

# **BARTOW COUNTY TRANSIT TRANSIT DEVELOPMENT PLAN**

**New Services Recommendations  
March 2017**



**Prepared for:  
Cartersville-Bartow Metropolitan Planning Organization  
(CBMPO)**

**Prepared by:  
AECOM**

*This page intentionally left blank*

# TABLE OF CONTENTS

---

Table of Contents.....	i
List of Figures .....	ii
List of Tables .....	ii
1.0 Introduction .....	1
1.1 Background – Bartow County Transit.....	1
2.0 Future BCT Service Options.....	3
2.1 New Service Evaluation Methodology .....	3
2.2 Compilation of Information from Prior Planning Tasks .....	3
2.3 Proposed New Services .....	9
2.4 Transfer Centers .....	9
2.5 New Fixed Route – Blue.....	9
2.6 New Fixed Route – Red .....	9
2.7 New Fixed Route – Gold .....	9
2.8 New Service – Commuter Bus.....	9
3.0 Recommendations .....	13
3.1 Recommended Service Options and Cost Estimates .....	13
3.2 Paratransit Recommendations .....	13
3.3 Capital Costs.....	15
3.4 Potential Funding Sources .....	15
3.4.1 Federal Sources of Transit Funding.....	16
3.4.2 State Sources of Transit Funding .....	25
3.4.3 Local Sources of Transit Funding .....	25
3.5 Additional Considerations.....	26
3.5.1 Marketing .....	26
3.5.2 Intelligent Transportation Systems (ITS) Applications.....	26
3.5.3 Service Monitoring.....	28
3.5.4 National Transit Database (NTD) Reporting Protocol .....	28
APPENDIX A: Public Involvement.....	A-1
APPENDIX B: Service Statistics .....	B-1
APPENDIX C: Route schedules.....	C-1

## LIST OF FIGURES

---

Figure 1-1: Bartow County and Neighboring County Transit Systems .....	2
Figure 2-1: Relationship between Residential Densities and Transit Services.....	5
Figure 2-2: Relationship between Employment Densities and Transit Services.....	6
Figure 2-3: Bartow County Commuter Flows.....	8
Figure 2-4: Proposed BCT Local Fixed Route Options.....	11
Figure 2-5: Proposed BCT Commuter Route Option .....	12

## LIST OF TABLES

---

Table 2-1: Relationship between Residential Densities and Transit Services.....	3
Table 2-2: Relationship between Employment Densities and Transit Services.....	4
Table 3-1: Estimated Annual Operating Costs of Fixed Route Service.....	14
Table 3-2: Capital Facility Improvement Cost Estimates .....	15
Table 3-3: GDOT - Administered Federal Aid Grant Programs.....	16
Table 3-4: Example Allocations of CMAQ Funds for Operating Assistance .....	24
Table A-1: List of Stakeholder Organizations and Representatives Interviewed.....	A-1

# 1.0 INTRODUCTION

---

## 1.1 Background – Bartow County Transit

Bartow County, Georgia is located approximately 45 miles northwest of Atlanta and is comprised of the cities of Adairsville, Cartersville, Euharlee, Emerson, White, Kingston, and Taylorsville. Cartersville, the county seat, is also the largest in terms of size and population.

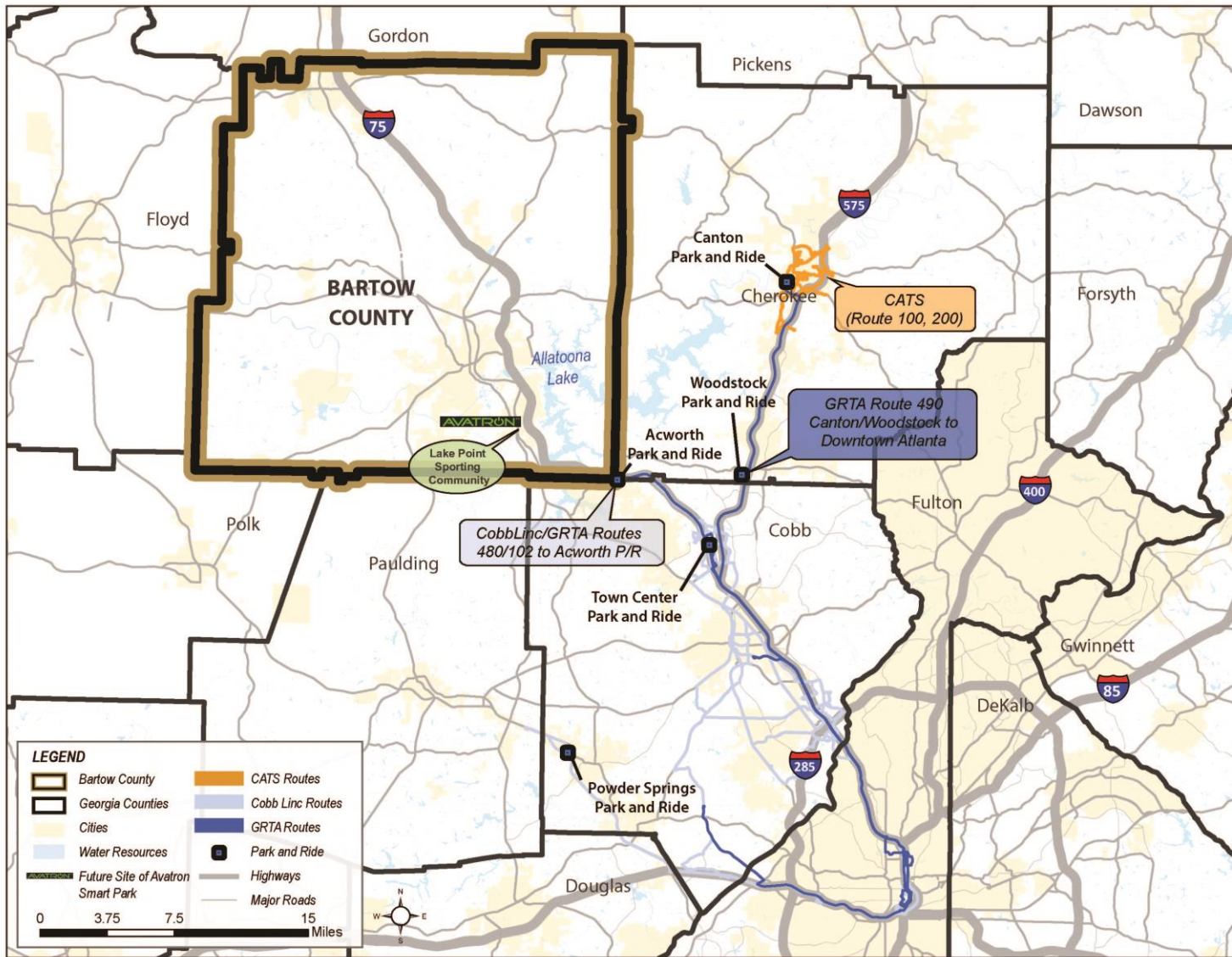
Geographically, Bartow County is considered both part of northwest Georgia and the Atlanta metropolitan area. It is home to a number of historic, natural, and recreational sites including Red Top Mountain State Park and LakePoint Sporting Community. Neighboring counties include Gordon (north), Pickens (northeast), Cherokee (east), Cobb (southeast), Paulding (south), Polk (southwest) and Floyd (west). Bartow County and neighboring counties are shown in **Figure 1-1**.

Bartow County Transit (BCT) currently serves incorporated and unincorporated areas of Bartow County. As the lead agency providing public transportation in the County, BCT's goal is to develop and maintain an effective and efficient network of transportation services available to the public. BCT provides safe, clean, reliable and responsive system to meet the travel needs of all Bartow residents and supports local economic activity by facilitating access to local merchants, industries, and commerce.

BCT currently provides weekday demand-responsive service within Bartow County for non-emergency trips between employment, medical appointments, shopping destinations, and more. Access to BCT's demand-responsive service can be arranged by calling at least 24 hours in advance during regular business hours. Rides must be requested before 12PM for next day service. Currently no fixed-route service exists within the County.

The Cartersville-Bartow Metropolitan Planning Organization (CBMPO), on behalf of Bartow County Transit, has initiated steps to undertake a five-year action plan or Transit Development Plan (TDP). This TDP examines existing population, current transit ridership data, future development patterns, and community stakeholders to determine what options exist for future public transportation within the community.

**Figure 1-1: Bartow County and Neighboring County Transit Systems**



## 2.0 FUTURE BCT SERVICE OPTIONS

---

### 2.1 New Service Evaluation Methodology

The new services proposed in this document were developed based on input from a variety of sources which are summarized in the *Bartow County Transit Development Plan Data Collection, Review and Analysis Technical Memorandum*. The initial sources included a review of recently completed and/or ongoing plans, studies, and initiatives affecting land use and transportation decision making in the Cartersville and Bartow County areas. A peer review was conducted to indicate how BCT is performing in relation to other similar transit systems. Data collected to analyze the existing system and to propose potential service modifications was also used for the purpose of identifying those areas most likely to support some form of transit. The data includes population and employment densities; socioeconomic and land use data; and a transit target market analysis. A series of public awareness forums and stakeholder interviews was also conducted during this time period to solicit passenger input and public opinion on all aspects of BCT service, but particularly on desired changes and new service requests. The summaries of these efforts are presented in **Appendix A**. Additionally, CBMPO and BCT staffs were closely involved in the TDP process and contributed their service recommendations.

### 2.2 Compilation of Information from Prior Planning Tasks

In this section, the findings from the Existing Conditions and Stakeholder input were combined with an evaluation of Bartow County considering the propensity of the study area for transit service. The population and employment densities in the study area were compared to industry standard density thresholds for various transit bus service levels. Several studies in the past thirty years have attempted to identify relationships between transit ridership and land use development patterns. Transit Cooperative Research Program (TCRP) Report 16 provides scales for residential and employment densities that have been developed to identify the general type of transit service that can be supported by different local conditions. These are shown in **Tables 2-1** and **2-2**.

**Table 2-1: Relationship between Residential Densities and Transit Services**

Residential Density Transit Thresholds	
Type of Service	Residential Density Threshold
Local Bus (1 bus every hour)	4-6 dwelling units/residential acre
Intermediate Bus (1 bus every 30 minutes)	7-14 dwelling units/residential acre
Frequent Bus (1 bus every 10 minutes)	15 + dwelling units/residential acre

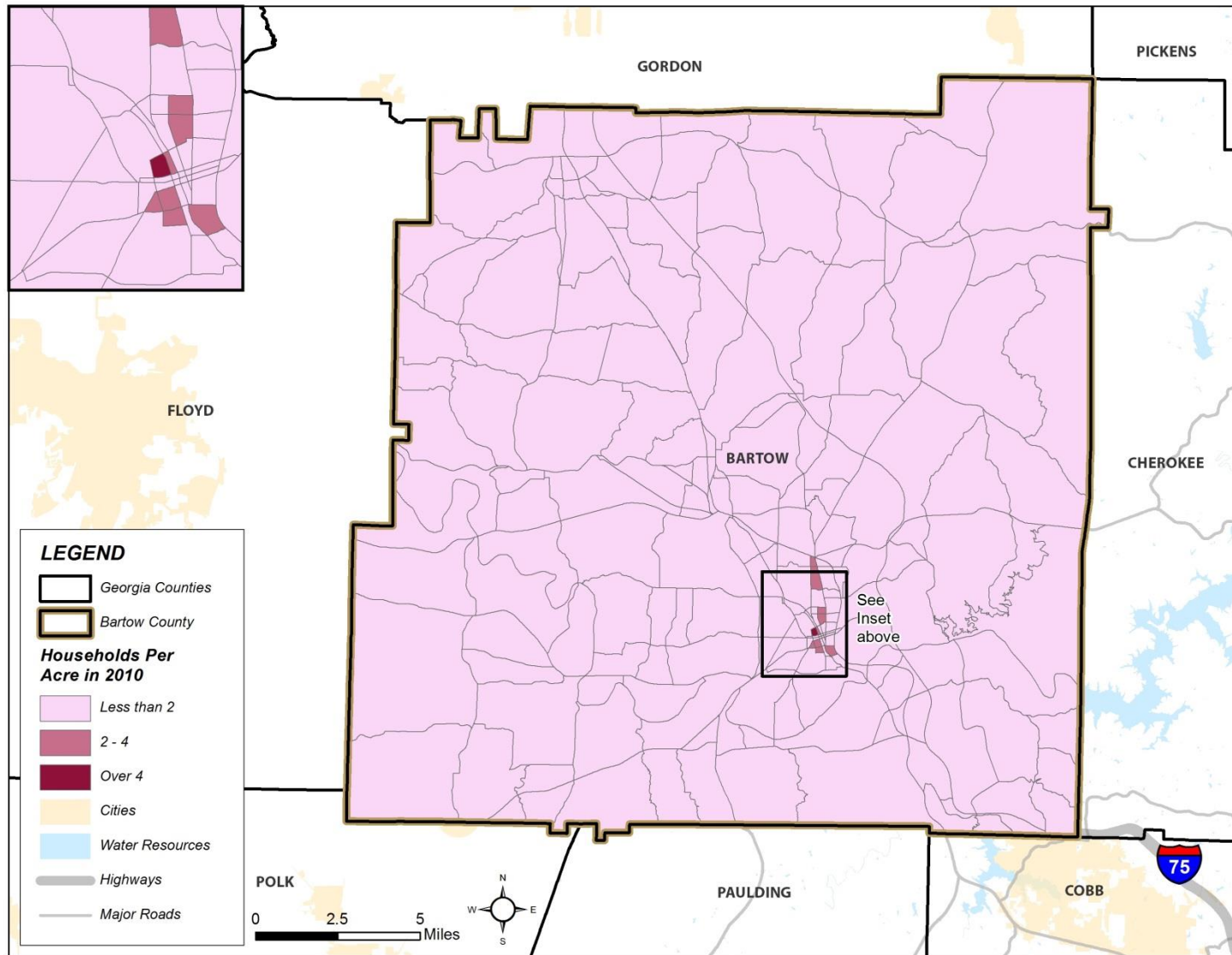
**Table 2-2: Relationship between Employment Densities and Transit Services**

