other US cities are presented here for consideration by Cobb County.

4.4.3.1.Brokerage Arrangements (also known as 'Voucher programs')

Brokering is simply a formalized agreement between a publicly funded transit provider and other passenger transportation providers (local private vendors, neighboring counties, volunteer networks, municipal public providers, and/or regional public providers) to partner, contract, collaborate and/or coordinate transportation resources. The optimum goal for brokerage is to maximize the number of transports and to fully utilize the funds that are already allocated for transportation services in the County. Such a program has existed, with funding from the Atlanta Regional Commission and under the direction of Cobb Department of Transportation, since 2005. It's called the Cobb Freedom Voucher Program.

A voucher is simply the 'mechanism' for a transit passenger to compensate the service provider. Comparable to purchasing pre-paid, discounted bus tickets or passes, vouchers are purchased in advance of the transport. Pre-certified vendors with whom CCT has either executed contracts for agreed upon prices or have Memorandums Of Understandings (MOU) detailing transport rates agree to accept the County-issued vouchers in lieu of money. The vendors are then reimbursed, based upon the payment terms, for the vouchers submitted at the time of invoicing.

For a brokerage service to be successful, defined processes and procedures must be established:

- First, there must be a designated person, i.e. Transportation Broker (job position title might be 'Mobility Manager', 'Transportation Planner', etc.) who is responsible for overseeing the activities of CCT's current contract provider(s) and to develop a program to solicit additional external vendors. The Transportation Broker must locate established vehicle operators in the METRO Atlanta area who are interested in subcontracting with CCT. While this may seem to be a trivial task, it is not because private sector vendors often do not want to incur the costs associated with becoming compliant with Federal Transit Administration requirements when they are not guaranteed a level of work, i.e. guaranteed revenue from operating CCT voucher trips. The uncertainty of fluctuating fuel prices and costs for licensing and adequate levels of insurance also sometimes impede private providers from committing to contractual relations.
- A second major task of the Transportation Broker is to develop written guidelines specifically related to CCT's operating requirements. Vendors must clearly understand that they are representatives of CCT and that all of the operating rules and regulations, federal and state mandates, required of CCT paratransit bus operators also exist for them. To minimize this challenge, the County has the opportunity to broker with existing FTA-approved transportation providers, such as MARTA, GRTA, or Gwinnett County Transit, either as contractors or as members of an independent consortium, because these transit systems already have compliant programs, especially safety related ones, in place.

Another potential vendor is CCT's own contracted service provider (currently Veolia Transportation) and/or any of the other nationally known transportation management companies. For the CCT contracted provider, the services are outside or beyond the Scope Of Work of its complementary ADA transports. Advantages are apparent to both the County and the contractor: Cobb County obtains the services of fully qualified bus operators and administrators while the contractor can maximize utilization of its employees. Arrangements like the latter are currently in place throughout the US.

4.4.3.2.Dial-a-Ride /Demand Response Program

Brokerage is one means to provide supplemental services outside of the ¾-mile (Complementary ADA) paratransit service boundary. However, such a system does not realize its maximum productivity potential unless rider trips are centrally scheduled. Thus, a second transportation alternative called 'Dial-A-Ride', which is also known as a Demand Response program, offers more 'bang for the buck'. In this arrangement, a central dispatching center (under the direction of the

'Mobility Manager', 'Transportation Planner', etc.) arranges the rides by matching trip requests – for whatever reason and by whomever - to available seats on a fleet of designated vehicles. The Mobility Manager's primary goal is to determine the most efficient method for providing a transport, ranging from a ridesharing of multiple passengers (similar to that of the existing Complementary ADA service and Cobb County Senior Services) to an individual passenger trip.

Dial-A-Ride programs involve the development of a 'stable' of transportation providers in a consortium, but not necessarily under contract to the County. The consortium approach may eliminate the need for CCT to monitor the providers for adherence to all of the federal and state mandated requirements, such as drug screening, training, and similar programs. Since no contractual relationship exists and a portion of the transports are not designated as 'true' Complementary ADA services, CCT does not have to enforce FTA requirements. Eliminating these can potentially bring in more service providers that charge lower rates / fares, especially organizations using volunteer drivers or providers with smaller, non-lift equipped vehicles (usually passenger sedans). The downside of this operating alternative is that CCT will have less control over the quality of the services.

In this type of transportation alternative program, the transportation providers, varying from for-profit firms to volunteer organizations, indicate the type of vehicles they have available, the times the vehicles could be used, the area(s) they will serve, and the cost of using their vehicles. The Mobility Manager / central dispatching center has this information included in its routing and scheduling software program (currently CCT is a licensee for the RouteMatch system) so that when a transportation request is received, the most cost-effective way to meet the request is used. Usually, this means first assigning a trip to the least inexpensive means (volunteer organization or to the fixed-route system) before assigning the trip to a Complementary ADA or demand-response service. Taxi services, which can often be the most expensive, are used only when no other provider is available, such as late at night or in certain areas of the County.

4.4.3.3. Volunteer Services

Uncountable, unrecorded transports occur daily by agencies, primarily non-profit, and faith-based organizations whose members and affiliates volunteer their time to provide rides, particularly for senior citizens who are ambulatory. Destinations are to medical facilities, shopping centers and grocery stores, senior activity centers, and other locales that promote the elderly population's life- sustaining activities. Some organizations, the American Red Cross and Veteran's Affairs to name just two, possess several personal occupancy vehicles (minivans) that its volunteers use in lieu of their own personal vehicles. When an agency-owned fleet does not exist, volunteers sometimes, but not always, are offered and receive reimbursement for mileage. As a volunteer service, the cost is free for the person obtaining the ride.

The 'downside' of this alternative is, of course, the availability of volunteers and their limitations on the days and / or hours when they are willing to provide transports. Some counties, particularly those in more rural, less populated areas, have optimized their volunteer programs by developing a one-call center where the volunteer organizations and names of their volunteer drivers are maintained in a centralized database at a central dispatch center. This is comparable

to 'hotlines' / call centers established for societal issues (like domestic violence, substance abuse, etc.). The Atlanta Regional Conference already has a referral service in place, called the 'AgeWise Connection' [404.463.3333]. ARC has specialists that certify information and provide referrals. Possibly, the current services can be expanded.

The Beverly Foundation has facilitated multiple studies on effective methods for organizing, administering and oversight of volunteer transportation programs [www.beverlyfoundation.org/library/Volunteer Driver Programs]. A review of this website and its periodicals is sure to be beneficial to the County before commencing any new activities or services.

4.4.3.4.Coordination with Cobb County Senior Services

With fiscal constraints and the opening in summer 2012 of a shared facility by Cobb Senior Services and CCT, there is no better time to seriously consider the establishment of a coordinated transportation service of Cobb County's two transportation providers and commence taking the necessary administrative actions with a goal of maximizing the number of transport services available to the County's elderly and disabled populations.

As previously stated, the 'Cobb Senior Services Transportation Report' was published in September 2007. Sections 8, 9, and 10 of that report detail the three-tiered approach for coordinating the services offered by Cobb Senior Services and CCT, with an ultimate goal of making Cobb County a 'senior friendly' community in 2017. Several of the short-term steps (called 'Tier 1') have already been accomplished. Suggested tasks that remain are administrative in nature and are achievable relatively quickly with concentrated focus by CCT and CSS administrators and their staffs. Tier 2, the intermediate coordination phase, poses more challenges because the suggested tasks include, but are not limited to, strategies for vehicle sharing, collaboration with other area providers (such as brokerage), and evaluation for existing route modifications and development of new services. Finally, Tier 3 seeks to achieve maximum coordination. Since more than four years has passed since the completion of the Report and Tier 1 tasks are still incomplete, it is too soon to determine whether the County's two providers can achieve its target date of 2017. It is reasonable, however, to complete the administrative requirements outlined in Tier 1 and prepare to institute portions of Tier 2, particularly in light of the fact that very soon the two fleets will be parked adjacent to each other and the dispatching centers may be located in a commonly shared area.

4.5. Five and Ten Year Paratransit Plan

In order to prepare for any future changes in demand, a five and ten-year estimate of paratransit ridership was developed and is presented below. Section 4.5.2 presents the operating requirements and costs associated with implementing the strategies described in Section 4.4 based on the projected paratransit demand presented below.

4.5.1. Projection of Future Service Area Population

Projections of future paratransit demand are directly related to future changes in population. In order to estimate future ridership, it is first necessary to determine the future service area

population base. Population projections for each scenario were derived from ARC's Plan 2040 population forecasts. The ARC 2040 dataset is the official population and employment forecast for the Atlanta region and provides the socio-economic (SE) TAZ data for the regional travel demand model. As such, it provides an appropriate baseline upon which future paratansit demand can be estimated.

The service area population for each scenario was determined by summing the population within the ¾-mile paratransit buffer, which is the mandated service area size pursuant to ADA regulations. The TAZs within the service area buffer were selected using a GIS-based approach and adjusted appropriately to account for TAZ's which were partially inside the buffer zone. The area-weighted recount method, which distributes the population within a TAZ based on the percentage of land area inside or outside of the buffer, was employed to make these adjustments. The results of this analysis are presented in Table 14.

Table 14: Service Area Population Projections

Scenario		Service Area Population (3/4 mile)	County Population**
No Change	Pre-August 2011*	303,953	672,076
	2011 (Estimated based on route cuts)	210,231	672,076
	2015	244,520	727,035
	2020	256,472	751,094
	% Increase 2011 - 2020	*22%*	*12%*
Fixed Route Service Plan Scenarios	Near Term "Maximize Efficiency" Plan (2011)	207,457	672,076
	Mid Term "Modest Increase" Plan (2015)	277,894	727,035
	Long Term "Aspirations" Plan (2020)	335,326	751,094
	% Increase 2011 - 2020	*62%*	*12%*

*CCT enacted service cuts on August 1, 2011.
** Source: Atlanta Regional Commission (ARC)

According to the projections, Cobb County's total population is expected to increase 12% between 2010 and 2020. According to the No Change scenario, which assumes no system expansion, population within the ¾-mile paratransit buffer is expected to increase 22% over the next ten years. According to the fixed route service plan scenarios, which assumes system expansion as described in Section 3.5, service area population would increase 62%.

4.5.2. Projection of Future Service Levels and Operating Costs

Research conducted by the Transit Cooperative Research Program suggests that paratransit demand increases directly in proportion to the total population of the area served, while variables such as disabled and elderly population were not found to have a statistically

significant impact on paratransit demand.[3] Therefore, a per-capita approach was selected as the most appropriate method to estimate CCT's future paratransit ridership based on data available for this project.

Actual CCT ridership data and current service area population were used to determine the baseline per-capita factors that were applied to the population projections to estimate future ridership. Due to recent service changes implemented in August 2011, two per-capita factors were developed: one based on the pre-August 2011route network and one based on the post-August 2011 route network. The pre-August 2011 factor was 0.27 annual trips per service area capita and the post-August 2011 factor was 0.30 annual trips per service area capita. Because there was a lack of ridership data upon which to base the post-August 2011 factor calculation on, a range of values is presented using the pre-August 2011 factor as the low threshold and the post-August 2011 factor as the high threshold. The estimated ridership for each scenario is presented in Table 15, below.

Table 15: Estimated Paratransit Ridership by Scenario

Scenario		Low	High
No Change	Pre-August 2011*	80,956	80,956
	2011 (Estimated based on route cuts)	55,994	63,036
	2015	65,126	73,317
	2020	68,310	76,901
Fixed Route Service Plan Scenarios	Near Term "Maximize Efficiency" Plan (2011)	55,255	62,204
	Mid Term "Modest Increase" Plan (2015)	74,015	83,324
	Long Term "Aspirations" Plan (2020)	89,312	100,545

*CCT enacted service cuts on August 1, 2011.

Three efficiency scenarios were developed based on assumed productivity levels (expressed as passengers per revenue hour) that might be achieved through implementation of the recommended paratransit improvements detailed in Section 5.4.

- **Scenario 1**: No improvement over 2010 productivity of 1.6 passengers per revenue hour.
- **Scenario 2**: Achievement of 10% improvement in productivity resulting from technology implementation, increasing passengers per revenue hour to 1.76.
- **Scenario 3**: Achievement of 25% improvement in productivity resulting from full implementation of recommended improvements, increasing passengers per revenue hour to 2. This would put CCT's paratransit productivity rate approximately 5% above the peer average of 1.9.

[3] Source: TCRP Report 119. Improving ADA Complementary Paratransit Demand Estimation. 2007

Projected service levels and O&M costs were estimated based on these efficiency scenarios and the mid-point of the high and low ridership estimations presented in Table 15. Estimated operating costs were calculated based on projected service levels and the 2010 cost per revenue hour of $70.06. The projected paratransit service levels and O&M costs are presented in Table 16.

By implementing the recommendations presented in Section 5.4, CCT's paratransit operations will likely experience greater efficiencies, allowing CCT to serve more customers with fewer resources. An initial capital outlay in the near-term for the purchase of technology upgrades will subsequently increase productivity, allowing CCT to serve more riders with the same level of service. Furthermore, consolidating with CSS provides an opportunity to streamline operations and liquidate unused assets.

Table 16: Estimated Paratransit Operating Statistics and Costs by Scenario

Scenario	*Paratransit Efficiency Scenario:*		*1*	*2*	*3*
	Assumed Passengers per Revenue Hour:		***1.6***	***1.76***	***2.00***
No Change	**Pre-August 2011**	Revenue Hours	50,598	45,998	40,478
		Peak Vehicles	27	25	22
		Estimated O&M Cost	$ 3,544,900	$ 3,222,600	$ 2,835,900
	2011 (Estimated based on route cuts)	Revenue Hours	37,197	33,815	29,757
		Peak Vehicles	20	18	16
		Estimated O&M Cost	$ 2,606,000	$ 2,369,100	$ 2,084,800
	2015	Revenue Hours	43,264	39,331	34,611
		Peak Vehicles	23	21	18
		Estimated O&M Cost	$ 3,031,100	$ 2,755,500	$ 2,424,800
	2020	Revenue Hours	45,378	41,253	36,303
		Peak Vehicles	24	22	19
		Estimated O&M Cost	$ 3,179,200	$ 2,890,200	$ 2,543,400
Fixed Route Service Plan Scenarios	**Near Term "Maximize Efficiency" Plan (2011)**	Revenue Hours	36,706	33,369	29,365
		Peak Vehicles	20	18	16
		Estimated O&M Cost	$ 2,571,600	$ 2,337,800	$ 2,057,300
	Mid Term "Modest Increase" Plan (2015)	Revenue Hours	49,169	44,699	39,335
		Peak Vehicles	26	24	21
		Estimated O&M Cost	$ 3,444,800	$ 3,131,600	$ 2,755,800
	Long Term "Aspirations" Plan (2020)	Revenue Hours	59,330	53,937	47,464
		Peak Vehicles	32	29	25
		Estimated O&M Cost	$ 4,156,700	$ 3,778,800	$ 3,325,300

5. Transit Marketing Plan

5. Transit Marketing Plan

5.1. Situation Analysis

The main focus of this Marketing Plan is to provide strategies for addressing immediate goals and objectives concerning bus service provided by Cobb Community Transit (CCT). Specifically, the Marketing Plan addresses how to strengthen and bolster the CCT brand.

Representatives from R&R Partners conducted two sessions of a Marketing Workshop on July 29, 2011. Comments and feedback were provided by members of the CCT Board and Cobb County staff as well as managers and employees of CCT. These comments and insights were helpful in the development of this proposed marketing plan.

5.2. Brand Assessment and Overview

CCT generally has a strong, healthy brand. However, there is room for improvement. One of the biggest challenges facing CCT is the perception of the transit system by the community is incongruent with the actual reality of the quality of the transit system. Simply speaking, the system is much better than it is perceived to be. CCT vehicles are clean and well-maintained. The bus operators are generally very personable, pleasant and accommodating. With relatively new, real-time passenger information technology, CCT provides a valuable service at a reasonable price.

With the development of a marketing plan that will accentuate the positives and communicate the strong service and value CCT provides to the Cobb County area, it is possible to improve the overall image and brand that is CCT.

5.3. Key Challenges

The biggest challenge facing CCT is that this *is* a cost-effective, well managed transit system, however the general public either perceives the system to be less than optimum, or there is no opinion or even awareness of the system. General perceptions of CCT seem to be somewhat lower than the actual realities of the quality of this transit system.

Therefore, the challenge is to raise awareness of CCT and build positive attitudes toward the excellent bus system that it is. This will begin to eliminate whatever negative stigma exists and build positive attitudes about the CCT brand.

5.3.1. Marketing Objectives

- Define a brand identity that elevates CCT's position in the mind of current and potential riders as well as build positive attitudes of those who may not currently ride CCT.
- Increase awareness of existing CCT services to promote on-going ridership.
- Inform and educate the general public about CCT's role in the greater Atlanta area long-term transportation plan.
- Inform and educate the general public about the importance of public transportation and that not all "empty buses" are bad.

- Possibly use local "champions" to deliver the truth about CCT and public transportation, as well as the CCT brand.

5.3.2. Strategies to Meet These Objectives

- Do additional research to assess the current favorability of CCT and establish a benchmark, and aid in providing additional information for the development of an effective brand message.
- Develop a campaign to communicate and focus on the excellent system and valuable services provided to the community by CCT, and begin to build a meaningful CCT brand.
- Promotions and marketing efforts designed to induce trial (offers, incentives, reasons to ride).
- Focus on delivering public education and pro-transit messages to all key audience segments.
- Maximize marketing funds with earned media, the use of social media, and grass roots efforts.
- Ongoing research to gauge effectiveness of CCT's messages and level of support.

5.4. Target Audiences

CCT's public transportation message will be delivered to numerous different audiences, each with different expectations and opinions. These differing expectations and opinions require that each audience segment receive unique, customized marketing messages. Based on input from our Marketing Workshops, the following target audiences are recommended:

Figure 79: CCT "Audience Wheel"

5.5. The Message(s)

With the comments and feedback received in the Marketing Workshops, several possible brand statements were developed for CCT. The brand statement will reflect on the CCT brand, and can become a strong catalyst in building a stronger, more-positive image for the transit system. As awareness and public support of CCT builds, this slogan will help solidify the brand. The following several options for possible brand statements / slogans / taglines have been developed by the creative team:

- **CCT: Cobb County Rides Again**
- **CCT: Our Future Is Riding On It**
- **CCT: The Way Forward**
- **CCT: Moving Cobb County Forward**
- **CCT: Cobb County Is Riding On It**
- **CCT: We're All Onboard**
- **CCT: Onboard for a Brighter Tomorrow**
- **CCT: Accelerating Cobb County**
- **CCT: Transforming Transit**
- **CCT: Onward**

5.6. An Integrated Marketing and Media Approach

In order to increase positive awareness of CCT's contribution to the quality of life in Cobb County, a comprehensive, multimedia approach will be required. This will include traditional, social, and new media. In addition to paid advertising CCT must take full advantage of free and/or earned media and publicity as well. Cobb County's transportation and transit issues have been covered in the local press, albeit not always positive. Cobb County needs to tell the CCT story, via a diverse set of earned and paid media.

Ideally, CCT would begin to identify "Champions" who would help deliver the CCT message. Depending on what champions could be recruited, and budget availability, following are media recommendation for the Cobb Community Transit campaign:

Media Objectives

- Raise awareness among Cobb County residents of CCT services.
- Strengthen perceptions of the CCT brand and image in Cobb County.

Media Strategies

- Countywide messaging to increase overall awareness of CCT services.
- Reach audience with highly targeted media vehicles for awareness and brand messaging of CCT, including local cable, print, online and outdoor placements in Cobb County.
- Complement highly targeted media with mass market radio if budget allows.
- Maximize budget and minimize waste.

Target Audience

- Primary Target: Current and potential riders.
- Secondary Target: Voters.
- Buying Target: 25-54

Geography

- Cobb County only

5.7. Media Considerations / Tactics

Spot Cable

Cable provides localized reach and awareness of the CCT campaign targeted to only Cobb County. By buying selected cable systems within the Atlanta market, the target can be without the high cost of buying the whole Atlanta television market. Networks will be chosen based on target audience research but include those such as (but not limited to) TNT, USA, ESPN, CNN, and Fox News. Daypart selections will include early morning and prime to maximize reach and frequency.

Traffic Radio

Radio provides multi-county coverage across the Atlanta area to reach voters as well as CCT riders/potential riders. Stations operating within Cobb County will receive a high share of the buy. The use of traffic radio liners reach the commuter and provide additional frequency/reminder messaging. Traffic radio should be considered on plans with higher budgets.

Outdoor

Outdoor provides simple and quick messaging to the target while they are on-the-go and reminds them of the availability of public transportation. Advertising on the CCT buses (if available) may offer additional message reinforcement. Cobb County residents index high for travelling 30-59 minutes each way to work, making outdoor an effective medium. Placements will be selected based on high DEC's for maximum reach/coverage as well as proximity to public transportation.

Print

Print will be locally targeted to Cobb County. The use of newspapers allows CCT the ability to provide the target additional time with the message, the ability to cut out the ad for reference later, and to further reinforce the broadcast and outdoor efforts.

Online & Social Media

The use of paid display advertising delivers the Cobb Community Transit brand message to the target while they are on the computer/smartphone and able to click-through to the CCT website for more information and bus schedules. Online display placements allow for optimization of placements to maximize clicks by regular campaign reporting. Social media will also be considered as it allows the target the ability to communicate directly with CCT by asking questions and providing feedback.

5.8. Marketing Timeline and Budget Recommendations

Marketing Plan recommendations were developed at two budget levels, $200,000 and $500,000. These budgets can be revised and plan elements adjusted. All costs are currently based on planning rates only and have not been negotiated with media outlets.

Given a $200,000 budget, Cobb Community Transit advertising should focus on cable within Cobb County, print media, and outdoor. Local cable could be flighted with 95-100 spots per week. In addition, 3-4 billboards throughout Cobb County would reinforce the broadcast

messaging and to target commuters. Finally, print insertions, 1-2 times per week for 3-5 weeks in newspapers targeted to Cobb County would remind readers of the services CCT offers.

Given a $500,000 budget, Cobb Community Transit advertising would reach a large audience while reinforcing the message with substantial frequency over various media. Local cable ads would air 6-8 weeks, with 100-135 spots per week across targeted networks. Billboards throughout Cobb County would provide reminder messaging and build on the broadcast efforts. Traffic radio schedules at 100 GRPs per week would build additional reach and frequency. Print insertions targeted within Cobb County twice a week for 5 weeks would allow time to further connect with the target audience. Finally, online and social media efforts would reach the target when they are on their computers/smartphones and serve to drive traffic to the CCT site for more information.

5.9. Measurement

Post buy analysis: Provide monthly reports showing placement, costs and effectiveness of all paid and earned (bonus) media as well as a comprehensive post-campaign analysis.

Ridership tracking: Ongoing ridership comparisons, both prior to and after launch of promotional efforts and marketing campaign.

Polling: Ongoing online or phone surveys to gauge effectiveness of campaign and education program (utilize local media outlets' "instant polls" where possible to maximize budget).

5.10. Next Steps

In order to begin implementing a marketing plan, next steps include:

- Discuss marketing plan elements, including strategies and tactics for feasibility.
- Reviews budgets and upon approval, begin research, message development, media negotiations and tactical implementation for a campaign launch.

6. Transit Advertising Plan

6. Transit Advertising Plan

6.1. Introduction

As the universe of portable media devices and wireless communications continue to unfold, the advertising industry is becoming acutely aware of non-traditional media mechanisms to reach emerging consumer markets that traditional media may no longer reach regularly. Television and radio advertising, while still the dominant forms of advertising across the country (based on gross advertising sales records), are now regularly competing with non-traditional media sources including the Internet and applications ("apps") for portable electronics. As new multimedia platforms continue to open communication lines between people, markets, private companies, and public agencies, advertising agencies are continuing to look for affordable and easily implemented media opportunities to communicate with the public.

At the same time advertisers are considering new mediums to reach mass audiences, the continued pressure on public agency budgets have required these agencies to consider new funding streams to maintain existing service levels and meet expanding needs. Compounding the problem further are increasing costs for services, including fuel costs for bus fleets and maintenance costs for transit facilities. Increasingly difficult choices must be made over the provision of services in light of increasingly limited financial resources. With strong resistance to increasing taxes, transit agencies typically turn to increasing fares or reducing service to cover operating costs. Securing sufficient operating dollars has been the biggest challenge for many agencies, necessitating a review of alternative funding sources.

Advertising on and within transit vehicles and facilities is not a new concept. Like major sport venues, transportation facilities such as transit centers, vehicles, airports, or even bus stops are places where people congregate and wait for service. Recognizing the potential to reach temporarily captive audiences, advertisers are looking for cost effective and easily implemented advertising mechanisms to deliver messages. Similarly, transit agencies are continuing to recognize the revenue generated and operational cost savings available through advertising dollars. According to the 2009 Transit Cooperative Research Program (TCRP) Report 133, *Practical Measures to Increase Transit Advertising Revenues*, which surveyed national and regional advertisers and media experts, the "Sale of advertising in public transit facilities and vehicles is a nearly $1 billion industry generating approximately $500 million annually to transit agencies." While transit advertising expenditures have fluctuated in recent years, "out-of-home" advertising (billboards, newspapers, and place-based advertising) has continued to grow. While the report notes that transit advertising expenditures comprise approximately 0.3% of all advertising expenditures in the country (according to 2007 data), the revenue generated to transit agencies can help secure additional operating revenues and offset operating and maintenance costs.

The current demographic shifts in the U.S. population, principally in age ranges and income levels, coupled with increasing transportation costs associated with private automobiles, suggest that transit will continue to become an increasingly popular form of transportation. As noted in TCRP

Report 133, "In this context, transit advertising stands out as one of the last truly affordable mass media. Advertisements on transit cannot be turned off, deleted, fast forwarded, or easily ignored." Furthermore, transit agencies are taking proactive steps to outline policies and programs for advertising in order to capture advertising assets not always associated with revenue, but that may reduce operating costs and transit subsidy program expenditures.

The findings of TCRP Report 133 state that "Market conditions suggest that transit advertising is well positioned to grow. The outlook from organizations that track media trends is that the shifting of dollars out of traditional media and into non-traditional formats will continue, despite an overall decline in advertising spending due to the current recession. In particular, out-of-home media, as a category, will remain one of the fastest growing sectors of advertising spending. This forecast is compatible with the belief that the benefits offered by transit advertising can be made to align well with the needs of advertisers."

This advertising feasibility study outlines current practices in transit advertising, prepares an estimate of potential advertising revenues, and identifies the next steps in the development of a transit advertising program. While further market analysis is necessary, this report provides examples of transit advertising techniques and non-traditional advertising mechanisms that CCT could consider. This report first outlines the benefits of a strong advertising program and policy, and then discusses potential transit advertising displays.

6.2. Potential Benefits of Advertising Program

A strong advertising program generates a reliable revenue stream, positioning CCT as a fiscally responsible agency. Ultimately, this allows CCT to provide better products and services. It is recommended that CCT solicit potential outdoor advertising partners via an RFP for implementation and ongoing management of advertising program. Once awarded, the advertising vendor, in partnership with CCT will:

- Perform a market analysis in order to create a flexible and robust menu of adverting options, establish advertising value (number of impressions, frequency, etc.), and establish advertising unit price points,
- Seek out local and national advertising partnerships, with an emphasis on strong local brands as potential advertisers,
- Increase awareness about the benefits of advertising with CCT, especially among local businesses and communities,
- Utilize advertising profits to reduce capital costs of advertising program infrastructure improvements, which will in turn result in higher levels of advertising revenue,
- Coordinate with client and fleet maintenance services to assure quality control and manage content to ensure the branding of CCT presents a strong community based image.

6.3. Types of Transit Advertising Displays

Transit advertising displays can include many different sizes, shapes, and materials used for exterior, interior, or transit facility advertisements. Increasingly, transit facilities are using dynamic digital displays capable of showing real-time transit schedule information along with news clips, weather information, and advertising displays similar to dynamic messaging billboards now being used along highways. The following section describes the types of transit advertising displays typically used by agencies across the country.

6.3.1. Transit Vehicle Advertising

Exterior Bus Advertising

Exterior bus advertising reaches all sectors of the population – as moving billboards, transit bus or rail fleets can carry a message from one side of town to another, through neighborhoods, commercial districts, medical or institutional campuses, and industrial centers. These advertisements allow for large displays of products or messages using minimal written copy, given the short duration viewers are typically exposed to the advertisement. Exterior bus advertising can take many different shapes and forms, and is traditionally discussed in terms of poster size and advertising position on a transit vehicle. Like different mattress sizes, exterior transit advertising displays are referred to as ultra kings (also referred to as super kings), curbside queens, driver side kings, taillights, headlights, all with different size specifications providing highly visible street-level messaging. Typically poster advertisements are printed on light-weight corrugated plastic board, and mounted in a plastic or metal frame attached to the side of the bus (frames are most commonly found on older transit fleet vehicles). Other times, adhesive vinyl or paper materials are used where frames are not present. As buses cruise city streets, exterior messages can be seen by both pedestrian and vehicle traffic either stopped or moving behind, in front, or to the side of buses. This can be an appealing option to a diverse set of local and national advertisers, particularly because of the street-level visibility from eye-level displays, creating an opportunity for robust advertising revenues.

- Ultra or Super King Size Posters – On a traditional city bus, these posters are located on the driver side of the bus below the window base, stretching from the front to rear wheel tire wells, an approximate distance of twenty feet.
- King Size Posters – The principal difference between King Size and Ultra King Size posters is the location of the poster on the bus, which also determines the poster's length. King Size posters are located on the curbside (the boarding side) of the bus, between the front wheel tire well and the backdoor of the bus. The back door of the bus shortens the overall length of available poster space, but this poster is located on the boarding and alighting side of the bus and also is more visible to pedestrians at the street level.
- Curbside Queens Posters – Similar to the King Size poster, curbside queen posters are also located on the curbside of the bus and between the front wheel tire well and the backdoor of the bus, but are shorter in length.
- Headlight Posters – These posters are generally small posters appearing on the front of the bus between the headlights, above the front bumper and below the front windshield.

Increasingly, transit agencies are deploying buses with bicycle racks at the front of the bus. These racks are typically equipped with flat advertising spaces when in the upright position that may take the place of headlight advertisements.

Taillight Posters – The opposite of headlight posters, taillight posters are mounted in frames or adhesive materials on the backside of the bus exterior. The width between the taillights allow for larger rectangular advertisements. While the size of this advertisement may be smaller as compared to other exterior advertisements, the location of the advertising space generally results in higher price rates because advertisements are viewed for greater durations by following traffic or when traffic is queued behind the bus at an intersection.

Full or partial bus wraps are also used by many transit agencies and are considered the premium level of transit advertising. Buses or trains are fully or partially wrapped using an adhesive vinyl or paper material that clearly displays the product to outside viewers but permits bus riders to view out the windows of the bus or train with a high degree of clarity. Fully wrapped buses are entirely covered (with the notable exception of the driver window and front windshield), while partially wrapped buses leave portions of the buses exterior base paint visible. Fully wrapped buses or trains are often the most expensive form of transit advertising, but with the greatest potential to reach the most people. Traditionally, buses or trains that are fully wrapped are vehicles serving the highest performing routes in the transit system, or routes covering the greatest amount of territory in a metropolitan area. These routes typically reach a maximum commercial audience, and are therefore an attractive tool to advertisers that can generate significant revenue to the transit agency. Bus wrapping can also take the form of public art. Figure 80 and Figure 81 display bus fully and partially wrapped buses.

Figure 80: Fully Wrapped Bus

Figure 81: Partially Wrapped Bus

National revenue averages for exterior signage units are $1,000 total per vehicle per month, and with a fully vinyl wrapped vehicle $2,000 total revenue per vehicle per month. On average CCT could expect to have approximately 50% of available ad space sold at any given time. Potential earnings could be as much as $45,000 per month assuming an average of 50 vehicles operating with sold advertising.

Exterior Digital Bus Advertising

A recent trend in bus advertisement is the use of exterior digital displays. As displayed in Figure 82, some Vancouver buses now carry LED digital displays on the sides of buses. Additional research is necessary to determine the capital and operating costs associated with these types of displays.

Figure 82: Exterior LED Display

Interior Bus Advertising

Where exterior bus advertising is capable of reaching a mass audience quickly through large but simple displays, interior advertising capitalizes on the captive nature of the transit user audience and the duration of their trip. Transit riders typically remain in a transit vehicle for more than one stop and the time in transit (including the dwell time at stops) allows them to view interior advertisements for long periods. Advertisers typically include more written copy and images displays on interior advertisements. This can be attractive to advertisers promoting a range of products or services, such as collegiate institutions promoting a variety of academic programs appealing to a broad spectrum of potential enrollees or travel agencies offering a variety of vacation packages to multiple destinations.

Interior bus advertisements, sometimes referred to as "Car Cards," are smaller-sized posters mounted in plastic frames between the top of the window and roof of the bus, or sometimes along vertical panels within the bus (a popular location is the vertical panel behind the driver's seat, or seatback panels by the rear door). Space above the very back seats of the bus may also be available, although the visibility of this location is limited due to most seated or standing passengers facing forward in the direction of the buses travel path. The direction of seating can dictate the pricing scheme for interior bus advertising, with most transit agencies charging higher rates for advertising space at the front of the bus. It is important to remember that interior panel advertising must not interfere with the location or operation of emergency systems such as window evacuation latches or fire extinguishers. Some buses are equipped with advertisement lighting systems running the length of the bus that allow for interior illumination of advertisements rather than printed placards. Interior advertisements are typically printed on cardstock, corrugated

cardboard or plastic. Other forms of interior advertisements can include hanging hook placards from overhead hand rails sometimes used to promote transit programs or route specific information.

Interior Digital Bus Advertising

Mobile digital devices are becoming increasingly important in the way people communicate, and advertisers are looking for dynamic messaging systems to communicate with the public. For the transit agency, digital advertising offers several benefits; digital screens can display multiple announcements, a benefit when promoting an advertising program because these messages can reach a wide variety of coveted advertising markets, and digital displays replicate the modern lifestyle that many system users find appealing. Digital interior advertising can deliver news, weather, and entertainment announcements, commercial advertisements, CCT service or route announcements and destination information, or public service announcements. Digital media may be more attractive to advertisers on premium line-haul express transit routes carrying a concentrated group of people over longer distances for a greater duration of time, such as coach buses with trip lengths of 20 or more minutes. New flat panel monitor displays make digital displays relatively easy to install. While these displays could be installed in standard city buses, the typical duration of a standard city bus ride is shorter as compared to a commuter coach bus ride, and advertisers may be weary of the short viewing duration and written copy that may be displayed. Furthermore, the heavy use of local buses and the potential for vandalism of displays should be considered prior to installing digital displays in local buses. The Metropolitan Atlanta Rapid Transit Authority (MARTA) currently uses digital advertising inside train vehicles. Dynamic messaging can help generate revenue for CCT and provide an onboard opportunity to extend the CCT brand and ridership values.

A qualified 3rd party vendor installing in-vehicle flat screen displays and selling advertising time based on GPS location could generate an additional $140,000 per year or more in advertising profits for CCT. It would be advisable to list this type of digital network as an objective in the CCT request for proposal.

6.3.2. Transit Facility Advertising

Shelter or Bench Advertising

Transit shelters and street furniture offer fixed facilities that may be used to display outdoor advertisements, thereby generating additional revenue to the transit agency. Shelters are typically three-sided structures roofed structures, with Plexiglas windows providing weather shielding to waiting passengers. Most bus shelters include some space for advertising, such as plastic or metal frames mounted on the back windows or outbound side of the shelter.

Figure 83: Shelter Advertising

It is important that shelters provide sufficient viewing area on the arrival side of the shelter for passengers to watch for arriving buses. Increasingly transit agencies are using double-paned window frames to insert advertisements between the Plexiglas to avoid vandalism to frame mounts and posters. More recently, removable vinyl or paper advertisements have been used that cover entire window areas. In areas with high pedestrian traffic, or locations where several routes serve a similar stop, shelters may be electrified to provide light for convenience, safety, and advertising purposes. Figure 84 displays a new bus shelter with electrification and advertising components.

A growing trend in the transit industry for advertising outdoor or within transit facilities is for advertising companies to fully subsidize the up-front capital construction and maintenance costs of new transit stops. The average capital cost of a bus shelter ranges from approximately $10,000 to $50,000, depending on the shelter's size, character and location, which includes construction labor, raw materials, right-of-way purchase (if applicable), special foundation work, mandatory ADA treatments, and other costs such as curb and gutter reconstruction. While the transit agency does not see as significant a revenue return as other forms of advertising, this relieves the transit agency from the costs of building a new shelter and the continued operations and maintenance costs. It is important to consider existing commercial signage policies when adopting a policy that allows commercial venders to subsidize the construction of a transit shelter.

Another trend in transit advertising is special event or limited time promotional advertising. For example, McDonald's Corporation has temporarily retrofitted selected bus stops in metropolitan areas around the country in the shape of Monopoly game pieces to temporarily promote their annual in-store Monopoly game event. As shown in Figure 84 and Figure 85, transit agencies are taking new approaches to traditional transit stops. Figure 85 shows a home furnishings store advertisements incorporated into the entire bus shelter. This type of advertising is likely to be a premium service available to advertisers that could generate significant revenue. Many transit agencies are also redesigning bus shelter facilities to evoke a more modern and distinguishable feel with enhanced passenger amenities, including space for advertising. While new bus shelters are more costly than traditional bus shelters, advertising agencies are often paying the up-front capital costs and future operating or maintenance costs while recognizing significant capital benefits of their own.

Figure 84: Traditional Bus Shelter with Advertising

Figure 85: Special Event Bus Shelter Advertising

The national average of reported revenue for full shelter ad space is up to $10,500 per month, per shelter in urban areas and up to $3,000 per month, per shelter in rural areas. Soliciting the resource of a 3rd party vendor to handle this type of advertising for CCT will increase its effectiveness and provide an optimal impact on revenue generation. Furthermore, CCT could use a portion of shelter ad revenues to fund improvements to the current shelters or construct new shelters – which in turn creates more advertising opportunities, while also providing a more pleasant experience to the transit rider.

Electronic Flat Panel Advertising

As with in-vehicle electronic displays, another viable option are flat panel digital displays linked by a wireless network and placed at transit centers, shelters and park and ride lots. This type of advertising is being adopted by many transit agencies across the country. The ability to display dynamic messages, from real-time passenger information to news, weather, and entertainment news is an attractive option for advertisers. The opportunity for commercial establishments to sponsor electronic messaging can help offset the capital and operating costs associated with implementing these systems. Furthermore, any remaining revenue generated from advertising sales on these systems can also contribute to the maintenance costs of the facility. Electronic flat panel advertising has great revenue potential and many vendors that provide this service are willing to pay the up-front capital and operating costs in exchange for a share of future ad revenue.

6.3.3. Other Transit Media Advertising

Fare Cards and Printed Materials

Some transit agencies are beginning to sell advertising space on fare media cards and printed transit materials such as schedules or transit promotional materials and subsidy program announcements. Ticket vending machines at transit facilities issue cards for riders after payment of the transit fare that could include space for advertising promotions or offer an opportunity to advertise CCT programs. The sale of advertising space on fare media can help offset the cost of

the paper or ticket vending machine costs. Additionally, transit agency materials, including maps, schedules, or promotional program announcements available in buses, trains, or transit facilities could be sponsored by partnering agencies or companies, helping to offset printing and production costs. Handholds are also now being used by advertisers for select products. Figure 86 provides an example of creative non-traditional interior bus advertising.

Figure 86: Creative Bus Advertising

Wayfinding Kiosks

Beyond the bus or train stop, some transit agencies have sponsored or constructed simple unmanned wayfinding kiosks displaying area maps with transit route information and schedules. These kiosks are typically located nearby a bus stop or station in areas with high pedestrian traffic. Maps can include the location of major retailers, civic or cultural institutions, and sporting or event arenas. As with new bus shelters, the construction or maintenance of these kiosks could be sponsored by advertising agencies or commercial establishments that wish to have their location published on maps or other displays. Increasingly, cities and transit agencies around the country are recognizing the benefits of providing system users with transit information and off-board wayfinding displays as complimentary features that can help promote transit usage. Figure 87 displays a wayfinding kiosk advertising a soft drink.

Figure 87: Wayfinding Kiosk Advertisement

Integration of Outdoor to Enhanced Online Applications

As the use of social networking websites and mobile applications continue to grow, many transit agencies have

developed pages on social networking sites or specific applications ("apps") for SmartPhones or other mobile devices to communicate real-time transit information and programs with transit system users. As noted, advertisers are now looking for online or mobile technology advertising opportunities to sponsor. CCT should consider creating a Facebook and Twitter page that compliments a newly rebranded CCT website. This cross-linking of sites offers tremendous visibility and awareness of CCT services and products, provides a meaningful platform to discuss the benefits of CCT to the community and reinforces the CCT brand. Recent studies suggest that applied new media strategies can lead to a 30% increase in brand value. Furthermore, these enhancements increase the value of your outdoor offerings by allowing advertising partners to integrate their outdoor messages to your online platforms.

6.4. Revenue Potential

Depending on the types of advertising and the local advertising market, CCT can expect to receive 35% to 60% of the advertising profits generated by a qualified 3rd party vendor. Recent market survey data suggest that advertising along line-haul express routes typically covering longer distances and highly traveled local fixed routes within the CCT system display strong indicators for advertising revenue. With over 100 vehicles to leverage, several park and rides and transit centers, there are strong opportunities to generate additional revenue. Table 17 outlines a preliminary estimate of potential advertising revenues to CCT. It is important to note that these are estimates of potential revenue based on typical revenues attained by other transit systems. In recent discussions with both transit agencies and advertising vendors, the outdoor advertising market and revenues have softened significantly in the past two years, in response to the economic downturn. For these reasons, and because the recent economic downturn has affected advertising rates, HDR has conservatively projected CCT annual revenues as about 50 to 75 percent of the total potential revenue.

Table 17: Projected CCT Advertising Revenue

Type of Advertising	2012	2013
Exterior Bus Advertising	$90,000	$190,800
Interior Bus Advertising	$40,000	$84,800
Interior Bus Digital Advertising	$45,000	$95,400
Shelter Advertising	$20,000	$42,400
Bus Benches	$10,000	$21,200
CCT Facilities Flat Panel Displays	$15,000	$31,800
Potential Advertising Revenue	$220,000	$466,400
Projected Annual Revenue	**$50,000 - $100,000**	**$200,000 - $300,000**

(1) Assumes 6 to 9 months of revenue for FY 2012.
(2) Cobb's advertising vendor may not implement all of the advertising types.

6.5. Conclusion and Next Steps

The high visibility of CCT vehicles and properties along local and express bus routes to Atlanta represent a market of high interest to advertisers. With an estimated population of more than 690,000 people, of which 50% are 18 years of age and over, and a generally affluent population, Cobb County, Georgia residents represent a highly sought after advertising demographic. Recent survey data show that a higher than average number of CCT riders, pedestrian traffic, and drivers with longer than average drive times are uniquely positioned for impressions via outdoor advertising. CCT has a unique opportunity to leverage these assets by issuing an RFP for advertising vendor/partners and implementing a comprehensive advertising program. Once the advertising market is established, CCT can expect advertising revenues of up to $200,000 to $300,000 per year.

Recent survey data, demographic information, fleet size, and other ancillary data all provide strong indicators that an advertising program would be desirable and profitable for CCT. In addition to advertising revenue CCT could also benefit from improved advertising venue infrastructure, and as is standard for most transit agencies that offer advertising, CCT could use a percentage of the advertisement space they offer to extend their own branding and marketing efforts – for free.

7. Financial Plan

7. Financial Plan

7.1. Introduction

This Finance Plan provides a framework for Cobb County to fund, operate and implement services and facilities recommended in this study. Recommended service plans and major capital improvements were identified in Sections 4.0 Fixed Route Service Recommendations and 5.0 Paratransit Recommendations. Estimated capital and annual operating and maintenance costs described in the following sections. Ongoing efforts will be required to secure both the necessary operations and capital funding. The ability to obtain operating and capital funding is subject to many variables, including local, state and federal programs. In addition, Cobb County's funding situation will also be a major determinant of the CCT funding program, especially the annual operating costs.

7.2. Annual Ridership and Fare Revenue Projections

Annual ridership and passenger fare revenue was projected for the ten-year planning period. The methodology for projecting annual ridership for the fixed route and paratransit systems is described above in Sections 3.6 and 4.5, respectively. In addition to the recent CCT fare increase (effective October 2011), ten percent fare increases were assumed to be implemented in fiscal years 2015/2016 and 2020/2021. Annual ridership in fiscal years 2011/2012, 2015/2016, and 2020/2021 was reduced to account for the higher fares using an industry-standard fare elasticity of -0.30 (i.e., a 10 percent increase in average fares would result in a 3% decrease in ridership). The projected annual passenger revenue was calculated by multiplying the projected annual ridership by an average fare per passenger for each of the three service types – local and express fixed route service and paratransit service. The average fare per passenger reflects the prevailing full cash fare adjusted to account for any reduced fares (e.g., student, seniors and disabled persons) and discounted fares (e.g., weekly and monthly passes).

Table 18 summarizes the annual ridership and fare revenue projections. Total annual ridership is projected to increase by nearly 30% from FY 2009/2010 to the end of the Long-Term Plan in FY 2020/2021. Likewise, total annual fare revenue is projected to increase by 115% during this same period (reflecting fare increases in November 2010 and October 2011 and projected fare increases in FY 2015/2016 and 2020/2021).

7.3. Annual Operating and Maintenance Cost Estimates

The recommended fixed route and Paratransit service plans also provided estimates of annual operating and maintenance (O&M) expenses. Cobb County's annual O&M expenses include Service Contractor costs (about 71% of total CCT costs) and costs paid directly by Cobb County to manage and operate the service (about 29% of total CCT costs, includes CCT staff, fuel, utilities and other contracted services). Future O&M costs are based on current unit costs inflated by 3% per year.

Table 19 summarizes the projected annual service hours and CCT's projected Service Contractor expenses, by service type. Costs of the express bus service operated by CCT under contract to GRTA are included in the annual O&M cost estimates. Annual O&M costs are projected to increase by 76% from $14.8 million in FY 2009/2010 to $26.0 million in FY 2020/2021.

7.4. Bus Replacement Needs and Capital Cost Estimates

The fixed route and Paratransit service plans described in Sections 3.6 and 4.5 will require the purchase of new and replacement buses. Bus replacement plans have been developed for each service type based on the operating requirements and phasing of the Near-Term, Mid-Term and Long-Term service plans. The following life-cycle, cost and inflation assumptions have been made for each service type:

Local Buses (Clean Diesel)

- Life cycle = 12 years
- Purchase price (includes spare parts and fareboxes) = $450,000 (2011 $)
- Maintenance spare ratio = 15%
- Inflation = 3%

Express Service

- Life cycle = 14 years
- Purchase price (includes spare parts and fareboxes) = $500,000 (2011 $)
- Mid-life overhaul = $100,000 (2011 $) - at end of year 7
- Maintenance spare ratio = 15%
- Inflation = 3%

Paratransit Service

- Life cycle = 7 years
- Purchase price (includes spare parts and fareboxes) = $100,000 (2011 $)
- Maintenance spare ratio = 15%
- Inflation = 3%

Table 20, Table 21and Table 22 summarize the bus fleet replacement plan for local, express (including GRTA), and paratransit buses, respectively.

Table 18: Projected CCT Annual Ridership and Fare Revenue

	Fiscal Year												
	Actual	Estimated	Near-Term Plan		Mid-Term Plan			Long-Term Plan					Ten Year Plan
Annual Ridership	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**Totals**
Local Service Ridership	3,942,331	3,838,569	3,319,020	3,751,525	4,085,989	4,420,453	4,754,918	4,885,383	5,015,849	5,146,315	5,276,781	5,407,247	53,844,382
Express Service Ridership	655,554	655,554	606,387	606,387	606,387	606,387	588,196	588,196	588,196	588,196	588,196	570,550	7,248,187
Paratransit Service Ridership	80,956	75,400	58,730	58,730	64,590	70,450	76,310	78,894	81,479	84,063	86,648	89,232	905,482
Total Ridership	4,678,841	4,569,522	3,984,138	4,416,642	4,756,967	5,097,291	5,419,423	5,552,474	5,685,524	5,818,575	5,951,625	6,067,030	61,998,051
Annual Fare per Passenger													
Local Service Fare Revenue	$0.91	$1.04	$1.30	$1.30	$1.30	$1.30	$1.43	$1.43	$1.43	$1.43	$1.43	$1.57	
Express Service Fare Revenue	$1.93	$2.00	$2.50	$2.50	$2.50	$2.50	$2.75	$2.75	$2.75	$2.75	$2.75	$3.03	
Paratransit Service Fare Revenue	$2.50	$4.00	$5.00	$5.00	$5.00	$5.00	$5.50	$5.50	$5.50	$5.50	$5.50	$6.05	
Annual Passenger Revenue													
Local Service Fare Revenue	$3,587,521	$3,992,111	$4,314,726	$4,876,983	$5,311,786	$5,746,589	$6,799,532	$6,986,098	$7,172,665	$7,359,231	$7,545,797	$8,505,600	$64,619,008
Express Service Fare Revenue	$1,263,650	$1,311,108	$1,515,969	$1,515,969	$1,515,969	$1,515,969	$1,617,539	$1,617,539	$1,617,539	$1,617,539	$1,617,539	$1,725,914	$15,877,481
Paratransit Service Fare Revenue	$166,856	$301,598	$293,650	$293,650	$322,950	$352,250	$419,704	$433,919	$448,134	$462,348	$476,563	$539,856	$4,043,024
Total Passenger Fare Revenue	$5,018,028	$5,604,817	$6,124,345	$6,686,601	$7,150,704	$7,614,808	$8,836,775	$9,037,556	$9,238,337	$9,439,118	$9,639,899	$10,771,369	$84,539,512

SOURCES & ASSUMPTIONS:

1. FY 2009/2010 based on NTD data.

2. FY 2010/2011 data estimated based on 9 months for 10 routes and 3 months after elimination of routes 35, 65 and 70.

3. Average Annual Fare per Passenger assumed to increase by 25% following Oct. 1, 2011 fare increase.

4. Average Annual Fare per Passenger assumed to increase by 10% in FY 2015/2016 and 2020/2021 based on assumed fare increases.

5. Annual ridership fare elasticity of -0.30 assumed (i.e., a 10% fare increase will result in a 3% decrease n ridership).

6. Annual Ridership for Near-Term , Mid-Term and Long-Term scenarios based on Local Service projections factored for fare elasticity.

Table 19: Projected CCT Annual Operating and Maintenance Costs

	Fiscal Year												
	Actual	Estimated	Near-Term Plan		Mid-Term Plan			Long-Term Plan					Ten Year Plan
Annual Revenue Service Hour	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**Totals**
Local Service Hours	152,561	148,791	137,483	131,592	149,287	166,981	184,676	193,339	202,002	210,666	219,329	227,992	2,124,699
Express Service Hours	32,820	32,820	32,820	33,280	33,280	33,280	33,280	33,280	33,280	33,280	33,280	33,280	397,979
Paratransit Service Hours	50,625	46,969	36,000	33,369	37,146	40,922	44,699	46,546	48,394	50,241	52,089	53,937	540,936
Total Service Hours	236,005	228,580	206,303	198,241	219,712	241,184	262,655	273,165	283,676	294,187	304,698	315,209	3,063,614
CCT Contractor Unit Cost													
Local Service Cost per Hour	$61.90	$62.46	$64.33	$66.26	$68.25	$70.30	$72.41	$74.58	$76.82	$79.12	$81.50	$83.94	
Express Service Cost per Hour	$61.90	$62.46	$64.33	$66.26	$68.25	$70.30	$72.41	$74.58	$76.82	$79.12	$81.50	$83.94	
Paratransit Service Cost per Tri	$33.57	$33.87	$34.89	$35.93	$37.01	$38.12	$39.26	$40.44	$41.66	$42.91	$44.19	$45.52	
CCT Contractor Annual O&M Cost													
Local Service	$10,685,172	$9,293,510	$8,844,820	$8,719,788	$10,189,073	$11,738,668	$13,372,068	$14,419,335	$15,517,405	$16,668,380	$17,874,449	$19,137,880	$136,481,866
GRTA Express Service	$1,589,180	$2,049,908	$2,111,405	$2,205,260	$2,271,418	$2,339,560	$2,409,747	$2,482,039	$2,556,500	$2,633,195	$2,712,191	$2,793,557	$24,514,873
Paratransit Service	$2,514,024	$2,553,781	$2,048,861	$2,110,326	$2,390,518	$2,685,621	$2,996,279	$3,190,690	$3,394,070	$3,606,780	$3,829,199	$4,061,717	$30,314,060
Total Contractor O&M Cost	$14,788,376	$13,897,199	$13,005,086	$13,035,374	$14,851,008	$16,763,848	$18,778,093	$20,092,065	$21,467,975	$22,908,356	$24,415,839	$25,993,154	$191,310,798

SOURCES & ASSUMPTIONS:

1. Annual revenue service hours reflect recommended Near-Term, Mid-Term, and Long-Term service plans described in sections 3.6 and 4.5.

2. Express Service Hours and Annual O&M Cost includes service operated by Cobb County under contract to GRTA.

3. Contractor unit costs based on current contract, inflated by 3.0% per year.

Table 20: Projected CCT Bus Replacement Schedule – Local Buses

Local Buses		Actual	Estimated	Near-Term Plan		Mid-Term Plan			Long-Term Plan				
Manufacturer	Model	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
NOV	82V70	8				8							
NOV	82V70	7				7							
FIL	D40LF	20						20					
FIL	D40LF	9							9				
FIL	D40LF	6										6	
FIL	D40LF	6											
Service Expansion Buses (New)		0	0	0	0	0	0	0	0	0	0	0	0
Buses at Beginning of Year		56	56	56	56	56	56	56	56	56	56	56	56
Buses Retired During Year		6	0	0	0	15	0	20	9	0	0	6	0
Buses Purchased During Year		6	0	0	0	15	0	20	9	0	0	6	0
Total Active Fleet		56	56	56	56	56	56	56	56	56	56	56	56
Required Peak Vehicles		44	44	38	41	45	49	52	53	54	55	56	57
Minimum Required Fleet Vehicles		51	51	44	47	52	57	60	62	63	64	65	66
Bus Replacement Cost		$2,400,000	$0	$0	$0	$7,161,075	$0	$10,129,579	$4,695,060	$0	$0	$3,420,279	$0

1. Assumes 12 year life.
2. Minimum 15% maintenance spare ratio.
3. Unit cost for Local buses (diesel) = $450,000

Table 21: Projected CCT Bus Replacement Schedule – Express Buses

Express Buses		Actual	Estimated	Near-Term Plan		Mid-Term Plan			Long-Term Plan				
Manufacturer	Model	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
MCI	D4500	11							11				
MCI	D4500	19										19	
MCI	D4500	15										15	
Service Expansion Buses (New)		0	0	0	0	0	0	0	0	0	0	0	0
Buses at Beginning of Year		45	45	45	45	45	45	45	45	45	45	45	45
Buses Retired During Year		0	0	0	0	0	0	0	11	0	0	34	0
Buses in Mid-Life Overhaul (7-8 years)		0	0	11	0	34	0	0	0	0	0	0	0
Buses Purchased During Year		0	0	0	0	0	0	0	11	0	0	34	0
Total Active Fleet		45	45	45	45	45	45	45	45	45	45	45	45
Required Peak Vehicles		40	40	40	40	40	40	40	40	40	40	40	40
Minimum Required Fleet Vehicles		45	45	45	45	45	45	45	45	45	45	45	45
Bus Replacement Cost		$0	$0	$1,100,000	$0	$3,607,060	$0	$0	$6,376,007	$0	$0	$21,535,091	$0

1. Assumes 14 year life.
2. Minimum 15% maintenance spare ratio.
3. Assumes mid-life overhaul = $100,000
4. Unit cost for Express buses (diesel) = $500,000

Table 22: Projected CCT Bus Replacement Schedule – Paratransit Buses

Paratransit Buses		Actual	Estimated	Near-Term Plan		Mid-Term Plan			Long-Term Plan				
Manufacturer	Model	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
GCC	GC11	10											
GCC	GC11	14				18						19	
GCC	GC11	6					8						9
Service Expansion Buses		0	0	0	0	0	0	2	1	1	1	0	0
Buses at Beginning of Year		30	30	30	30	30	24	26	28	29	30	31	32
Buses Retired During Year		0	0	0	0	24	6	0	0	0	0	18	8
Buses Purchased During Year		0	0	0	0	18	8	2	1	1	1	19	9
Total Active Fleet		30	30	30	30	24	26	28	29	30	31	32	33
Required Peak Vehicles		26	26	20	18	20	22	24	25	26	27	28	29
Minimum Required Fleet Vehicles		30	30	24	22	24	26	28	29	30	31	32	33
Bus Replacement Cost		$0	$0	$0	$0	$1,909,620	$874,182	$225,102	$115,927	$119,405	$122,987	$2,406,863	$1,174,296

1. Assumes 6 year life.

2. Minimum 15% maintenance spare ratio.

3. Unit cost for Goshen cutaways = $100,000

8. Implementation Strategies

8. Implementation Strategies

8.1. Introduction

There are several ongoing initiatives that may affect implementation of the recommended service plans: (a) Cobb DOT is presently procuring automatic vehicle location (AVL) and automatic passenger count (APC) units for its fleet of buses, (b) Atlanta region recently included a $689 million premium transit project in the Northwest Corridor for the upcoming Transportation Investment Act (TIA) referendum, and (c) the County is studying premium transit options in the Northwest Corridor. This final section describes the relation between these projects and strategies to implement the recommended service plans.

8.2. Procurement of AVL and APC Units

To date, CCT has had no regular means of collecting comprehensive boarding and alighting (on/off) counts for its fixed route services, other than sample data collected for FTA's National Transit Database reports. These boarding and alighting counts (also known as ridecheck surveys) provide a valuable tool for evaluating service supply and demand by time period and route segment (even at the bus stop level). This project included a comprehensive ridecheck survey of boardings and alightings on all CCT local bus routes conducted in March 2011. The 3/11 ridecheck survey was the basis for many of the service recommendations described in Section 3.6, especially the Near-Term "Maximize Efficiency" recommendations. In particular, the 3/11 survey indicated several early morning or evening trips that could be eliminated due to low ridership.

While the survey data is valuable for service monitoring and route planning, it does represent a single-day sample of ridership on each route. Cobb County is in the process of procuring AVL and APC units for its fixed route buses. These units, once they are operational and tested, will enable CCT to develop a rich source of boarding and alighting data – with multiple samples throughout the year. CCT can use this data to prepare regular updates of the Route Profiles (Appendix 3) and regularly monitor the service effectiveness of its routes. In addition, this data will allow CCT to verify the low ridership trips identified by the 3/11 survey prior to any future service reductions.

8.3. Implementation of Bus Rapid Transit on US 41 / Cobb Parkway

The Mid-Term Plan (Section 3.6) recommends implementation of bus rapid transit (BRT) in the U.S. 41 / Cobb Parkway corridor. BRT is not a new concept – many cities have used exclusive busways, bus-only lanes, and enhanced passenger amenities to improve the quality of fixed route transit service. Successful "older" examples include Pittsburgh's MLK Busway and South Busway and Ottawa's regional BRT system. But for many years, BRT projects took a back seat to more high profile rail transit projects. In recent years, however, many cities have rediscovered BRT due to the increasing demands for premium service coupled with the escalating costs and limited funding for rail transit options. The "old" BRT concepts have been revived and enhanced with new concepts and technologies such as real-time passenger information systems, signal priority, low-floor transit vehicles, and branding as a premium service. The result is a new interest in BRT

applications, both on high-speed freeways and on arterial roadways. The U.S. now boasts dozens of highly successful new BRT projects in Orlando, Miami, Houston, Las Vegas, Los Angeles, Boston and many other cities. More than 60 cities in the U.S. now have some form of BRT in revenue service or have BRT projects in development.

The Atlanta region recently included a premium transit project in the Northwest Corridor for the upcoming Transportation Investment Act (TIA) referendum. If the TIA referendum passes, Cobb County would receive $689M to construct the premium transit line from MARTA's Arts Center Station to Cumberland/Galleria and on to Acworth/Kennesaw/Town Center along a route generally parallel to I-75/US 41. Premium transit improvements could include express bus operations, BRT or light rail transit, depending on the results of an ongoing Northwest Corridor Alternatives Analysis and contingent upon additional federal New Starts funding. The TIA referendum is currently scheduled for summer 2012. The Northwest Corridor AA study, which is scheduled to be completed in 2013, will identify the locally preferred transit technology (e.g., light rail transit, BRT, enhanced bus, commuter rail) and the alignment (e.g., US 41, I-75).

If the TIA referendum is successful, the Northwest Corridor TIA project is projected to be operational in about ten years (2022). If the TIA referendum is not successful, the Northwest Corridor AA will still select a locally preferred alternative (LPA) that identifies the technology and alignment, but project development will be determined by the availability of local and federal funding. At best, the LPA could be implemented in about ten years but could take several additional years. Given the uncertainty of the TIA referendum outcome and receiving significant federal New Starts funding, the recommended Mid-Term BRT project is intended to provide a low-cost, arterial BRT project that could be implemented in a short time frame (2-4 years instead of 8-10 years for an exclusive lane BRT or light rail transit (LRT) solution. The Mid-Term BRT would not only provide an interim solution in a corridor that has a demonstrated need for improved transit services, but it also would help "make the case" for premium transit in the Northwest Corridor by providing a catalyst for redevelopment around BRT stations, increasing transit ridership in the corridor, and helping to support a more livable, walkable and sustainable street environment along Cobb Parkway.

The recommended US 41 / Cobb Parkway Mid-Term BRT project would likely include BRT improvements such as queue jump lanes at selected intersections, transit signal priority, enhanced passenger stops/stations, real-time passenger information, improved service frequency, and unique buses. The BRT service would be branded as a premium service (e.g., "CCT MetroRapid"). The Mid-Term BRT project, if approved by FTA, could begin the project development phase (design and NEPA clearance) in late 2012 or 2013 and could be operational by 2014 or 2015, depending on the method of project delivery. The Mid-Term BRT project, then, would be operational for at least five to seven years before the TIA funded project, if successful.

While the technology and alignment of the Northwest Corridor project are still not known, the Mid-Term BRT project could be designed as a "BRT Convertible" project that could be upgraded to LRT or some other premium mode in the future. The BRT capital improvements, such as queue jump lanes, transit signal priority, and enhanced stations, could be used by future premium transit

modes. In the meantime, the Mid-Term BRT project would serve two important functions: (1) it would provide enhanced service to CCT customers for five to seven years (or longer) and (2) it will generate additional corridor transit ridership that will help support the case for federal funding of a premium transit project (FTA's decision criteria for New Starts funding are heavily weighted on ridership and user benefits).

8.4. Implementation Plan Summary

Table 23 shows the year-by-year implementation schedule for the recommended service plans. Implementation of the recommended service and capital improvements will depend on funding and implementation decisions by Cobb County policy-makers and managers. This schedule will need to be regularly revisited and updated, as future conditions change. The attached schedule provides a road map for actions to implement the plan on an annual basis.

Table 23: Implementation Plan Summary

Plan Period	Fiscal Year	Transit Services	Equipment/Facilities
Near-Term Plan	2011/12	• Implement AVL & MDT technology on buses • Issue RFP for advertising vendor • Launch transit marketing campaign	• Begin Very Small Starts planning and NEPA action for US 41 / Cobb Parkway BRT
	2012/13	• Modify/streamline route alignments • Re-allocate resources from unproductive service to improve service frequencies where needed • Environmental/design of US 41/Cobb Pkwy BRT • Begin transit advertising program	• Begin procurement/construction of US 41/Cobb Pkwy BRT
Mid-Term Plan	2013/14	• Introduce new Route 80 local route	• Procurement/construction of US 41/Cobb Pkwy BRT • Replace 15 local buses • Replace 18 paratransit buses
	2014/15	• Modify Route 10 local service • Begin operations of US 41/Cobb Pkwy BRT service	• Implement US 41 / Cobb Pkwy BRT • Replace 8 paratransit buses • Enhance pedestrian connectivity to stops
	2015/16	• Introduce new Route 130 limited-stop express service	• Replace 20 local buses • Purchase 2 new paratransit buses
Long-Term Plan	2016/17	• Introduce new Route 85 local service • Improve service frequencies	• Replace 9 local buses • Replace 11 express buses • Purchase 1 new paratransit buses • Begin planning and NEPA action for super-stops
	2017/18	• Implement Sunday service	• Begin procurement / construction of super-stops • Purchase 1 new paratransit bus
	2018/19	• Introduce new Route 55 local service	• Purchase 1 new paratransit bus • Implement super-stops
	2019/20	• Introduce new Route 90 local service	• Replace 6 local buses • Replace 34 express buses
	2020/21		• Replace 19 paratransit buses

Appendices

Appendix 1: Peer Paratransit Survey

Name of Person Completing this Survey
_____

Name of Transit Agency / System
_____

Telephone #: _____ Email Address:
_____

Operations

Number of days that ADA complementary / paratransit service is operated? _____

Number of vehicles in your paratransit fleet? _____ # that are lift-equipped? _____

If your agency 'purchases' transportation, i.e. has a contracted service provider, how is the contractor paid? Per Trip _____ Per Service or Revenue Mile _____ Per Service or Revenue Hour _____

Is your agency contracted by health & human service agencies (ex: Council on Aging, Senior Services, Dept. or Social Svcs.) or private entities (ex: nursing homes) to provide transportation?
_____

What paratransit routing &/or scheduling software package does your agency use?
_____

Are vehicles equipped with Automatic Vehicle Locator (AVLs)? Yes No

Are vehicles equipped with Mobile Data Computer (MDCs)? Yes No

How many total job positions _____ (full time #_____; part time # _____) &/or persons make reservations for ADA passengers?

What are the operating hours / days for the reservation center?
_____

Describe the efforts that your transit system has taken (implemented or is planned for implementation) to transition paratransit riders to the fixed route system?
_____
_____
_____

What obstacles / constraints exist in your service area that prevent paratransit riders from using your fixed route system? _____

Does your system provide ADA service that exceeds the Federal requirement of ¾-mile of fixed route service? Yes _____ No _____

Practices / Procedures

Are Reservation Clerks cross-trained on Scheduling / Scheduler functions? Yes No

Are Reservation Clerks cross-trained on Dispatching / Dispatcher functions? Yes No

Number of 'No Show' incidents and the timeframe of such occurrences before service is suspended to the rider? _____

Does your system maintain a Same Day "Wait List" such that customers can be contacted for 'last minute' transports occurring when vacancies result from cancellations or 'No Shows'? Yes No

Does your system coordinate rides with any other agency or transportation provider in the area or region? Yes _____ No _____ With which agency/provider?
_____

Operating Statistics

Number of registered eligible riders, and how many (estimate is ok) use the service?
_____

Of the total passenger trips per day, what percent (%) are 'standing reservations' &/or subscription reservations? _____

What percent (%) or estimate, if unknown, of your paratransit riders have their fares paid by a contracting agency (ie., health & human service agency, private contract agreement) VERSUS "direct pay" / fare-paying customers? _____

Average number (#) of No Shows on a given day? _____ week?_____

Average number (#) of Cancellations on a given day? _____ week? _____

Approximately how many 'denied' trips due to capacity limits? _____

Thank you in advance for your assistance in providing this information. We are glad to provide you the results of this survey (by end of April 2011), if you will state your desire here. Yes_____ No _____

Appendix 2: Peer Paratransit Survey Results

SYSTEM	Days of Service	# Vehicles	# of Lift-Equipped Vehicles	# Daily Riders	# No Shows	3/4 +	Software?	AVLs?	MDCs?	Reservation Center Hours	# of Staff	Daily Wait List?	Standing Reservations?
Alexandria	7	36	10	250-300	3%	n	RouteMatch	y	y	8:30-4:30	2F/3P	n	y=10%
Columbia	7	23	23				Trapeze	y	n	9:00-5:00/ 7 days	2 F		
Columbus	6	10	10	200	1.50%	n	RouteMatch	y	n	8:00 - 5:00/6 days	3P	n	y=45%
Daytona Beach	7	43	43	900-1200	4%	n	Trapeze	y	y	7:00-5:00/5 days	5 F	n	y
Grand Rapids	7	70	70	1223-1500	< 1%	y	Trapeze	y	y	6:30-4:00 M-F; 8:30-4:30 Wkends	4F/4P		y=45%
Gwinnett Cty, GA	6	10	7	100	2%	n	none	n	n	8:00 - 5:00/5 days	1F	n	n
Huntsville	5	16	15	800-900		y	RouteMatch	y	y	5:30-6:00/ 5 days	2F/3P	n	y=20%
Knoxville	7	20	20	500	< 1%	y	Trapeze	n	n	7:00-6:00	3F	n	y=50%
Pensacola	7	40	18	500-600	3.30%	y	CTS	n	n	8:00 - 5:00	4F/2P	n	y=45%
Savannah	7	25	25	500	1.20%	y-+3/4 is with a contractor	RouteMatch	n	n	8:00-4:00 all days	1F/1P		y=10%

Appendix 3: Route Profiles

#10 – Cobb Parkway

Route Overview

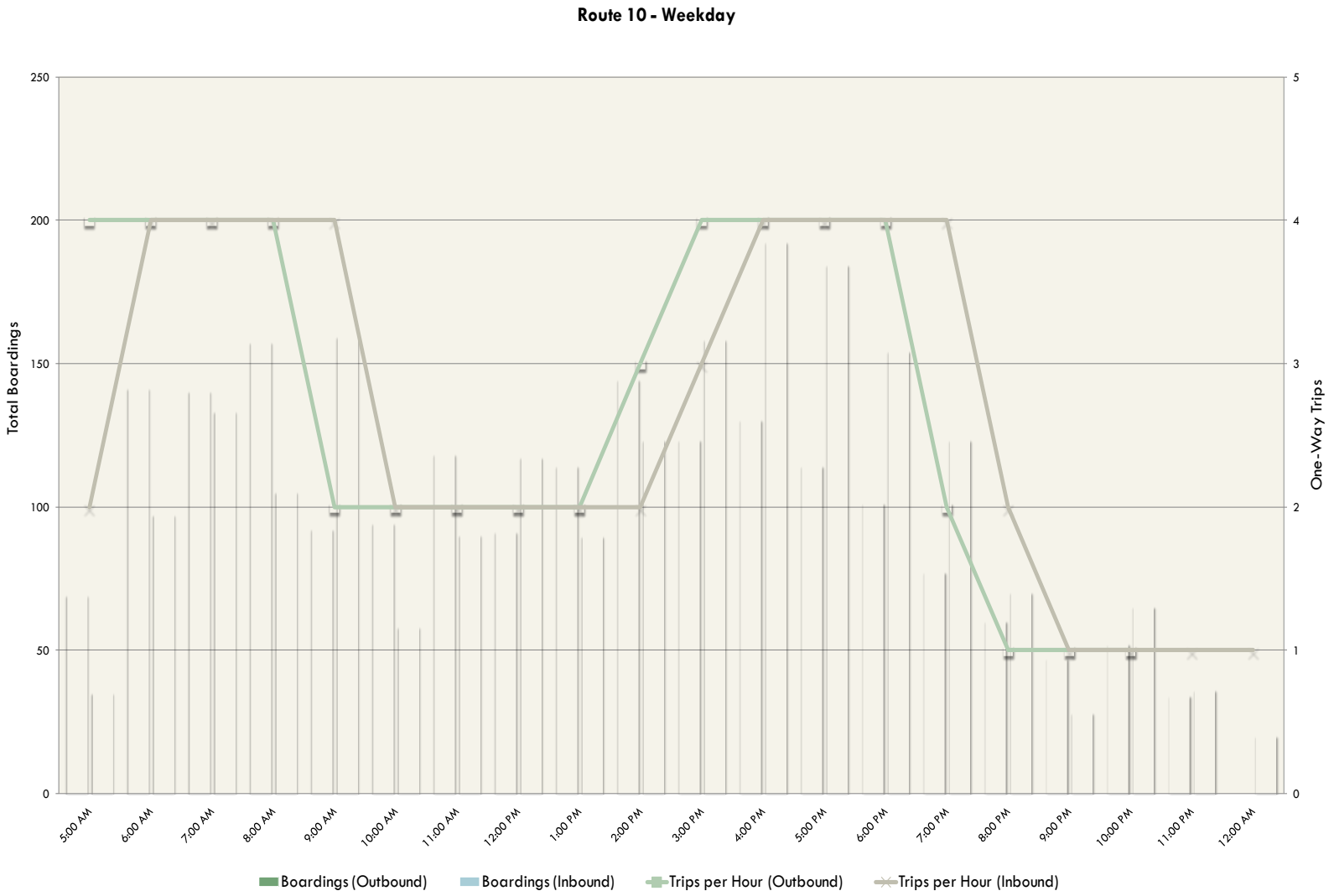
Route 10 provides north-south service along US 41/Cobb Parkway between the Marietta Transfer Center and MARTA Arts Center Station in Midtown Atlanta. It has the highest ridership of all routes in the CCT system, carrying over 3,800 riders on weekdays, and serves Southern Polytechnic State University, Dobbins Air Reserve Base, Cumberland Mall and commercial/retail along Cobb Parkway.

The route has some standing loads throughout the day on weekdays. The route is direct in design with little opportunity for stream-lining service. The US 41/Cobb Parkway corridor has been identified for future high capacity transit investment between Kennesaw and Midtown Atlanta.