<b>Employment Density Transit Thresholds</b>	
Type of Service	Minimum Employment Density (Jobs/Acre)
Small to large bus regular route service complemented by paratransit service with ~ 30 to 60 minute frequency	Areas with 10 to 25 jobs/acre and 3,000 or more contiguous jobs
Large bus complemented by paratransit service with ~15 to 30 minute frequency	Areas with 26 to 49 jobs/acre and 5,000 or more contiguous jobs
Large bus complemented by paratransit service with ~ 5 to 15 minute frequency. Connection to circulators possible.	Areas with 50 + jobs/acre and 10,000 or more contiguous jobs

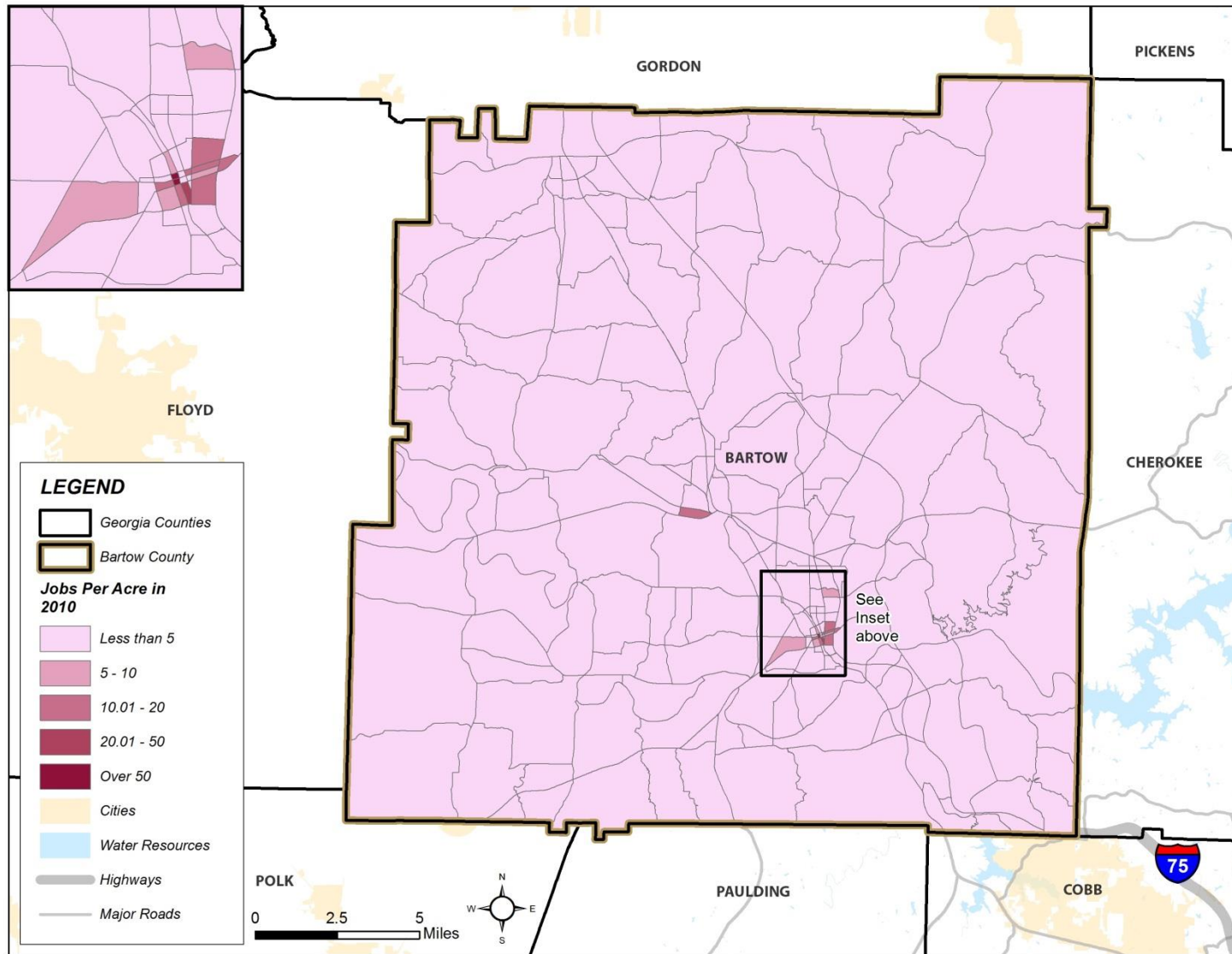
The thresholds listed in **Tables 2-1** and **2-2** are generalizations that provide an overall estimate of the need and level of potential transit service. Corridor-specific factors, such as the mix of land uses, pedestrian accessibility, local travel patterns, roadway congestion, urban design elements, and transit service characteristics (existing or proposed) also have an effect on transit ridership. Nonetheless, this general information on residential and employment thresholds can be used at a planning level to identify areas or regions where scheduled transit service may be successful.

In determining the estimated housing units per acre, updated housing data from Bartow County was obtained and utilized. The number of households per traffic analysis zone (TAZ) was divided by the number of acres in the TAZ and mapped in order to show concentrations of households by acre. The employment density was calculated the same way, but instead of the number of households, the number of jobs was divided by the acreage. However, the point of this evaluation was to compare the study area's current density per acre to the density thresholds. **Figures 2-1** and **2-2** show the residential and employment densities in Bartow County in 2010. In the Cartersville area, there is one TAZ with a residential density of 4 - 6 dwelling units/acre. In the same area, there are eight TAZs with employment densities of 10 – 25 jobs/acre.

**Figure 2-1: Relationship between Residential Densities and Transit Services**



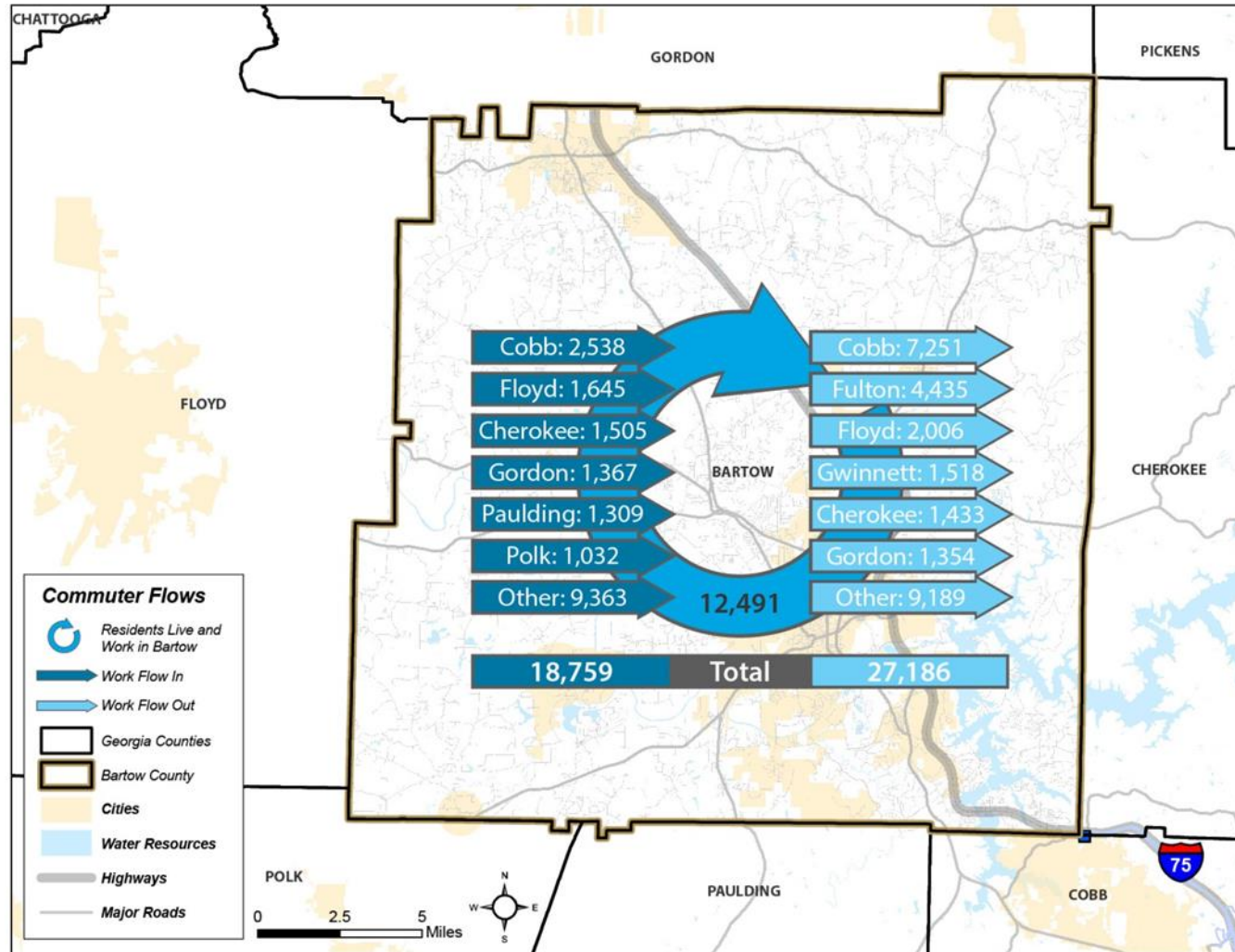
**Figure 2-2: Relationship between Employment Densities and Transit Services**



Commute patterns to and from the communities in the study area were estimated utilizing Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) available through the United States Census Bureau. Per an overview of the data provided by Census Bureau, these statistics are “a partially synthetic dataset that describes geographic patterns of jobs by their employment locations and residential locations as well as the connections between the two locations.” Additionally, these datasets can be further analyzed to classify employees by age, employment type, gender, income, and other variables. **Figure 2-3** displays the commuter flows in and out of Bartow County. From the analysis it was determined that nearly 40% of workers in Bartow County also live in the county. About 60% of workers commute from nearby counties, the largest surge coming from Cobb County. Plus, more than 26% of workers from Bartow County that commute to other counties commute to Cobb County.

The residential and employment densities present a strong case for local fixed routes in the Cartersville area. The commuter flow data also justifies a commuter route to Cobb County, connecting to Georgia Regional Transportation Authority (GRTA) Xpress service where workers can access jobs in both Cobb and Fulton Counties. There was strong local support for transit and Federal Transit Administration (FTA) Section 5307 grant funds have been accrued to assist with the implementation of fixed route transit service.

Figure 2-3: Bartow County Commuter Flows



## 2.3 Proposed New Services

The proposed fixed routes presented in the February 27, 2017 public information meeting were subsequently refined by CBMPO staff and the study team. The modified transit system would serve many local destinations from three key transfer centers providing fixed route service within the City of Cartersville. A three route transit system was identified to serve the study area. The routes were developed to link as many local origins and destinations as possible while keeping route lengths and running times reasonable. Service operation assumptions include:

### Local Fixed Route:

- Operating each route on a 60-minute frequency
- Capital investment of four buses with three for operations and one spare unit
- Development of three transfer centers
- Complementary demand-response ADA paratransit service.

### Commuter Service

- Operating on a 30-minute frequency
- Capital investment of three buses with two for operations and one spare unit

The operating statistics and ridership estimates for the services are presented in Appendix B. The proposed BCT local, fixed route system map is presented in **Figure 2-1** and the proposed commuter route is presented in **Figure 2-2**.

The potential new facilities, services and alignment modifications are described as follow:

## 2.4 Transfer Centers

Establish transfer centers at Atco, Walmart (or potentially the Clarence Brown Conference Center) and Kroger.

## 2.5 New Fixed Route – Blue

Operates to/from Kroger via E. Main St, N. Tennessee St, E. Felton Rd, Felton Place, continue Market Place Blvd to Walmart. A transfer point is also located at Church Street and N. Tennessee Street.

## 2.6 New Fixed Route – Red

Operates to/from the ATCO area via Cassville Road, Cherokee Ave, N. Bartow St, Church St, E. Main St to Kroger. A transfer point is also located at Church Street and N. Tennessee Street.

## 2.7 New Fixed Route – Gold

Operates to/from the ATCO area via Cassville Road, Grassdale Road, US 411, continue Market Place Blvd to Walmart.

## 2.8 New Service – Commuter Bus

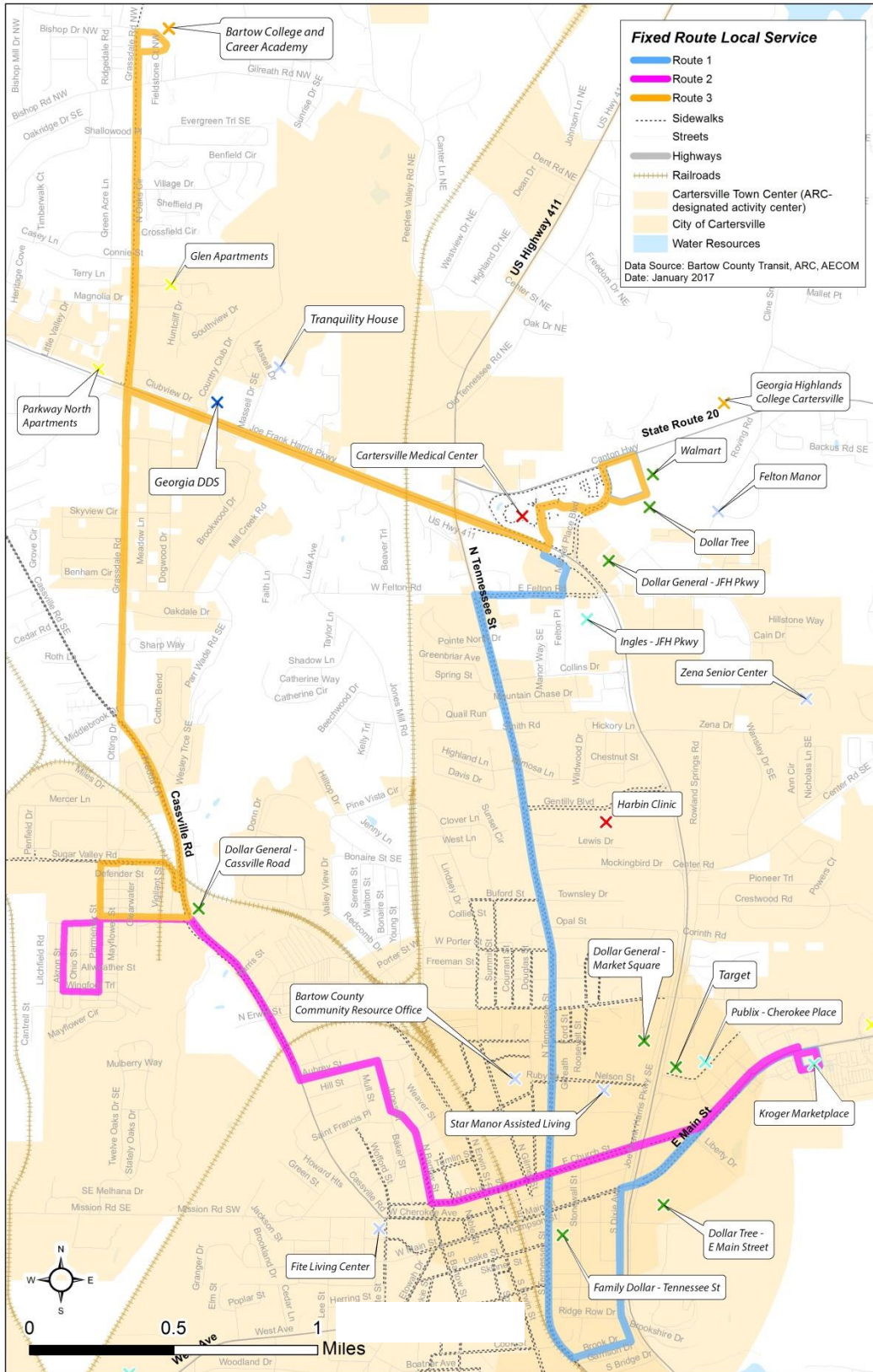
In a separate report prepared for the TDP (*Data Collection, Review and Analysis*), an analysis of journey to work data from the 2010 Census for county to county work flows was conducted. The results of the analysis indicate that commuter trips primarily occur within Bartow County. Of the commuter trips with a Bartow County workplace, the next largest percentage of commuters emanate from Cobb County. For commuters with a Bartow County residence (other than internal Bartow County flows) most are associated with Cobb and Fulton Counties.

During the public involvement process, requests were made for access from Cartersville to the Acworth Park and Ride lot in Cobb County in order to access commuter bus services provided by GRTA and CobbLinc. A Bartow County Transit commuter route service is recommended to operate from the Walmart Transfer Center or the Clarence Brown Conference Center, depending on the availability of adequate parking facilities for commuters. Initial considerations for commuter bus service from Bartow County include:

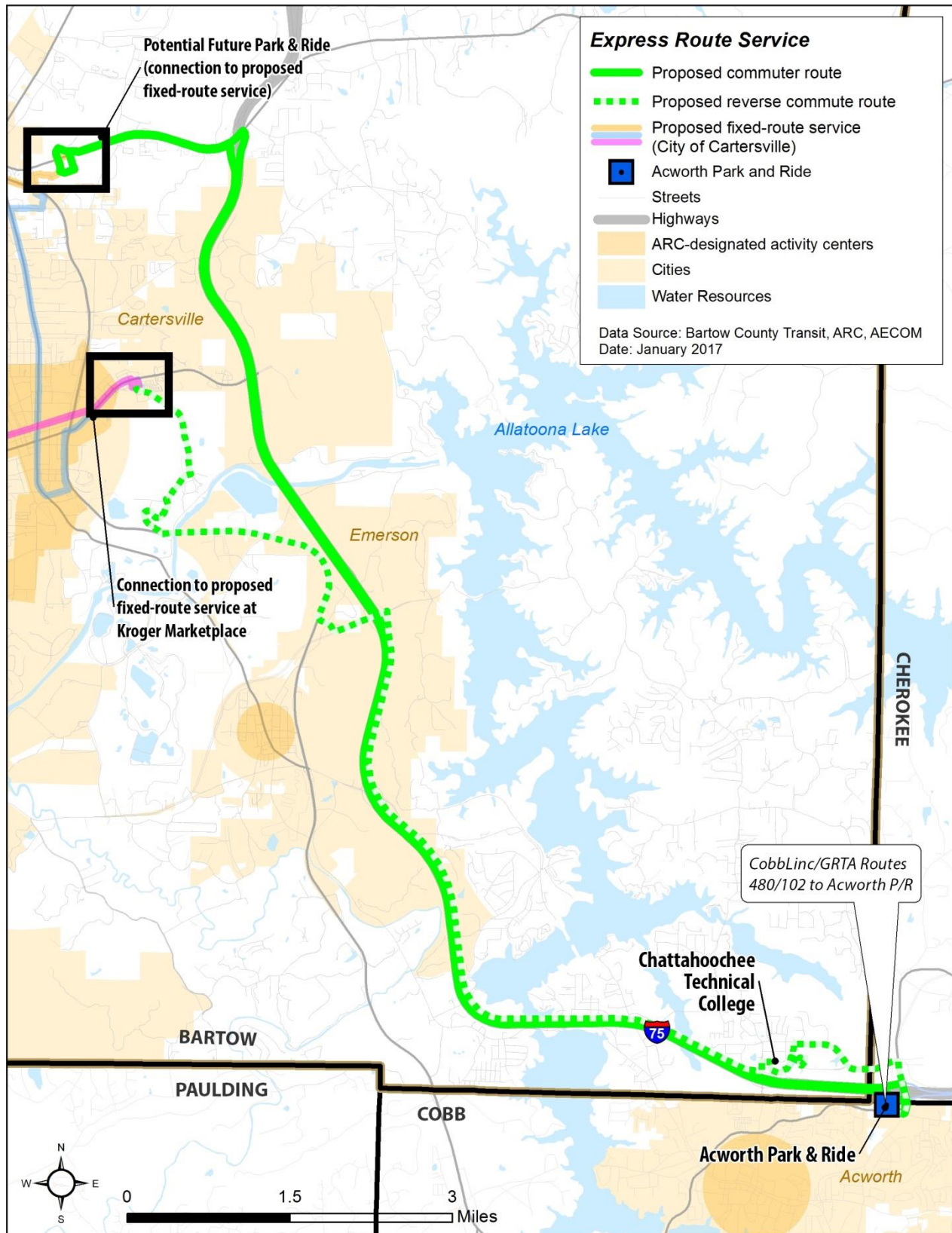
- Acworth Park and Ride Lot (Cobb County)
- Midtown/Downtown Atlanta (Fulton County via GRTA and CobbLinc commuter buses)
- Hartsfield-Jackson Atlanta International Airport (Clayton County via access to MARTA)

Public comments also indicated an interest in transit service from the Allatoona area of Bartow County to the Kroger Transfer Center. A reverse commute service was developed that would operate from the Acworth Park and Ride lot to the Chattahoochee Technical College after morning commuter service has concluded and prior to the commencement of afternoon service. (see **Figure 2-5**). This reverse commute service would allow for residents of the Allatoona area to access the BCT fixed route system at the Kroger Transfer Center.

**Figure 2-4: Proposed BCT Local Fixed Route Options**



**Figure 2-5: Proposed BCT Commuter Route Option**



## 3.0 RECOMMENDATIONS

---

Based on the further review of the future potential services and input received from the public meeting process, the following recommendations have been prepared. The recommendations regarding the proposed service options are grouped in three categories: Fixed Route Service, Commuter Service and Paratransit Service. Operating and capital cost estimates for the proposed services were prepared using the Congestion Mitigation and Air Quality (CMAQ) program, Section 5307, and Section 5311 as funding sources. .

### 3.1 Recommended Service Options and Cost Estimates

The services recommended for implementation and the estimated annual operating cost of implementing the recommendations for the first seven years are presented in **Table 3-1**. The operating statistics and ridership estimates for the services in Table 3-1 are presented in **Appendix B**.

In Table 3-1, the following assumptions were made:

- An Administrative position will be added to help oversee the new services at an initial annual salary of \$40,000
- The new service will start after the initial implementation year to allow adequate time to hire the administrative staff member, train and hire operators, procure vehicles, place bus stops and shelters, etc.
- A fare of \$1.00 for fixed route service and \$2.00 for commuter and paratransit service will be charged
- Federal CMAQ and 5307 funding sources will be utilized

Ridership estimates were based on peer ridership figures presented in the *Data Collection, Review and Analysis* Report. The average peer ridership was eighteen passengers per revenue hour. As new transit service can take from one to three years to develop full ridership potential, a conservative estimate of nine passengers per revenue hour was assumed for the initial year of fixed route service. A growth rate of five percent per year was also assumed. The schedules for the recommended services are presented in **Appendix C**.

### 3.2 Paratransit Recommendations

Federal regulations allow for vehicles purchased with 5311 funds to operate complementary paratransit service for urban routes. However, the operating funds for the complementary service must be paid with 5307 funds. An analysis of the FTA National Transit Database ridership figures for fixed route service (MB - motor bus) versus paratransit service (DR - demand response), for years 2002 through January 2017 indicates paratransit ridership is approximately two percent of fixed route ridership.<sup>1</sup> BCT operates within the fixed route service area and, for the purposes of this study, it is assumed that one vehicle will be available to accommodate eligible paratransit riders. The estimated paratransit service costs are presented in Table 3-1.