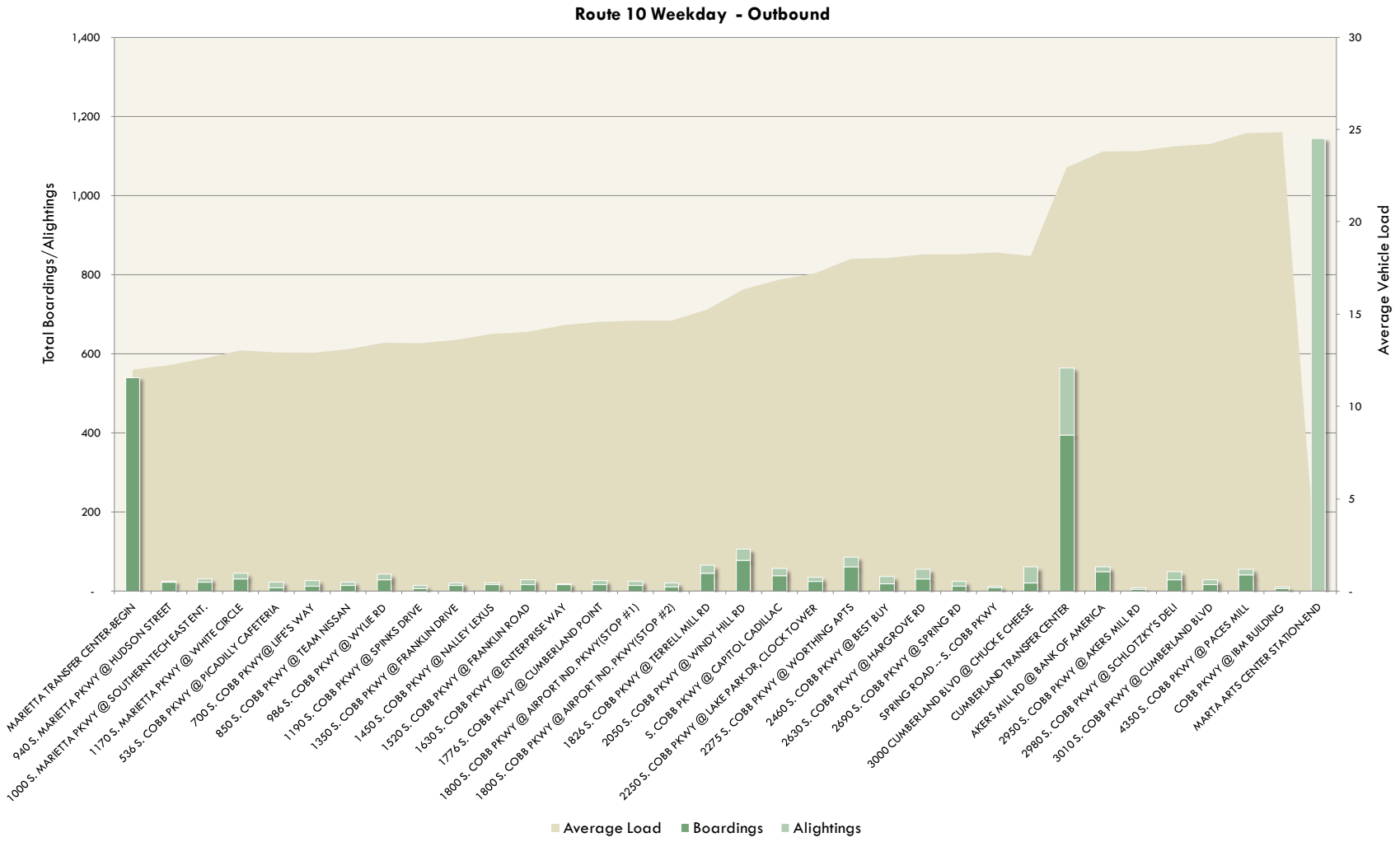
Service Snapshot

Operations and Service Requirements			
Weekday Service		**Saturday Service**	
Service Span	5:00 AM - 1:00 AM	***Service Span***	5:00 AM - 1:00 AM
Service Headway (Mins)		***Service Headway (Mins)***	
Peak	15	Peak	30
Base	30	Base	30
Service Provided		***Service Provided***	
Revenue Hours	121	Revenue Hours	67
Revenue Miles	1,738	Revenue Miles	1,019
Trips	104	Trips	61
Service Productivity			
Weekday Service		**Saturday Service**	
Riders		***Riders***	
Per Day	3,827	Per Day	2,424
Per Rev. Hour	32	Per Rev. Hour	36
Per Trip	37	Per Trip	40
On-Time Performance	61%	***On-Time Performance***	59%
Load Data		***Load Data***	
Average Load per Trip	16	Average Load per Trip	17
Average Max Load	38	Average Max Load	38
Max Load (Trip)	51	Max Load (Trip)	80
Cost			
Per Passenger	$1.93		
Subsidy per Passenger	$1.02		
Farebox Recovery	47%		

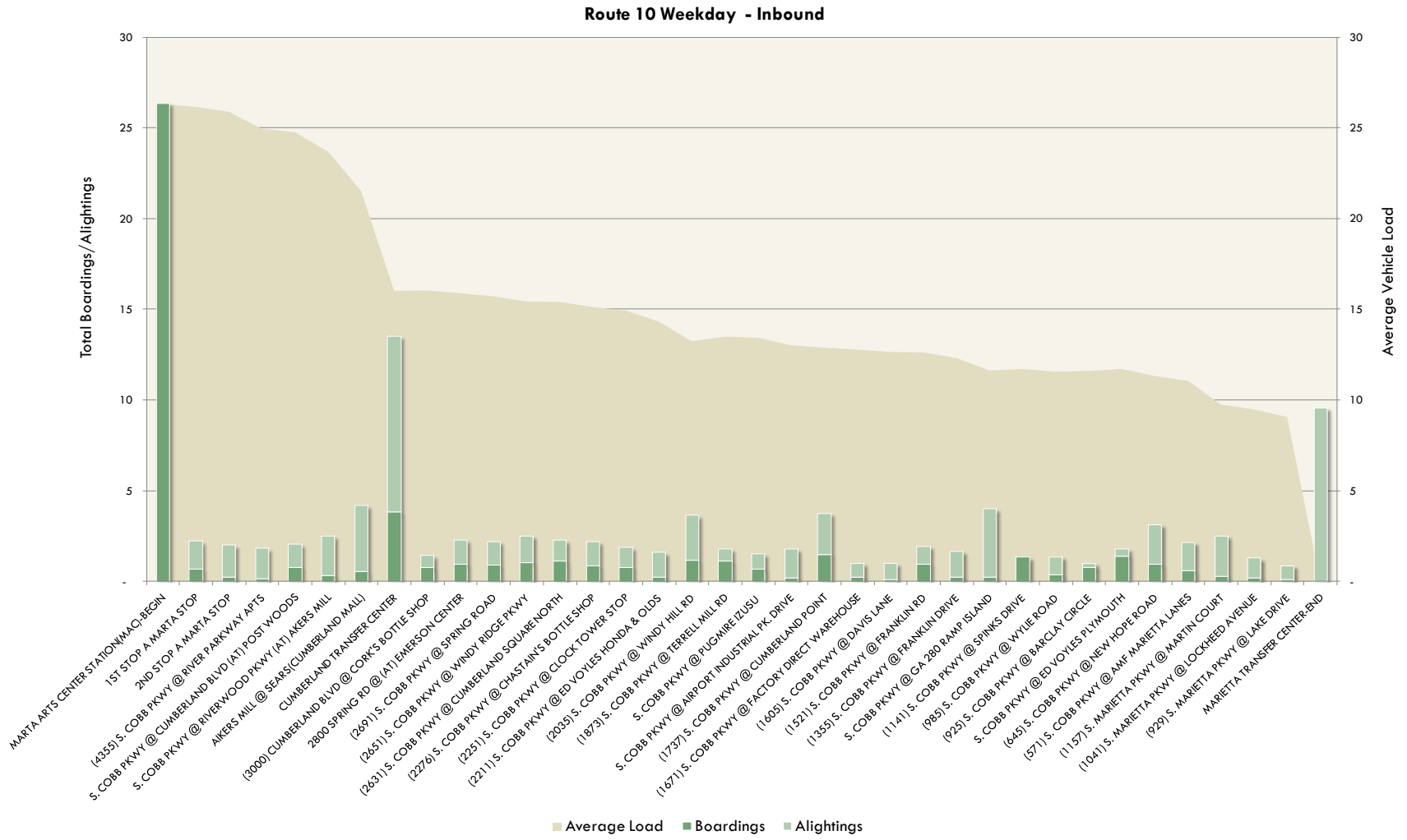
Weekday Ridership and Trips Provided by Time of Day



Daily Ridership Activity and Average Load Factors by Direction



Daily Ridership Activity and Average Load Factors by Direction

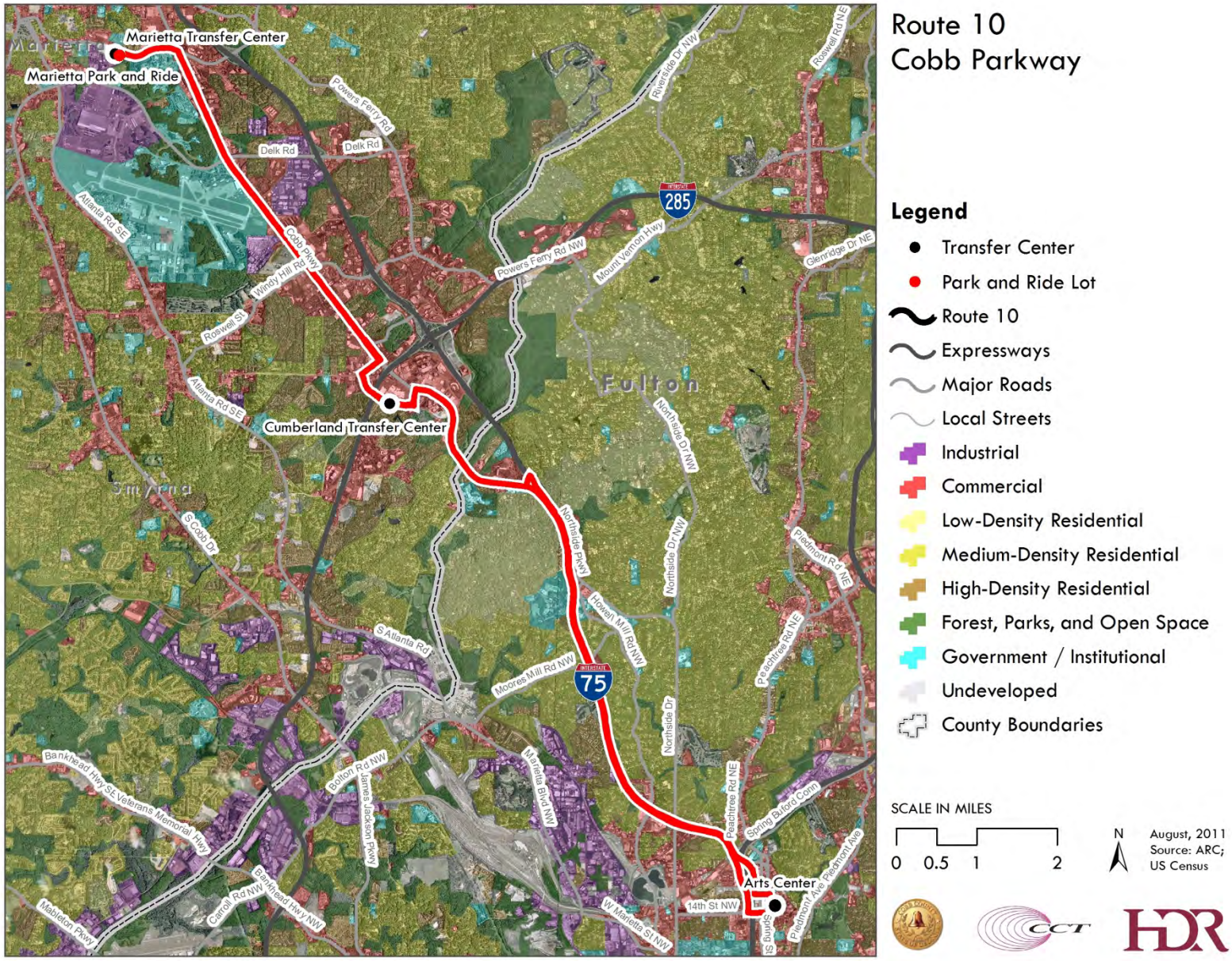


On-Time Performance by Timepoint by Direction

Route 10 Weekday

	Outbound				Inbound			
		Schedule Deviation (min)				Schedule Deviation (min)		
	Timepoint	Avg	Min	Max	Timepoint	Avg	Min	Max
AM Peak	Marietta Transfer Center	4.51	0.00	14.73	MARTA Arts Center Station	2.26	-4.32	13.27
	Dobbins Air Reserve Base	2.85	-0.58	8.93	Cumberland Blvd. Transfer Center	0.30	-4.25	8.93
	Cobb Pkwy. & Clock Tower	1.54	-4.10	7.63	Cobb Pkwy. & Clock Tower	1.41	-3.55	8.03
	Cumberland Blvd. Transfer Center	0.44	-4.60	5.15	Dobbins Air Reserve Base	2.48	-4.37	9.08
	MARTA Arts Center Station	-3.14	-17.23	9.25	Marietta Transfer Center	0.50	-5.77	10.10
Midday	Marietta Transfer Center	1.43	-1.42	5.53	MARTA Arts Center Station	2.74	-3.85	15.30
	Dobbins Air Reserve Base	0.29	-3.85	2.65	Cumberland Blvd. Transfer Center	-0.16	-3.53	3.45
	Cobb Pkwy. & Clock Tower	1.51	-4.22	8.33	Cobb Pkwy. & Clock Tower	-0.65	-5.75	3.18
	Cumberland Blvd. Transfer Center	0.46	-4.20	6.85	Dobbins Air Reserve Base	-0.80	-8.13	4.23
	MARTA Arts Center Station	-2.53	-14.48	4.23	Marietta Transfer Center	-2.91	-10.55	2.55
PM Peak	Marietta Transfer Center	5.46	1.55	12.83	MARTA Arts Center Station	3.99	-0.47	23.27
	Dobbins Air Reserve Base	4.93	-1.53	16.05	Cumberland Blvd. Transfer Center	3.12	-1.35	12.47
	Cobb Pkwy. & Clock Tower	5.76	-0.60	18.50	Cobb Pkwy. & Clock Tower	3.35	-2.38	15.62
	Cumberland Blvd. Transfer Center	3.73	-1.80	16.80	Dobbins Air Reserve Base	3.82	-4.85	15.68
	MARTA Arts Center Station	-6.26	-24.47	7.47	Marietta Transfer Center	0.86	-6.97	12.63
Evening	Marietta Transfer Center	6.48	3.35	12.17	MARTA Arts Center Station	5.04	-1.35	14.55
	Dobbins Air Reserve Base	9.04	3.17	15.62	Cumberland Blvd. Transfer Center	-1.71	-8.17	1.83
	Cobb Pkwy. & Clock Tower	8.83	4.20	14.60	Cobb Pkwy. & Clock Tower	1.43	-6.23	7.45
	Cumberland Blvd. Transfer Center	2.02	-0.88	6.58	Dobbins Air Reserve Base	4.33	-6.55	28.38
	MARTA Arts Center Station	-5.80	-11.33	-0.73	Marietta Transfer Center	-1.92	-14.27	18.75

Early *(more than 1 minute ahead of schedule)*
On-Time *(between 1 minute early and 5 minutes late)*
Late *(more than 5 minutes behind schedule)*


Route 10
Cobb Parkway
Marietta Transfer Center
Marietta Park and Ride
Cumberland Transfer Center
Arts Center
Marietta
Smyrna
Fulton
Legend
Transfer Center
Park and Ride Lot
Route 10
Expressways
Major Roads
Local Streets
Industrial
Commercial
Low-Density Residential
Medium-Density Residential
High-Density Residential
Forest, Parks, and Open Space
Government / Institutional
Undeveloped
County Boundaries
SCALE IN MILES
0 0.5 1 2
N
August, 2011
Source: ARC;
US Census
HDR

Route 10 - Cobb Parkway Inbound Boardings

Legend

Route 10 Inbound Boardings

- < 10
- 10 - 25
- 25 - 50
- 50 - 100
- > 100

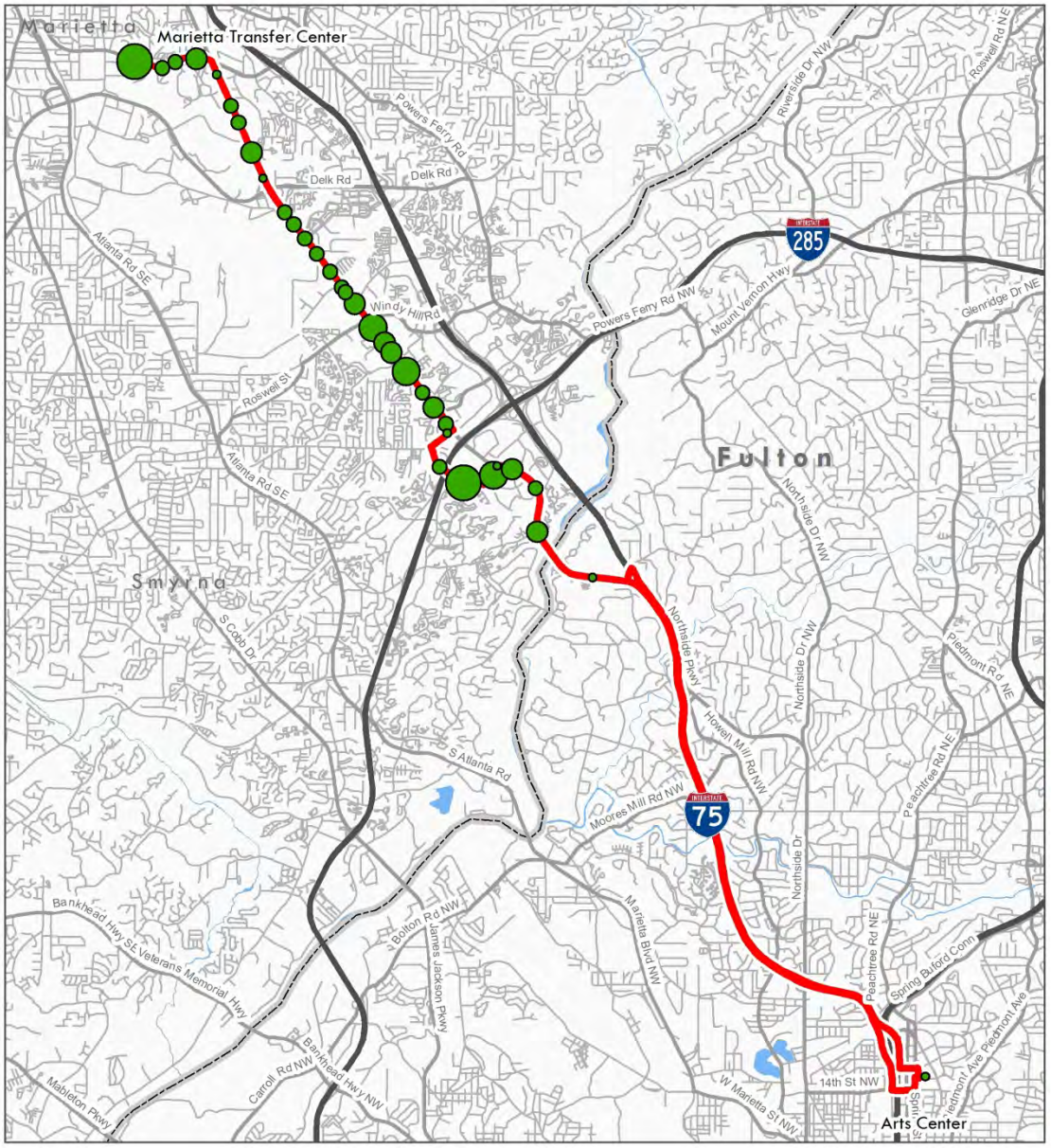
Route 10
Expressways
Major Roads
Local Streets

SCALE IN MILES

0 0.5 1 2

N

August, 2011
Source: ARC;
US Census



Route 10 - Cobb Parkway Outbound Boardings

Legend

Route 10 Outbound Boardings

- < 10
- 10 - 25
- 25 - 50
- 50 - 100
- > 100
- Route 10
- Expressways
- Major Roads
- Local Streets

SCALE IN MILES

0 0.5 1 2

N

August, 2011
Source: ARC; US Census

#15 – Windy Hill Road

Route Overview

Route 15 provides east-west service between the Marietta Transfer Center and Wildwood Office Park along Windy Hill Road, County Services Parkway, Powder Springs Road, Roswell Road and South Marietta Parkway. The route carries over 1,400 riders per day and serves the Cobb County Health Department and Wildwood Office Park.

The route has high ridership/transfer activity at County Services Parkway, Austell Road and Cobb Parkway bus stops. There is low ridership activity on the segment that serves Wildwood Office Park, which is also served during the AM and PM peak periods by Route 10B. Inbound trips suffer from on-time performance from Atlanta Road west to Marietta Transfer Center during the AM peak period due to high ridership activity and east of Atlanta Road due to traffic congestion.

Service Snapshot

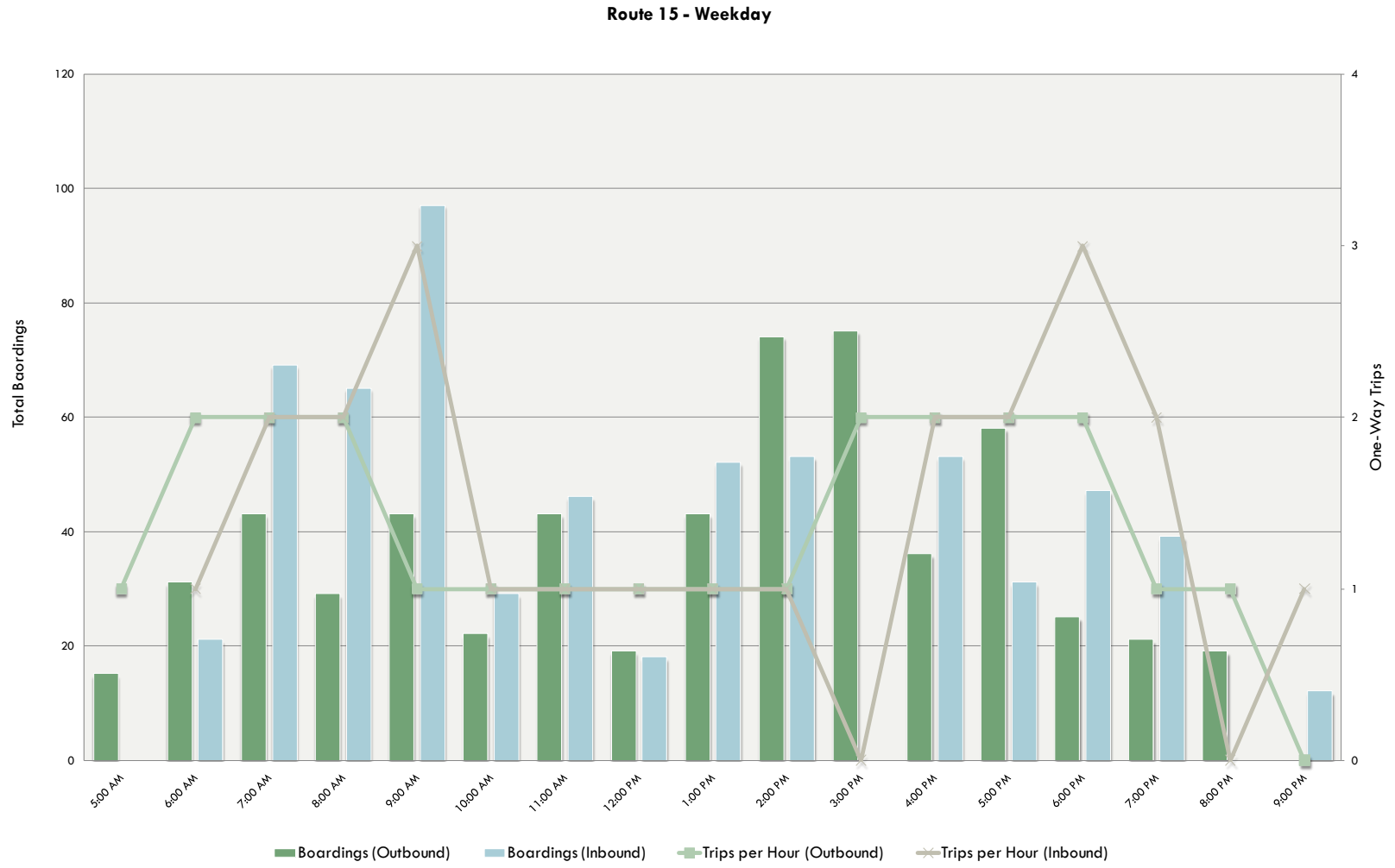
Operations and Service Requirements

Weekday Service		Saturday Service	
Service Span	5:00 AM - 10:00 PM	***Service Span***	5:00 AM - 10:00 PM
Service Headway		***Service Headway***	
Peak	30	Peak	60
Base	60	Base	60
Service Provided		***Service Provided***	
Revenue Hours	45	Revenue Hours	20
Revenue Miles	681	Revenue Miles	385
Trips	46	Trips	26

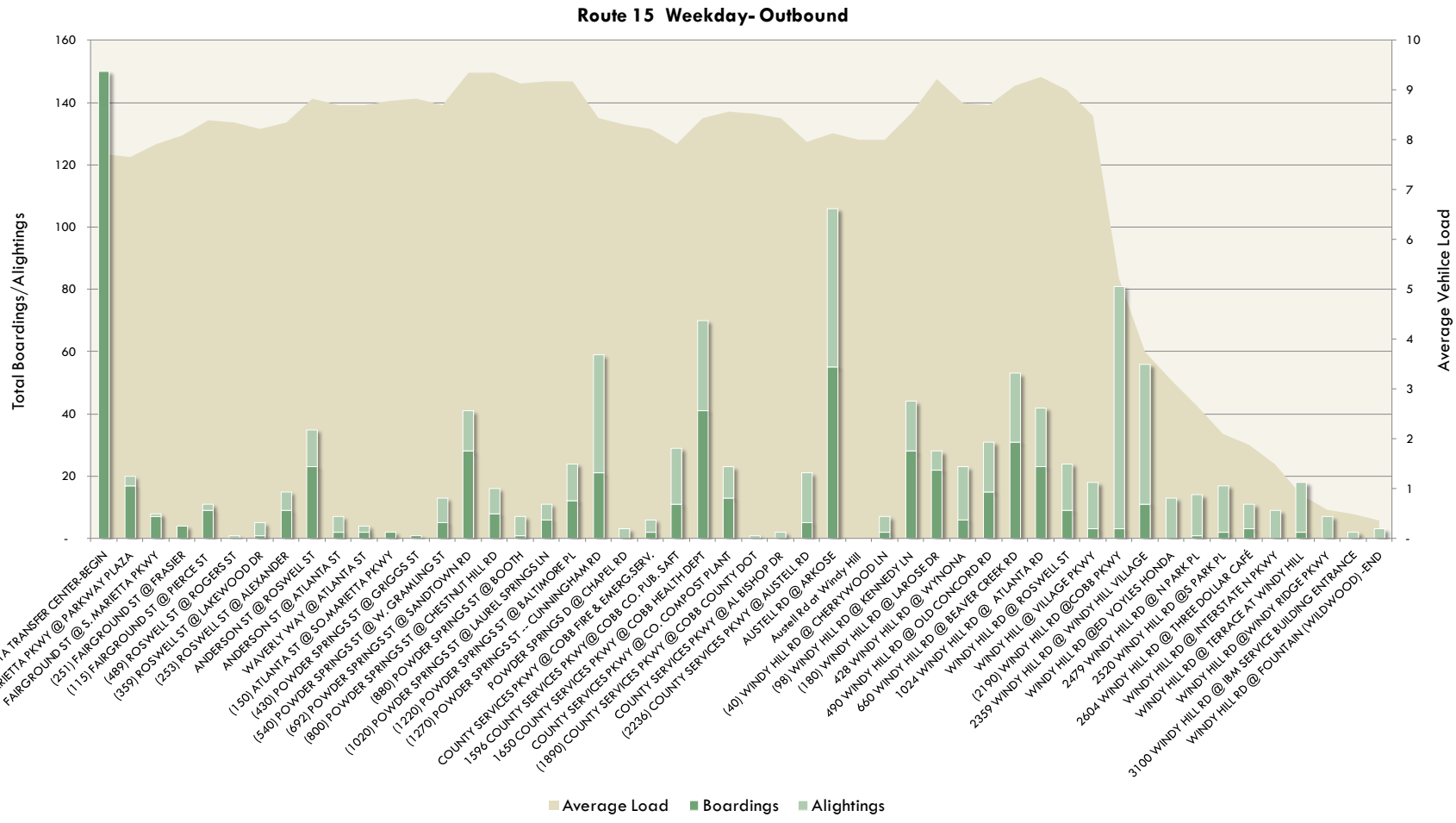
Service Productivity

Weekday Service		Saturday Service	
Riders		***Riders***	
Per Day	1,432	Per Day	637
Per Rev. Hour	32	Per Rev. Hour	33
Per Trip	31	Per Trip	24
On-Time Performance	59%	***On-Time Performance***	83%
Load Data		***Load Data***	
Average Load per Trip	7	Average Load per Trip	8
Average Max Load	19	Average Max Load	17
Max Load (Trip)	30	Max Load (Trip)	37
Cost			
Per Passenger	$1.96		
Subsidy per Passenger	$1.05		
Farebox Recovery	46%		

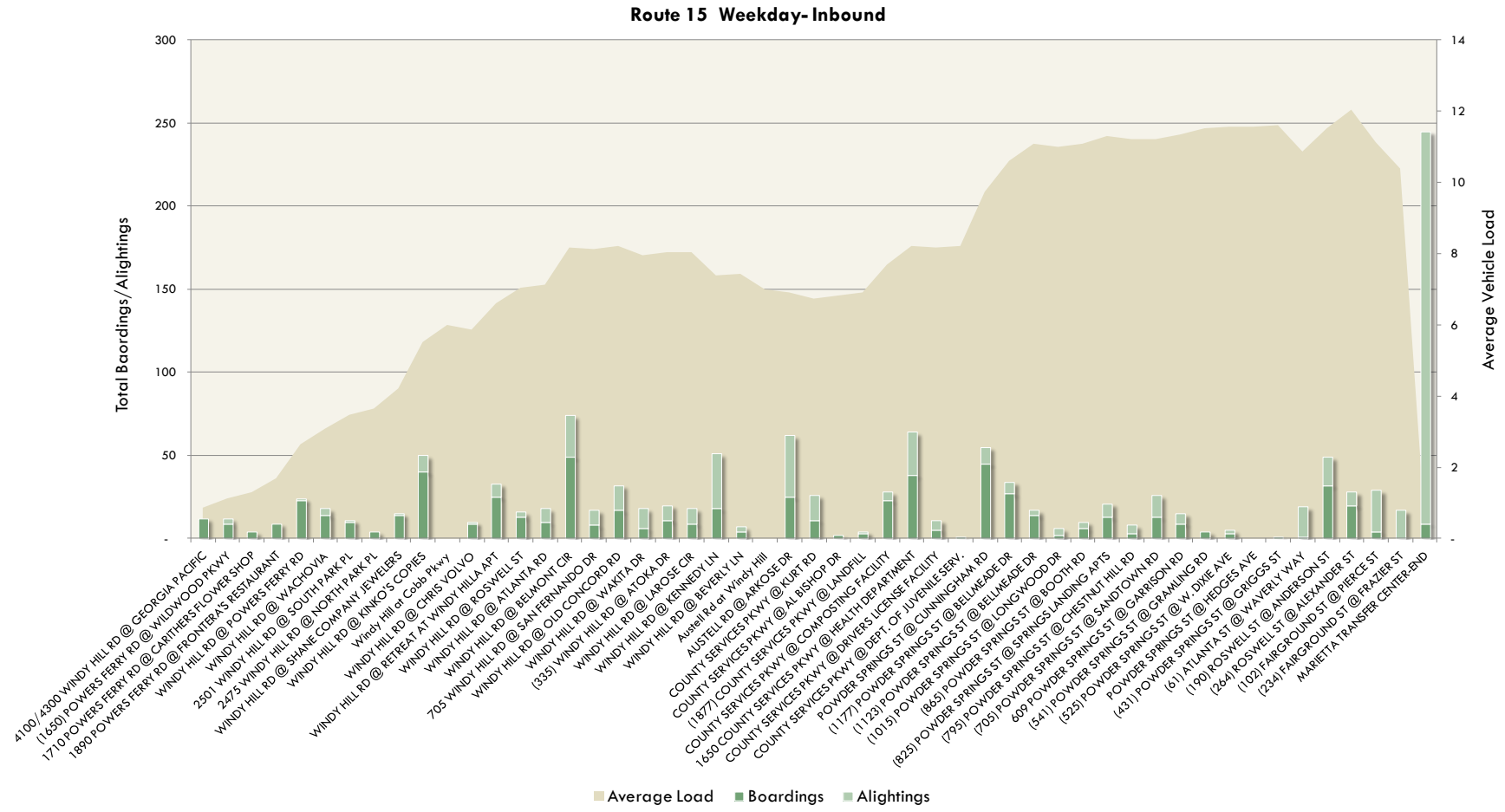
Weekday Ridership and Trips Provided by Time of Day



Daily Ridership Activity and Average Load Factors by Direction



Daily Ridership Activity and Average Load Factors by Direction

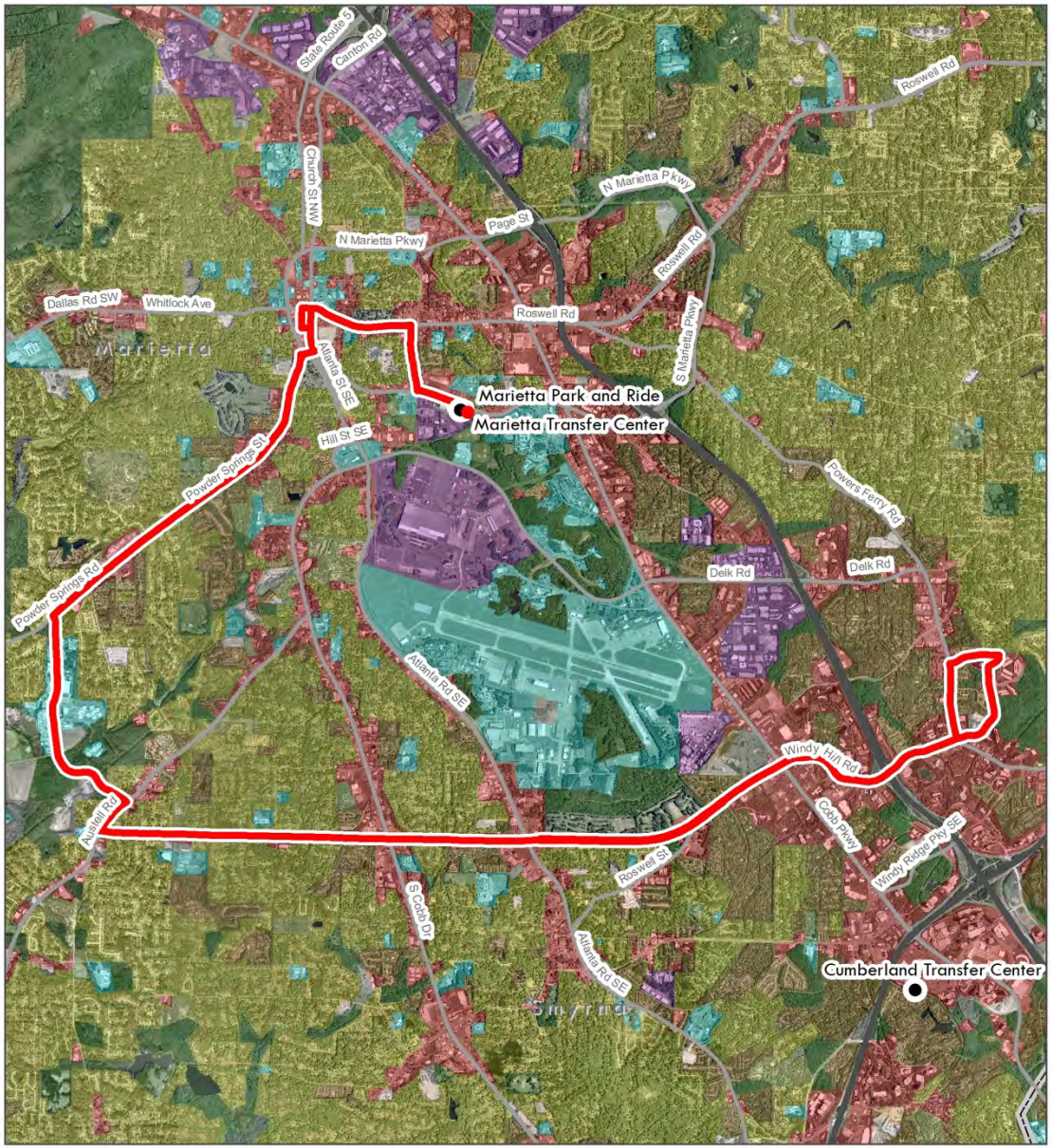


On-Time Performance by Timepoint by Direction

Route 15 Weekday

	Outbound				Inbound			
		Schedule Deviation (min)				Schedule Deviation (min)		
	Timepoint	Avg	Min	Max	Timepoint	Avg	Min	Max
AM Peak	Marietta Transfer Center	3.04	-0.05	9.95	Wildwood	6.41	1.08	21.18
	Health Dept	1.60	-3.55	5.37	Windy Hill & Cobb	4.34	0.10	13.78
	Austell & Windy Hill	-1.16	-7.83	1.37	Windy Hill & Atlanta	3.23	0.08	8.92
	Windy Hill & Atlanta	-2.04	-9.50	1.73	Austell & Windy Hill	6.53	3.45	9.18
	Windy Hill & Cobb	-1.04	-5.30	8.20	Health Dept	9.13	3.72	12.08
	Wildwood	0.68	-7.93	12.75	Marietta Transfer Center	6.37	-1.17	11.62
Midday	Marietta Transfer Center	4.43	0.72	8.15	Wildwood	3.49	1.30	5.58
	Health Dept	2.95	-0.93	9.68	Windy Hill & Cobb	3.19	0.02	4.57
	Austell & Windy Hill	2.85	-1.33	8.88	Windy Hill & Atlanta	1.85	-2.67	7.48
	Windy Hill & Atlanta	1.67	-4.05	8.70	Austell & Windy Hill	3.08	-0.10	8.17
	Windy Hill & Cobb	1.25	-4.08	7.98	Health Dept	4.30	1.05	9.28
	Wildwood	3.87	-3.48	10.87	Marietta Transfer Center	6.59	-2.63	11.87
PM Peak	Marietta Transfer Center	8.05	-2.25	32.13	Wildwood	6.67	1.45	13.60
	Health Dept	7.01	-0.55	32.00	Windy Hill & Cobb	6.30	-1.28	13.40
	Austell & Windy Hill	6.91	-1.20	31.00	Windy Hill & Atlanta	3.92	-3.75	12.95
	Windy Hill & Atlanta	5.78	-1.32	27.85	Austell & Windy Hill	3.52	-3.73	13.45
	Windy Hill & Cobb	4.05	-5.02	23.85	Health Dept	4.38	-3.27	15.55
	Wildwood	4.86	-5.77	23.42	Marietta Transfer Center	5.09	-0.68	15.97
Evening	Marietta Transfer Center	16.13	14.10	18.17	Wildwood	8.31	-10.27	28.82
	Health Dept	19.40	17.07	21.73	Windy Hill & Cobb	7.15	-11.55	30.57
	Austell & Windy Hill	18.78	16.78	20.77	Windy Hill & Atlanta	4.19	-12.98	29.40
	Windy Hill & Atlanta	19.13	16.17	22.10	Austell & Windy Hill	2.75	-15.18	26.65
	Windy Hill & Cobb	16.81	14.85	18.77	Health Dept	3.58	-16.17	27.45
	Wildwood	15.21	15.12	15.30	Marietta Transfer Center	0.46	-16.17	27.45

- Early *(more than 1 minute ahead of schedule)*
- On-Time *(between 1 minute early and 5 minutes late)*
- Late *(more than 5 minutes behind schedule)*