---

<sup>1</sup> Source: <https://www.transit.dot.gov/ntd/data-product/monthly-module-adjusted-data-release>

**Table 3-1: Estimated Annual Operating Costs of Fixed Route Service**

Year	Program Elements	Est. Annual Riderahip <sup>1</sup>	Operating Cost <sup>2</sup>	Average Fare (Est.)	Fare Revenue	Total Subsidy	Federal Source (CMAQ) <sup>3</sup>	CMAQ Local Share	Federal Source (5307) <sup>4</sup>	5307 Local Share	State Share	Total Local Share
1	Administration	-	\$40,000	-	-	\$40,000	\$20,000	\$20,000	-	-	-	\$20,000
	<b>Total</b>	<b>-</b>	<b>\$40,000</b>	<b>-</b>	<b>-</b>	<b>\$40,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$20,000</b>
2	Administration	-	\$41,200	-	-	\$41,200	\$20,600	\$20,600	-	-	-	\$20,600
	Local Route Service	82,620	\$426,962	\$1.00	\$82,620	\$344,342	\$275,402	\$68,850	\$45	\$45	-	\$68,895
	Commuter Service	29,880	\$154,413	\$2.00	\$59,760	\$94,653	\$75,109	\$18,777	\$383	\$383	-	\$19,161
	Paratransit Service	1,652	\$142,321	\$2.00	\$3,305	\$139,016	\$109,947	\$27,487	\$791	\$791	-	\$28,278
	<b>Total</b>	<b>114,152</b>	<b>\$764,896</b>	<b>-</b>	<b>\$145,685</b>	<b>\$619,211</b>	<b>\$481,058</b>	<b>\$135,714</b>	<b>\$1,219</b>	<b>\$1,219</b>	<b>-</b>	<b>\$136,934</b>
3	Administration	-	\$42,436	-	-	\$42,436	\$21,218	\$21,218	-	-	-	\$21,218
	Local Route Service	86,751	\$439,771	\$1.00	\$86,751	\$353,020	\$281,757	\$70,439	\$412	\$412	-	\$70,851
	Commuter Service	31,374	\$159,046	\$2.00	\$62,748	\$96,298	\$76,843	\$19,211	\$122	\$122	-	\$19,333
	<b>Total</b>	<b>119,860</b>	<b>\$787,842</b>	<b>-</b>	<b>\$152,969</b>	<b>\$634,873</b>	<b>\$494,059</b>	<b>\$139,428</b>	<b>\$693</b>	<b>\$693</b>	<b>-</b>	<b>\$140,121</b>
4	Administration	-	\$43,709	-	-	\$43,709	\$21,855	\$21,855	-	-	-	\$21,855
	Local Route Service	91,089	\$452,964	\$1.00	\$91,089	\$361,875	\$288,112	\$72,028	\$867	\$867	-	\$72,895
	Commuter Service	32,943	\$163,817	\$2.00	\$65,885	\$97,932	\$78,345	\$19,586	\$0	\$0	-	\$19,586
	Paratransit Service	1,822	\$150,988	\$2.00	\$3,644	\$147,344	\$116,475	\$29,119	\$875	\$875	-	\$29,994
	<b>Total</b>	<b>125,853</b>	<b>\$811,478</b>	<b>-</b>	<b>\$160,617</b>	<b>\$650,860</b>	<b>\$504,787</b>	<b>\$142,588</b>	<b>\$1,743</b>	<b>\$1,743</b>	<b>-</b>	<b>\$144,330</b>
5	Administration	-	\$45,020	-	-	\$45,020	\$0	\$0	\$22,510	\$22,510	-	\$22,510
	Local Route Service	95,643	\$466,553	\$1.00	\$95,643	\$370,910	\$0	\$0	\$185,455	\$185,455	-	\$185,455
	Commuter Service	34,590	\$168,731	\$2.00	\$69,180	\$99,551	\$0	\$0	\$49,776	\$49,776	-	\$49,776
	Paratransit Service	1,913	\$155,518	\$2.00	\$3,826	\$151,692	\$0	\$0	\$75,846	\$75,846	-	\$75,846
	<b>Total</b>	<b>132,146</b>	<b>\$835,822</b>	<b>-</b>	<b>\$168,648</b>	<b>\$667,173</b>	<b>\$0</b>	<b>\$0</b>	<b>\$333,587</b>	<b>\$333,587</b>	<b>-</b>	<b>\$333,587</b>
6	Administration	-	\$46,371	-	-	\$46,371	\$0	\$0	\$23,186	\$23,186	-	\$23,186
	Local Route Service	100,425	\$480,550	\$1.00	\$100,425	\$380,125	\$0	\$0	\$190,062	\$190,062	-	\$190,062
	Commuter Service	36,319	\$173,793	\$2.00	\$72,639	\$101,154	\$0	\$0	\$50,577	\$50,577	-	\$50,577
	Paratransit Service	2,009	\$160,183	\$2.00	\$4,017	\$156,166	\$0	\$0	\$78,083	\$78,083	-	\$78,083
	<b>Total</b>	<b>138,753</b>	<b>\$860,897</b>	<b>-</b>	<b>\$177,081</b>	<b>\$683,816</b>	<b>\$0</b>	<b>\$0</b>	<b>\$341,908</b>	<b>\$341,908</b>	<b>-</b>	<b>\$341,908</b>
7	Administration	-	\$47,762	-	-	\$47,762	\$0	\$0	\$23,881	\$23,881	-	\$23,881
	Local Route Service	105,446	\$494,967	\$1.00	\$105,446	\$389,521	\$0	\$0	\$194,760	\$194,760	-	\$194,760
	Commuter Service	38,135	\$179,007	\$2.00	\$76,271	\$102,736	\$0	\$0	\$51,368	\$51,368	-	\$51,368
	Paratransit Service	2,109	\$164,989	\$2.00	\$4,218	\$160,771	\$0	\$0	\$80,385	\$80,385	-	\$80,385
	<b>Total</b>	<b>145,691</b>	<b>\$886,725</b>	<b>-</b>	<b>\$185,935</b>	<b>\$700,790</b>	<b>\$0</b>	<b>\$0</b>	<b>\$350,395</b>	<b>\$350,395</b>	<b>-</b>	<b>\$350,395</b>

Notes:

1. Ridership estimate for Fixed Route assumes 9 passengers per hour and annual increase of 5% annually
2. Operating Cost assumes \$46.51 per revenue hour and includes estimated 3% CPI annual increase
3. Federal contribution under CMAQ Program is 80% of operating costs for three years spread over five years of operation
4. Federal contribution under 5307 Program is 50% of operating costs with 50% local match
5. Over seven year budget period, \$2.63M potentially available for other capital needs including marketing, technical assistance, security, passenger amenities, etc
6. Any cost and/or quantity opinions, estimates or forecasts provided by AECOM was on a basis of experience and judgment, but since AECOM has no control over market conditions or bidding procedures, AECOM cannot and does not warrant that bids, ultimate construction cost, or project economics will not vary from such opinions, estimates or forecasts.

### 3.3 Capital Costs

**Table 3-2** displays the Transit Program Capital Projection utilizing 5307 funding parameters for the seven-year period, including estimated vehicle, passenger amenities, and office/computer equipment and subsidy funding requirements.

**Table 3-2: Capital Facility Improvement Cost Estimates**

<b>Capital Facility Improvement Cost Estimates</b>						
<b>Type</b>	<b>Units</b>	<b>Estimated Unit Cost</b>	<b>Total</b>	<b>Federal Share (80%)</b>	<b>State Share (10%)</b>	<b>Local Share (10%)</b>
Transit Vehicles	6	\$45,000	\$270,000	\$216,000	\$27,000	\$27,000
Support Vehicle	1	\$30,000	\$30,000	\$24,000	\$3,000	\$3,000
Transfer Centers	3	\$50,000	\$150,000	\$120,000	\$15,000	\$15,000
Shelters	10	\$25,000	\$250,000	\$200,000	\$25,000	\$25,000
Bus Stops	110	\$250	\$27,500	\$22,000	\$2,750	\$2,750
Software/Hardware	-	\$20,000	\$20,000	\$16,000	\$2,000	\$2,000
Office Equipment	-	\$15,000	\$15,000	\$12,000	\$1,500	\$1,500
<b>Totals</b>			<b>\$762,500</b>	<b>\$610,000</b>	<b>\$76,250</b>	<b>\$76,250</b>

Note: Any cost and/or quantity opinions, estimates or forecasts provided by AECOM was on a basis of experience and judgment, but since AECOM has no control over market conditions or bidding procedures, AECOM cannot and does not warrant that bids, ultimate construction cost, or project economics will not vary from such opinions, estimates or forecasts.

Based on the Transit Program Operating and Capital projections, CMAQ funding should be considered for the first three years of fixed route operation and 5307 funds for capital equipment and facility requirements. This would be dependent upon Bartow County applying for and being approved for this funding. Once the three year limit for CMAQ funding expired, the transit system should utilize Section 5307 funding for operations.

### 3.4 Potential Funding Sources

This section evaluates the financial plan for the proposed transit system expansion in Bartow County. Bartow County tax revenues, transit expenditures, capital and operating costs and funding sources are calculated in this chapter. This chapter includes a discussion of several key implementation issues and the financial capacity and possible phasing of the transit system expansion.

In order to fund this proposed expansion, Bartow County will need to contribute local revenues in order to provide the necessary local match needed to acquire federal and state funding. The Georgia Department of Transportation (GDOT) administers various Federal and State Aid Grant Programs to assist localities with funding for public transportation systems. GDOT is the designated recipient for Federal Transit Administration (FTA) funding and distributes this funding to small urbanized localities based on an application process.

Prior to the 2010 Census designation, the Bartow County Transit operated as a Rural Area system and applied for FTA Section 5311 grant program funding. Following the 2010 Census, the City of Cartersville became a small urbanized area and became eligible for the use of FTA Section 5307 Urbanized Area funding. Funding from the FTA is typically used to fund up to 50% of operating expenses and 80% of capital investments in the transit system for either Rural Section 5311 funds or Section 5307 Urbanized Area funding.

### 3.4.1 Federal Sources of Transit Funding

**Table 3-3** is a summary of the Federal grants, administered by GDOT, which Bartow County is eligible for the financing of an expanded public transportation system.

<b>Table 3-3: GDOT - Administered Federal Aid Grant Programs</b>			
<b>Federal Aid Grant Program</b>	<b>Program Description</b>	<b>Eligible Recipients</b>	<b>Matching Ratios</b>
FTA Section 5303, 5304 and 5305 – Metropolitan and Statewide Planning formula funding	Support transit planning expenses.	<ul style="list-style-type: none"> <li>Metropolitan Planning Organizations (MPOs)</li> <li>State DOTs</li> </ul>	Up to 80% of eligible expenses
FTA Section 5307 – Urbanized Area formula funding	Supports operating and capital costs of transit operators. Used by the State DOT to fund small urban transit systems.	Funding is made available to designated recipients, which must be public bodies. Typically the State DOT is the designated recipient for urbanized areas between 50,000 and 200,000.	UP to 50% of eligible operating expenses. Up to 80% of eligible capital expenses.
FTA Section 5311 – Rural Area formula funding	Supports operating and capital costs of transit operators in non-urbanized areas.	<ul style="list-style-type: none"> <li>State DOTs</li> <li>Federally recognized Indian Tribes</li> <li>Sub-recipients include state or local government authorities, nonprofit organizations, and operators of public transportation or intercity bus service.</li> </ul>	Up to 50% of eligible operating expenses. Up to 80% of eligible capital expenses.
FTA Section 5339(a) – Bus and Bus Facilities formula grant	Provides capital funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-	<ul style="list-style-type: none"> <li>Designated Recipients of urbanized areas.</li> <li>State DOTs that operate or allocate funding to fixed-</li> </ul>	Up to 80% of eligible capital expenses.

	related facilities.	route bus operators. <ul style="list-style-type: none"> <li>• Sub-recipients include public agencies or private non-profits engaged in public transit.</li> </ul>	
FTA Section 5339(b) – Bus and Bus Facilities discretionary grant	Provides capital funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities.	<ul style="list-style-type: none"> <li>• Designated Recipients of urbanized areas.</li> <li>• State DOTs that operate or allocate funding to fixed-route bus operators.</li> <li>• Sub-recipients include public agencies or private non-profits engaged in public transit.</li> </ul>	Up to 80% of eligible capital expenses.
Flexible Funding Program – Surface Transportation Program (STP) Funds	Provides funding for a wide variety of projects that support operating and capital costs of transit operators. Used by the State DOT to fund small urban transit systems.	Funding is made available to designated recipients, which must be public bodies. Typically the State DOT is the designated recipient for urbanized areas between 50,000 and 200,000.	Up to 88.5% of eligible capital expenses.
Flexible Funding Program – Congestion Mitigation and Air Quality (CMAQ) Program	Provides capital funding that must show an air quality benefit. Funding can also be used for improvements to public transit facilities, high occupancy vehicle (HOV) facilities, park-and-ride lots and traffic flow improvements.	State DOTs with areas in nonattainment or maintenance for ozone, carbon monoxide and/or particulate matter.	Up to 88.5% of eligible capital expenses.

Most all transit systems in the United States receive substantial federal funding. This section provides a summary of the transit funding options available for Bartow County. All funding programs include limiting factors related to the eligible recipients and eligible costs, either planning, capital and/or operating costs.

Federal funding is established through legislative program structures and programs maintained in the Fixing America’s Surface Transportation (FAST) Act. The FAST Act preserved much of the Moving Ahead for Progress in the 21st Century (MAP-21) legislative programs and funding shares. Because the horizon of the FAST Act is much longer than MAP-21, the FAST Act

provides longer term funding provisions for transportation agencies. Federal funding categories that can be leveraged for transit improvement projects by Bartow County are detailed below.

**A. Metropolitan and Statewide Planning and Non-Metropolitan Transportation Planning – Sections 5303, 5304 and 5305 Programs**

These funds are available for planning activities that:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety of the transportation system for motorized and non-motorized users;
- Increase the security of the transportation system for motorized and non-motorized users;
- Increase the accessibility and mobility of people and for freight;
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient system management and operation; and
- Emphasize the preservation of the existing transportation system.

This MPO funding is allocated to GDOT and then distributed to the MPOs in the state of Georgia through a grant process with FTA. Each specific MPO receives an allocation through a GDOT-administered formula.

**B. Urbanized Area Formula Grant – Section 5307 Program**

The Section 5307 formula grant provides transit capital, operating and planning assistance to urbanized areas with populations of more than 50,000. This program has the most encompassing eligibility of any federal program providing funding to transit systems. Grant funds are utilized to support the development, maintenance and improvement of public transportation in urbanized areas. Eligible projects fall into three primary categories: Planning Projects, Capital Projects and Operating Projects.

*Planning* eligible activities include, but are not limited to: studies relating to management, operations, capital requirements, and economic feasibility; work elements and related activities preliminary to and in preparation for constructing, acquiring, or improving the operation of facilities and equipment; plans and specifications; evaluation of previously funded projects; job access and reverse commute projects; and other similar or related activities before and in preparation for the construction, acquisition, or improved operation of public transportation systems, facilities, and equipment.

*Capital* projects eligible under the Urbanized Area Formula Program include all projects included under 49 U.S.C. 5302(3). In general, capital project expenses involve purchasing, leasing, constructing, maintaining, or repairing facilities, rolling stock, and equipment for use in a public transportation system. Capital project costs may include all direct costs and indirect costs associated with the project (provided that the grantee has an approved cost allocation plan or indirect cost proposal). It is noted that a listing of eligible projects is not shown here because of the breadth of projects. All eligibility of projects is generally determined by the FTA regional offices.

Example eligible projects include engineering design and evaluation of transit projects, capital investments in bus and bus-related activities such as replacement and overhaul of buses, rebuilding of buses, crime prevention and security equipment, construction of maintenance and passenger facilities and capital investments in new and existing fixed guideway systems. All preventive maintenance and some Americans with Disabilities Act (ADA) complementary paratransit service costs are considered eligible.

FTA provides funding to eligible recipients for costs incurred in the *operation of public transportation service*. In general, operating expenses are those costs necessary to operate, maintain, and manage a public transportation system. Operating expenses usually include such costs as driver salaries, fuel, and items having a useful life of less than one year. Recipients in small UZAs, such as Bartow County, may use Section 5307 funds for operating assistance. There is no limitation on the amount of their apportionment that recipients in these UZAs may use for operating assistance.

Established under MAP-21 and upheld by FAST Act legislation, the Section 5307 grant program also includes eligible activities from the Job Access and Reverse Commute (JARC) Program (formerly known as Section 5316), which focuses on providing services to low-income individuals to access jobs. These activities include operating assistance with a 50 percent local match for JARC activities. In addition, the urbanized area formula for distributing funds now includes the number of low-income individuals as a factor. There is no minimum or maximum amount of funding that can be spent on JARC activities.

For urbanized areas with populations of 200,000 or more, the Designated Recipient must determine the appropriate split of funding for the other transit providers in the respective urbanized area. These sub-allocations of funding are calculated with a locally-derived formula decided in concert with the other transit providers. A portion of the Bartow County service area is in the Atlanta large urbanized area and, as such, Bartow County receives a portion of the funding appropriated to the Atlanta large urbanized area.

In the state of Georgia, GDOT serves as the Designated Recipient for all small urbanized areas and Bartow County is a sub-recipient of the Section 5307 funding. Therefore, GDOT actually submits all grant applications to FTA on behalf of Bartow County. Similarly all grant management activities required by FTA is completed by GDOT. GDOT then administers the funding to Bartow County as a sub-recipient through a contractual agreement. The small portion funding set aside for Bartow County from the Atlanta large urbanized area is transferred to GDOT and GDOT makes this funding available to Bartow County.

GDOT as the Designated Recipient for all small urbanized areas in the state of Georgia, including Bartow County, must complete the following activities:

- Allocate the relevant apportionment among recipients in the urbanized areas in coordination with the MPOs.
- Identify and select projects (capital, operating, job access and reverse commute or planning) that the MPO or State DOT will include in the

Statewide Transportation Improvement Program (STIP), long-range statewide transportation plan and other relevant state documents.

- Submit the grant application for the Section 5307 program of projects (POP).
- Ensuring that the annual POP complies with the requirements that at least one percent of the apportionment is used for associated transit improvements and that at least 1 percent is used for public transportation security projects unless all security needs are certified to have been met.

Because GDOT is the Designated Recipient for Bartow County, all FTA-required audits and reviews are conducted with GDOT rather than Bartow County. FTA performs a triennial review at least once every three years to evaluate the performance of each recipient of Section 5307 funds, including GDOT. During the triennial review, FTA ensures the recipient is governing its program in compliance with federal statutory and administrative requirements.

The local match required for the Section 5307 funding can vary from 10% - 50% depending on the type of project. The federal share for *planning and capital* projects that receive funding under the Section 5307 Program may not exceed 80 percent of the project cost. There are several notable exceptions in which the federal share may exceed 80 percent for certain projects related to ADA, Clean Air Act, and certain bicycle projects as follows:

1. Vehicles. The federal share is 85 percent for the acquisition of vehicles for purposes of complying with or maintaining compliance with the Americans with Disabilities Act of 1990 (ADA; 42 U.S.C. 12101 et seq.) or the Clean Air Act (CAA; 42 U.S.C. 7401 et seq.).
2. Vehicle-Related Equipment and Facilities. The federal share for project costs for acquiring vehicle-related equipment or facilities (including clean fuel or alternative fuel vehicle-related equipment or facilities) for purposes of complying or maintaining compliance with the CAA, or required by the ADA, is 90 percent.

The federal share for *operating expenses* may not exceed 50% of the net operating cost.

### **C. Rural Formula Program – Section 5311 Program**

The Formula Grants for Rural Areas program provides capital, planning, and operating assistance to state DOTs to support public transportation in rural areas with populations of less than 50,000, where many residents often rely on public transit to reach their destinations.

The Section 5311 program supports both the maintenance of existing public transportation services and the expansion of those services through these program goals of:

- Enhancing access in rural areas to health care, shopping, education, employment, public services, and recreation;
- Assisting in the maintenance, development, improvement, and use of public transportation systems in rural areas;
- Encouraging and facilitating the most efficient use of all transportation funds used to provide passenger transportation in rural areas through the coordination of programs and services;

- Providing financial assistance to help carry out national goals related to mobility for all, including seniors, individuals with disabilities, and low-income individuals;
- Increasing availability of transportation options through investments in intercity bus services;
- Assisting in the development and support of intercity bus transportation;
- Encouraging mobility management, employment-related transportation alternatives, joint development practices, and transit-oriented development; and,
- Providing for the participation of private transportation providers in rural public transportation.

The program also provides funding for state and national training and technical assistance through the Rural Transportation Assistance Program. Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, Indian tribes, and nonprofit organizations, and operators of public transportation services. The maximum FTA share for operating assistance is 50 percent of the operating costs. Similar to the Section 5307 formula grant, JARC activities in rural areas are also eligible Section 5311 costs.

Similar to Section 5307, funds in the Section 5311 program have a very wide compass of eligibility. Eligible capital expenses include the acquisition, construction, and improvement of public transit facilities and equipment needed for a safe, efficient, and coordinated public transportation system as well as certain other expenses classified as capital in Section 5302(3). Operating expenses are those costs directly related to system operations. At a minimum, states must consider the following items as operating expenses: fuel, oil, drivers' salaries and fringe benefits, dispatcher salaries and fringe benefits, and licenses.

The governor designates a state agency that will have principal authority and responsibility for administering the Section 5311 program. For Georgia, the agency given charge over the Section 5311 program is GDOT. Specifically, the role of the state agency is to:

- 1) Document the state's procedures in a state management plan (SMP);
- 2) Notify eligible local entities of the availability of the program;
- 3) Plan for future transportation needs, and ensure integration and coordination among diverse transportation modes and providers;
- 4) solicit applications from transit providers;
- 5) Develop project selection criteria;
- 6) Review and select projects for approval;
- 7) Forward an annual program of projects and grant application to FTA;
- 8) Certify eligibility of applicants and project activities;
- 9) Ensure compliance with federal requirements by all sub-recipients;
- 10) Monitor local project activity;
- 11) Oversee project audit and closeout; and
- 12) File an NTD report each year for itself and each sub-recipient.

A portion of Bartow County not included in the small urbanized area boundary will continue to receive Section 5311 funds from GDOT. These funds will continue to be allocated to Bartow County in much the same fashion as prior to the designation as a

small urbanized area. Naturally, the amount of Section 5311 funds will decrease because the portion of the county considered “rural” has decreased.

**D. Bus and Bus Facilities Grant – Section 5339 Program**

The Bus and Bus Facilities is a formula grant program created by MAP-21 legislation which replaced the previous Section 5309 discretionary Bus and Bus Facilities program. This capital-only program provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities. Distribution of this grant is formula based and requires a 20% local match. A portion of the total Section 5339 program has been also set aside as a discretionary pot of funding through the FAST Act. These competitive grants also provide additional federal resources to state DOTs and designated and direct recipients to replace, rehabilitate and purchase buses and related equipment and to construct facilities including technological changes or innovations to modify low or no emission vehicles or facilities. Note that despite the Section 5339 supporting capital only expenditures, preventive maintenance is not an eligible activity. A sub-program, the Low- or No-Emission Vehicle Program, provides competitive grants for projects that support the purchase or rehab of those specified vehicles.

**E. Flexible Funding Program – Surface Transportation Program (STP) Funds**

The STP program provides a national annual appropriation to the Federal Highway Administration (FHWA). This funding has a broad project eligibility and funding may be used for projects to preserve or improve conditions and performance on any Federal-aid highway, bridge project on any public road, facilities for non-motorized transportation, transit capital projects and public bus terminals and facilities. This program funding can also be “flexed” to FTA for use by transit agencies. Once flexed to FTA, the funds generally follow the regulations and eligibility of Section 5307 funding.

**F. Flexible Funding Program – Congestion Mitigation and Air Quality (CMAQ) Program**

The CMAQ program is also an FHWA aid program that provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. All CMAQ projects must demonstrate the several primary elements of eligibility including emissions reduction and location in or benefitting a nonattainment or maintenance area. Similar to STP funds, these funds can be flexed to FTA for use by transit agencies. These funds, once with FTA, must still be spent on projects that demonstrate an air quality benefit.

Funding levels for the CMAQ program show modest increases on the next five years of legislation under the FAST Act.

<b>Federal Fiscal Year</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Estimated Funding*</b>	\$2.309 B	\$2.360 B	\$2.405 B	\$2.449 B	\$2.499 B

\*Calculated based on sum of individual State CMAQ apportionments.

While project eligibility remains basically the same, the legislation places emphasis on diesel engine retrofits, installation of diesel emission control technology and other efforts that underscore the priority on reducing fine particle pollution. Funds from the CMAQ program could provide the majority of operating subsidies for up to five years

of transit operations. After this funding is depleted, FTA Section 5307 funding would be utilized to provide the operating subsidy.

Many transit-type projects are eligible for CMAQ funds. The general guideline for determining eligibility is whether the project increases transit capacity and would likely result in an increase in transit ridership and a potential reduction in congestion. Some example eligible projects for CMAQ funds are listed below. The key to CMAQ eligibility is that the service or capital project must be for a new transit service not an existing transit service currently being offered. Instances in which services are being augmented and upgraded have been funded previously but the eligibility of augmented or enhanced services receiving funds is determined on a case-by-case basis.

- New transit facilities (e.g., lines, stations, terminals, transfer facilities) are eligible if they are associated with new or enhanced public transit, passenger rail, or other similar services. Routine maintenance or rehabilitation of existing facilities is not eligible, as it does not reduce emissions. However, rehabilitation of a facility may be eligible if the vast majority of the project involves physical improvements that will increase transit service capacity. In such cases there should be supporting documentation showing an expected increase in transit ridership that is more than minimal. If the vast majority of the project involves capacity enhancements, other elements involving refurbishment and replacement-in-kind also are eligible.
- Vehicles and Equipment - New transit vehicles (bus, rail, or van) to expand the fleet or replace existing vehicles are eligible. Transit agencies are encouraged to purchase vehicles that are most cost-effective in reducing emissions. Routine preventive maintenance for vehicles is not eligible as it only returns the vehicles to baseline conditions. Other than diesel engine retrofits, other transit equipment may be eligible if it represents a major system-wide upgrade that will significantly improve speed or reliability of transit service, such as advanced signal and communications systems. The eligibility of such is evaluated by the FHWA and FTA and is determined eligible or not on a case-by-case basis.
- Fuel – Fuel is an eligible expense only as part of a project providing operating assistance for new transit service under the CMAQ program.
- Operating Assistance - Operating assistance to introduce new transit service existing transit service is eligible. The eligibility applies regardless of the size of the urbanized area (UZA) or whether a particular grantee is or was previously authorized to use funding under Chapter 53 of Title 49 U.S.C. for operating assistance.

There are several general conditions for operating assistance eligibility under the CMAQ program (see the November 2013 CMAQ Program Interim Guidance for a complete discussion on CMAQ project eligibility requirements). Applicable excerpts from the guidance are given below:

- Operating assistance is limited to start up operating costs for new transportation services or the incremental costs of expanding such services, including transit, commuter and intercity passenger rail services, intermodal facilities, and travel demand management strategies, including traffic operation centers.
- In using CMAQ funds for operating assistance, the intent is to help start up viable new transportation services that can demonstrate air quality benefits and eventually cover costs as much as possible. Other funding sources should supplement and ultimately replace CMAQ funds for operating assistance, as these projects no longer represent additional, net air quality benefits but have become part of the baseline transportation network. The provisions in 23 U.S.C. 116 place responsibilities for maintenance of transportation facilities on the States. Since facility maintenance is akin to operations, a time-limited period of CMAQ assistance provides adequate incentive and flexibility while not creating a pattern of excessive or even perpetual support.
- When CMAQ funds are used for operating assistance, non-Federal share requirements still apply.
- With the focus on start-up, and recognizing the importance of flexibility in the timing of financial assistance, the three years of operating assistance allowable under the CMAQ program may now be spread over a longer period, for a total of up to five sequential years of support. Grantees who propose to use CMAQ funding for operating support may spread the third year amount (an amount not to exceed the greater of year 1 or 2) across an additional 2 years (i.e. years 4 and 5). This approach will provide an incremental, taper-down approach, while other funding is used for a higher proportion of the operating costs as needed. See **Table 3-4** for examples of possible funding allocations. At the conclusion of the five-year period, operating costs would have to be maintained with non-CMAQ funding. It is anticipated that this approach may enable a transition to more independent system operation. The amounts which apply to years 1 and/or 2 are established at the discretion of the State or local sponsor.