Route 15
Windy Hill Road

Legend

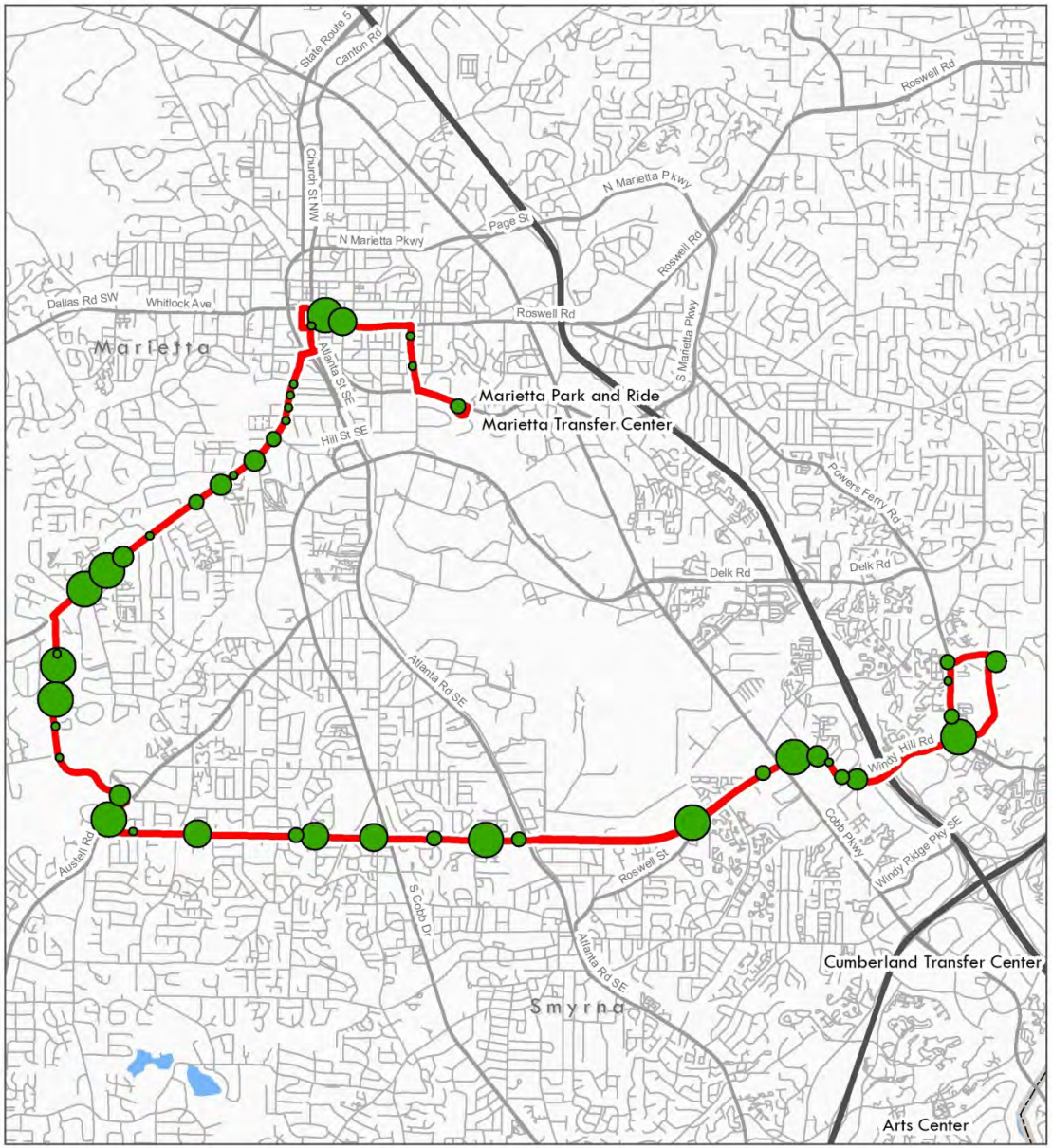
- Transfer Center
- Park and Ride Lot
- Route 10
- Expressways
- Major Roads
- Local Streets
- Industrial
- Commercial
- Low-Density Residential
- Medium-Density Residential
- High-Density Residential
- Forest, Parks, and Open Space
- Government / Institutional
- Undeveloped
- County Boundaries

SCALE IN MILES

0 0.4 0.8 1.6

N

August, 2011
Source: ARC;
US Census



Route 15 - Windy Hill Road Inbound Boardings

Legend

Route 15 Inbound Boardings

- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

Route 15

Expressways

Major Roads

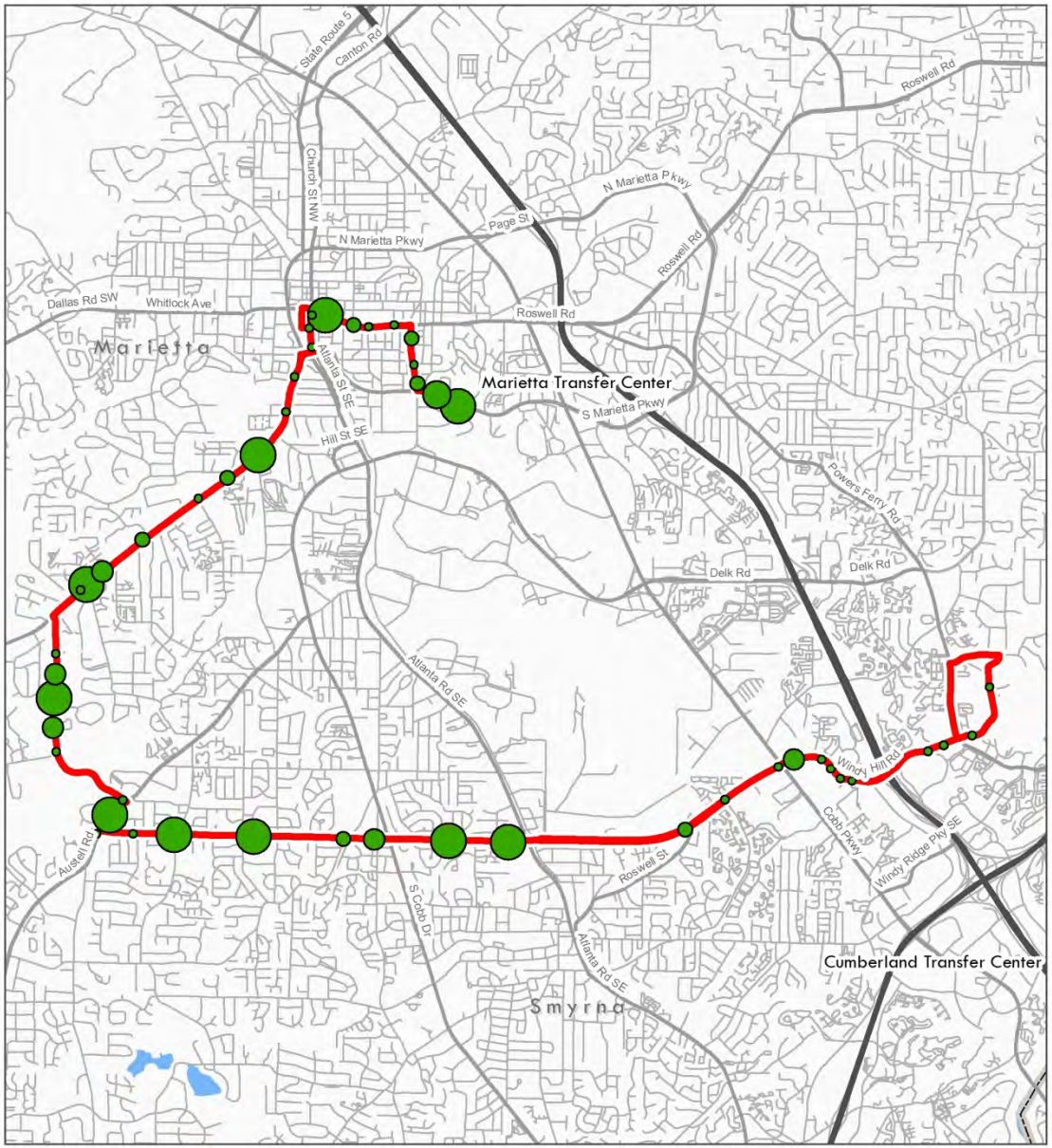
Local Streets

SCALE IN MILES

0 0.4 0.8 1.6

N

August, 2011
Source: ARC;
US Census



Route 15 - Windy Hill Road Outbound Boardings

Legend

Route 15 Outbound Boardings

- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20
- Route 15
- Expressways
- Major Roads
- Local Streets

SCALE IN MILES

0 0.3750.75 1.5

N

August, 2011
Source: ARC; US Census

#20 – South Cobb Drive

Route Overview

Route 20 provides service between the Marietta Transfer Center and Cumberland Transfer Center along South Marietta Parkway, Fairground Street, South Cobb Drive, Concord Road, Spring Road and Cumberland Boulevard. The route has high ridership/transfer activity at County Services Parkway, Austell Road and Cobb Parkway bus stops. It carries nearly 1,500 riders per day and serves Cobb Civic Center, Lockheed Martin and Emory Adventist Hospital.

The route has low ridership activity during weekday evenings. On-time performance is an issue on South Cobb Drive due to traffic congestion and ridership activity during PM peak and on Concord Road between S. Cobb Dr. and Atlanta Rd. during AM peak. High passenger loads occur during midday trips on weekdays, morning outbound and evening inbound trips on Saturdays. The route is designed and functions as two separate routes with ridership activity splitting at Emory Adventist Hospital.

Service Snapshot

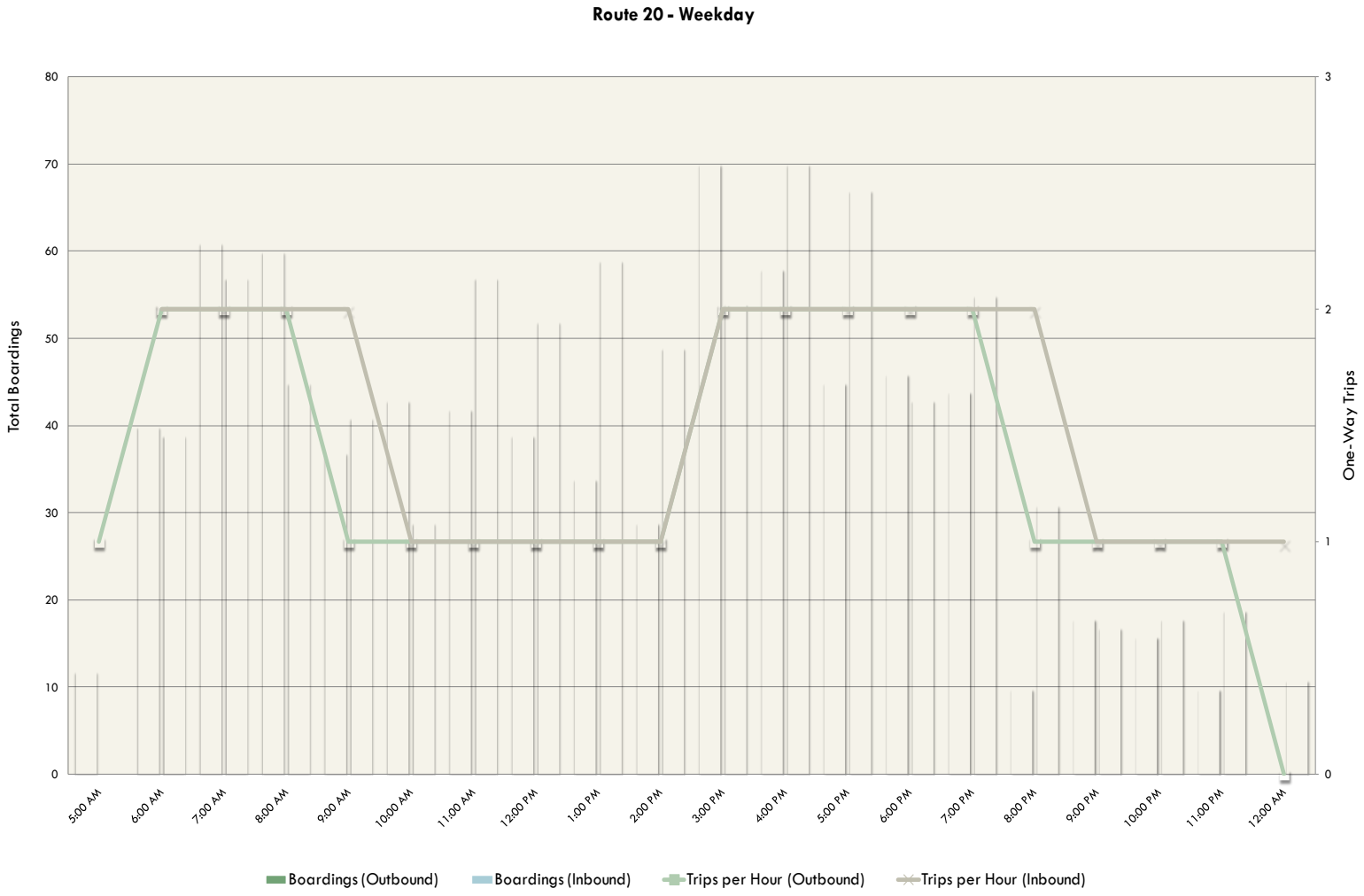
Operations and Service Requirements

Weekday Service		Saturday Service	
Service Span	5:00 AM - 12:30 AM	***Service Span***	5:00 AM - 12:30 AM
Service Headway		***Service Headway***	
Peak	30	Peak	60
Base	60	Base	60
Service Provided		***Service Provided***	
Revenue Hours	53	Revenue Hours	28
Revenue Miles	799	Revenue Miles	447
Trips	56	Trips	31

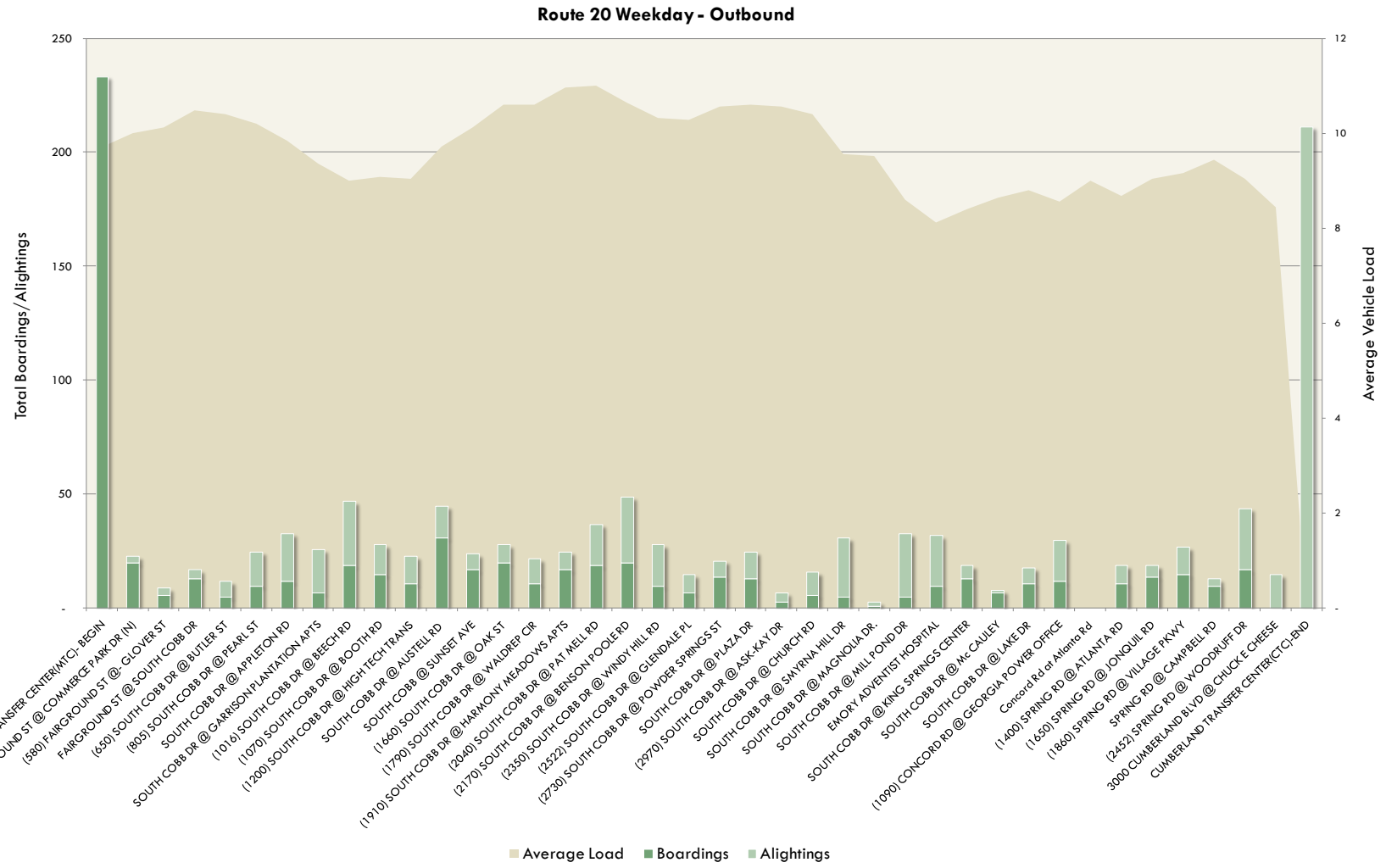
Service Productivity

Weekday Service		Saturday Service	
Riders		***Riders***	
Per Day	1,487	Per Day	959
Per Rev. Hour	28	Per Rev. Hour	34
Per Trip	27	Per Trip	31
On-Time Performance	62%	***On-Time Performance***	62%
Load Data		***Load Data***	
Average Load per Trip	10	Average Load per Trip	12
Average Max Load	23	Average Max Load	25
Max Load (Trip)	36	Max Load (Trip)	32
Cost			
Per Passenger	$2.15		
Subsidy per Passenger	$1.24		
Farebox Recovery	42%		

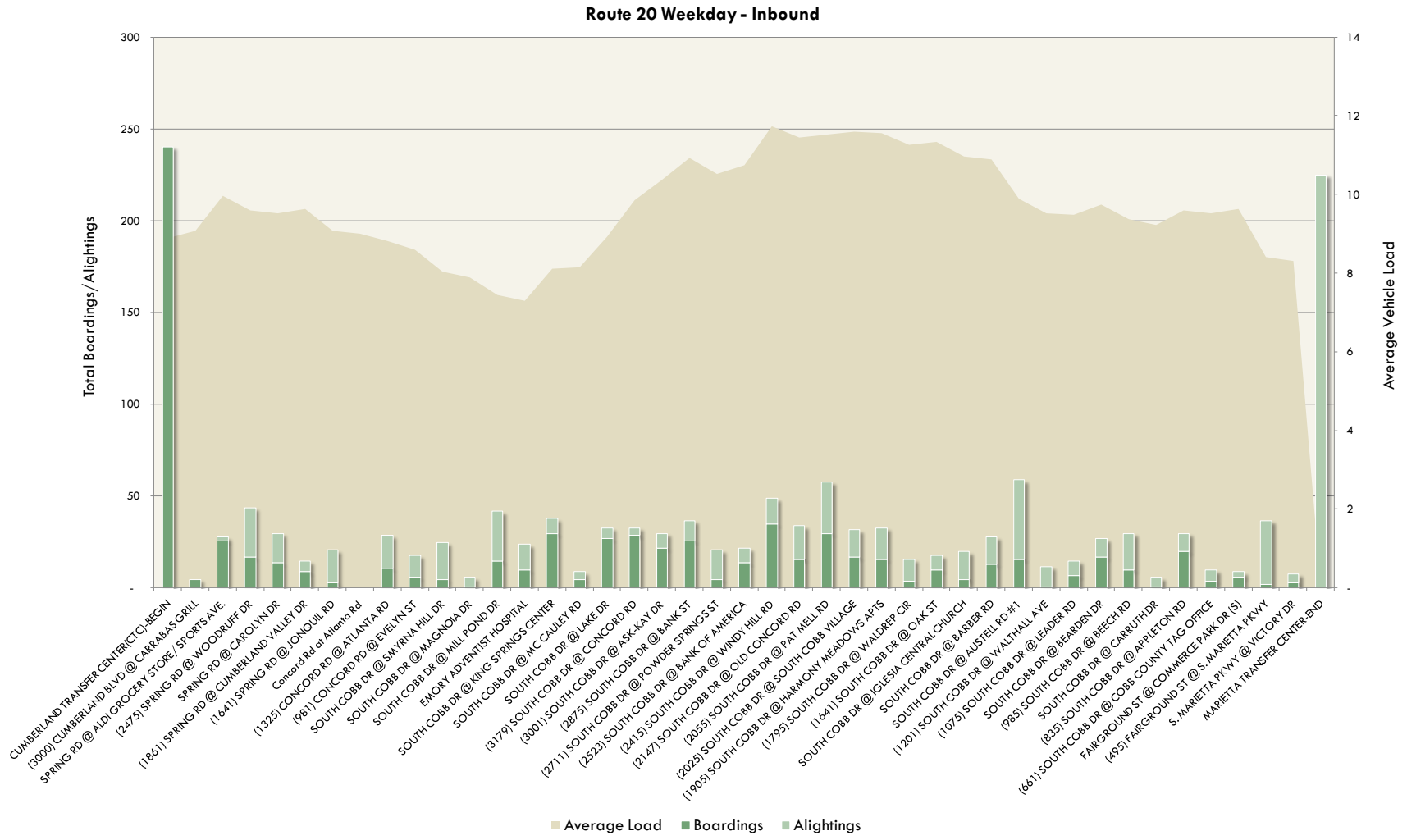
Weekday Ridership and Trips Provided by Time of Day



Daily Ridership Activity and Average Load Factors by Direction



Daily Ridership Activity and Average Load Factors by Direction

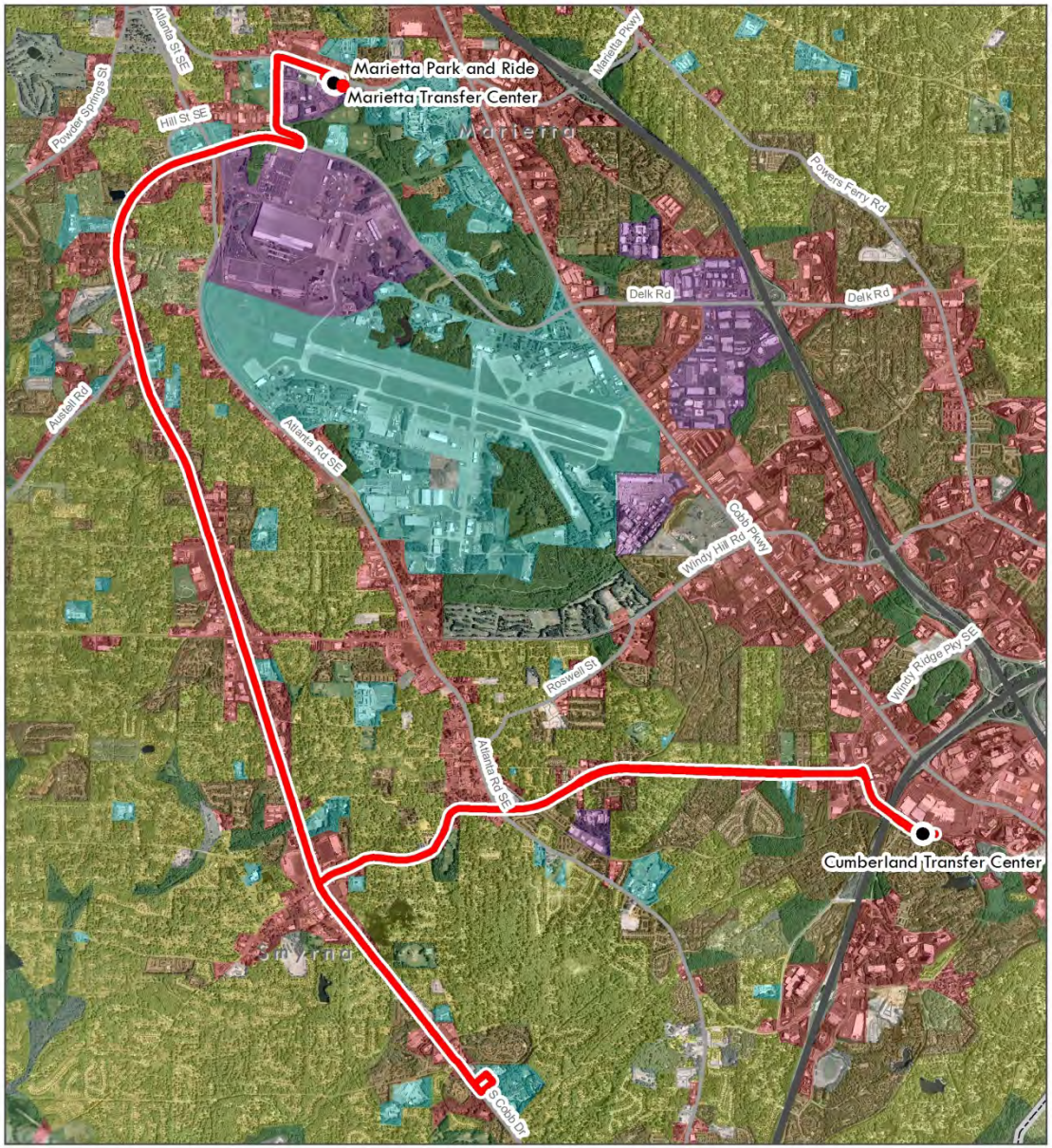


On-Time Performance by Timepoint by Direction

Route 20 Weekday

	Outbound				Inbound			
		Schedule Deviation (min)				Schedule Deviation (min)		
	Timepoint	Avg	Min	Max	Timepoint	Avg	Min	Max
AM Peak	Marietta Transfer Center	2.85	-0.60	9.75	Cumberland Blvd. Transfer Center	0.81	-0.25	1.68
	South Cobb Dr & Austell Rd	2.42	0.37	8.10	Concord Rd & Atlanta Rd	0.01	-2.82	1.65
	Cobb Center	3.23	-0.75	11.00	Emory Adventist Hospital	1.22	-1.88	5.20
	Emory Adventist Hospital	0.77	-5.63	11.33	Cobb Center	3.66	0.95	6.10
	Concord Rd & Atlanta Rd	-1.65	-5.68	9.75	South Cobb Dr & Austell Rd	5.84	2.10	8.85
	Cumberland Blvd. Transfer Center	-7.08	-11.65	1.27	Marietta Transfer Center	-9.28	-11.25	-4.00
Midday	Marietta Transfer Center	3.07	-0.05	9.45	Cumberland Blvd. Transfer Center	0.01	-4.03	2.73
	South Cobb Dr & Austell Rd	3.32	-0.72	11.73	Concord Rd & Atlanta Rd	-0.52	-2.57	2.15
	Cobb Center	5.87	-0.12	11.65	Emory Adventist Hospital	2.23	-2.33	10.03
	Emory Adventist Hospital	3.38	0.00	10.40	Cobb Center	7.63	-9.27	25.50
	Concord Rd & Atlanta Rd	0.30	-3.47	5.97	South Cobb Dr & Austell Rd	8.38	-9.85	27.93
	Cumberland Blvd. Transfer Center	-3.91	-8.72	3.17	Marietta Transfer Center	-3.81	-13.00	7.52
PM Peak	Marietta Transfer Center	5.46	0.45	9.82	Cumberland Blvd. Transfer Center	2.13	-1.02	5.52
	South Cobb Dr & Austell Rd	10.58	3.47	26.80	Concord Rd & Atlanta Rd	3.51	-0.07	10.63
	Cobb Center	12.04	3.60	36.30	Emory Adventist Hospital	5.23	-0.47	13.73
	Emory Adventist Hospital	8.48	4.18	23.60	Cobb Center	9.65	4.28	16.90
	Concord Rd & Atlanta Rd	4.17	-0.63	14.78	South Cobb Dr & Austell Rd	11.47	3.95	19.62
	Cumberland Blvd. Transfer Center	0.01	-4.88	8.33	Marietta Transfer Center	-1.81	-13.67	5.53
Evening	Marietta Transfer Center	7.68	-0.13	20.40	Cumberland Blvd. Transfer Center	2.50	-1.90	7.22
	South Cobb Dr & Austell Rd	6.18	1.25	11.30	Concord Rd & Atlanta Rd	1.27	0.22	2.15
	Cobb Center	3.27	-0.03	6.23	Emory Adventist Hospital	1.95	-0.23	8.02
	Emory Adventist Hospital	0.67	-1.58	4.45	Cobb Center	4.20	0.40	10.08
	Concord Rd & Atlanta Rd	-2.30	-4.33	1.42	South Cobb Dr & Austell Rd	6.01	1.15	12.20
	Cumberland Blvd. Transfer Center	-8.44	-13.48	-4.93	Marietta Transfer Center	-7.55	-12.35	1.80

Early *(more than 1 minute ahead of schedule)*
On-Time *(between 1 minute early and 5 minutes late)*
Late *(more than 5 minutes behind schedule)*



Route 20
South Cobb Drive

Legend

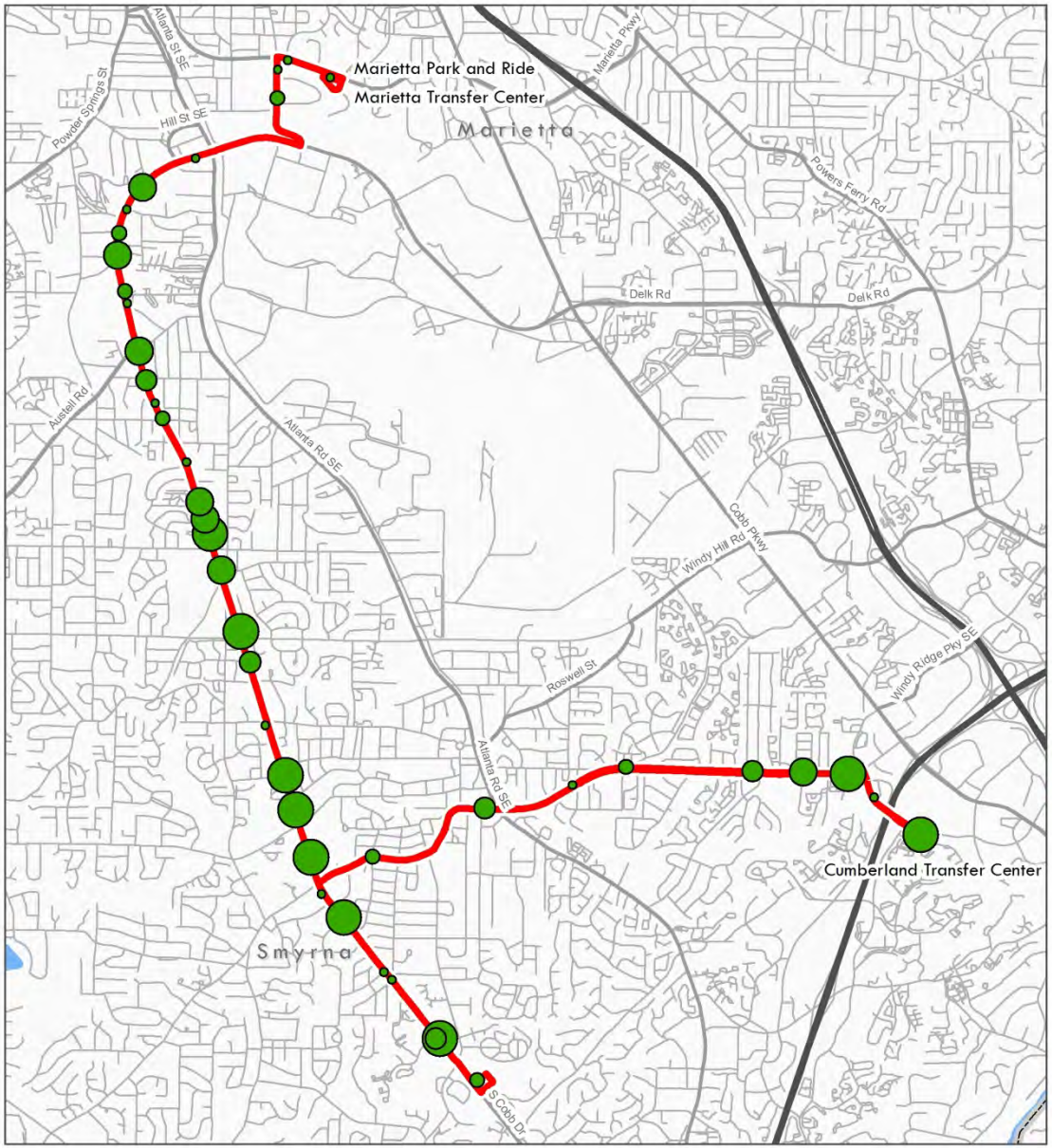
- Transfer Center
- Park and Ride Lot
- Route 10
- Expressways
- Major Roads
- Local Streets
- Industrial
- Commercial
- Low-Density Residential
- Medium-Density Residential
- High-Density Residential
- Forest, Parks, and Open Space
- Government / Institutional
- Undeveloped
- County Boundaries

SCALE IN MILES

0 0.3 0.6 1.2

N

August, 2011
Source: ARC; US Census



Route 20 - South Cobb Drive Inbound Boardings

Legend

Route 20 Inbound Ridership

- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

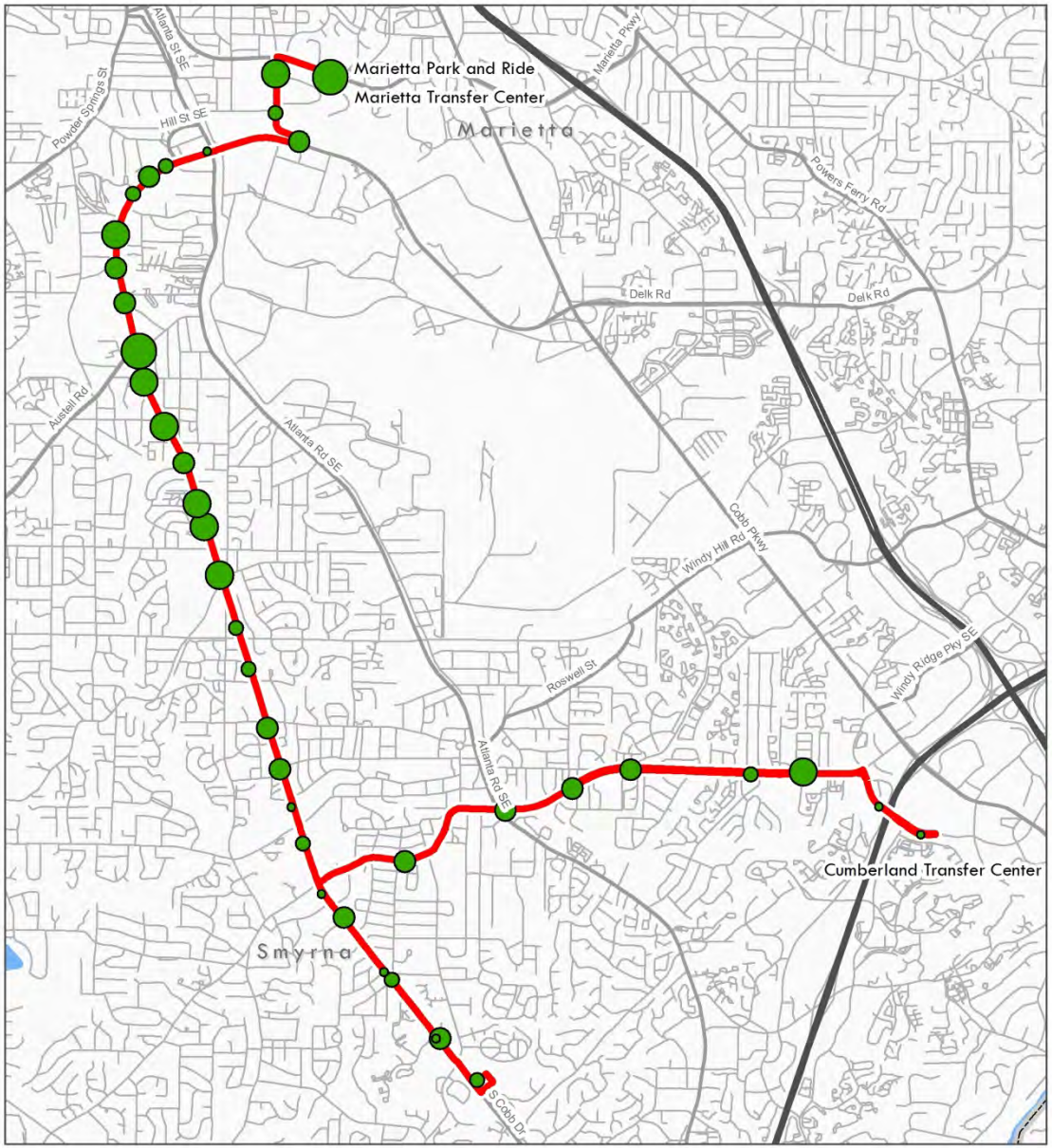
Route 20
Expressways
Major Roads
Local Streets

SCALE IN MILES

0 0.25 0.5 1

N

August, 2011
Source: ARC; US Census



Route 20 - South Cobb Drive Outbound Boardings

Legend

Route 20 Outbound Ridership

- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

Route 20

Expressways

Major Roads

Local Streets

SCALE IN MILES

0 0.25 0.5 1

N

August, 2011
Source: ARC;
US Census

#30 – Austell Road

Route Overview

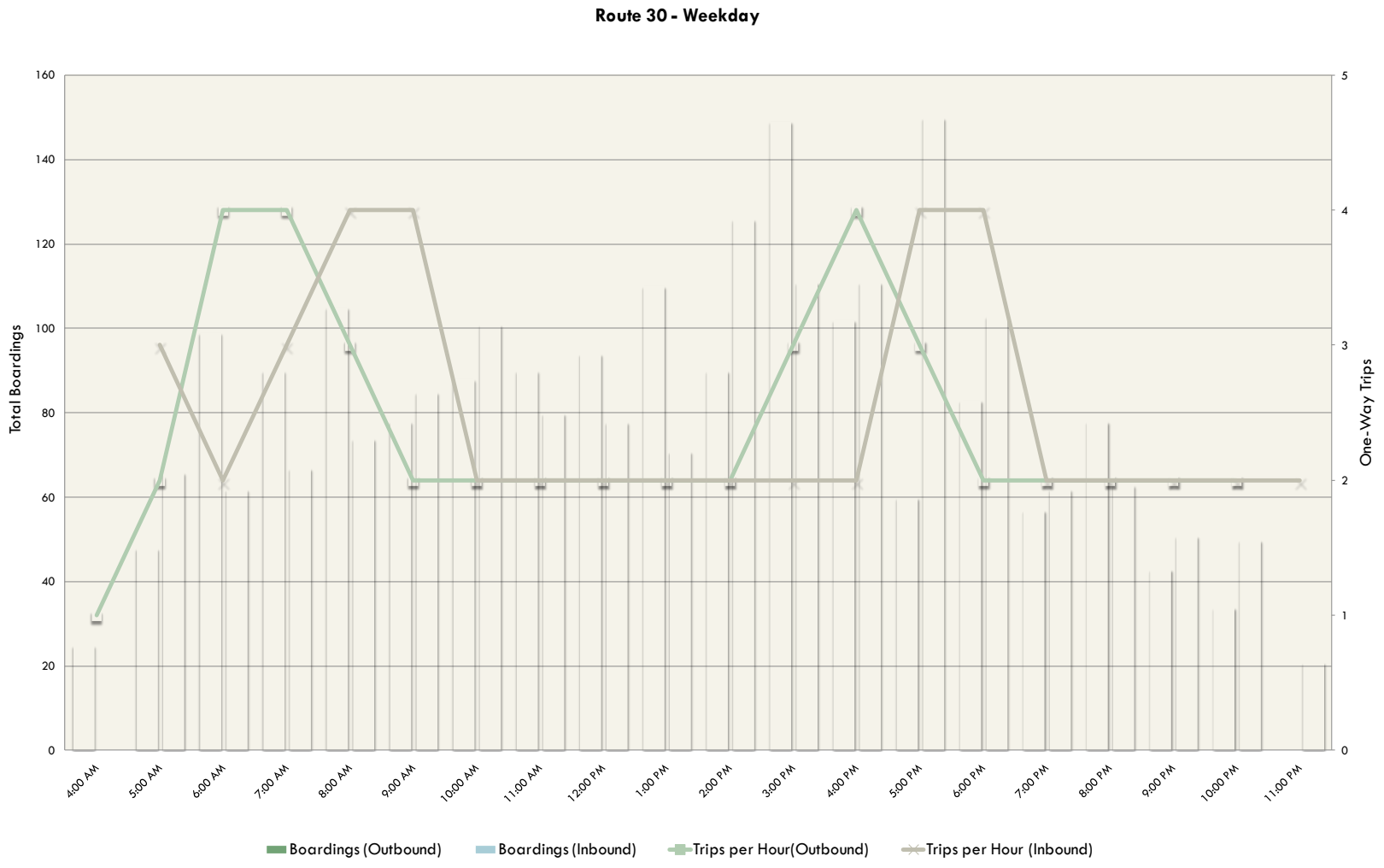
Route 30 is CCT's second busiest route and provides service between the Marietta Transfer Center and HE Holmes MARTA Rail Station along South Marietta Parkway, Atlanta Road, Austell Road, E-W Connector, Floyd Road, Mableton Parkway, Factory Shoals Road, Blair Bridge Road, Six Flags Drive and I-20. Route 30 carries nearly 3,000 riders per day and serves Cobb Hospital, E-W Commons and Six Flags.