**Table 3-4: Example Allocations of CMAQ Funds for Operating Assistance**

Option	Year 1	Year 2	Year 3	Year 4	Year 5	Total Allocation
A	\$300	\$300	\$200	\$50	\$50	\$900
B	\$300	\$300	\$100	\$100	\$100	\$900
C	\$100	\$400	\$200	\$100	\$100	\$900

### **3.4.2 State Sources of Transit Funding**

The State of Georgia, under GDOT, has administrative responsibility for the federal programs related to transit operating and capital for cities with populations under 200,000. Section 5307 and 5311 programs have administrative guides that are updated for each fiscal year and are available through the Office of Intermodal Programs. Contact with GDOT should be made, and the program's administrative guides should be reviewed to determine the availability and timing for funding. The state does provide matching shares for capital grants for the Section 5311 programs. The state provides no funding assistance for transit operations.

### **3.4.3 Local Sources of Transit Funding**

The local share for funding transit capital and operating expenses can come from a variety of sources, provided that they did not originate from a federal source. Local share is normally made in the form of cash; however, in some cases the local share can be made in the form of in-kind services or contributions. In-kind services are those services which may be used by the transit operation but paid for from another local source and not directly by the transit operation. For example, shared use of a garage facility may be counted as in-kind contribution because the value of the service provided by the use of the garage could be paid from another source such as the Public Works Department. Typically, local share comes from three main sources, general fund, ad valorem taxes (property taxes), or sales taxes dedicated specifically to transit. For capital, general revenue or capital improvement bonds may be considered as a local share source.

Local funding can also come from public-private partnerships, Special Purpose Local Option Sales Tax (SPLOST) funding, local taxes, and advertising revenues. These funding sources are briefly described below.

- **Public-Private Partnerships:** Large local employers could have a financial interest in the creation of various transit programs in the area. Consideration should be given to identifying these potential partners in formulating strategies to create a successful transit system.
- **SPLOST Funding:** Georgia law allows local jurisdictions as of July 1, 1985 to use SPLOST proceeds for capital improvement projects that would otherwise be paid for with General Fund and property tax revenues. For example, Athens, Georgia has utilized SPLOST funding to finance a bus shelter program, construct a Multi-Modal Transportation Center (MMTC), and purchase and replace transit vehicles.
- **Local Taxes:** A property tax designated specifically for transit operations and capital improvements could be assessed. A dedicated millage levy could offset local funding costs and deficits in farebox revenues. Other potential sources could include car rental or lodging taxes or special fees.
- **Advertising Revenues:** While transit related advertising revenues are not usually a large revenue generator, they can still be used to help with operating and maintenance cost. Advertising revenues can typically be generated from display signage applied to bus exteriors or interiors and through shelter display programs.

## **3.5 Additional Considerations**

### **3.5.1 Marketing**

A comprehensive marketing plan for the recommended system should be developed to assist in implementing the system. A strong marketing plan is crucial for establishing the foundation for future marketing strategies once the implementation is completed. Items to be addressed could include:

- Overall system image
- Graphics
- Community outreach
- Advertising
- Coordination techniques with other organizations

It is essential that a distinctive system logo, vehicle paint scheme, signage, and theme for the new services be developed to generate a unique and positive image for the transit program. A key recommendation is that the image (logo/graphics) created be unique to the service area and avoid the more conventional or institutional look often utilized by new transit systems.

Customer Service is closely linked with marketing as this function typically:

- Provides transit service information through various methods including internet, printed media, and telephone
- Coordinates the sale of fare media
- Handles customer complaints, commendations, inquiries, requests, and suggestions
- Responsible for “Lost and Found”

With the addition of the buses and other amenities such as bus shelters, public awareness of the system will continue to improve. However, future marketing efforts should concentrate heavily on continued public outreach and building awareness about the system and the benefits of the services offered.

Immediate priorities should be the development of attractive English and Spanish versions of informational materials such as posters and flyers. These cost effective marketing tools should be widely distributed and will assist BCT in increasing the visibility of the system while providing the public with much needed information about the services offered.

Another priority should be the design of bus stops signs to provide rider-friendly information and to coordinate with the new bus paint scheme. The design will encourage ridership and increase BCT’s visibility in the community.

Finally, a high priority should also be given to updating the BCT web site, with emphasis on design that makes the site accessible for people with disabilities and Limited English Proficiency (LEP).

### **3.5.2 Intelligent Transportation Systems (ITS) Applications**

Intelligent Transportation Systems (ITS) is a term commonly used to refer to a collection of technological applications and transportation management concepts designed to move people and goods in an efficient and safe manner. A preliminary screening of the services and

technologies was conducted to identify their applicability to BCT. Those services/technologies identified as having potential include:

1. Traveler Information/Display Systems
2. Transit Vehicle Monitoring and Maintenance
3. Transit Signal Priority

#### Traveler Information Systems

Both static and real-time information should be considered for the transit system at stops and onboard.

Real-time bus arrival information should be considered for display at key bus stops. Displays use automatic vehicle location systems (AVL), computer-based vehicle tracking systems capable of providing real-time transit arrival and departure information to transit passengers. The actual real-time position of each transit vehicle is determined and relayed to a control center. Actual position determination and relay techniques vary, depending on the needs of the transit system and the technologies employed.

Complete packages of ITS services, providing AVL capabilities are available to small transit and shuttle operators to:

- Continuously track the position of vehicles throughout the day
- Inform passengers when vehicles will arrive, taking into account delays
- Provide passengers with travel time to a destination
- Monitor drivers and contractors, verifying compliance with work rules
- Replay past events in case of accidents, alleged service failures, or accusations of misconduct.
- Produce a variety of management reports, to help in service monitoring, planning system improvements, and meeting reporting requirements.

#### Transit Vehicle Monitoring or Maintenance

ITS technologies can also be used to collect operational and maintenance data from transit vehicles, manage vehicle service histories, and monitor operators and vehicles. Vehicle mileage data can be used to automatically generate preventative maintenance schedules for each vehicle by utilizing vehicle tracking data from a prerequisite vehicle tracking equipment package. Additionally, on-board condition sensors can be employed to monitor system status, transmit critical status information to a transit management subsystem/center, and schedule maintenance and repairs.

#### Transit Signal Priority

Transit Signal Priority is an ITS operational strategy that facilitates the movement of transit vehicles, either buses or streetcars, through traffic-signal controlled intersections. Objectives of Transit Signal Priority include improved schedule adherence and improved transit travel time efficiency while minimizing impacts to normal traffic operations.

An emitter is installed on transit vehicles and a detector on traffic signals, making it possible for a transit vehicle to “request” a longer green time or a shorter red time when approaching a signalized intersection.

If BCT transit vehicles encounter significant delays at traffic signals, this strategy might be considered. If Transit Signal Priority is needed, the U.S. Department of Transportation provides

guidance through a manual explaining the process of planning and implementing signal priority, based on a systems engineering approach.<sup>2</sup>

### **3.5.3 Service Monitoring**

Transit systems have recurrent needs and requirements to collect and report a wide range of information about operations and ridership. The continual compilation of data is essential for the effective planning and management of transit services. Without detailed operations information, the ability to effectively monitor and report system performance and subsequently revise services would be severely impacted. Resource limitations frequently limit comprehensive service monitoring programs. However, the information resulting from service monitoring is very important because fundamental transit functions such as scheduling, service planning, maintenance, finance, and marketing require this data for decision making and reporting. Key considerations for establishing a service monitoring program include:

- Identification of the data categories to be collected
- Methods and sources to be used in data collection
- Procedures to be used to process and store the data
- Evaluating and reporting the data in a meaningful and ongoing format
- Determining where and ensuring required reports are properly transmitted

Program elements must be identified prior to the initiation of service as certain data must be recorded on a daily basis. While the majority of information may, in the case of a contract service provider, be collected and processed by the contractor, the agency must ensure the data is collected, evaluated, and reported in an accurate and timely manner. In addition to compilation of statistical data, periodic field observations of system operations and contract monitoring must also be regularly undertaken.

### **3.5.4 National Transit Database (NTD) Reporting Protocol**

All recipients of FTA Section 5307 Program funding are required to report to the NTD. The annual report from each FTA funding recipient will contain information on capital investment, operation, and service provided with the funds. It will include total annual revenue; sources of revenue; total annual operating costs; total annual capital costs; fleet size and type and related facilities; revenue vehicle miles; and ridership.

---

<sup>2</sup> [https://ops.fhwa.dot.gov/publications/fhwahop08024/fhwa\\_hop\\_08\\_024.pdf](https://ops.fhwa.dot.gov/publications/fhwahop08024/fhwa_hop_08_024.pdf)

# APPENDIX A: PUBLIC INVOLVEMENT

## Introduction

In July 2016, the Cartersville-Bartow Metropolitan Planning Organization (CBMPO), on behalf of Bartow County Transit (BCT), initiated a Transit Development Plan (TDP) study to take a look at Bartow County Transit (BCT) to examine existing population, current transit ridership, future development patterns, and options for future public transportation within the community. One of the key tasks of the study was community and agency coordination. This task involved soliciting input regarding BCT from key stakeholders, area agencies, and the general public. This section includes summary reports from the following community and agency coordination task elements:

- Stakeholder Interviews
- Public Information and Outreach Meetings

## Stakeholder Interviews

The consultant team, in coordination with BCT and CBMPO identified a list of key stakeholders to seek input from in developing the TDP. Nineteen stakeholder interviews were conducted by phone and in person between October and November 2016. A list of participating stakeholder organizations and representatives interviewed is provided in **Table A-1**.

**Table A-1: List of Stakeholder Organizations and Representatives Interviewed**

<b>Organization</b>	<b>Name of Interviewee</b>
Bartow Collaborative	Doug Belisle
Bartow County Transit Department	Weldon Dudley
Bartow County Commissioner	Steve Taylor
Bartow County Representatives (Allatoona Resource Center)	Patrick Nelson
Business Community Representatives (Chamber of Commerce)	Greg Patton
Business Community Representatives (Apollo Staffing)	Ivy Barber
City Representatives - Cartersville	Sam Grove, Randy Mannino, Tommy Sanders
City Representatives - Euharlee	James Stephens
City Representatives - Kingston	Mike Abernathy
City Representatives - Taylorsville	Mitchell Bagley
City Representatives - White	Jane Richards
Cartersville DDA	Lillie Reed
Chattahoochee Technical College	Lori McAllister
Chattahoochee Technical College	Shane Evans
Tellus Science Museum	Shelly Redd
Social Services - Douglas Street	Susan Barfield
Social Services - Adairsville	Kay House
Senior Centers - Bartow County Nutrition Program	Carol McDaniel
Senior Centers - Cartersville Recreation	Megan Hix
Tourism/Welcome Center	Ellen Archer

## Stakeholder Interview Questions

The following list of questions guided the stakeholder interview discussion:

1. What are the primary destinations in Bartow County? What travel patterns have you observed? (i.e. when is the travel occurring and how are people traveling?)
2. How often and where do you travel to other destinations within Bartow County?
3. In general, how do you view public transportation both currently and for the future?
4. What is your perception of the current BCT services and facilities?
5. What barriers do you see to transit service in Bartow County?
6. a. What opportunities do you see for an expanded transit system within the Bartow County - both currently and in the future?  
b. Who would be the primary users of this service?
7. a. What opportunities do you see for an expanded transit system to destinations outside Bartow County - both currently and in the future?  
b. Who would be the primary users of this service?
8. What do you think would affect someone's decision to use transit? (convenience, stops, schedule, quality, image, safety, understanding of service)
9. Do you have any other ideas for enhancing the BCT system?
10. Are there any other comments or observations you have about the study or transit in general?

## Summary of Responses

### ***What are the primary destinations in Bartow County?***

Primary destinations identified by stakeholders included:

- Commercial Centers
  - Specific locations included Bartow Marketplace, Walmart, Kroger Marketplace, and Downtown Cartersville as a whole (particularly the commercial center bound by Highway 113, Highway 41, Main Street, and Tennessee Street).
- Medical and social service facilities
  - Specific locations included the Allatoona Resource Center, and clusters of social services located along Glade Road in south Bartow County, Douglas Street in Cartersville, and Adairsville, which is currently underserved by transit.
- Government facilities
  - The Department of Labor, Division of Family and Children Services, City Hall, and the County Courthouse were identified as primary destinations.
- Education centers
  - Specific locations included Georgia Highlands College, Chattahoochee Technical College, and schools within the Bartow County School District.
- Employment centers

- Locations identified as employment centers included Old Mill Road/South Erwin Street, Highway 113/Riverside Drive, West Avenue/Ampacet Drive, Industrial Park Rd NE between Highway 411 and Old Grassdale Rd, Cass White Road, and Browns Farm Road/Riverside Road (airport area)
- Regional destinations/tourist attractions
  - Specific locations identified included LakePoint Sporting Community, Tellus Science Museum, Booth Western Art Museum, Downtown Cartersville, Lake Allatoona and Red Top Mountain, and Barnsley Gardens

***What travel patterns have you observed?***

Stakeholders agreed that automobile travel was most common in Bartow County, with most people driving to get to and from work. Because many employment centers tend to be off the beaten path, one stakeholder noted they are often difficult to access via alternative modes of transportation. These travel patterns tend to cause congestion in the morning and evenings in Cartersville, Euharlee, and Emerson along the I-75 corridor.