The route has high ridership and passenger loads on Saturdays. On-time performance is an issue during the PM peak period due to the length of the route, high ridership activity at stops and tight schedule.

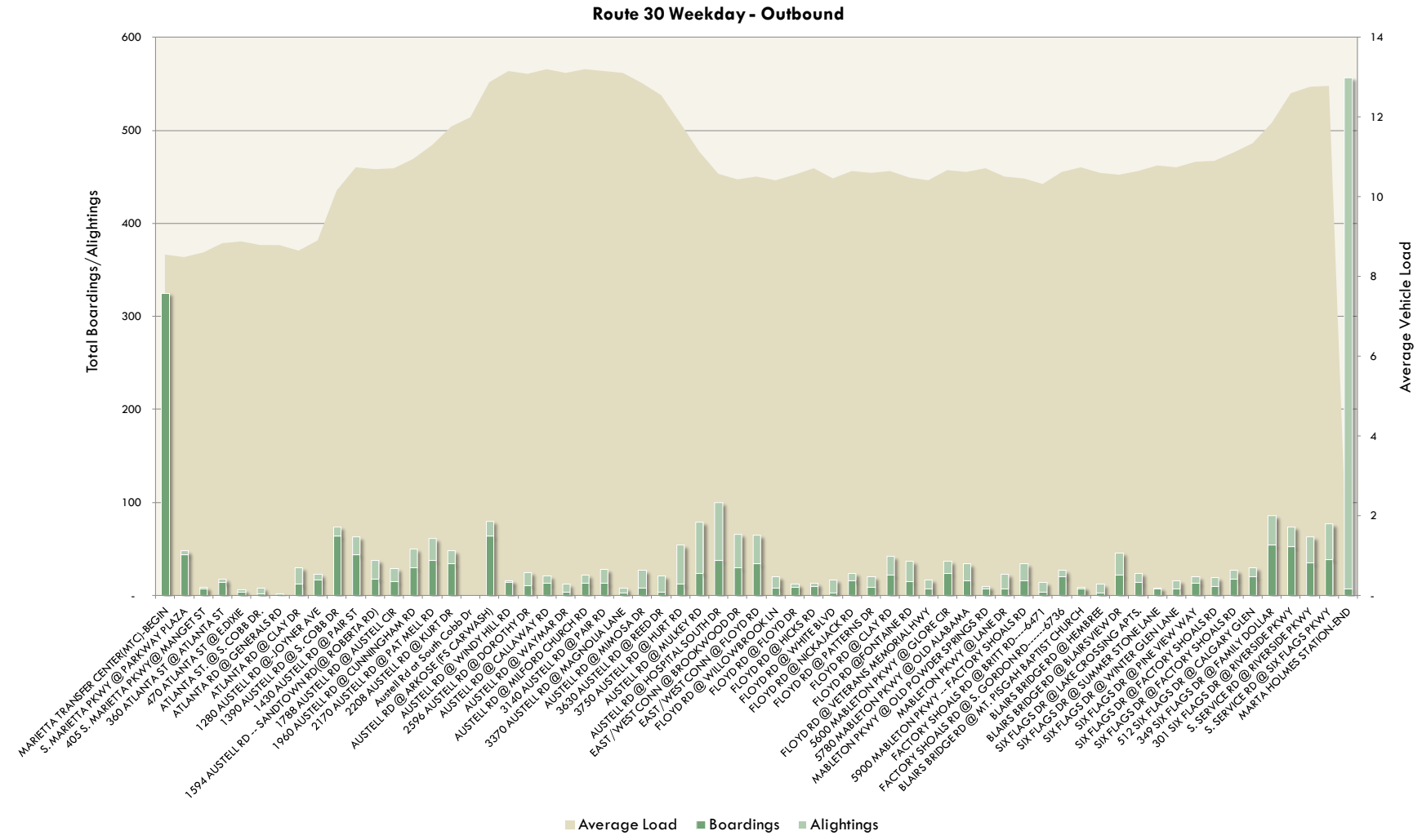
Service Snapshot

Operations and Service Requirements			
Weekday Service		**Saturday Service**	
Service Span	4:30 AM - 1:00 AM	***Service Span***	4:30 AM - 1:00 AM
Service Headway		***Service Headway***	
Peak	15	Peak	60
Base	30	Base	90
Service Provided		***Service Provided***	
Revenue Hours	124	Revenue Hours	47
Revenue Miles	2,190	Revenue Miles	661
Trips	94	Trips	28
Service Productivity			
Weekday Service		**Saturday Service**	
Riders		***Riders***	
Per Day	2,935	Per Day	1,651
Per Rev. Hour	24	Per Rev. Hour	35
Per Trip	31	Per Trip	59
On-Time Performance	51%	***On-Time Performance***	42%
Load Data		***Load Data***	
Average Load per Trip	10	Average Load per Trip	20
Average Max Load	15	Average Max Load	37
Max Load (Trip)	17	Max Load (Trip)	50
Cost			
Per Passenger	$2.52		
Subsidy per Passenger	$1.62		
Farebox Recovery	36%		

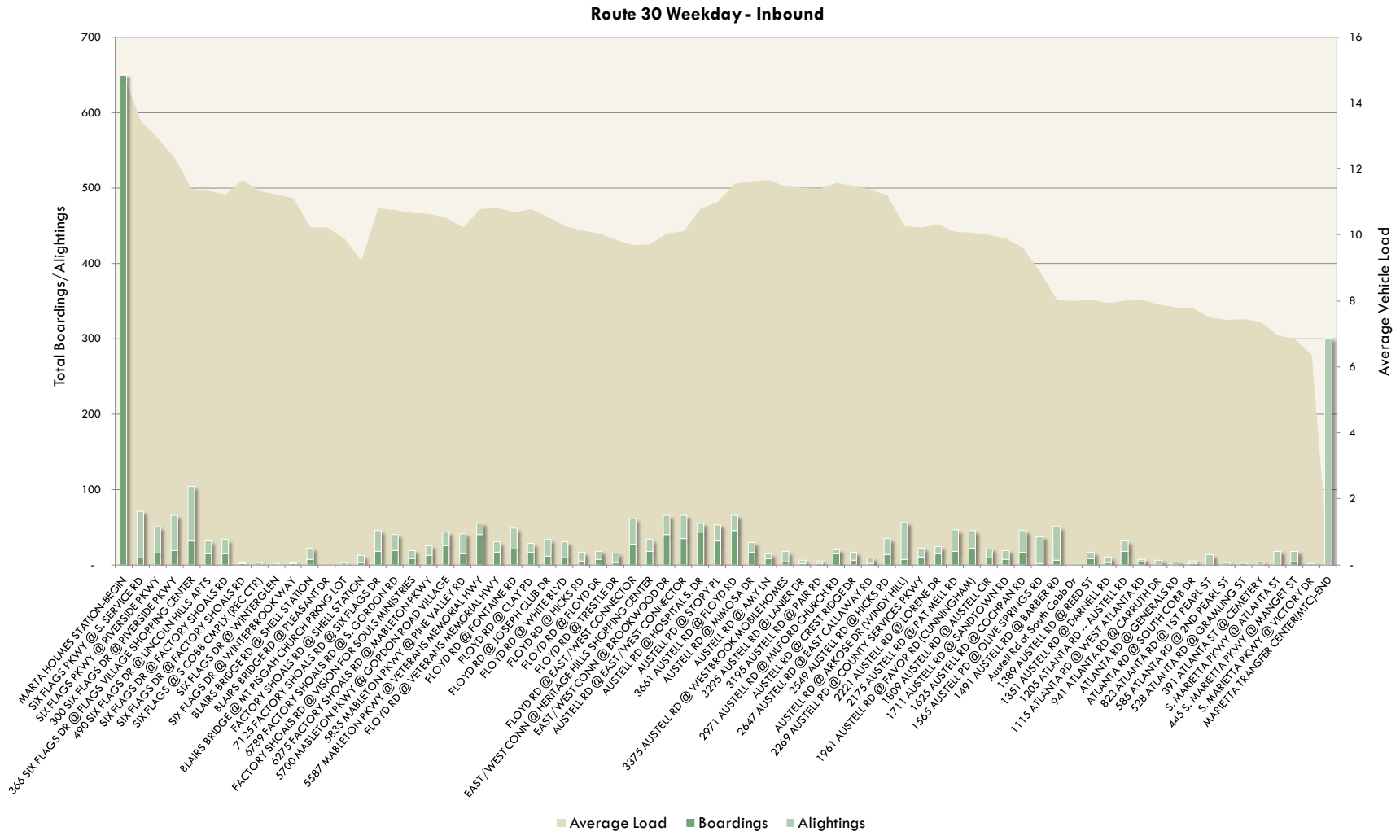
Weekday Ridership and Trips Provided by Time of Day



Daily Ridership Activity and Average Load Factors by Direction



Daily Ridership Activity and Average Load Factors by Direction

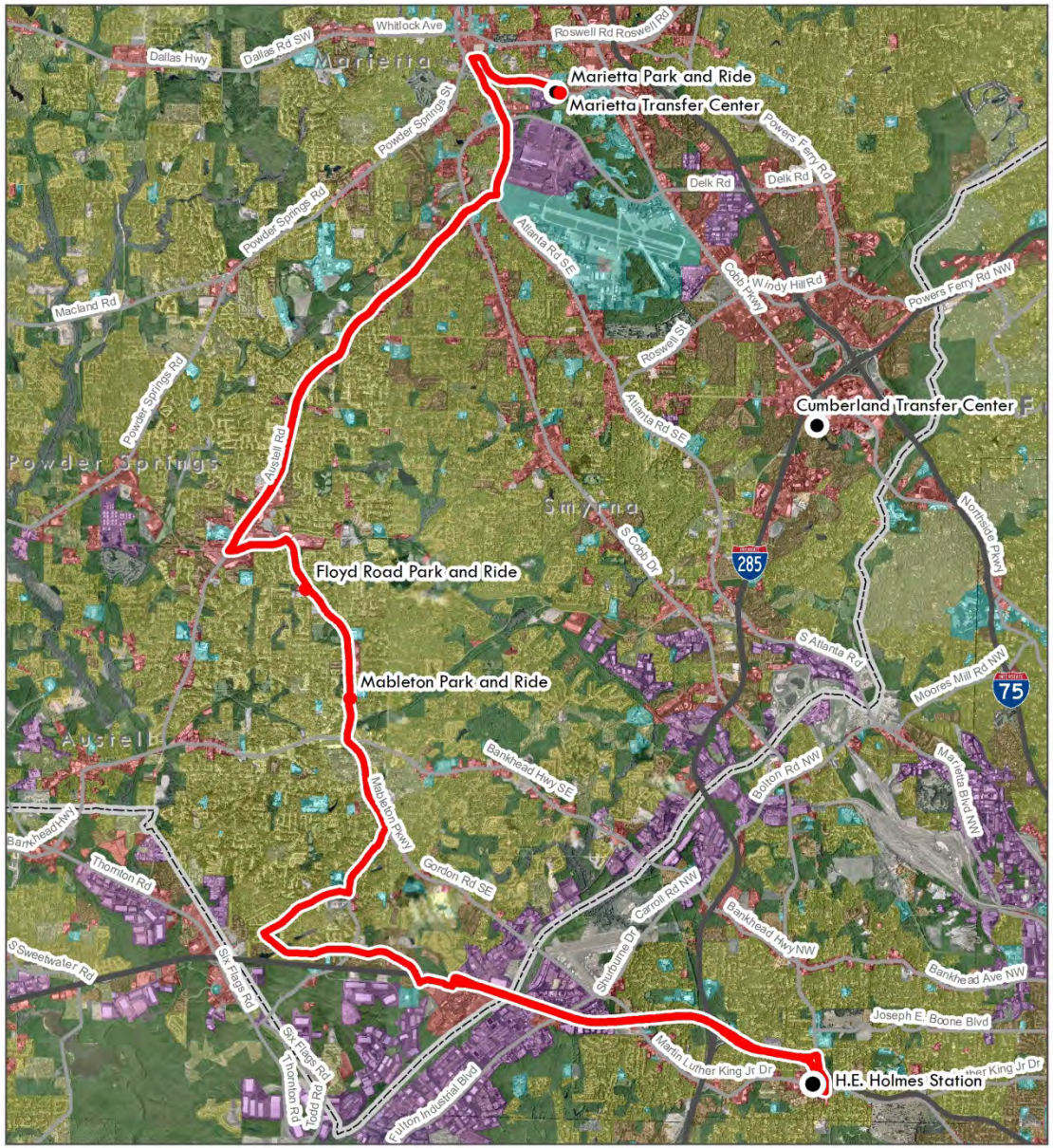


On-Time Performance by Timepoint by Direction

Route 30 Weekday

	Outbound				Inbound			
		Schedule Deviation (min)				Schedule Deviation (min)		
	Timepoint	Avg	Min	Max	Timepoint	Avg	Min	Max
AM Peak	Marietta Transfer Center	5.35	-0.30	10.48	MARTA Holmes Station	10.56	-4.15	39.20
	Austell Rd. & South Cobb Dr.	7.89	2.25	18.63	Six Flags	5.37	-8.28	31.20
	Austell Rd. & County Services Pkwy	9.19	3.92	16.52	S. Gordon Rd. & Factory Shoals Rd.	8.49	0.35	25.92
	Cobb Hospital	0.17	0.06	0.35	Floyd Rd. & Veterans Memorial Hwy	4.32	-2.23	14.48
	Floyd Rd. & Veterans Memorial Hwy	0.19	0.06	0.37	Cobb Hospital	5.25	-3.27	24.85
	S. Gordon Rd. & Factory Shoals Rd.	0.17	0.02	0.40	Austell Rd. & County Services Pkwy	4.83	-0.72	17.35
	Six Flags	0.27	0.11	0.42	Austell Rd. & South Cobb Dr.	6.85	0.18	19.75
	MARTA Holmes Station	0.64	0.02	7.30	Marietta Transfer Center	1.44	-7.22	15.38
Midday	Marietta Transfer Center	4.38	0.70	8.52	MARTA Holmes Station	10.97	0.18	31.40
	Austell Rd. & South Cobb Dr.	5.34	-0.43	11.35	Six Flags	3.53	-9.75	23.40
	Austell Rd. & County Services Pkwy	8.19	0.03	13.33	S. Gordon Rd. & Factory Shoals Rd.	6.93	-1.62	28.22
	Cobb Hospital	0.17	0.00	0.32	Floyd Rd. & Veterans Memorial Hwy	1.65	-10.87	25.38
	Floyd Rd. & Veterans Memorial Hwy	0.22	0.01	0.46	Cobb Hospital	3.53	-6.52	29.37
	S. Gordon Rd. & Factory Shoals Rd.	0.24	0.01	0.53	Austell Rd. & County Services Pkwy	3.56	-7.23	30.58
	Six Flags	0.25	0.00	0.59	Austell Rd. & South Cobb Dr.	5.45	-4.90	31.70
	MARTA Holmes Station	0.16	0.00	0.31	Marietta Transfer Center	-1.29	-13.38	26.92
PM Peak	Marietta Transfer Center	4.13	-1.22	11.70	MARTA Holmes Station	13.35	-0.08	29.00
	Austell Rd. & South Cobb Dr.	6.46	3.10	13.53	Six Flags	3.60	-8.08	14.38
	Austell Rd. & County Services Pkwy	9.23	3.55	16.72	S. Gordon Rd. & Factory Shoals Rd.	10.09	-2.18	19.30
	Cobb Hospital	0.19	0.04	0.34	Floyd Rd. & Veterans Memorial Hwy	4.21	-2.00	11.65
	Floyd Rd. & Veterans Memorial Hwy	0.23	0.08	0.42	Cobb Hospital	5.21	-2.40	11.13
	S. Gordon Rd. & Factory Shoals Rd.	0.24	0.05	0.45	Austell Rd. & County Services Pkwy	4.83	-2.52	11.77
	Six Flags	0.23	0.05	0.61	Austell Rd. & South Cobb Dr.	5.35	-1.83	10.78
	MARTA Holmes Station	2.58	0.08	19.30	Marietta Transfer Center	-2.29	-11.63	2.83
Evening	Marietta Transfer Center	4.95	-0.42	10.67	MARTA Holmes Station	9.20	-1.48	18.18
	Austell Rd. & South Cobb Dr.	5.14	1.15	9.20	Six Flags	0.95	-9.48	10.18
	Austell Rd. & County Services Pkwy	6.65	1.18	10.68	S. Gordon Rd. & Factory Shoals Rd.	6.34	-2.78	14.77
	Cobb Hospital	0.12	0.02	0.28	Floyd Rd. & Veterans Memorial Hwy	-2.20	-15.67	5.42
	Floyd Rd. & Veterans Memorial Hwy	0.12	0.01	0.23	Cobb Hospital	-1.48	-21.13	5.75
	S. Gordon Rd. & Factory Shoals Rd.	0.11	0.00	0.20	Austell Rd. & County Services Pkwy	-1.56	-12.77	6.13
	Six Flags	0.11	0.02	0.29	Austell Rd. & South Cobb Dr.	-0.43	-5.67	5.77
	MARTA Holmes Station	0.22	0.15	0.32	Marietta Transfer Center	-10.40	-15.75	-5.58

- Early *(more than 1 minute ahead of schedule)*
- On-Time *(between 1 minute early and 5 minutes late)*
- Late *(more than 5 minutes behind schedule)*



Route 30
Austell Road – Floyd Road – MARTA Holmes Station

Legend

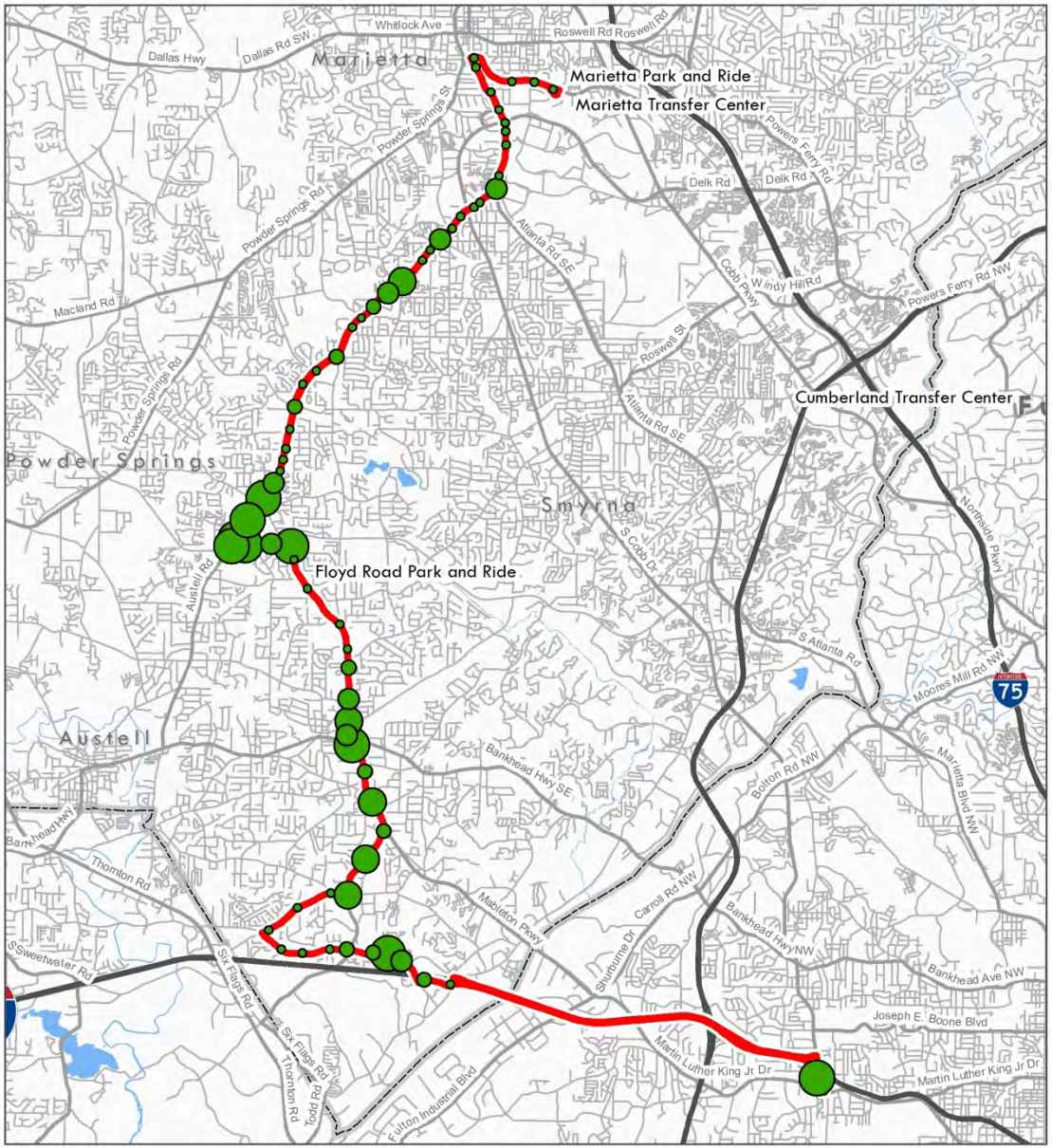
- Transfer Center
- Park and Ride Lot
- Route 10
- Expressways
- Major Roads
- Local Streets
- Industrial
- Commercial
- Low-Density Residential
- Medium-Density Residential
- High-Density Residential
- Forest, Parks, and Open Space
- Government / Institutional
- Undeveloped
- County Boundaries

SCALE IN MILES

0 0.5 1 2

N

August, 2011
Source: ARC; US Census



Route 30 -
Austell Road - Floyd Road -
MARTA Holmes Station
Inbound Boardings

Legend

Route 30 Inbound Boardings

- < 10
- 10 - 15
- 15 - 20
- 20 - 25
- > 25

Route 30

Expressways

Major Roads

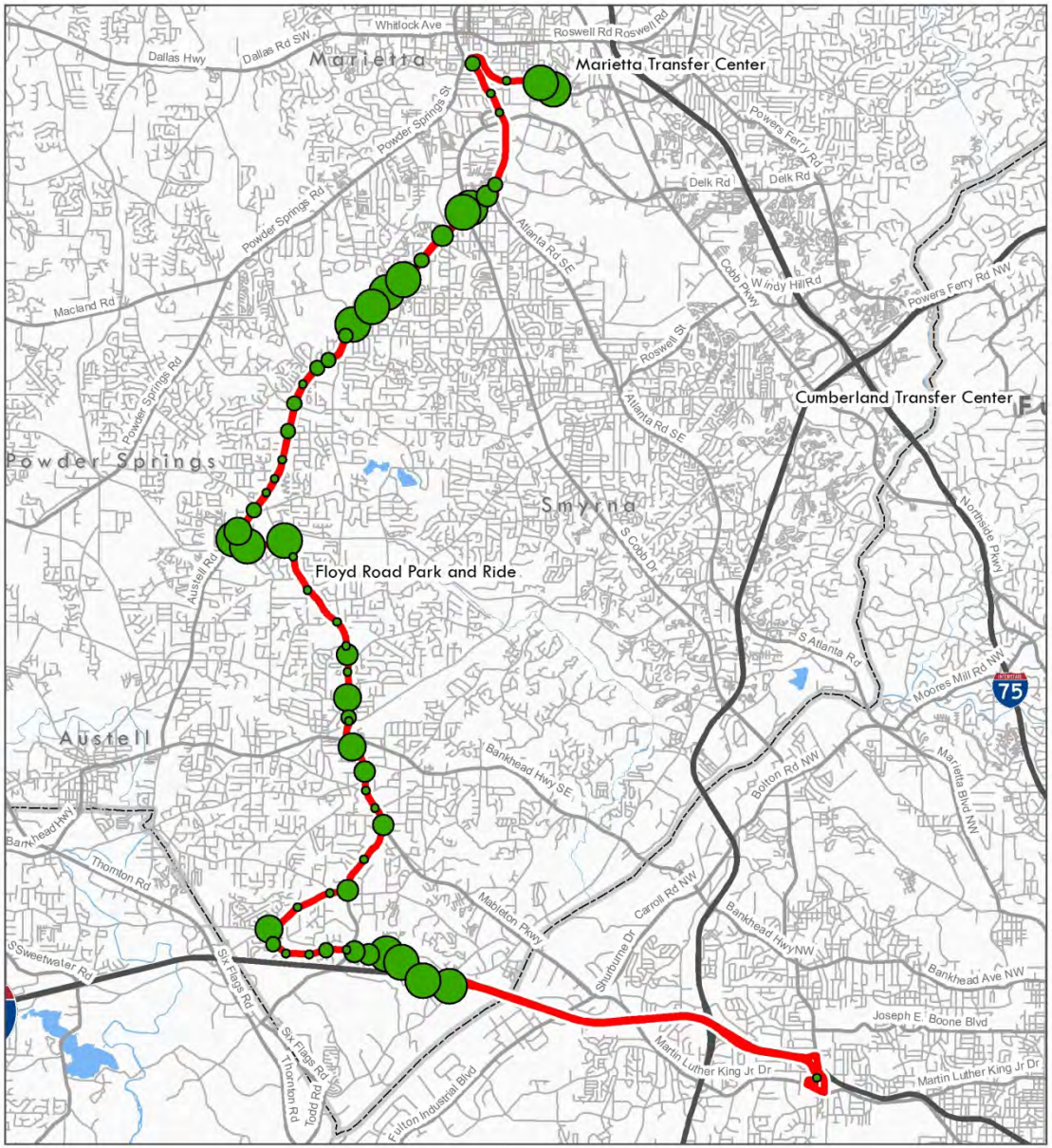
Local Streets

SCALE IN MILES

0 0.5 1 2

N

August, 2011
Source: ARC;
US Census



Route 30 -
Austell Road - Floyd Road -
MARTA Holmes Station
Outbound Boardings

Legend

Route 30 Outbound Boardings

- < 10
- 10 - 15
- 15 - 20
- 20 - 25
- > 25

Route 30
Expressways
Major Roads
Local Streets

SCALE IN MILES

0 0.5 1 2

N

August, 2011
Source: ARC;
US Census

#40 – Bells Ferry Road

Route Overview

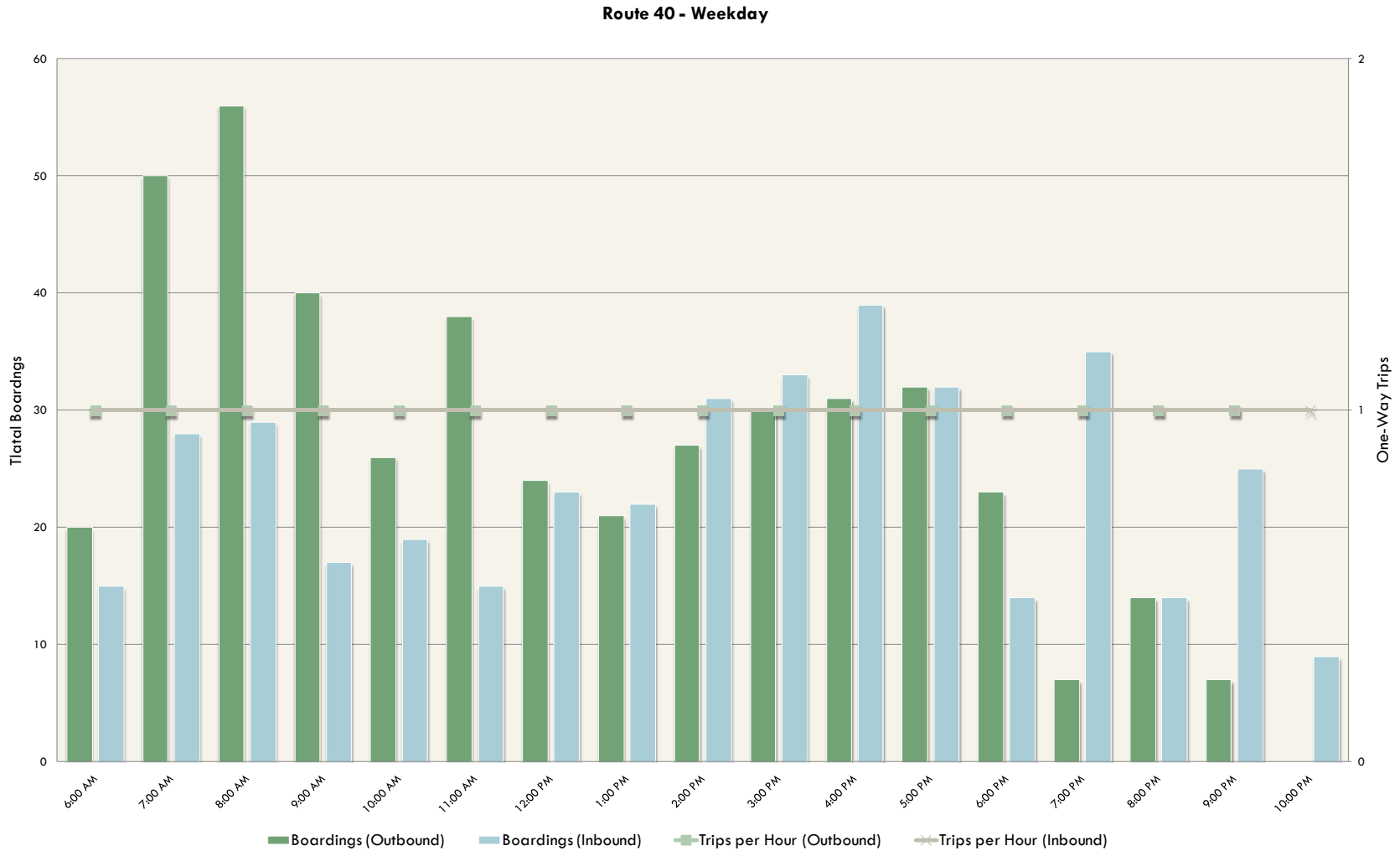
Route 40 provides north-south service between the Marietta Transfer Center and Kennesaw State University/Town Center Mall area along South Marietta Parkway, Church Street, Cherokee Street, Church Street Extension, Bells Ferry Road, Barrett Parkway, George Busbee Parkway and Frey Road. It carries over 800 riders per day and serves Kennestone Hospital.

The route has moderate ridership with high passenger loads. On-time performance is below the system average, especially on outbound trips in the AM and PM peak periods and inbound trips in the PM peak.

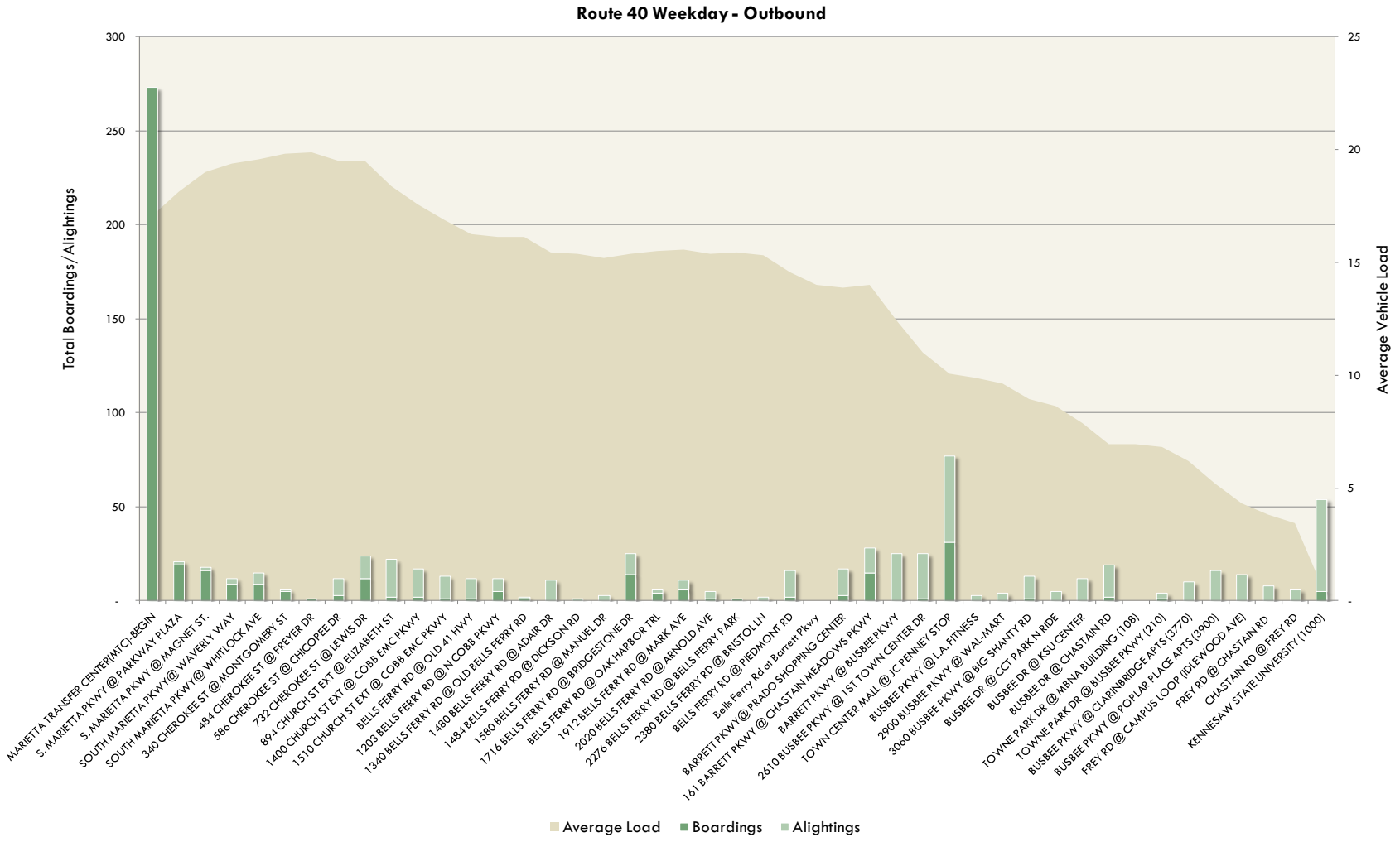
Service Snapshot

Operations and Service Requirements			
Weekday Service		**Saturday Service**	
Service Span	6:00 AM - 10:30 PM	***Service Span***	6:00 AM - 10:30 PM
Service Headway		***Service Headway***	
Peak	60	Peak	60
Base	60	Base	60
Service Provided		***Service Provided***	
Revenue Hours	32	Revenue Hours	28
Revenue Miles	442	Revenue Miles	375
Trips	33	Trips	28
Service Productivity			
Weekday Service		**Saturday Service**	
Riders		***Riders***	
Per Day	807	Per Day	497
Per Rev. Hour	25	Per Rev. Hour	18
Per Trip	24	Per Trip	18
On-Time Performance	39%	***On-Time Performance***	64%
Load Data		***Load Data***	
Average Load per Trip	12	Average Load per Trip	9
Average Max Load	25	Average Max Load	17
Max Load (Trip)	47	Max Load (Trip)	27
Cost			
Per Passenger	$2.56		
Subsidy per Passenger	$1.66		
Farebox Recovery	35%		

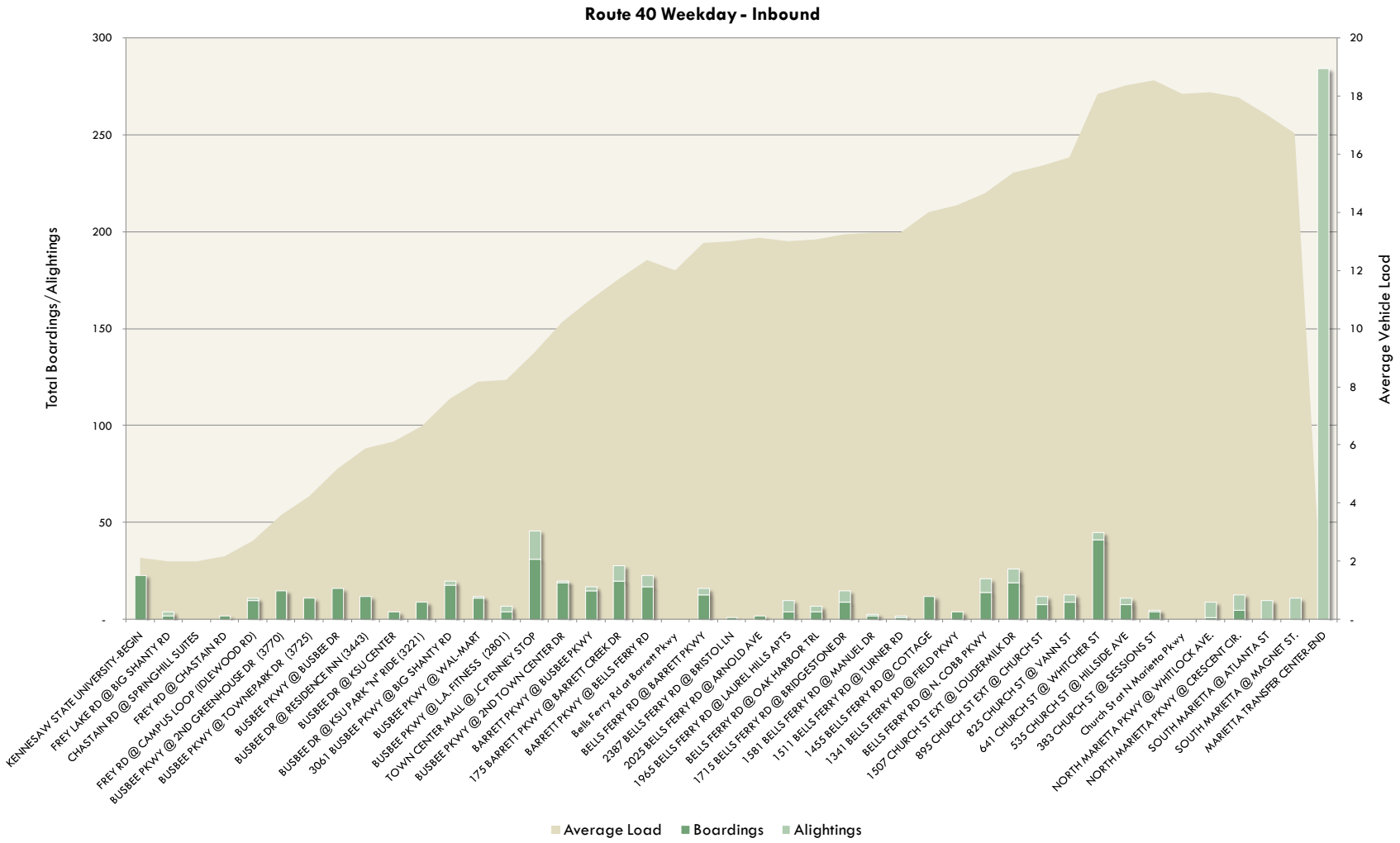
Weekday Ridership and Trips Provided by Time of Day



Daily Ridership Activity and Average Load Factors by Direction



Daily Ridership Activity and Average Load Factors by Direction

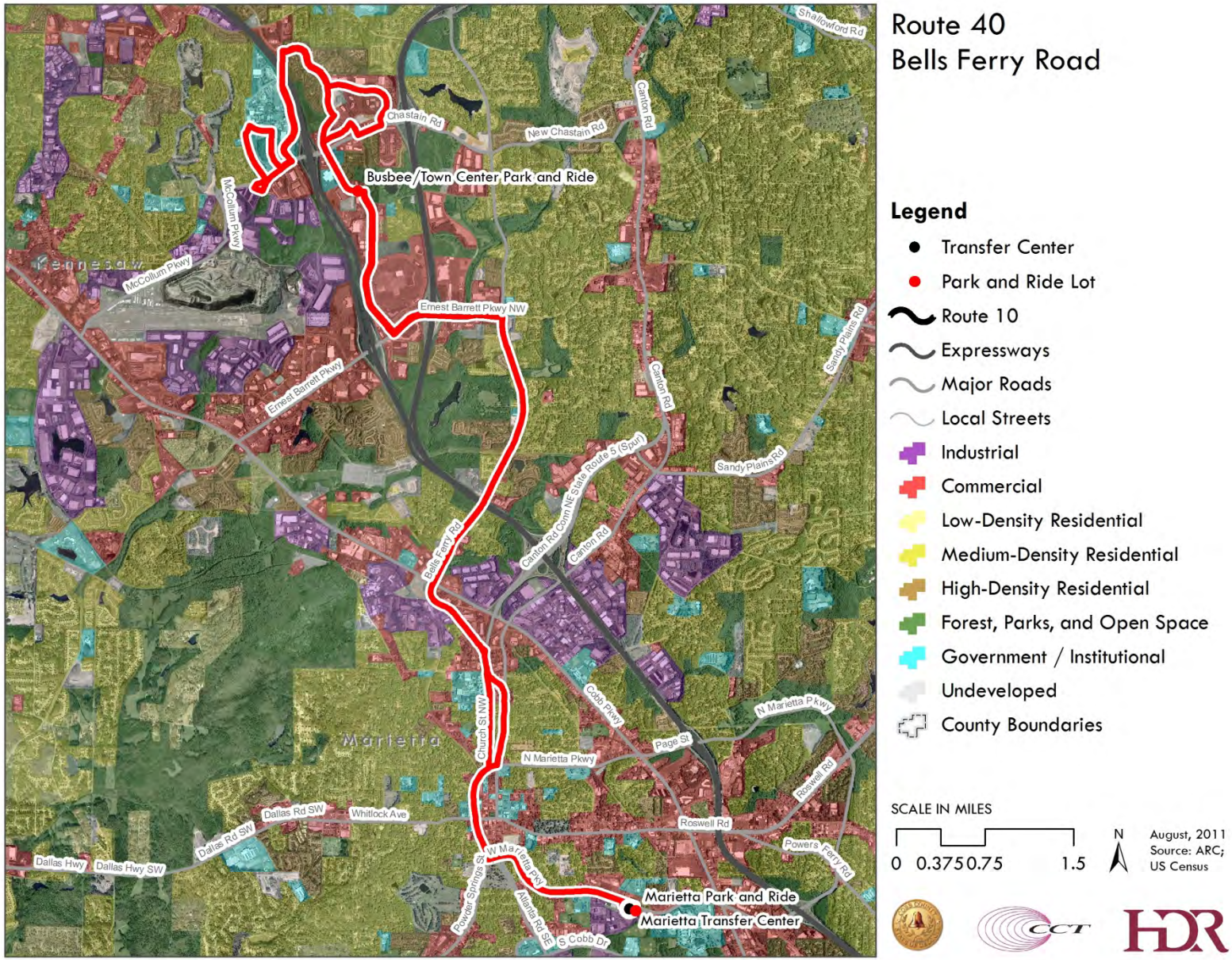


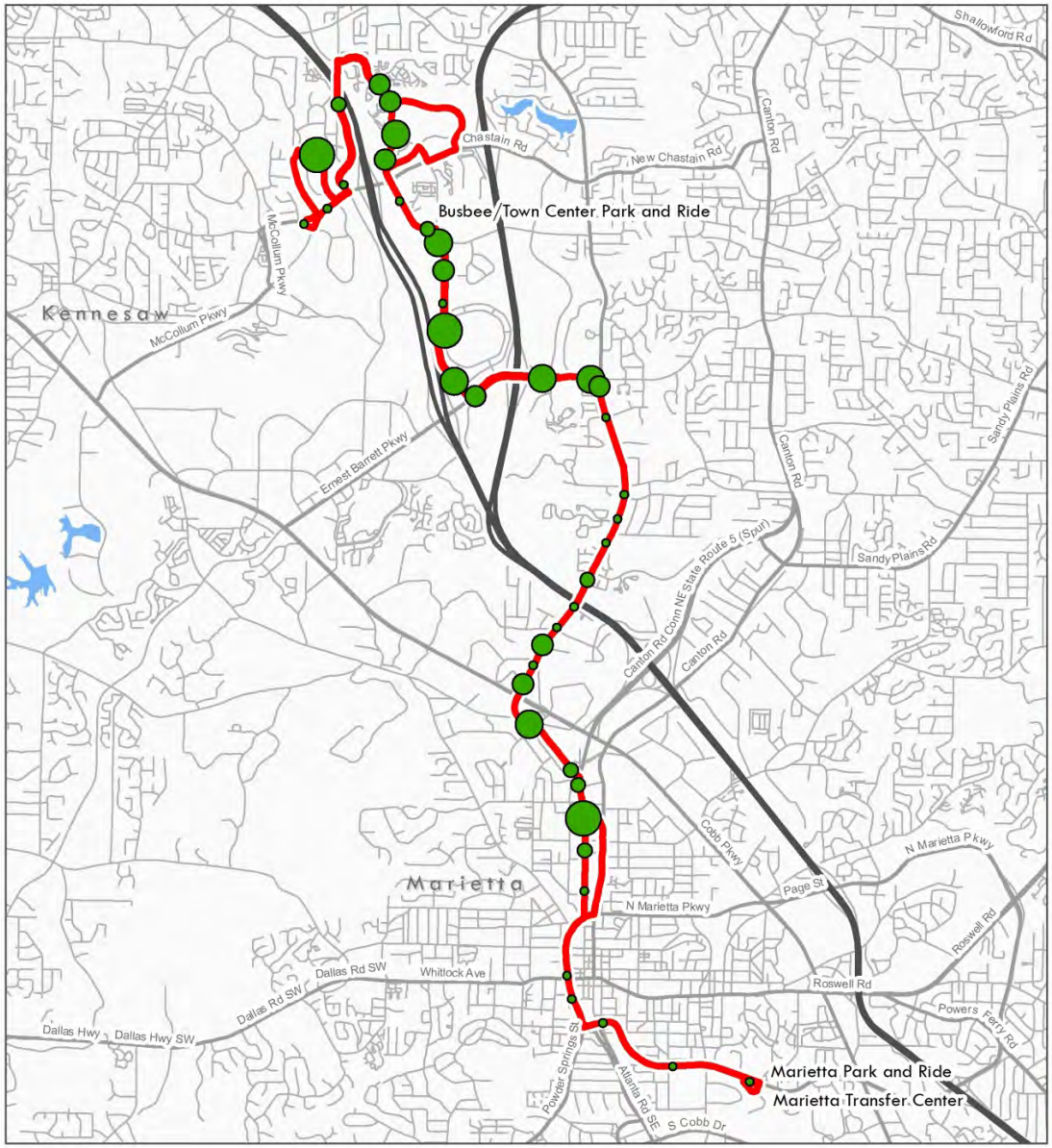
On-Time Performance by Timepoint by Direction

Route 40 Weekday

	Outbound				Inbound			
		Schedule Deviation (min)				Schedule Deviation (min)		
	Timepoint	Avg	Min	Max	Timepoint	Avg	Min	Max
AM Peak	Marietta Transfer Center	5.61	2.72	7.62	Kennesaw State University	4.71	2.13	7.05
	Cherokee St & North Marietta Pkwy	6.83	5.72	8.95	Town Center	4.04	2.23	5.93
	Kennestone Hospital	3.17	1.63	5.10	Bells Ferry Rd & Barrett Pkwy	4.17	3.15	6.00
	Bells Ferry Rd & Barrett Pkwy	5.03	4.73	5.33	Kennestone Hospital	6.55	4.78	9.63
	Town Center	3.93	2.33	5.22	Cherokee St & North Marietta Pkwy	4.46	2.82	7.18
	Kennesaw State University	-8.11	-11.33	-2.83	Marietta Transfer Center	-2.81	-4.65	0.60
Midday	Marietta Transfer Center	3.05	-1.85	7.87	Kennesaw State University	5.21	-2.98	12.12
	Cherokee St & North Marietta Pkwy	2.27	-3.00	6.60	Town Center	4.32	1.88	6.48
	Kennestone Hospital	0.99	-3.47	5.62	Bells Ferry Rd & Barrett Pkwy	5.14	2.07	10.73
	Bells Ferry Rd & Barrett Pkwy	2.57	-3.32	8.82	Kennestone Hospital	7.44	0.67	15.33
	Town Center	4.58	-0.58	10.50	Cherokee St & North Marietta Pkwy	6.24	-0.77	12.90
	Kennesaw State University	-5.97	-12.08	0.45	Marietta Transfer Center	-0.51	-8.65	8.98
PM Peak	Marietta Transfer Center	12.26	9.27	15.20	Kennesaw State University	-0.32	-2.98	2.33
	Cherokee St & North Marietta Pkwy	12.05	10.93	12.78	Town Center	4.98	4.28	5.67
	Kennestone Hospital	12.18	8.65	15.38	Bells Ferry Rd & Barrett Pkwy	6.33	6.17	6.48
	Bells Ferry Rd & Barrett Pkwy	15.33	9.95	24.48	Kennestone Hospital	11.28	9.98	12.58
	Town Center	18.22	14.17	26.95	Cherokee St & North Marietta Pkwy	10.69	8.72	12.67
	Kennesaw State University	12.42	4.45	23.03	Marietta Transfer Center	7.63	6.28	8.98
Evening	Marietta Transfer Center	3.39	1.80	6.40	Kennesaw State University	7.14	1.53	14.70
	Cherokee St & North Marietta Pkwy	4.58	1.80	9.97	Town Center	5.24	2.60	9.35
	Kennestone Hospital	2.55	-1.48	8.63	Bells Ferry Rd & Barrett Pkwy	7.31	2.57	14.25
	Bells Ferry Rd & Barrett Pkwy	3.69	1.57	7.20	Kennestone Hospital	7.80	2.18	16.23
	Town Center	5.83	1.75	11.98	Cherokee St & North Marietta Pkwy	6.16	-0.47	14.47
	Kennesaw State University	-6.18	-9.48	-1.72	Marietta Transfer Center	2.41	-1.67	8.17

- Early *(more than 1 minute ahead of schedule)*
- On-Time *(between 1 minute early and 5 minutes late)*
- Late *(more than 5 minutes behind schedule)*


Route 40
Bells Ferry Road
Legend
Transfer Center
Park and Ride Lot
Route 10
Expressways
Major Roads
Local Streets
Industrial
Commercial
Low-Density Residential
Medium-Density Residential
High-Density Residential
Forest, Parks, and Open Space
Government / Institutional
Undeveloped
County Boundaries
SCALE IN MILES
0 0.375 0.75 1.5
N
August, 2011
Source: ARC; US Census
Busbee/Town Center Park and Ride
Marietta Park and Ride
Marietta Transfer Center
Chastain Rd
New Chastain Rd
Canton Rd
Shallowford Rd
McCollum Pkwy
Ernest Barrett Pkwy NW
Ernest Barrett Pkwy
Sandy Plains Rd
Canton Rd Conn
Northside Route 5 (Spur)
Bells Ferry Rd
Cobb Pkwy
N Marietta Pkwy
Church St NW
Page St
Roswell Rd
Powers Ferry Rd
Dallas Rd SW
Whitlock Ave
Dallas Hwy
Dallas Hwy SW
W Marietta Pkwy
Powder Springs St
Atlanta Rd SE
S Cobb Dr
Marietta



Route 40 - Bells Ferry Road
Inbound Boardings

Legend

Route 40 Inbound Boardings

- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

Route 40

Expressways

Major Roads

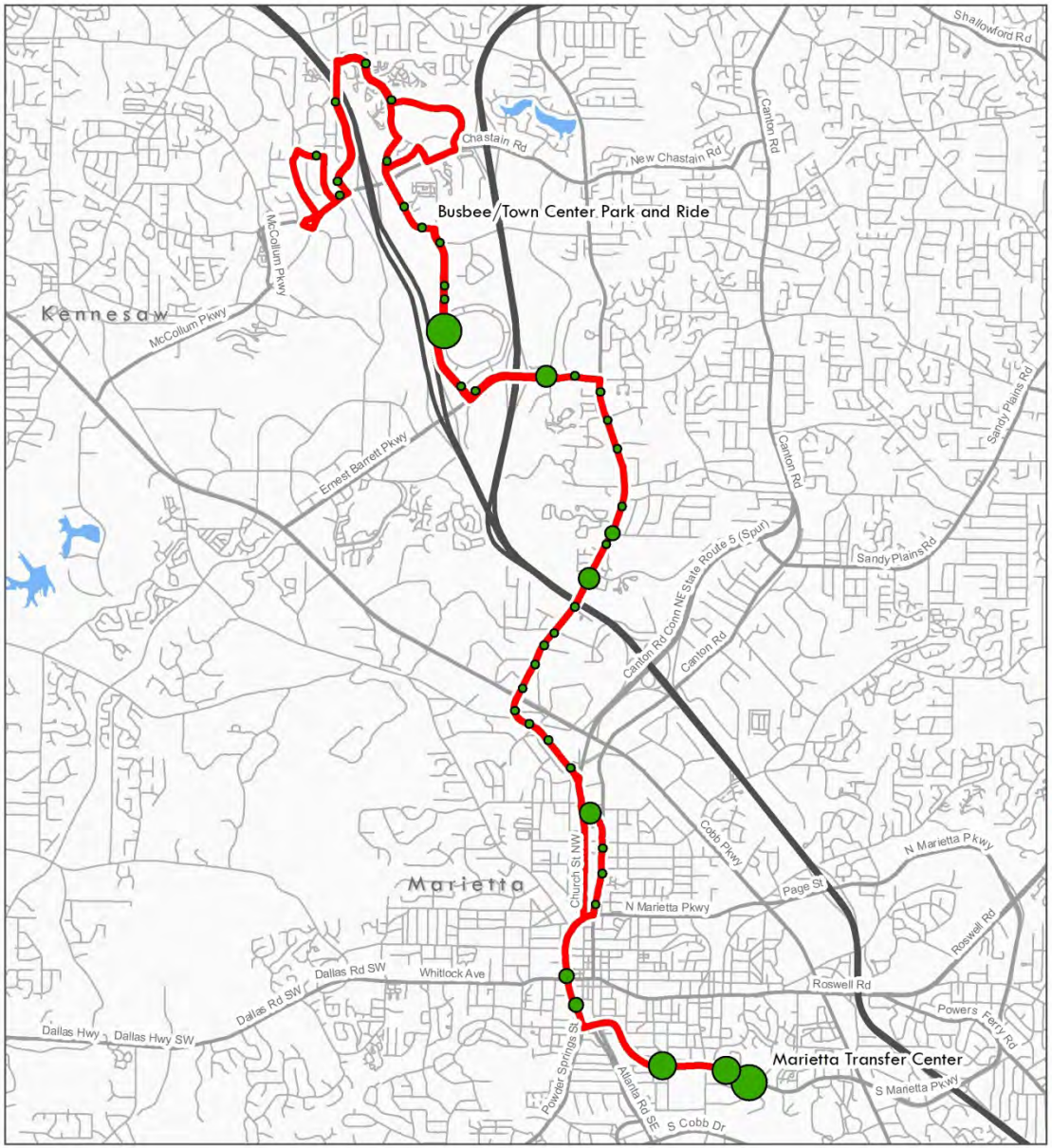
Local Streets

SCALE IN MILES

0 0.3750.75 1.5

N

August, 2011
Source: ARC;
US Census



Route 40 - Bells Ferry Road
Outbound Boardings

Legend

Route 40 Outbound Boardings

- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

Route 40
Expressways
Major Roads
Local Streets

SCALE IN MILES

0 0.3750.75 1.5

N

August, 2011
Source: ARC;
US Census

#45 – Barrett Parkway

Route Overview

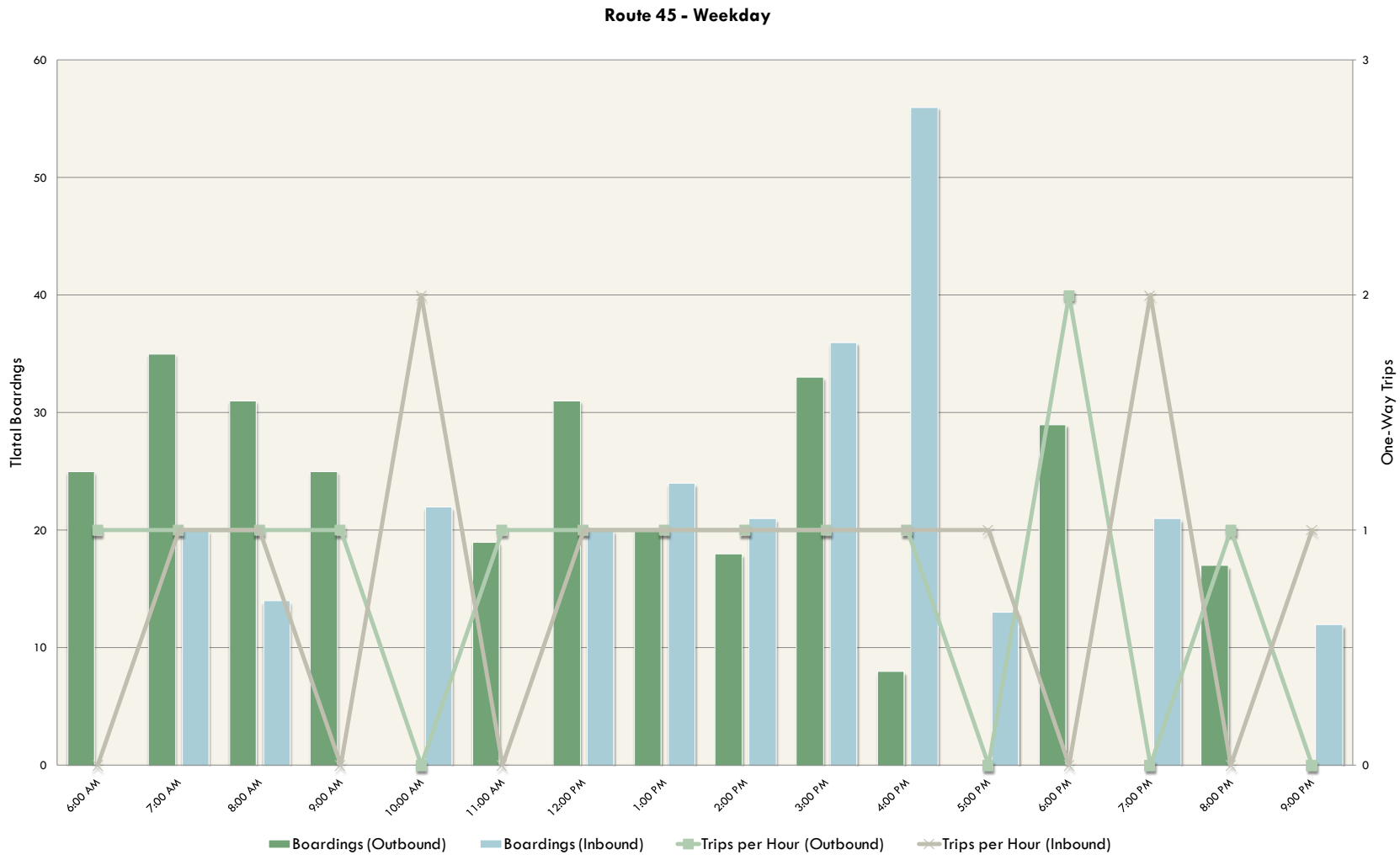
Route 45 provides north-south service between the Marietta Transfer Center and Kennesaw State University/Town Center Mall area along South Marietta Parkway, Fairground Street, Roswell Road, Church Street, Cherokee Street, North Marietta Parkway, Cobb Parkway, Barrett Parkway, Barrett Lakes Boulevard, Chastain Road and Chastain Meadows Parkway. The route carries over 500 riders per day and also serves Marietta Square.

The route is relatively long with long cycle times, which results in very poor on-time performance. The highest ridership occurs along Cobb Parkway, Barrett Parkway and at Kennesaw State University.

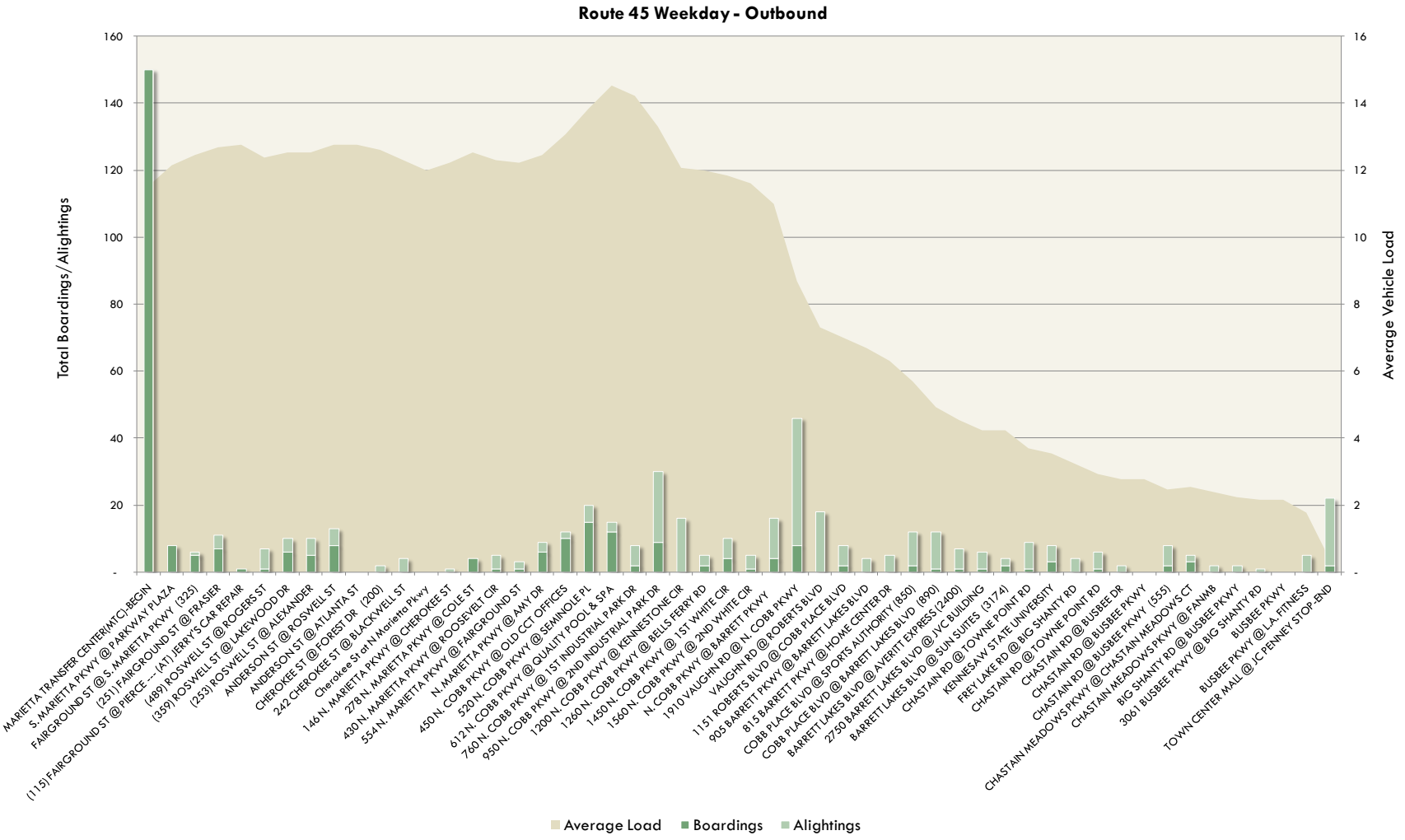
Service Snapshot

Operations and Service Requirements			
Weekday Service		**Saturday Service**	
Service Span	6:30 AM - 10:15 PM	***Service Span***	6:30 AM - 10:15 PM
Service Headway		***Service Headway***	
Peak	60	Peak	60
Base	90	Base	120
Service Provided		***Service Provided***	
Revenue Hours	29	Revenue Hours	28
Revenue Miles	442	Revenue Miles	397
Trips	26	Trips	20
Service Productivity			
Weekday Service		**Saturday Service**	
Riders		***Riders***	
Per Day	531	Per Day	294
Per Rev. Hour	18	Per Rev. Hour	11
Per Trip	20	Per Trip	15
On-Time Performance	31%	***On-Time Performance***	31%
Load Data		***Load Data***	
Average Load per Trip	9	Average Load per Trip	8
Average Max Load	24	Average Max Load	15
Max Load (Trip)	55	Max Load (Trip)	25
Cost			
Per Passenger	$3.66		
Subsidy per Passenger	$2.76		
Farebox Recovery	25%		

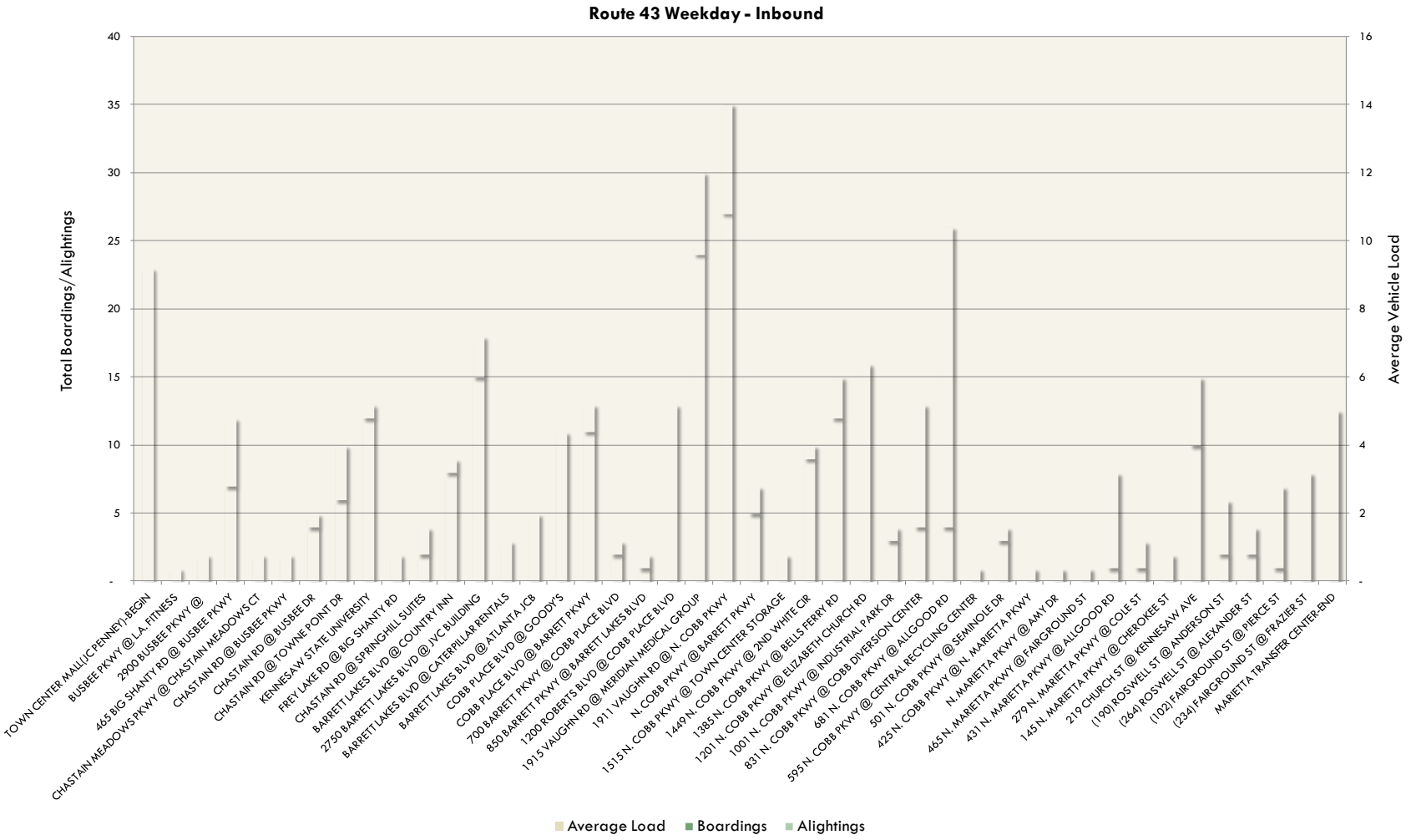
Weekday Ridership and Trips Provided by Time of Day



Daily Ridership Activity and Average Load Factors by Direction



Daily Ridership Activity and Average Load Factors by Direction

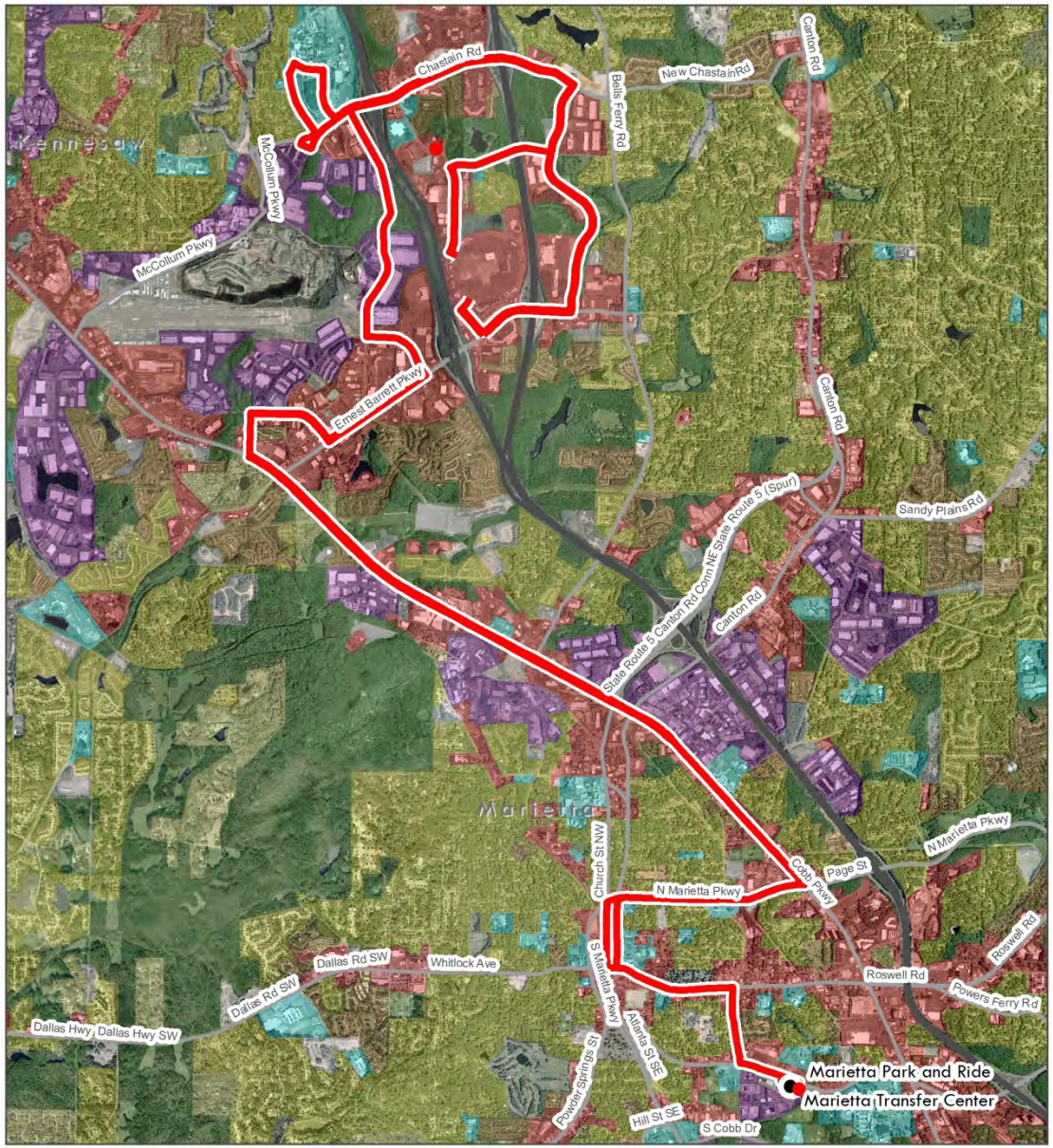


On-Time Performance by Timepoint by Direction

Route 45 Weekday

	Outbound				Inbound			
		Schedule Deviation (min)				Schedule Deviation (min)		
	Timepoint	Avg	Min	Max	Timepoint	Avg	Min	Max
AM Peak	Marietta Transfer Center	7.06	6.20	7.55	Town Center Mall	2.91	0.90	4.92
	Cherokee Street & North Marietta Parkway	1.53	0.62	2.63	Kennesaw State University	6.03	4.32	7.73
	N. Cobb Parkway & Bells Ferry Road	2.37	0.00	0.00	North Cobb Parkway & Vaughn Road	2.57	-0.30	5.45
	North Cobb Parkway & Vaughn Road	0.41	-0.23	1.55	N. Cobb Parkway & Bells Ferry Road	0.33	-1.13	1.78
	Kennesaw State University	1.87	-1.22	3.67	Cherokee Street & North Marietta Parkway	4.50	3.42	5.58
	Town Center Mall	-1.02	-6.63	3.62	Marietta Transfer Center	-0.33	-0.68	0.02
Midday	Marietta Transfer Center	7.59	5.37	11.25	Town Center Mall	-0.07	-2.08	2.58
	Cherokee Street & North Marietta Parkway	6.46	2.92	12.05	Kennesaw State University	7.01	1.37	11.48
	N. Cobb Parkway & Bells Ferry Road	8.89	-0.65	27.70	North Cobb Parkway & Vaughn Road	5.18	-4.05	13.13
	North Cobb Parkway & Vaughn Road	6.04	-3.32	24.08	N. Cobb Parkway & Bells Ferry Road	4.09	-4.93	9.63
	Kennesaw State University	6.60	-2.03	21.38	Cherokee Street & North Marietta Parkway	7.33	0.23	15.62
	Town Center Mall	2.94	-0.57	7.27	Marietta Transfer Center	2.23	-6.85	13.02
PM Peak	Marietta Transfer Center	11.14	2.45	28.05	Town Center Mall	4.34	-1.12	13.53
	Cherokee Street & North Marietta Parkway	9.97	0.07	30.67	Kennesaw State University	8.13	-2.15	19.78
	N. Cobb Parkway & Bells Ferry Road	9.98	-1.97	28.28	North Cobb Parkway & Vaughn Road	14.97	4.83	28.35
	North Cobb Parkway & Vaughn Road	7.66	-5.02	26.38	N. Cobb Parkway & Bells Ferry Road	15.38	2.33	35.20
	Kennesaw State University	8.55	-7.32	26.80	Cherokee Street & North Marietta Parkway	17.48	2.22	33.75
	Town Center Mall	11.20	-0.85	25.07	Marietta Transfer Center	11.29	-6.13	31.45
Evening	Marietta Transfer Center	22.65	22.65	22.65	Town Center Mall	11.97	-3.22	23.52
	Cherokee Street & North Marietta Parkway	18.18	18.18	18.18	Kennesaw State University	16.76	0.07	26.62
	N. Cobb Parkway & Bells Ferry Road	18.32	18.32	18.32	North Cobb Parkway & Vaughn Road	19.93	0.47	32.63
	North Cobb Parkway & Vaughn Road	15.23	15.23	15.23	N. Cobb Parkway & Bells Ferry Road	20.04	-3.83	37.83
	Kennesaw State University	18.68	18.68	18.68	Cherokee Street & North Marietta Parkway	18.04	-5.62	33.02
	Town Center Mall	23.25	23.25	23.25	Marietta Transfer Center	13.09	-9.00	28.33