Pedestrian travel is primarily limited to Tennessee Street and Main Street within Cartersville, and is not seen in most other parts of the county due to development patterns. Transit can be used for trips to the doctor, or to the grocery store, but tends to be utilized by older people as the hours of service are limited to early in the day.

***How often and where do you travel to other destinations within Bartow County?***

Other destinations identified by stakeholders included:

- Cities of Emerson and Adairsville
- Special interest destinations

***In general, how do you view public transportation both currently and for the future?***

Fourteen interviewees responded positively towards public transportation, while five had neutral responses. Those with a positive perception cited it as an essential service to elderly, low-income and disabled residents; a potential solution to serve the increasingly urban nature of Bartow County and alleviate congestion; and possible opportunity to connect to regional destinations within the greater Atlanta region. One stakeholder noted that it would be very useful and make a difference for the tourist economy in Bartow County.

Those with neutral responses were often unsure about the current need for transit in Bartow County, particularly given the costs associated with it. Some stated that it could be a viable option for the future, but were unsure of the current demand for transit. The overall sentiment was that it would need to be studied appropriately to determine the viability of transit.

### ***What is your perception of the current BCT services and facilities?***

The perceptions of current BCT services and facilities were mixed, with six interviewees giving positive response, eight neutral, and five negative. Positive respondents felt that BCT services and facilities were effectively meeting the needs of seniors and disabled residents, and praised the leadership of BCT despite limited resources. Neutral responses generally came from those who were unfamiliar with the service, or had never used it themselves.

Those with negative perception of BCT services stated that the on-demand system was extremely limiting, and only functional for a certain segment of the population (elderly and disabled). Many noted that the current service is not robust enough, and they would like to see it serve the whole county at a greater scale. Negative respondents often felt that the transit system was stretched thin with a lack of resources.

### ***What barriers do you see to transit service in Bartow County?***

In order of frequency, responses from stakeholders can be roughly characterized as follows:

1. Geographic distribution of people and places in Bartow County
2. Funding
3. Stigma associated with transit
4. Lack of resources
5. Current span of service hours
6. Lack of understanding of available services
7. Overcoming the expectations of current door-to-door service, as future modes of fixed-route transit become available

### ***What opportunities do you see for an expanded transit system within the Bartow County - both currently and in the future? Who would be the primary users of this service?***

Opportunities identified by stakeholders included:

- Expanding hours of service and area of coverage
  - Many stakeholders felt that the current hours of service are limiting to potential CT riders – particularly employees, as transit service does not operate throughout the typical workday. Service area was also a concern for many stakeholders, who hoped to see the entire county covered by BCT. Increasing the number of drivers and sizes of buses were other opportunities identified.
- Partnering with schools, employers, and other destinations
  - Partnerships with schools, employers, with after school programs, Chattahoochee Tech, manufacturing employers, LakePoint (public-private partnerships, or separate from BCT)
- Enhancing service by providing fixed routes in denser areas, such as Cartersville or Adairsville
  - Several stakeholders proposed adding one or more fixed route lines to get people between home, work, grocery stores, and shopping.
- Providing regular bus service between Cartersville and outlying cities.
- Meeting the needs of an increasing elderly and youth population who either cannot drive, or would prefer not to drive

- Providing service that would encourage tourists to visit Bartow County historical museums and natural sites, and allow ease of movement between those sites.
- Serving the US 41 and I-75 Corridors

Users identified were primarily residents of Bartow County including workers, elderly, disabled, low-income and youth populations. Tourists were also identified as potential riders to an expanded transit system within Bartow County.

***What opportunities do you see for an expanded transit system to destinations outside Bartow County - both currently and in the future? Who would be the primary users of this service?***

Opportunities identified by stakeholders included:

- Connecting to regional transit systems such as CobbLinc, MARTA, Rome Transit Department
  - Ten stakeholders indicated connecting to Cobb County as a potential opportunity. Acworth, Kennesaw and Marietta were frequently mentioned cities, with specific destinations including SunTrust Park, medical facilities, and the social security office. Acworth Park and Ride was commonly given as a seemingly logical transfer point to CobbLinc.
  - Six stakeholders indicated connecting to jobs in downtown and metro-Atlanta via as a potential opportunity. Hartsfield-Jackson International Airport in Atlanta was another commonly mentioned destination in the Atlanta-area.
  - Four stakeholders indicated connecting to the city of Rome as a potential opportunity. Specific destinations suggested include doctor's offices, dialysis centers, and government offices.
  - Two stakeholders indicated connecting to jobs in Chattanooga as a potential opportunity.
  - Other counties mentioned as potential opportunities included Cherokee and Gordon Counties.

Users identified for these transit destinations were primarily Bartow County residents needing to access jobs or social services in neighboring counties. Several stakeholders also identified tourists as potential users of expanded transit service, stating that connection to regional destinations like SunTrust Park and Hartsfield-Atlanta International Airport could extend opportunities to leisure travelers wanting to visit Bartow County museums, Lake Point sporting community, and other popular sites.

***What do you think would affect someone's decision to use transit?***

In order of frequency, stakeholders identified the following as likely to influence someone's decision to use transit:

1. Schedule/reliability
2. Fare/economic need of the rider
3. Convenience

4. Safety
5. Quality and image
6. Understanding the service
7. Location of bus stops

***Do you have any other ideas for enhancing the BCT system?***

Ideas from stakeholders included:

- Regional coordination to enhance not just Bartow County Transit, but transit in metro Atlanta and the state of Georgia as a whole.
- Potential use of existing freight rail line to connect to Atlanta and/or Chattanooga, TN.
- The City of Rome utilizes their city bus system to get students to and from public schools. This should be evaluated to see if it would be feasible for Bartow County, as it could be a way to help with revenue, and be mutually beneficial to the school system and BCT. It could allow for better utilization of BCT buses at a time of the day that would not necessarily be peak for transit. There are only a handful of Cartersville schools, so it may be possible to coordinate.
- Program to help the elderly utilize BCT with reduced fare or no fare.
- In addition to transit, improvements to sidewalks and pedestrian access are a big need. Cartersville has a sizeable number of pedestrians (especially along Tennessee Street, Bartow Marketplace, and Downtown with lower income housing), and the safety conditions need improvement. Bike improvement considerations should be made as well.
- Examine how to provide service for Highlands College between dorms, apartments, and campus.
- Consider a shuttle or circulator between LakePoint, Avatron, and downtown Cartersville.

***Are there any other comments or observations you have about the study or transit in general?***

Additional comments from stakeholders included:

- Transportation is the primary hindrance of people getting and keeping jobs, especially jobs that are located in less centralized areas. When considering fixed route service and bus service hours, make sure to look at employee shift schedules, and coordinate with employers to ensure any changes meet the needs of employees. Coordination should take place with both current and future employers.
- It would be great to see short-term improvements, in addition to longer-term plans. BCT development should start small so community can see it and grow with it. For example, it would be good for BCT to serve SunTrust Park and gain ridership, and then expand to other things. Advertising and awareness is

- important, and vouchers and promo codes could be used for first-time users. Special fare programs could also be implemented to help those most in need.
- For transit to succeed, it will need to serve multiple purposes, such as getting to work, going to the grocery store or to the movies, and going home. While providing basic service to transit-dependent populations is important, BCT service should not end there – it should be designed for everyone. Finding a way to integrate mass transit into everyday lives will be important for the future.
  - BCT drivers have been excellent in serving Meals on Wheels for seniors.

### **Public Meetings and Community Outreach**

The TDP included two public meetings and two community outreach meetings to determine the transit needs of Bartow County residents. Both public meetings were held at the Clarence Brown Conference Center located at 5450 GA-30 Cartersville, GA 30121 and were open to the general public.

#### ***Public Meeting on October 19, 2016***

The public meeting was held on Wednesday, October 19 from 4:00 p.m. to 7:00 p.m. at the Clarence Brown Conference Center. The CBMPO and BCT staff, as well as members of the AECOM consultant team helped to facilitate the meeting. Participants were invited to review study goals and objectives and provide their feedback on public transportation needs. Approximately 24 people were in attendance, based on the number of people who provided their information on the sign-in sheet.

### **Public Notices and Informational Materials**

CBMPO advertised the meeting and provided information on the TDP study on their website

([http://www.bartowga.org/departments/community\\_development/mpo/index.php](http://www.bartowga.org/departments/community_development/mpo/index.php)).

Attendees were provided an information packet containing a fact sheet and comment card.

### **Public Meeting Format**

The three hour meeting provided an overview of the study and solicited input on the process, needs and potential improvements to existing BCT transit service. It was an open house format with eight map displays placed around the room. The map displays depicted existing demographic and travel trends within the study area including:

- Commuter flow into Bartow County
- Commuter flow out of Bartow County
- Origins and destinations of Bartow County Transit riders
- Points of interest within Bartow County
- Points of interest within the City of Cartersville
- Disabled population within Bartow County
- Elderly population within Bartow County
- Population density within Bartow County

Project staff engaged participants with open ended questions about the displays and on their thoughts on transit needs within the County.

## **Findings/Summary**

Several comments, concerns, and recommendations were received during the open house session, and eight written comments were received during or after the meeting. Overarching themes from the first public meeting are as follows:

- Many of the participants would like to see BCT better serve employment
- Connections to essential services such as healthcare to transit-dependent populations like low-income people and the elderly
- BCT should extend their hours of service

Copies of all written comments are provided at the end of **Appendix A**.

### ***Public Meeting on February 28, 2017***

The second and final public meeting was held on Tuesday, February 28 from 4:00 p.m. to 7:00 p.m. at the Clarence Brown Conference Center. The purpose of the meeting was to obtain feedback on the recommended fixed-route and commuter route service that were developed based on feedback received at the first meeting. The CBMPO and BCT staff, as well as members of the AECOM consultant team helped to facilitate the meeting. Approximately 20 people were in attendance, based on the number of people who provided their information on the sign-in sheet.

### **Public Notices and Informational Materials:**

CBMPO advertised the meeting and provided information on the TDP study on their website

([http://www.bartowga.org/departments/community\\_development/mpo/index.php](http://www.bartowga.org/departments/community_development/mpo/index.php)).

Attendees were provided an information package containing three fact sheets and a comment card. The fact sheets included an overall project overview page, information on federal funding opportunities, and an overview of proposed fixed-route and commuter route service.

### **Public Meeting Format:**

The three hour meeting provided an update of the study and solicited input on the concerns, priorities and reactions to the proposed fixed route service and express route service. It was an open house format with seven map displays placed around the room. The map displays depicted existing demographic and travel trends within the study area including:

- Commuter flow into Bartow County
- Commuter flow out of Bartow County
- Transit propensity map within Bartow County
- Age 15-19 population within Bartow County
- Age 20-29 population within Bartow County
- Proposed fixed-route service options for BCT
- Proposed commuter route service for BCT

Project staff engaged participants with open ended questions about the displays and on their thoughts on the proposed route options presented.

## **Findings/Summary**

Several comments, concerns, and recommendations were received during the open house session, and five written comments were received during or after the meeting. Overarching themes from the first public meeting are as follows:

- The majority of attendees agreed with the TDP recommendations and thought they should be supported.
- Several participants recommended providing fixed route service in unincorporated areas of the county, as well as south Bartow County near Acworth as a possible second phase.

Copies of all written comments are provided at the end of **Appendix A**.

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
OCTOBER 19, 2016  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

Public transit, or lack thereof, is ~~not~~  
helping to attract millennial talent ~~and~~  
at this point in Bartow's history.  
This will be ~~strategically~~ <sup>strategically</sup> important for  
future work force ~~and~~ solutions.  
Thank you for studying possibilities

**Submitted by: (Please Print)** Melinda Lemmon

**Complete Address:**

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
OCTOBER 19, 2016  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

As an employer located in the city limits  
(TI Automotive) we need public transportation to  
be available for employees to travel to + from  
work. Too many employees losing jobs due to  
attendance for lack of transportation.

**Submitted by: (Please Print)**

CATHY SMITH, HR MANAGER

**Complete Address:**

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
OCTOBER 19, 2016  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

I found the information very informative.  
With the expected growth, I do not envy  
your task ahead.

A couple of things we discussed such as  
separate routes for elderly & table-bodied  
workforce would be helpful as well  
as some designated stops which are  
placed near some lower-income areas.

**Submitted by: (Please Print)** Leslie F. Johnson

**Complete Address:**

--	--

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
OCTOBER 19, 2016  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

- It would be nice if transit ~~was~~ <sup>had</sup> more flexible hours for the general public.
- Transit could be a 10 hour day from 6:00 to 5:30 to accommodate <sup>(SP)</sup> the public
- I think we should go to Rome Once per week
- I think that we should go to the Wellstar that's right over the county line (1 mile) on Hwy 41.