- Early *(more than 1 minute ahead of schedule)*
- On-Time *(between 1 minute early and 5 minutes late)*
- Late *(more than 5 minutes behind schedule)*



Route 45
Barrett Parkway

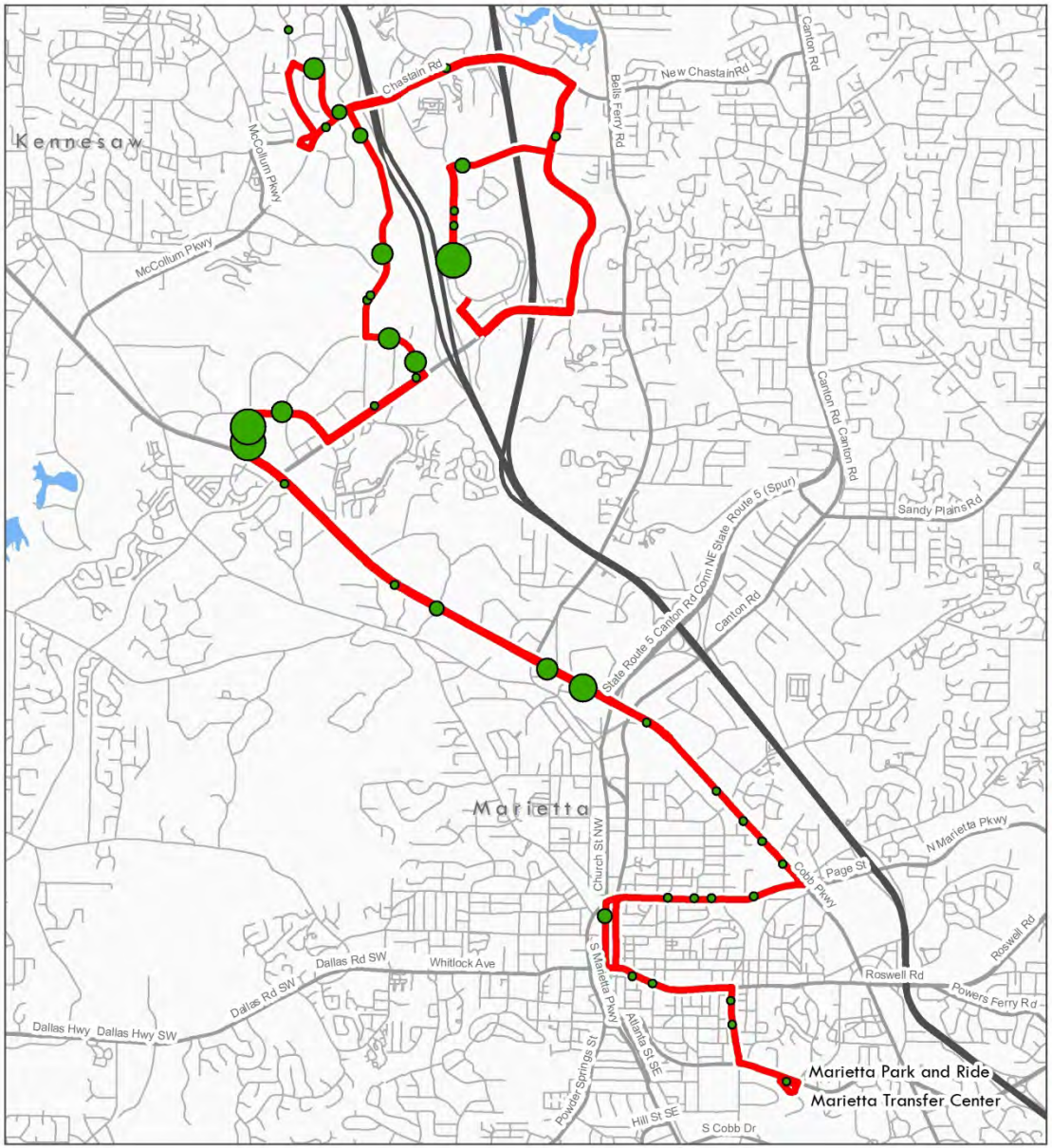
Legend

- Transfer Center
- Park and Ride Lot
- Route 10
- Expressways
- Major Roads
- Local Streets
- Industrial
- Commercial
- Low-Density Residential
- Medium-Density Residential
- High-Density Residential
- Forest, Parks, and Open Space
- Government / Institutional
- Undeveloped
- County Boundaries

SCALE IN MILES

0 0.375 0.75 1.5 N

August, 2011
Source: ARC; US Census



Route 45 - Barrett Parkway
Inbound Boardings

Legend

Route 45 Inbound Boardings

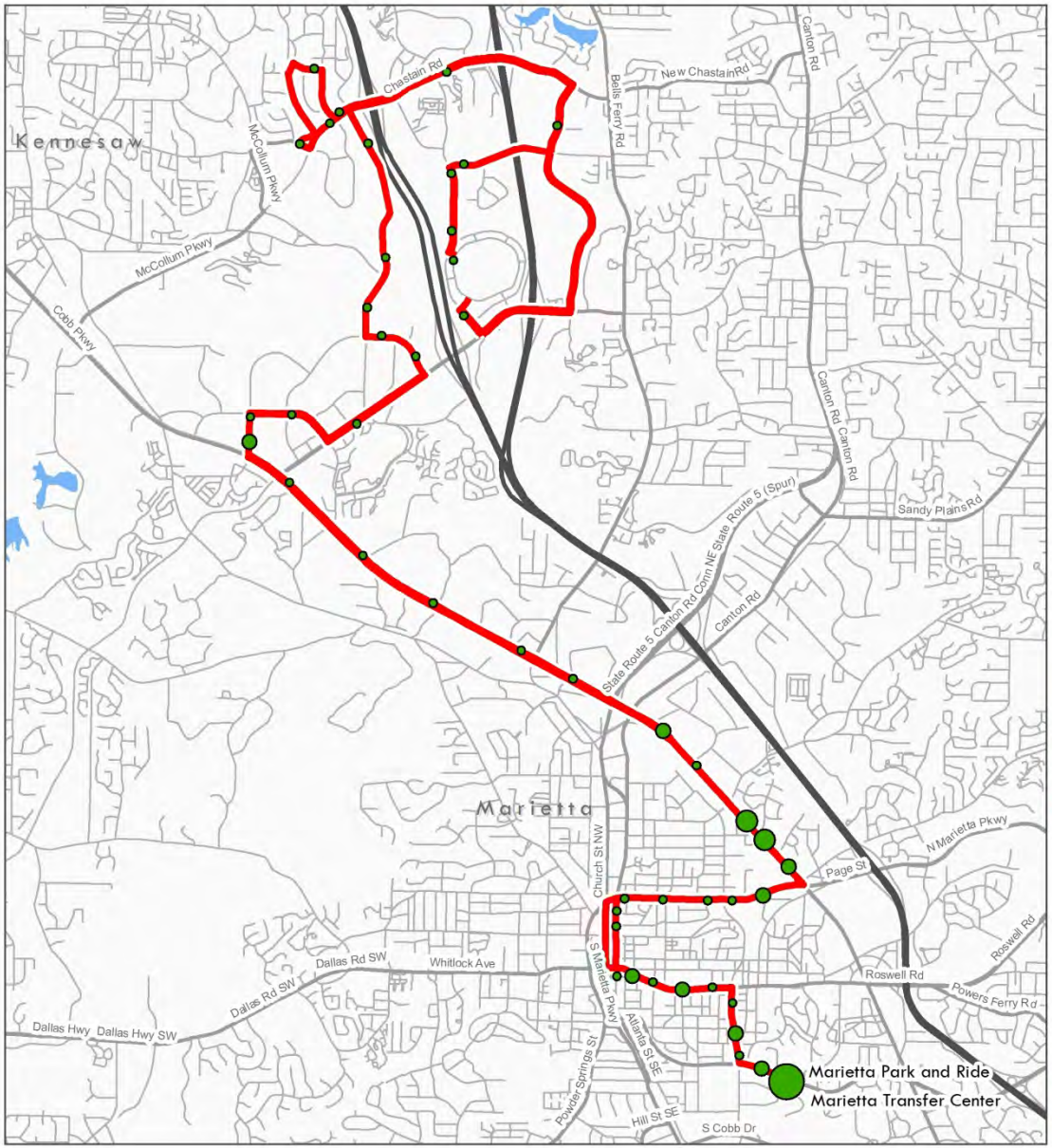
- < 5
- 5 - 10
- 10 -15
- 15 - 20
- > 20

Route 45
Expressways
Major Roads
Local Streets

SCALE IN MILES

0 0.375 0.75 1.5 N

August, 2011
Source: ARC;
US Census



Route 45 - Barrett Parkway Outbound Boardings

Legend

Route 45 Outbound Boardings

- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20
- Route 45
- Expressways
- Major Roads
- Local Streets

SCALE IN MILES

0 0.375 0.75 1.5 N

August, 2011
Source: ARC; US Census

#50 – Powers Ferry Road

Route Overview

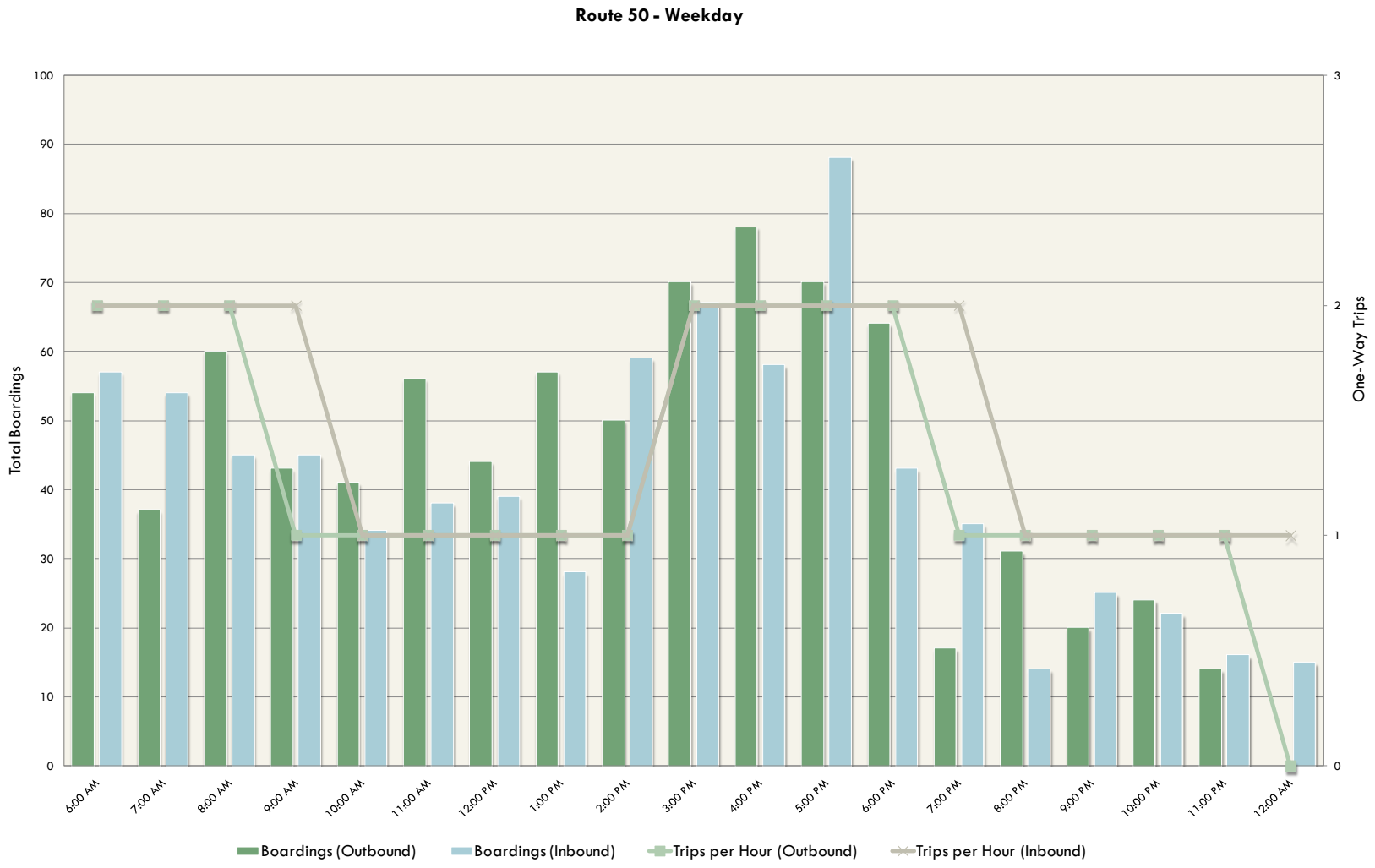
Route 50 is provides north-south service between the Marietta Transfer Center and Cumberland Transfer Center along South Marietta Parkway, Fairground Street, Cobb Parkway, Franklin Road, Delk Road, Powers Ferry Road, Cumberland Boulevard, Cobb Galleria Parkway and Akers Mill Road. It carries over 1,400 riders per day and serves Parkway Center, Wildwood and Overton Park, and the Galleria area.

The routing is circuitous along Fairground Street and Cobb Parkway. The route has strong ridership activity along Cobb Parkway and Franklin Road segments with ridership dropping off considerably during the late evening period. On-time performance is above average compared to the system with room for improvement during all service periods.

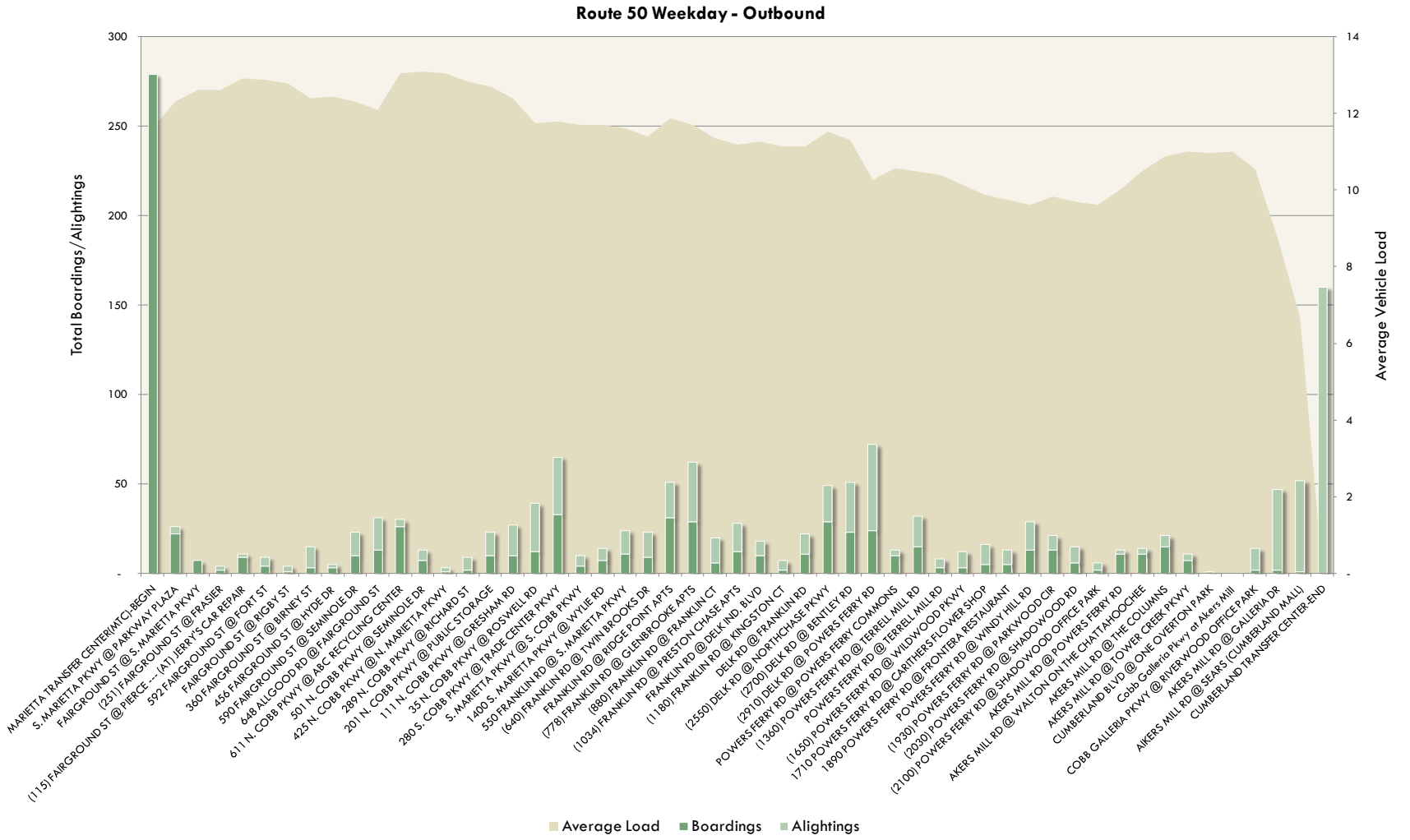
Service Snapshot

Operations and Service Requirements			
Weekday Service		**Saturday Service**	
Service Span	6:00 AM - 1:00 AM	***Service Span***	6:00 AM - 1:00 AM
Service Headway		***Service Headway***	
Peak	30	Peak	60
Base	60	Base	60
Service Provided		***Service Provided***	
Revenue Hours	52	Revenue Hours	31
Revenue Miles	688	Revenue Miles	390
Trips	53	Trips	30
Service Productivity			
Weekday Service		**Saturday Service**	
Riders		***Riders***	
Per Day	1,484	Per Day	980
Per Rev. Hour	29	Per Rev. Hour	32
Per Trip	28	Per Trip	33
On-Time Performance	58%	***On-Time Performance***	60%
Load Data		***Load Data***	
Average Load per Trip	10	Average Load per Trip	10
Average Max Load	26	Average Max Load	22
Max Load (Trip)	41	Max Load (Trip)	34
Cost			
Per Passenger	$2.14		
Subsidy per Passenger	$1.23		
Farebox Recovery	42%		

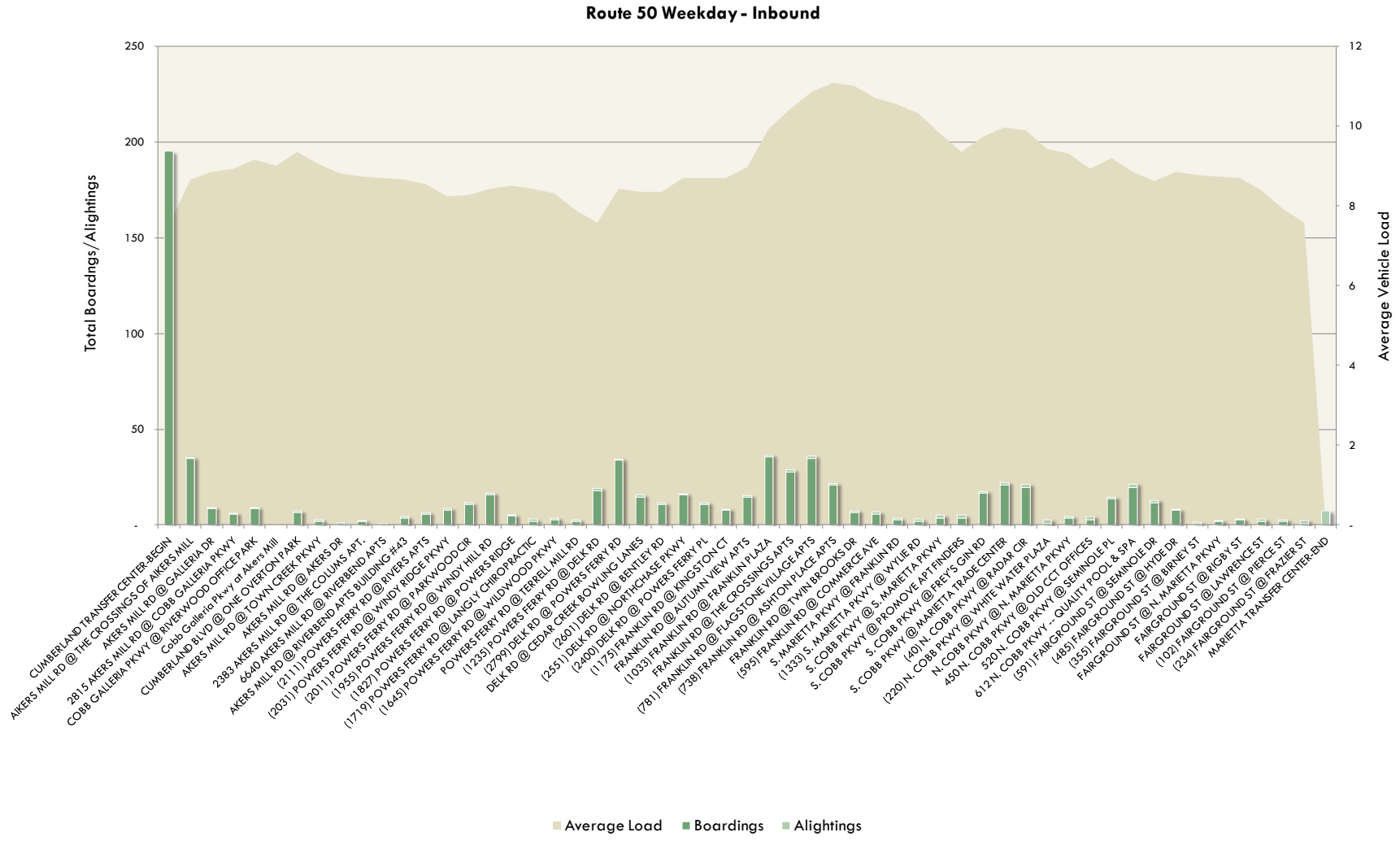
Weekday Ridership and Trips Provided by Time of Day



Daily Ridership Activity and Average Load Factors by Direction



Daily Ridership Activity and Average Load Factors by Direction

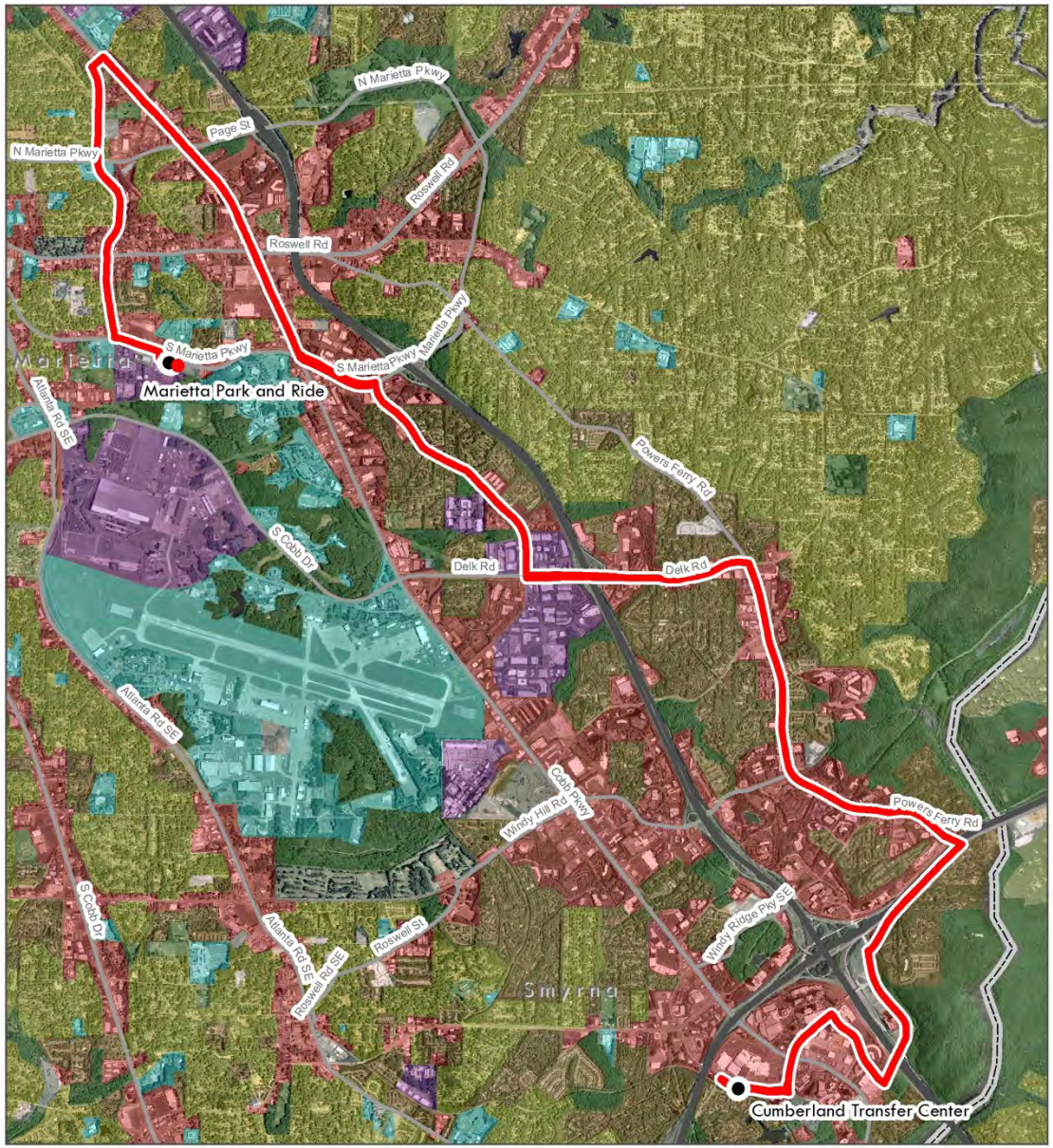


On-Time Performance by Timepoint by Direction

Route 50 Weekday

	Outbound				Inbound			
		Schedule Deviation (min)				Schedule Deviation (min)		
	Timepoint	Avg	Min	Max	Timepoint	Avg	Min	Max
AM Peak	Marietta Transfer Center	7.67	1.52	19.12	Cumberland Blvd. Transfer Center	3.92	1.50	6.27
	White Water	8.93	5.02	15.62	Cobb Galleria & Akers Mill	4.62	2.18	7.27
	S. Marietta Pkwy. & Franklin Rd.	5.25	2.65	9.55	Powers Ferry Rd. & Windy Hill Rd.	9.84	4.32	15.83
	Delk Rd. & Powers Ferry Rd.	-0.99	-9.03	2.88	Delk Rd. & Powers Ferry Rd.	11.36	4.33	17.73
	Powers Ferry Rd. & Windy Hill Rd.	1.94	-0.43	6.87	S. Marietta Pkwy. & Franklin Rd.	8.62	-0.38	19.08
	Cobb Galleria & Akers Mill	3.88	0.18	9.88	White Water	3.00	-4.87	12.88
	Cumberland Blvd. Transfer Center	4.86	-0.63	10.35	Marietta Transfer Center	2.62	-5.92	16.70
Midday	Marietta Transfer Center	7.82	2.98	10.75	Cumberland Blvd. Transfer Center	5.83	0.45	17.90
	White Water	11.46	8.30	13.82	Cobb Galleria & Akers Mill	7.25	2.95	19.75
	S. Marietta Pkwy. & Franklin Rd.	11.56	8.75	15.67	Powers Ferry Rd. & Windy Hill Rd.	9.83	3.63	18.53
	Delk Rd. & Powers Ferry Rd.	5.04	-1.95	12.12	Delk Rd. & Powers Ferry Rd.	12.00	5.23	24.13
	Powers Ferry Rd. & Windy Hill Rd.	7.01	1.75	15.25	S. Marietta Pkwy. & Franklin Rd.	9.12	2.85	19.20
	Cobb Galleria & Akers Mill	6.68	1.75	14.40	White Water	3.43	-2.22	15.00
	Cumberland Blvd. Transfer Center	10.11	5.93	18.18	Marietta Transfer Center	2.36	-3.07	12.60
PM Peak	Marietta Transfer Center	8.01	4.12	18.25	Cumberland Blvd. Transfer Center	6.38	2.13	18.28
	White Water	9.50	5.53	20.42	Cobb Galleria & Akers Mill	8.04	1.67	20.58
	S. Marietta Pkwy. & Franklin Rd.	9.10	4.55	20.83	Powers Ferry Rd. & Windy Hill Rd.	11.67	7.28	26.10
	Delk Rd. & Powers Ferry Rd.	3.20	-1.98	13.68	Delk Rd. & Powers Ferry Rd.	15.76	9.15	29.68
	Powers Ferry Rd. & Windy Hill Rd.	5.42	-0.27	15.20	S. Marietta Pkwy. & Franklin Rd.	11.16	4.88	27.37
	Cobb Galleria & Akers Mill	4.77	-1.07	14.57	White Water	7.93	-0.67	22.95
	Cumberland Blvd. Transfer Center	10.39	1.37	24.62	Marietta Transfer Center	7.58	-3.68	25.77
Evening	Marietta Transfer Center	4.72	0.83	8.42	Cumberland Blvd. Transfer Center	3.13	0.52	11.72
	White Water	9.35	3.05	17.00	Cobb Galleria & Akers Mill	5.50	2.67	11.97
	S. Marietta Pkwy. & Franklin Rd.	7.65	1.50	16.43	Powers Ferry Rd. & Windy Hill Rd.	8.78	5.15	13.85
	Delk Rd. & Powers Ferry Rd.	0.60	-6.00	5.83	Delk Rd. & Powers Ferry Rd.	9.56	6.27	12.83
	Powers Ferry Rd. & Windy Hill Rd.	1.99	0.28	5.92	S. Marietta Pkwy. & Franklin Rd.	4.13	1.18	7.15
	Cobb Galleria & Akers Mill	0.29	-1.03	3.17	White Water	-0.14	-4.70	2.37
	Cumberland Blvd. Transfer Center	3.93	-0.02	7.08	Marietta Transfer Center	-1.31	-3.35	1.10

- Early *(more than 1 minute ahead of schedule)*
- On-Time *(between 1 minute early and 5 minutes late)*
- Late *(more than 5 minutes behind schedule)*



Route 50
Powers Ferry Road

Legend

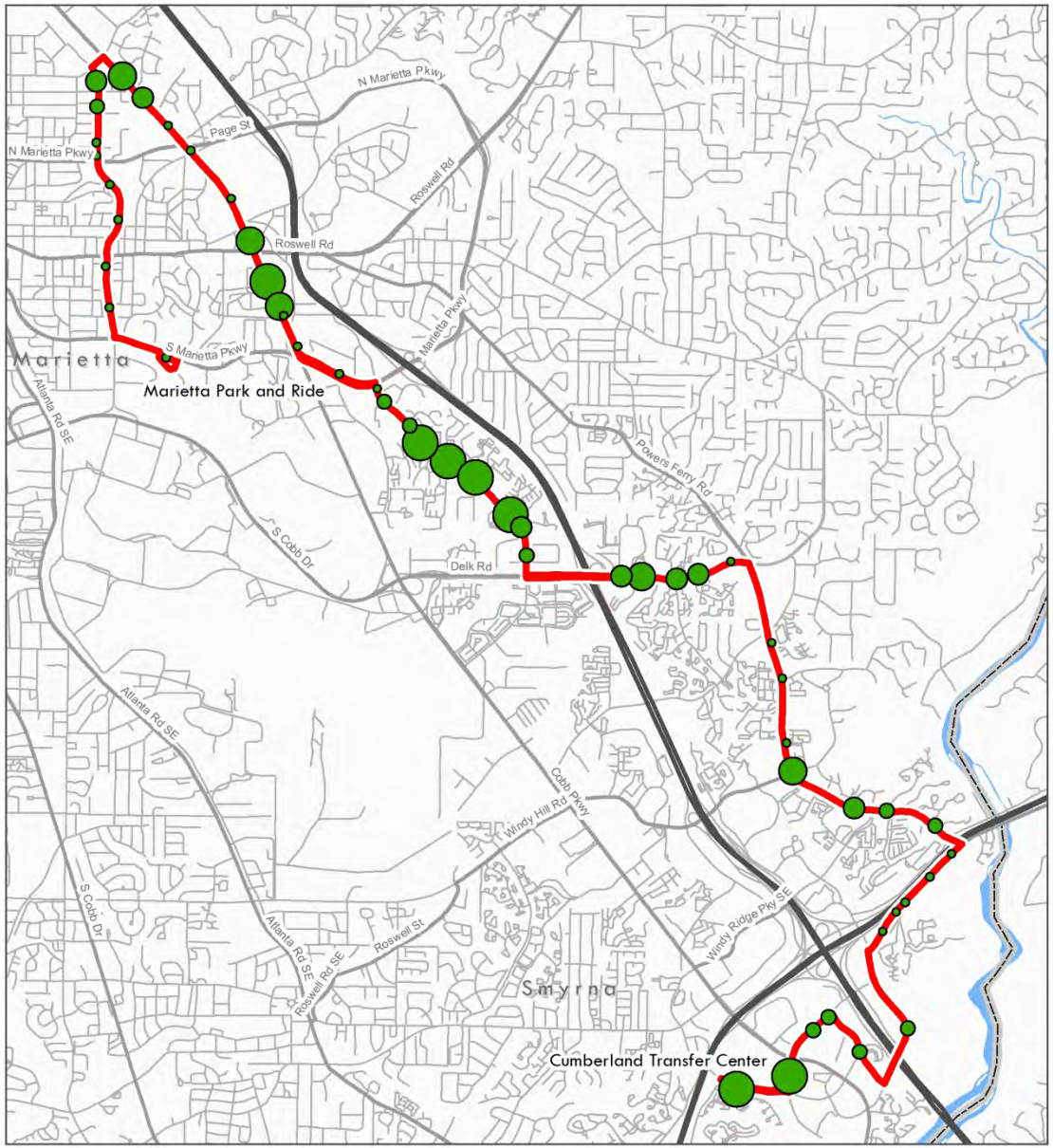
- Transfer Center
- Park and Ride Lot
- Route 10
- Expressways
- Major Roads
- Local Streets
- Industrial
- Commercial
- Low-Density Residential
- Medium-Density Residential
- High-Density Residential
- Forest, Parks, and Open Space
- Government / Institutional
- Undeveloped
- County Boundaries

SCALE IN MILES

0 0.3 0.6 1.2

N

August, 2011
Source: ARC;
US Census



Route 50 - Powers Ferry Road
Inbound Boardings

Legend

Route 50 Inbound Boardings

- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

Route 50

Expressways

Major Roads

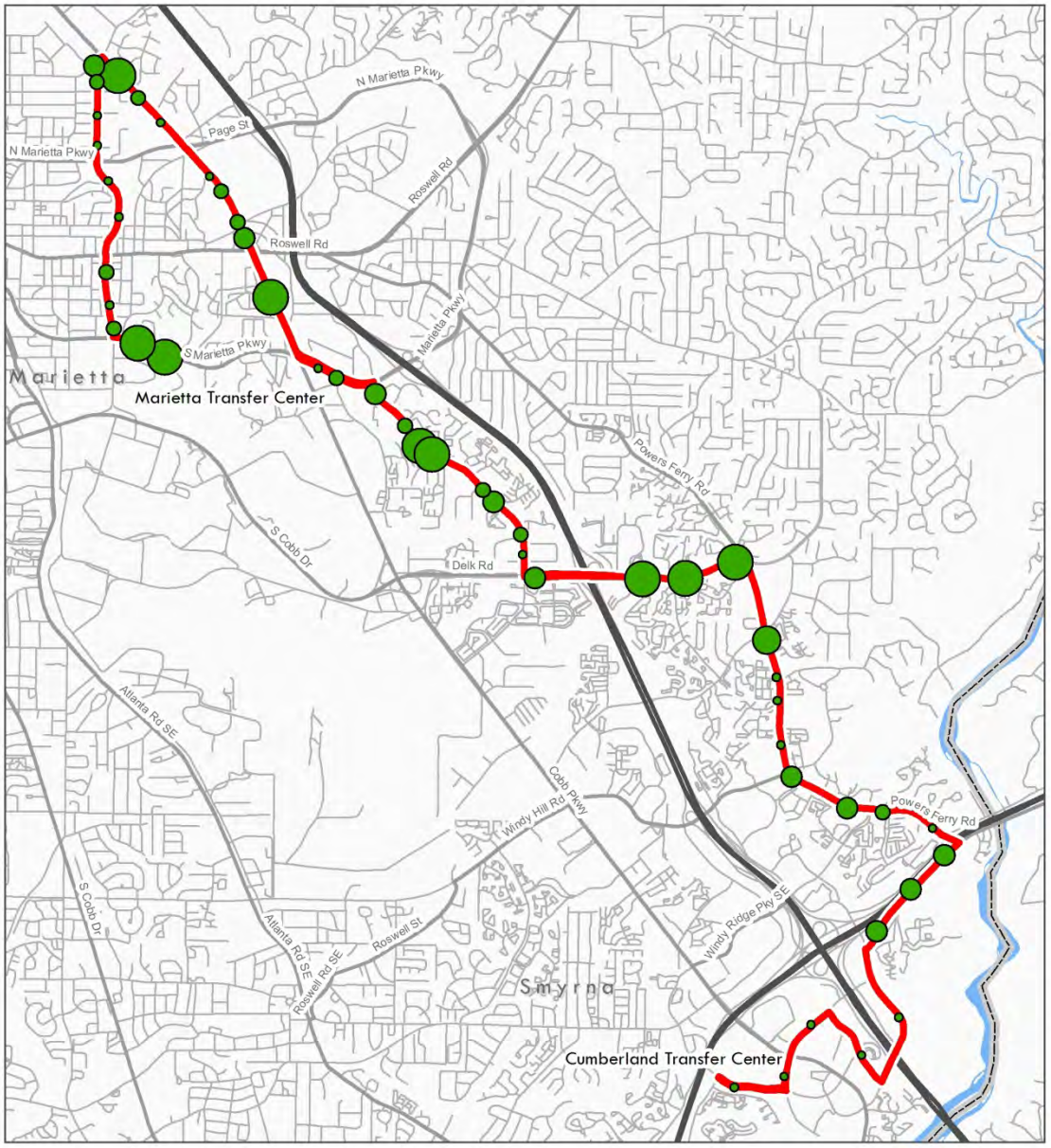
Local Streets

SCALE IN MILES

0 0.25 0.5 1

N

August, 2011
Source: ARC;
US Census



Route 50 - Powers Ferry Road
Outbound Boardings

Legend

Route 50 Outbound Boardings
- < 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

Route 50
Expressways
Major Roads
Local Streets

SCALE IN MILES
0 0.25 0.5 1

N

August, 2011
Source: ARC;
US Census

Appendix 4: Public Involvement Results

Cobb Community Transit
Service and Marketing Plan

Cobb Community Transit
Service and Marketing Plan – Fact Sheet

What is the Service and Marketing Plan?

Since its inception, the Cobb Community Transit system has grown to become the second largest transit system in Georgia. CCT's last comprehensive transit plan was completed in 2006. Since then, several improvements have been implemented. CCT has taken over operation of several GRTA Xpress routes, new local routes have been implemented, and Cobb County now envisions a potential high-capacity transit system along U.S. 41/Cobb Parkway in its future. Cobb County and CCT have decided to re-evaluate its existing local and express bus routes and paratransit services, assess opportunities for improving its cost-effectiveness and increase revenues, and develop short-range plans for improving existing services and supporting a possible high-capacity transit project.

Here's what we'll be doing:

- **Review Local and Express Services**. CCT will conduct a survey of passenger activity on each of its local and express routes. We will also meet with CCT's Transit Advisory Board (TAB), Accessibility Advisory Committee (AAC), and other stakeholders to better understand transit needs and opportunities. This data and input will provide a solid foundation for our service planners to determine when and where service improvements are most needed. Next, we will perform a comprehensive review of CCT's local and express bus service productivity and cost effectiveness, and then compare CCT's performance to that of other transit systems of a similar size. Finally, we will develop service plans that specify local and express service improvements for the next ten years.
- **Review Paratransit Services**. CCT will also review its current paratransit services. This review will also include analysis of service productivity and cost effectiveness as well as a comparison to other peer transit systems. The paratransit review will examine scheduling, dispatching and operations practices. Recommended improvements will be included in the final Plan.
- **Create a Marketing Plan**. Like most transit agencies, CCT has had limited funds to spend on marketing its services. CCT will analyze its existing and potential markets, including users and non-users, and develop a unique, market-based approach for a comprehensive marketing, media relations, and public education program.
- **Analyze Costs and Potential Advertising Revenue**. Cobb County is always looking for ways to be innovative and more cost effective. The project team will conduct a thorough review of current CCT staffing and operating costs and develop strategies for improving efficiencies. CCT will also explore potential revenue that could be generated from sources such as advertising on buses.

Cobb Community Transit Service and Marketing Plan

What is the Project Schedule?

CCT began work on the Plan in February 2011 and is expected to complete the project in September 2011. A schedule of the major study tasks is shown below.

Activity	2011							
	February	March	April	May	June	July	August	September
Review and Assess Fixed Route Services		■	■	■	■	■	■	
Review and Assess Paratransit Services	■	■	■	■				
Develop Transit Marketing Plan					■	■	■	
Financial Analysis					■	■	■	
Public Open House								●
Prepare Service and Marketing Plan Final Report								■

How Can You Get Involved?

CCT recognizes the importance of public participation and encourages you to help shape the plan. CCT will meet monthly with a Technical Advisory Committee made up of staff from Cobb County and other regional agencies. In addition, CCT will report regularly (about every other month) to its Transit Advisory Board (TAB). We will also conduct a public outreach effort including a public open house. Information about the project will be shared through meetings, e-mail, and social media. A project web page will be created for the community as a central depository of information about the plan.

Project Contact Information

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Preliminary Report

BUS OPERATOR/PUBLIC CONVERSATIONS

BUS OPERATOR SUMMARY

- The conversation started with introductions: my name; my company; affiliation with CCT; why I am here; what will be done with the information
- Some of the operators were surprised as they are not typically asked what they think about anything
- Some were suspicious, thinking that we were spying for the management company; were very pleased to learn that Ms. Gutowsky had specifically requested that the operators be interviewed
- Outsourcing is not good; service should be provided by county
- Operators are not generally treated very well and sometimes take their frustration out on customers (not enough straight runs; inadequate waiting facilities; nothing to do between runs)
- Some older operators feel they are being pushed out in favor of the less expensive younger operator
- Supervisors not always well trained
- More service on the street, including Sunday service; add customer service on Saturday
- Make the system look like it is run by a well-trained, professional organization
- Rather than eliminate routes altogether, provide am and pm service so people can get to and from work and eliminate midday service
- Improve bus-to-bus connectivity
- Fix the Breeze Card System; it is the source of a lot of customer dissatisfaction
- Add more smaller vehicles to fleet (sized between regular buses and disability vehicles)
- Sell charter service to for special events
- Sell advertising on the buses
- Increase access to service, not only more routes but also more bus stops
- Promote the service
- Because CCT provides so little service, do not understand why it is causing a budget shortfall. Think the system is being used as a scapegoat by those who don't want public transit in Cobb
- The problem is outsourcing. The county should operate the service. The management company is trying to make a profit and you can't make a profit on public transit
- Do not feel it is necessary to cut any service out completely. Do not believe it is right or necessary to leave people who currently have service without any service. Propose cutting back to two or three trips in the AM and PM so people can at least get to work
- Proposed a number of specific ways to keep some service on the three routes that are under consideration for elimination: add trippers to #15 to cover some of the #70; why not combine 70 and 35; turn back that portion of #65 that is getting stuck in traffic and cover this segment during the rush hour with a shuttle; add more smaller vehicles system-wide; etc
- In general, connectivity is a major problem and is one of the reasons so many customers are dissatisfied with the service. (Some operators estimate that as many as 80% of customers are unhappy with the service.) Connection to the rail service is good but bus-to-bus connections are very bad. In addition, with extended headways poor bus-to-bus connections are made worse. It is not only a matter of not making connections because of poor traffic conditions, but disconnects are built into the schedules. It is not unusual for bus A to be **scheduled** to arrive at a connecting point 5 or 10 minutes **after** bus B is **scheduled** to depart, meaning that passengers that want to transfer to bus B will have to wait sometimes a full hour for the next bus B. Some operators will call ahead and try to hold bus B but this is against company policy. It is very frustrating to the operators because it makes the system look bad and of course the customers are disgusted and take it out on the operators. Operators feel that there is a simple fix for this in the scheduling department

- Police don't cut operators any slack. First city they have ever worked where the police ticket bus operators
- Some feel operators are generally treated poorly: a major complaint is that most of the runs are split so operators have long waits between pieces of work. Some of them live too far to go back and forth home so they wait at the terminal and the waiting facilities are poor. (The TV Room for example is a very small room with only one TV set and there are no other recreation facilities on the premises. They **believe** that the company could cut more straight runs. Some of the older operators believe the company is trying to get rid of them in favor of younger operators who earn less
- Some complaints of untrained supervisors
- To attract more riders, CCT has to improve the product (the service). There must be more of it and it must operate in a fashion that makes **the system look good.** The operators must feel good about their treatment because if they don't they will take it out on the customers
- System does not keep its promises to the customers. They say things will change but they don't
- Some feel the Breeze System is a disaster. The operators don't understand it; the customers don't understand it. It is a constant source of dispute between operators and customers and it causes a lot of delays when customers have to add value on the bus. The problem seems to be with the return trip when riders try to board without the Cobb portion of the fare on their cards. Sometimes a long line of passengers will have to add fare in varying amounts as they board thus delaying the departure of the bus. Need to prohibit adding fare onboard the bus. Need to put video at MARTA stations explaining how the fare system works. Something needs to be done
- Recording on the bus should include all prohibitions
- Bicycles are popular on some routes. Would add storage facilities at certain major intersections, for example on the #30 route
- There is no customer service on Saturday so if a customer wants travel information on Saturday they would be out of luck
- Need to add some service on Sunday. The absence of Sunday service keeps a lot of people from getting jobs because many of the available jobs require working on Sunday
- Do not understand why the system does not offer special events charters to generate revenue
- Do not understand why there is no paid advertising on the buses
- CCT doesn't do anything to promote its service. Have never seen a CCT ad anywhere

Meeting: CCT Operator Conversations
Location: Operator Lounge, 463 Commerce Park Drive, Suite 114, Marietta, GA 30060

Date & Time: May 16, 2011, 8:00 – 4:30 PM
Participants: approximately 30

On May, 16, 2011 the project team met with CCT operators to gather input on ways to improve customer service, system routes and to generate revenue both short-range and long-range. Following is an overview of suggestions and comments gathered at the meeting.

Add Service/Modify Routes

- Provide service to Dallas suburbs. Follow Rte. 40 from MTC (Marietta Transfer Center), turn right on N. Marietta Parkway, left onto Cole Street, right onto Whitlock and into Dallas. Return trip left on Cole to N. Marietta. Use smaller buses to accommodate turns
- Run a flyer up Cole Street, not Whitlock
- Make no changes to route 10, 30, 40
- Keep 65 and 70 but use smaller vehicles
- Extend service to Vaughn Road near Cobb Parkway; only a fraction of the county is served by CCT

Route 10

- Needs to run this service every 15 minutes peak; 30 off –peak
- This route would generate ridership on Saturday and Sunday
- Consistently busy route

Route 15

- Need to run until 11:00 PM; currently stops after 8:00 PM. Runs from Wildwood down to Windy Hill. Needs to return riders returning from work
- Early buses are standing room only; many apartments along the route

Route 20

- Can take up to 20 minutes coming out of Cumberland Mall turning left on Spring Road, need to adjust schedule

Route 30

- Rte. 30 is a good weekday route but the weekend cut was too deep and affected the route. The bus has weekday standing room only
- This route goes by Cobb Hospital, Home Depot, Food Depot, Chattahoochee Tech on S. Cobb Drive, Emory Hospital, Wal-Mart, etc.
- Consider adding more service on Saturday to accommodate Six Flags additional riders; standing room only before Six Flags is open
- In-bound schedule is too tight to run on-time

Route 35

- Elimination will create a 2-hour walk to Six Flags Road to take a bus
- Use smaller buses

- S. Cobb High School students will have no transportation
- Reroute to touch part of Thornton Road
- Do not eliminate; modify since ridership down significantly
- Terminate route at Six Flags vs. terminating at Hamilton Holmes
- Re-route along parts of Route 30 to ease congestion during peak periods
- Reduce frequency and midday service

Route 45

- Provides service in the area of N. Cobb High School but does not go to the school; students must walk
- Area for potential ridership through the retail shops, Wal-Mart and Target
- Time points too close together and too little time at Town Center to return within scheduled time; no break for drivers

Route 50

- Time points are off for the route. Buses used to continue down Akers Mill but once this leg was removed, the schedule was not changed
- Remove the loop through Cobb Galleria; waste of time. Improve route by leaving Cumberland Transfer Center, turn left on Akers Mill, left on Cumberland, right on Akers Mill and same outbound
- Needs to run every hour off-peak and 30 minutes peak

Route 65

- Businesses depend on Rte. 65.
- Buses on this route are full; no need to cut or use small buses
- Restore mid-day service between 8:25 a.m. until 2:30 p.m. using smaller buses
- Need another bus to Dunwoody after 5:10 PM until at least 6:30 PM; most people need extra service for PM connections
- Redesign the route with a long- and short-leg to reduce hour long delays in traffic and missed connections
- Route buses outbound from Marietta Transfer Center, right on Woodlawn, cross over Lower Roswell Road, right on Paper Mill, right on Johnson Ferry Road and return; another run from Johnson's Ferry Road to Dunwoody Station (Rte. 60, which used to service this route was eliminated). CCT tried to use paratransit buses in the past for this run but needed to double the buses to support ridership
- Saturday service would generate revenue
- Ridership is heavy at Marietta Transfer Center before proceeding to Johnson's Ferry and Roswell Road alongside businesses, service ends at Dunwoody Station
- If Rte. 65 service is eliminated, customers can take Rte. 10 to the Marietta Transfer Center, but not to Johnsons Ferry and Roswell Road
- Build an express route for 65, similarly to Rte. 70 in the morning and afternoon

Route 70

- Make this an express route

- Use smaller buses
- This is the longest route taking 1.5 hours from end to end; too long

Route 20 and 10

- Both Rte. 20 and 10 generate good ridership

Route 30 & 45

- Routes run according to traffic conditions 20 years ago forcing the operator to push hard to make the schedule. Rte. 45 has enough time to make the schedule but not enough time for the return trip. Rte. 30 has time for the inbound trip but not time to travel outbound

Route 35 and 30

- Rte. 35 can be eliminated due to low ridership; since both Rte. 35 and 30 go to Holmes Station; customers can walk to the EW Connector to get to Rte. 30 and access Holmes Station
- Rte. 35 can be eliminated and riders take Rte. 30
- Rte. 35 is a student route that can be consolidated with Rte. 30
- Rte. 35 can be cut back in mid-day because it was 30-minutes behind leader Rte. 120 and Rte. 140; service was just too frequent – reduce frequency during AM

Route 40 & 45

- Rte. 40 and 45 do not both need to go through Kennesaw State University (KSU). They both meet at Town Center Mall. Only Rte. 40 needs to go through KSU. Rte. 45 outbound when it gets to Chastain Road turns right on Chastain Meadows to Walnut and right to Town Center Mall and returns the same way inbound. Connect the two routes at Town Center Mall and drop Rte. 45 into KSU
- Rte. 40 encounters a lot of traffic with inadequate time to get back; no recovery time

Paratransit
Add Service/Modify Routes

- Extend paratransit service into Kennesaw and Acworth where there is great demand. Route service in Kennesaw down to Jiles Road or Acworth Due West. Also run service down Cobb Parkway towards 92 then turn around at 92 (lots of shopping and residential areas to serve)
- Extend fixed route service to Whitlock Avenue down to Dallas Highway so that paratransit can serve this area
- Dispatcher/customer service should notify drivers (via radios or the back-up walkie talkie) immediately of trip cancellations so as not to waste a trip
- Service is more efficient since operators now operate within a 6-mile radius
- Add service on Thornton Road. Modify Rte. 30 from Blair Bridge to Thornton Road
- Service to downtown Austell – make left in downtown Austell, left to Thornton Road to serve the walkers

What can CCT do to attract more paratransit riders?

- $4 paratransit fare prevents many from using paratransit service

What can CCT do to attract more fixed route riders?

- Stabilize the fare which has gone from $1.25 to the proposed 2.50 in 5 years; you raise the fare of those who have no other transportation options rather than making the system efficient and timely thereby attracting more riders
- Need more advertisement in and outside of buses
- Explain to the public how the buses run and how they can benefit from express buses
- Provide customers with schedules so they can use the system
- Add station kiosks where customers can purchase fare media and get answers to questions (this relieves operator and bus downtime caused by having to respond to customer questions
- Teach people through signs and audio to:
  - Not smoke or drink on the system
  - Have fare media in ready when the bus approaches
- Extend customer service hours on Monday – Friday through 7:00 PM; after closing calls should be transferred to the dispatcher
- Be on time; provide schedules
- Educate the public on how to use the system
- Educate the public on safety features of the system

Improve Service to Customers

- Fix the fare system; it is confusing and not administered consistently
- Educate the public on how they can help improve the service. Use public announcements in stations, on buses, signs and notices to passengers. Examples of audio and/or written messages include:
  - CCT is pleased you have chosen to use our service. You can help to make this service safe, efficient, on-time and courteous by
- Please allow passengers to exit the bus before you enter
- No smoking, eating or open containers are allowed on the bus
- Have fare media in hand as you enter the bus
- CCT will not accept responsibility bended or folded media not read by the fare box
- Please use the kiosk and CCT to purchase your fare media ahead of boarding the bus [the kiosks should be reopened for customer convenience and to improve bus on-time performance]
- Move quickly to your seat to allow the bus to proceed
- Use the Stop Request button to request
- Have your strollers folded and ready to board when the bus approaches
- Secure your stroller out of the aisles to keep the passageway clear and to prevent the stroller from hitting others in the case of an accident
- Using your head phones to listen to music
- Keep mobile phone calls to a minimum
- Provide customer service/schedule information during hours of bus operations
- Customer Service calls should transfer to the office after hours
- Sell fare media and provide schedules at transfer stations for customer convenience rather than having to come out-of-way to CCT Offices
- Be consistent with local and Express Routes in rule enforcement. Policy on eating and drinking is different; eating and drinking is permitted on express but not local buses
- Provide clean, well maintained buses; operators drive the 20+ year old CNG buses on interstate traveling maximum speed for vehicle of 20 mph

- Air conditioning does not work on the buses and buses are stranded
- Display system map at Transfer Centers on a large board

Fare Media

- Breeze cards should not be loaded on buses; it delays service
- Media should be preloaded before boarding the bus
- Provide media machines at the Marietta and Cumberland Transfer Centers and the Park-and-Ride lots
- CCT and MARTA media are not compatible leaving operator to resolve fare disputes; the bus is delayed until the problem escalates to supervisor and the problem is resolved
- Discontinue acceptance of pennies; some customers will purchase fare in all pennies which delays the bus
- Customers are often short of fare and the operator is told to allow passenger on the bus
- Customers board the bus needing change often
- Breeze cards do not hold the transfer value, it takes the money and will not accept transfer though within the 3-hour window
- Educate the public on the fare system for fixed and express service; it is source of much confusion from the public, customer service and operators

Causes for operator/service delays

- Operators spend too much service time resolving fare conflicts and confrontations
- Operator is responsible for handing out schedules, however, they may only have 10 on hand for an 8-hour shift
- CCT and MARTA media are not compatible leaving operators to resolve fare disputes; the bus is delayed until the problem escalates to supervisor and the problem is resolved
- Be consistent with policies on use of fare media, transfers, eating and drinking on board buses to avoid operator having to manage this while vehicle is in service
- Operators consistently wait for passengers who are not ready to board or disembark from bus efficiently and are regularly directed to wait for passengers. If the operator does not wait for passengers, operators are disciplined
- Safety first is a slogan only; sick operators receive an occurrence for time off so many come to work and are not able to provide satisfactory customer service

Bus Scheduling/Operations

- Bus schedules are not synchronized causing customers to miss connections and wait for 1-hour for the next bus (Ex. Customers transfer from to Rte. 30 to Rte. 45 but the schedule has the connecting bus leaving 15 minutes after the connecting bus leaves, etc.)
- Rte. 65 comes into the station at 8:03 AM but connecting buses pulled out at 8:00 AM
- Rte. 30 comes in 10-minutes after the hour but connections leave on the hour
- Rte. 40 and 45 miss night connections with Rte. 40 leaving on the hour and Rte. 45 leaving on the half hour therefore missing connections
- Bus Operators are often asked to hold buses to facilitate scheduled and unscheduled connections
- Need to study time points for all routes
- Inadequate recovery time in the schedule

- Need to work with and understand traffic light synchronization at key intersections along the route (those that would delay service)
- Turn signal was installed at Marietta Transfer Center but the light does not work on the left turn causing the bus to loose time
- Bus stops are too close causing service delays; develop a policy for bus stops and realign existing bus stop locations (Examples: Hospital North, Brooks Street, Cobb Hospital/Austell Road above Moke, Franklin Road, Cobb Pkwy./S. Marietta Pkwy./Wal-Mart, S. Marietta Pkwy in front of BJ's
- Review bus stop locations that impede traffic and block streets (Example Milford Road, Thornton Road at BP Gas Station and retail strip mall, etc.)
- Schedules need to be adjusted for seasonal activity at Six Flags and reviewed for possibly a holiday schedule to save money and generate ridership
- Operators should be asked for feedback on route performance
- Too many split runs in the system

Bicycle Usage

Where might it be helpful to install bike racks along the routes?

- Marietta and Cumberland Transfer Centers
- Pick-up points along Wendy Hill Road/Cobb Parkway
- Lower Roswell Road/Johnsons Ferry Road
- Wal-Marts, Targets, Home Depots, etc.

Where do you see bikers accessing the system?

- Bicycle usage would increase but people use bikes to get to a bus and need their bike once they exit the bus; buses are too crowded to have buses on board and there is not much room on the outside to secure bike during the ride
- Marietta Transfer Center
- Routes 20, 40, and 65
- Cumberland Mall, along Cobb Parkway, Austell Road, S. Cobb Parkway, Wendy Hill, and MARTA's Arts Center Station

General Comments

- Councilpersons making decisions about service need to ride service, see the people and their desperate need for transit to get to work and to medical appointments and to understand the communities they serve
- Operators have no time built into schedule, for short or long runs, to take breaks. Some operators are forced to run ahead of the schedule, or behind, to take care of basic human needs (bathroom break, snack time, moment to refresh if tired, etc.)

Generate Revenue

- Paratransit riders taking fixed route should at least pay half fare opposed to ride for free
- All riders should pay the fare; short fares is a routine occurrence

Public Conversations

Nine individual conversations have been completed to date. Following is a list of comments received from those discussions.

Interviewees:
Marlon Andrews, JT Andrews Boys and Girls Club
Jerri Barr, The Center for Family Resources
Holly Bass, Cobb County Convention & Visitors Bureau
Ralph Knight, Cobb Housing, Inc.
Jerrie Paschal, Right in the Community
Ruth Radhuber, Cobb Community Collaborative (CCC)
Elizabeth Tindel, Kennesaw State University
Dan Boswell and Pam Skelton, Mt. Bethel United Methodist Church
Ashley Robbins, Citizens for Progressive Transit

Add Service/Modify Routes

- Franklin Road and Six Flags area where there are many transit dependent residents
- Mableton from MLK to Fulton to Bankhead where there is a huge trailer park with a culturally diverse community off of Mableton Parkway
- Provide special event and seasonal service for events such as day camps, school events and other seasonal events. Pick-up at designated pick-up points to transport riders to events using shuttles or large buses. Examples include Latino special soccer events, downtown Marietta events, arts, festivals, etc. Model the MARTA Braves shuttle and other special seasonal services
- Add service west of the Marietta Square to Chattahoochee Tech and to job opportunities in west Cobb
- Add service on Sunday for transportation to work
- Need late night service to get workers home from work
- Very supportive of LRT connection to Convention Center [Airport connection via MARTA and proposed Arts Center/Cumberland LRT project]
- Investigate service to historic sites, museums and other similar destinations for visitors and residents
- Continue transit along Mableton Parkway and Veterans Memorial
- Service along Dallas Highway and Paulding County connecting to other routes and downtown Atlanta
- Buses are not provided in areas where people who will ride live; need buses in higher income areas not just transit dependent locations
- Improve headways on one or both of the routes serving KSU [Routes 40-Bells Ferry Road and 45-Barrett Parkway]. KSU will market the improved service
- Investigate possibility of facilitating reverse commuting on the GRTA routes serving the KSU area

Where are noticeably underserved areas in Cobb County?

- West and south Cobb in traditionally low income areas

Improve Service to Customers

- Buses do not adhere to schedule
- CCT gets riders to their destination but service terminates too early for return trip
- Lack of public transportation prevents citizens from participating in events and daily activities
- Make transportation affordable and safe
- JT Anderson Boys and Girls Club mainly serve the area around Six Flags, Mableton Parkway and Franklin Road. At one time these areas did not have sidewalks and private property owners

complained about trespassing when bus riders used their property to get to buses and other activities. The county has started to put in sidewalks where walking paths were created. The sidewalks do not extend the length of walking paths that lead to stores, restaurants and to other residential areas. CCT could bring routes closer to the riders to avoid the long walk. Most of the walkers have come from stores, must get off bus and walk the rest of the way

- Reports from the Six Flags area community revealed:
    - Service is not regular
    - Need to improve route frequency
    - Reduce costs of service
    - Bus stops are not well lit
    - Need cross-walks; dangerous
    - Need shelters
    - Service was flawed prior to service cuts; transit dependent are further affected and can lose jobs without transportation
    - Unreliable service; late or may not show up
    - Improve timing and connection of routes
    - Extended waits for connections
    - Clients served by Center for Family Resources must leave the facility timely to make last bus at 8:00 p.m. in front of the building to make connections at transfer stations to get home
- Need to improve and market countywide connections to destinations such as Southern Museum of Civil War & Locomotive History in Kennesaw and Kennesaw Mountain National Battlefield Park and Marietta Square in Marietta
- Improve transit connectivity in the Convention Center area
- Headways are greater than an hour in some cases; a missed bus means a long wait
- Fare system is not easy to use; use of transfers is confusing
- Needs to educate citizens on how to use service
- Seniors are fearful of using fixed route service but they will use Para transit service
- Not enough bus stops
- Design and implement a University Student Discount Pass Program. KSU is eager to partner in such a program and will aggressively market and promote it

Paratransit Service

- People with disabilities or seniors cannot walk along Mableton Parkway and Six Flags Road so they are forced to take paratransit service or they have no transit option
- Para-transit service is important for those with disabilities. Transportation allows clients to attend day programs, doctor appointments and recreational events; it gives people their independence. Many clients are cognitively impaired and cannot use fixed route service leaving them with no other means of transportation
- Para transit service is good, but is occasionally late

What can CCT do to attract more fixed route riders?

- Operate Sunday and after-hour service, though she understands the cost may be prohibitive. They serve families who have diverse needs and many are transit dependent. Must figure how to get children to school before getting to work themselves – difficult to navigate with 1-hour headways
- Make information about service available electronically and in real time

Ways to generate revenue

- Offer seasonal transportation passes for 8 weeks during the summer in areas of high usage. Strategically place buses at designated drop off locations using smaller buses. Examples include High School or during special events at Cobb Energy Center, downtown events, etc.
- Provide buses to get people to special events
- Find attractive ways to use buses from elderly homes
- Take advantage of special events in Cobb such as rodeo, sporting events, concerts and arts, teen events – Interest-based service where large groups of people congregate for a big events
- Promote city attractions to get people to DT events – "leave your car at home, come enjoy the events.
- Partner with Chamber and businesses to promote the county and to do so using transit
- Bus advertising
- Sell sponsorships on inside bus cards
- As a non-profit they purchase fare media in bulk, but get no rate discount; if there were the possibility to offer discounted tickets so that they can get media to clients
- Negotiate with major employers to purchase fare for employees and allow them to off-set cost by advertising on bus, bus signs and by placing their logo on the ticket, in rider newsletters or on buses
- Increase transit ridership by increasing marketing collaborations with CVB and Cobb County/CCT
- Advertise on buses and bus stops
- Offer charter service
- Attract people who are paying $4 for gas because there is no alternative
- Add more routes – see high traffic feeder areas – get information from GDOT; this would convert cars into buses
- Increase ridership at KSU by implementing the actions noted above

General Comments

- The Boys and Girls Club has an after-school program where the school bus picks up in the morning and drops off children in the evening but the parents have difficulty getting to the club to pick up children. The Club serves communities that are within a 3-7 mile radius to include Franklin Road, old Boston Home Gardens area, Marietta Square district.
- During the summer, some cannot enroll because they cannot get to the facility. Boys and Girls Club could serve more people if CCT could establish pick up at strategic locations so that children could get to the club. The average summer daily attendance is 175-185 children at all locations (Anderson, Matthews) other than Marietta 6th Grade Academy which averages about 65 children.
- Single people who live alone and who are transit dependent must either walk or rely on others for basic services such as grocery shopping, hospital care, medical appointments and work. They need transportation support to gain independence.
- Lack of public transit puts more of a demand on day care, school services, school services, etc.
- Families cannot sustain themselves without transportation
- Ms. Barr understands the limitations transit can provide particularly in Cobb where they may not be ridership to sustain system, but riders must spend hours leaving home hours in advance to make connections for work; transportation is very important to families

- Ms. Barr defends CCT knowing that the fare does not cover expenses and thinks it is an opportunity for CCT to educate the public on that matter; needs marketing campaign to educate the public
- Believes that if funding can be found for roads, it can also be found for transit
- Will provide transit related results from recently completed market research study
- An important decisions as to where they build or place clients is the proximity to CCT line. Most have a vehicle but it does not serve the entire family.
- Works with a lot of at risk students who are under or unemployed and they depend on transit to get to training programs
- They have clients who are visually impaired and they depend on transit and try to place them where bus route is very close to their house
- Two of their larger development area is in Mableton and Austell. Mableton provides a 31 unit community a block from Veterans Memorial and Mableton Parkway and a 48 unit community not far from 6-Flags and the Mitchell House on Hillcrest and South Gordon Road – important to have transit in these areas
- Had conversations and concerns with the Development Office in County often directs Cobb Housing toward lots/properties that may not be appropriate for affordable housing or in an area where mobility is a factor
- Transportation is important to connect to other communities such as Atlanta and the airport
- Right in the Community's number one decision for selecting a location is access to the bus line. When bus routes change, it puts a strain on their business and many cannot be served
- CCT keeps asking the same information with nothing being done about the problem; she has been member of ARC and Atlanta transportation planning groups
- She would take transit from Arts Center but takes too long for her to get to station so she just drives
- In central Cobb county there is no way to get around but to walk or drive
- Should put pressure on MARTA to come into Cobb County
- 3 years ago CCT presented at general meeting and could be invited again in October

Recommended organizations to talk with:

- Suggested ways to communicate with the public include:
  - Town Hall meetings
  - Temporary banners on buses – for a month
  - Talk to churches to promote transit and hold transit meetings– this brings people to church and churches want to grow
  - Target small or medium size churches; they are in a growth mode and many parishioners may not have cars. Sell service to churches and tell them you will facilitate getting people to church
  - Radio advertisement
  - Printed messages on buses
  - Small community groups in Six Flags area
  - Catholic Social Services, Latin America, and Hispanic Chamber of Commerce – the problem is that they do not trust government so they are not likely to talk fearing they will get in trouble
  - Catholic – Carolyn Gilliard – 404-881-6571 or 770-429-2369
  - Cobb County Collaborative (has 100 non-profits)– Joan O'Connell, Executive Director
  - Austell and Powder Springs Task Force – Michael Murphy (Austell Chair)
  - Areas around 6 Flags organized to impact their area - Representative Alisha Thomas Morgan (Ms. Barr is working with the Rep.)
  - Franklin Road Groups – Donye Badia works with this group and can be reached through the in City of Marietta - Weed and Seed

- Housing clients meets monthly – ask case worker how they feel – how is system working for them – generally less than 20 attend monthly
- Home Buyer Education Class on Saturdays – will be glad to help facilitate but there must be Saturday service may need to be provided at Roosevelt Road
- Councilman Coleman
- Lemon Street Group
- Tommy Novis Center on Bells Ferry Road – Connie Kirk Director and Karen Carlisle, Outreach. Center, 1480 Bells Ferry Road, 770-427-9000; work with individuals to gain independence
- Cobb County Parks and Recreation Therapeutic Department off Nick Jack Road– Tina Mitchell – handles Special Olympics and takes elderly on fieldtrips
- Cobb County Drug Corp – Judge Kreeger often mandates community service for troubled individuals but because licenses have been revoked, there is no way to get to work locations
- Cobb Collaborative - Ruth Radhuber (770-514-7212) – repository for all members of Cobb Collaborative – may be able to speak to their group
- Cobb Family Resources – Jeri Barr
- Come up with 5 question survey and she would send out to Cobb Collaborative members group

Latino Workshop
Thursday, September 8, 2011
6:00 p.m. – 8:00 p.m.
Cobb Community Transit, Training Room
463 Commerce Park Drive
Marietta, GA 30060

AGENDA

Purpose of Workshop

1. Brief the group on the study purpose
2. Provide a status report on study progress
3. Provide an opportunity for workshop participants to share their views on what CCT can do to better meet their transportation needs while keeping operating costs as low as possible

Note: Information will be used to help consultants shape final recommendations, but responses will not be attributed to any particular individual.

Study Purposes

1. Evaluate local, express and paratransit services
2. Develop service delivery plans aimed at increasing efficiency
3. Develop a bus and bus shelter advertising plan
4. Develop a marketing plan
5. Lay the foundation for possible service expansion when economic conditions improve

Status of Study

1. Completed on-board survey of riders
2. Developed a profile of each local route – ridership, operating characteristics
3. Compared CCT local service to other transit systems
4. Compared CCT paratransit service to other transit systems
5. Completed a transit needs assessment
6. Completed an analysis of bus advertising
7. Conducted public involvement activities
8. Work in progress:
   - Developing service improvement recommendations
   - Developing a preferred service plan and financial projections

Questions regarding the Study

Group Discussion

Note: Participants will be asked to comment on or respond to specific questions or statements; however they are free to share any information they think will help Cobb Community Transit do a better job of meeting their transportation needs.

1. Have you heard about this study? If yes, how did you hear about it?

2. Do you use Cobb Community Transit? If yes, how frequently? What do you think about the service? If no, why don't you use the service? Are the buses clean and comfortable? Are the drivers courteous and helpful? Is the service reliable? Do you feel safe? Would you recommend the service to your friends?

3. If you do not use CCT what is your primary mode of travel? How do you get to work? How do you go shopping? How do the children get to school?

4. Approximately how much money do you spend per week on transportation?

5. Have you attempted to obtain information about service from CCT? If yes, describe your experience.

6. How do you feel about putting advertising on the buses?

7. What specific suggestions would you make to improve the CCT service?

8. What specific suggestions do you have to make the service less expensive to operate?

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Meeting Minutes

Participants: 12 representing the following organizations:

- Boy Scouts Volunteer
- Wal-Mart #1766
- Real Atlanta Magazine
- Cobb Community Relations Council
- Cobb Immigrant Alliance
- Girl Scouts
- NSE
- Vargas & Amigos
- Saint Ann Catholic Church
- Deblar & Associates, Inc.

Project Team:

- 3 including 1 Cobb DOT staff

Meeting Materials:

- Agenda
- Fact Sheet

Meeting Summary

The meeting of the Latino Focus Group was held with 12 participants in attendance. The meeting was opened by Mr. Dan Vargas who thanked everyone for their attendance and reminded the audience how important their input is to help Cobb County meet the needs of all people as well as help to build a stronger transit system for the community.

The audience introduced themselves and stated their affiliation. Mr. Lawrence King from the CCT Transit Advisory Board, along with Dan Vargas, reiterated how much he appreciated the participation from the audience. The meeting was turned over to the facilitator, Mr. Morris Dillard. Mr. Dillard thanked the audience for their attendance and expressed to the group the importance of their input and that the driving force behind this meeting was CCT's General Manager Rebecca Gutowsky who is committed to involving the Latino community in the study. After a brief overview of the purpose and status of the study the meeting moved into a facilitated discussion of the participants' views and suggestions regarding how to improve CCT service, promote more riders and generate more revenue.

Following is a summary of the topics discussed and responses from the group.

Knowledge of Study

- For the most part, no knowledge of study. There has been so much talk about transportation in Cobb County lately the study could have been part of the information.

Do you use CCT?

- 2 out of 12 participants have used CCT
- One participant uses CCT twice monthly to downtown Atlanta meetings and sporting events. The other occasional rider would use the service more if he could find a safe place to park.

What prevents you or others from using CCT? What can be done to encourage ridership?

- Lack of information on how, when and where to use the system
- CCT must be pro-immigrant if they want to attract (Latino) riders
- Community needs a voice to express transit needs in a non-threatening manner
- Service must be inviting and friendly. CCT needs to reach out to the community by using the Spanish language more. They see or hear nothing in Spanish as a consequence they don't feel welcome.
- Lack of information and communications in Spanish; much of Latino population is not fluent in English; this is especially true of "immigrants" (undocumented residents)
- Children of Latino families may speak English but their parents do not; parents need information to make decisions for the family
- Parents need public transit because they can't get drivers licenses and fear driving without a license, getting stopped by police and deported
- Teens need public transit because they do not have licenses because many are undocumented like their parents
- Some Latinos have money to purchase vehicles but can't get licenses because they are undocumented
- Latino community wants to be part of community improvement efforts and volunteerism but they cannot get to event sites because of lack of transportation
- People do not have a way to get to businesses such as Wal-Mart for employment and shopping (Wal-Mart on Johnsons Ferry Road/Shallowford Road
- When buses arrive there is no information in Spanish and drivers do not speak Spanish – not even greetings
- Kennesaw, Barrett Parkway and South Cobb Drive/Franklin Road offer parking facilities - need more
- Make announcements on Spanish radio stations
- Lack maps especially at stops (maps on buses and at stops)

How much money do you spend on transportation weekly?

- One couple drive 500 miles weekly
- Average seems to be about $50 for gas only
- Girl Scouts serve less than have the schools they could serve because they have only $10,000 for transportation in their annual budget This permits them to serve only 4 schools in their after school program for Latinos

What are your thoughts about bus advertising?

- Supports revenue generation through advertising
- Use revenue from advertising to fund additional service
- Great idea to advertise in buses

Specific suggestions to improve the service

- Provide service (i.e. shuttle service) between specific residential and specific shopping or employment areas
- Use smaller buses for lower ridership routes
- Study usage and adjust schedule and vehicle size to meet usage
- Improve service to South Cobb near 6-Flags – (East West Connector – Austell Road– Mableton Parkway)
- Back/forth up Austell Road rather than to terminal station
- Serve only people who need it
- Make crosswalks safe and accessible to bus stops (people take short cuts)
- Adjust frequency and routes to meet demand only. This will improve service and reduce cost
- Translate material and information into Spanish
- Provide small buses and shorter routes (offer regular routes but also mini buses from point A to point B; runs all the time like in South America – jitney service
- Provide maps and schedules to riders, at stations and on buses so that people know where routes go
- Use radio, TV, newspaper to advertise/communicate routes and schedule
- Need parking standards
- Offer express buses for special events
- Translate communications into Spanish
- Phone service should have a Spanish option; at least one operator should be Spanish-speaking
- Use telephone automation to prompt for Spanish – investigate other ways to maximize use of phone technology. Latinos big user of phone technology
- Website should provide option for information in Spanish
- East Cobb does not think it is "cool" to ride buses; need general campaign such as free ride day to promote use of CCT. It's cool to ride the bus. Try it one day per week
- Advertise at bus stops and inside buses to generate money; wrap buses with advertisement
- Have bus drivers speak Spanish on designated bus routes
- Inside bus advertising – gives riders something to read
- Sell/load fare media at retail store to make it more accessible

Underserved areas

- Austell
- Powder Springs
- Need Cobb County to Chamblee MARTA station connection similar to connections to Hamilton Holmes MARTA Station

Comment

- Transportation service is better now than 10-12 years ago. It is clear that CCT is trying to improve service and it is appreciated

Copies of the Fact Sheet are available on the project website at http://dot.cobbcountyga.gov/cct/Study/transit_study.htm. The group was thanked for their participation in the meeting and for their valuable input. The meeting was adjourned at 8:00 p.m.

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