**Submitted by: (Please Print)**

Jackie Hayes

**Complete Address:**

--

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
OCTOBER 19, 2016  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

fixed route  places for p-u and d-o

- Walmart \* old Mill Road
- Target \* Grassdale
- Big Lots \*
- Goodwill
- Academy Sports must be able to
- Kroger walk w/o assistance
- Kohls to fixed spot.
- Hospital

**Submitted by: (Please Print)**

Jackie Hayes

**Complete Address:**

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
OCTOBER 19, 2016  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

- ① ~~no more than~~ one Saturday off the week
- ② 10 hour days
- ③ Rotate shifts
- ④ Advertise Transit system throu the  
Community.
- ⑤ Meet the needs of the working  
Force.

**Submitted by: (Please Print)**

Evelyn Frazier

**Complete Address:**

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
OCTOBER 19, 2016  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

As an Adairsville resident and member of our  
Bartow County School Board one primary concern  
remains viable transportation options for recent  
graduates to jobs on the south end of the county  
and to educational opportunities at GHC, NWG Tech,  
Chatt Tech. A second, but no less important, concern  
is access to health care & cultural opportunities  
for senior citizens. It would love to see options  
expanded for times of day and geographic reach.  
This would provide an added benefit of reducing auto  
traffic on roads not designed for such loads.

Submitted by: (Please Print)

Anna V. Sullivan

Complete Address:

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
OCTOBER 19, 2016  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

TOTALLY IN FAVOR OF A TRANSIT SYSTEM. IT WOULD BE GREAT TO  
EXPAND THE HOURS TO RUN LATER AT NIGHT FOR ENTERTAINMENT  
PURPOSES. THE INFORMATION PROVIDED WAS VERY INTERESTING AND  
ENLIGHTENING SINCE I LIVE HERE IN CHARLESTON. I HAVE  
NEVER USED OUR CURRENT SYSTEM BUT I THINK THAT CREATING  
A MONTHLY ACCOUNT VIA A CARD WOULD BE CONVENIENT EITHER PAY  
IN ADVANCE OR PAY VIA ONLINE LIKE A PEACH PASS.

**Submitted by: (Please Print)**

ALEX ALAMPI

**Complete Address:**

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
FEBRUARY 28, 2017  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

The maps were very informative, The plan for extended pickup and drop off is needed. (When transporting a senior population that needs more transit hours) & appreciate the assist with looking at census numbers I tend to focus on the darker colors and high concentration of lack of mobility. Serious lack of pickup or drop off exchangeability.

**Submitted by: (Please Print)**

KIM N BROWN

**Complete Address:**

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
FEBRUARY 28, 2017  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

Understand Carterville hubs - retail/shops/medical/schools

Hoping for a phase II

Getting un-incorporated <sup>in</sup> to Barton's fixed route (medical/school/retail/shops)

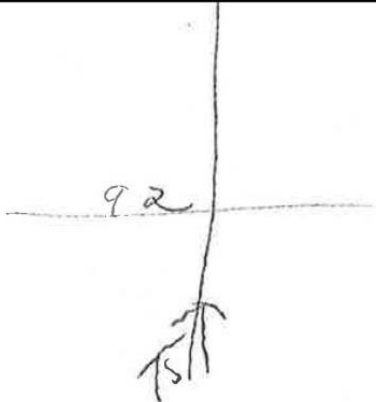
Emerson — Red typ

↓ or Connect Green line to Blue line @ main st. for fixed route system use

**Submitted by: (Please Print)**

Peter Martini

**Complete Address:**



**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
FEBRUARY 28, 2017  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

This is an excellent beginning, I am  
impressed with the thought going into  
it. Need to have route go by new  
Aldi's and ~~Kina~~ Sr Ctr/Health Dept.  
~~these~~ these are high use  
facilities

**Submitted by: (Please Print)**

m Jaeklich

**Complete Address:**

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
FEBRUARY 28, 2017  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

1) TRANSIT needs to run longer THAN 1:00 pm  
12 hr shift would be better because for  
folks getting off work AT 4-5:00 pm for them  
to make it home.

2) I realize that longer shift is going to cost  
more money, so be it!! because now the only  
alternatives are cabs or friends or family. And as folks  
who live here pay taxes here the availability  
of the bus is important

**Submitted by: (Please Print)**

Bruce Love

**Complete Address:**

[Empty rectangular box for address]

**TRANSIT DEVELOPMENT PLAN  
PUBLIC INFORMATION MEETING  
FEBRUARY 28, 2017  
PUBLIC COMMENT FORM**

**Tell Us What You Think!**

Good start. We need transit to South Bartow  
that is NOT commuter focused, even if it can't  
run as often as the primary routes in  
Cartersville. As your maps show, the southeast  
corner needs it most.

**Submitted by: (Please Print)** Valerie Gilreath

**Complete Address:**

## APPENDIX B: SERVICE STATISTICS

### Operating Statistics and Ridership Estimates

#### Totals for Fixed Route Services

60-Minute Frequency	
<b><u>Service Statistics</u></b>	
Peak Vehicles	5
Fleet Vehicles	6
Annual Vehicle Revenue Hours	12,750
Annual Vehicle Revenue Miles	215,400
<b>Estimated Low Ridership <sup>1</sup></b>	<b>114,750</b>
<b>Estimated Moderate Ridership</b>	<b>178,500</b>
<b>Estimated High Ridership</b>	<b>229,500</b>
<b>O&amp;M Cost <sup>2</sup></b>	<b>\$593,003</b>
<i>Estimated Cost per Revenue Hour</i>	<i>\$46.51</i>

Notes:

1. Low ridership assumes approximately 9 passengers per revenue hour; Moderate ridership assumes 14 passengers per hour; and High ridership assumes 18 passengers per revenue hour
2. O&M costs based on BCT FY 2017 actual operating cost per revenue hour

60-Minute Frequency	
<b>Blue Route</b>	
<b><u>Annual Service Statistics</u></b>	
Peak Vehicles	1
Fleet Vehicles	1
Vehicle Revenue Hours	3,060
Vehicle Revenue Miles	39,200
<b>Estimated Low Ridership <sup>1</sup></b>	<b>27,540</b>
<b>Estimated Moderate Ridership</b>	<b>42,840</b>
<b>Estimated High Ridership</b>	<b>55,080</b>
<b>Annual O&amp;M Cost <sup>2</sup></b>	<b>\$142,321</b>
<i>Estimated Cost per Revenue Hour</i>	<i>\$46.51</i>

Red Route	
60-Minute Frequency	
<b>Service Statistics</b>	
Peak Vehicles	1
Fleet Vehicles	1
Annual Vehicle Revenue Hours	3,060
Annual Vehicle Revenue Miles	21,400
<b>Estimated Low Ridership <sup>1</sup></b>	<b>27,540</b>
<b>Estimated Moderate Ridership</b>	<b>42,840</b>
<b>Estimated High Ridership</b>	<b>55,080</b>
<b>Annual O&amp;M Cost <sup>2</sup></b>	<b>\$142,321</b>
<i>Estimated Cost per Revenue Hour</i>	<i>\$46.51</i>

Gold Route	
60-Minute Frequency	
<b>Service Statistics</b>	
Peak Vehicles	1
Fleet Vehicles	1
Annual Vehicle Revenue Hours	3,060
Annual Vehicle Revenue Miles	47,700
<b>Estimated Low Ridership <sup>1</sup></b>	<b>27,540</b>
<b>Estimated Moderate Ridership</b>	<b>42,840</b>
<b>Estimated High Ridership</b>	<b>55,080</b>
<b>Annual O&amp;M Cost <sup>2</sup></b>	<b>\$142,321</b>
<i>Estimated Cost per Revenue Hour</i>	<i>\$46.51</i>

Commuter Route	
30 Minute Frequency	
<b>Service Statistics</b>	
Peak Vehicles	2
Fleet Vehicles	3
Annual Vehicle Revenue Hours	3,320
Annual Vehicle Revenue Miles	99,500
<b>Estimated Low Ridership <sup>1</sup></b>	<b>29,880</b>
<b>Estimated Moderate Ridership</b>	<b>46,480</b>
<b>Estimated High Ridership</b>	<b>59,760</b>
<b>Annual O&amp;M Cost <sup>2</sup></b>	<b>\$154,413</b>
<i>Estimated Cost per Revenue Hour</i>	<i>\$46.51</i>

## APPENDIX C: ROUTE SCHEDULES

Blue Route								
Block	Kroger	N. Tennessee St @ Church St.	Walmart	Recovery	Walmart	N. Tennessee St @ Church St.	Kroger	Recovery
1	6:00	6:10	6:25	0:05	6:30	6:45	6:55	0:05
1	7:00	7:10	7:25	0:05	7:30	7:45	7:55	0:05
1	8:00	8:10	8:25	0:05	8:30	8:45	8:55	0:05
1	9:00	9:10	9:25	0:05	9:30	9:45	9:55	0:05
1	10:00	10:10	10:25	0:05	10:30	10:45	10:55	0:05
1	11:00	11:10	11:25	0:05	11:30	11:45	11:55	0:05
1	12:00	12:10	12:25	0:05	12:30	12:45	12:55	0:05
1	13:00	13:10	13:25	0:05	13:30	13:45	13:55	0:05
1	14:00	14:10	14:25	0:05	14:30	14:45	14:55	0:05
1	15:00	15:10	15:25	0:05	15:30	15:45	15:55	0:05
1	16:00	16:10	16:25	0:05	16:30	16:45	16:55	0:05
1	17:00	17:10	17:25	0:05	17:30	17:45	17:55	To Garage

Red Route								
Block	ATCO	Church St. @ N. Tennessee St.	Kroger	Recovery	Kroger	Church St. @ N. Tennessee St.	ATCO	Recovery
1	6:00	6:10	6:23	0:07	6:30	6:45	6:55	0:05
1	7:00	7:10	7:23	0:07	7:30	7:45	7:55	0:05
1	8:00	8:10	8:23	0:07	8:30	8:45	8:55	0:05
1	9:00	9:10	9:23	0:07	9:30	9:45	9:55	0:05
1	10:00	10:10	10:23	0:07	10:30	10:45	10:55	0:05
1	11:00	11:10	11:23	0:07	11:30	11:45	11:55	0:05
1	12:00	12:10	12:23	0:07	12:30	12:45	12:55	0:05
1	13:00	13:10	13:23	0:07	13:30	13:45	13:55	0:05
1	14:00	14:10	14:23	0:07	14:30	14:45	14:55	0:05
1	15:00	15:10	15:23	0:07	15:30	15:45	15:55	0:05
1	16:00	16:10	16:23	0:07	16:30	16:45	16:55	0:05
1	17:00	17:10	17:23	0:07	17:30	17:45	17:55	To Garage

Gold Route								
Block	ATCO	College & Career Academy	Walmart	Recovery	Walmart	College & Career Academy	ATCO	Recovery
1	6:00	6:15	6:25	0:05	6:30	6:40	6:55	0:05
1	7:00	7:15	7:25	0:05	7:30	7:40	7:55	0:05
1	8:00	8:15	8:25	0:05	8:30	8:40	8:55	0:05
1	9:00	9:15	9:25	0:05	9:30	9:40	9:55	0:05
1	10:00	10:15	10:25	0:05	10:30	10:40	10:55	0:05
1	11:00	11:15	11:25	0:05	11:30	11:40	11:55	0:05
1	12:00	12:15	12:25	0:05	12:30	12:40	12:55	0:05
1	13:00	13:15	13:25	0:05	13:30	13:40	13:55	0:05
1	14:00	14:15	14:25	0:05	14:30	14:40	14:55	0:05
1	15:00	15:15	15:25	0:05	15:30	15:40	15:55	0:05
1	16:00	16:15	16:25	0:05	16:30	16:40	16:55	0:05
1	17:00	17:15	17:25	0:05	17:30	17:40	17:55	To Garage

Commuter Route								
Morning								
Blocks	Walmart Transfer Center	Acworth Park and Ride	Recovery	From Acworth P/R to Walmart TC	From Acworth P/R to Chattahoochee Tech	Recovery	Kroger	Notes
1	5:00	5:25	5:30	5:55	-	6:00	-	-
2	5:30	5:55	6:00	6:25	-	6:30	-	-
1	6:00	6:25	6:30	6:55	-	7:00	-	-
2	6:30	6:55	7:00	7:25	-	-	-	-
1	7:00	7:25	7:30	-	7:45	-	8:00	To Garage
2	7:30	7:55	8:00	-	8:15	-	8:30	To Garage
Afternoon								
Blocks	Kroger	To Chattahoochee Tech	Acworth Park and Ride	Transfer Center	Recovery	From Walmart to Acworth P/R	Recovery	Notes
1	15:50	16:00	16:15	16:40	16:45	17:10	17:15	
2	16:20	16:30	16:45	17:10	17:15	17:40	17:45	
1	-	-	17:15	17:40	17:45	18:10	18:15	-
2	-	-	17:45	18:10	18:15	18:40	18:45	-
1	-	-	18:15	18:40	18:45	19:10	19:15	-
2	-	-	18:45	19:10	To Garage	-	-	-
1	-	-	19:15	19:40	To Garage	-	-	-