



Collier Area Transit

Ten-Year Transit Development Plan 2021-2030

FINAL

December 2020

Prepared by



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1.0 Introduction

Collier Area Transit (CAT) provides fixed-route transit service within Collier County, with routes serving Naples, Golden Gate, North Naples, Ave Maria, Immokalee, Golden Gate Estates, Marco Island, and more. In addition, CAT's Routes 11, 27, and 12 serve the Creekside Transfer Center, providing regional connectivity to Lee County.

CAT initiated this study in coordination with Collier County Metropolitan Planning Organization (MPO) to update CAT's Transit Development Plan (TDP) according to Florida Administration Code (F.A.C.) Rule 14-73.001 – Public Transportation—"The TDP shall be the applicant's planning, development and operational guidance document to be used in developing the Transportation Improvement Program and the Department's Five Year Work Program." This TDP serves as the strategic guide for public transportation in the community during the next 10 years and represents the transit agency's vision for public transportation in its service area during this period. This TDP was presented to and adopted by the Collier Board of County Commissioners on October 27, 2020. The TDP, as approved and per requirements, was submitted to the Florida Department of Transportation.

1.1 Objectives of this Plan

This document is an update to the TDP for CAT services in Collier County, as currently required by State law. Upon completion, this TDP will result in a 10-year plan for transit and mobility needs, cost and revenue projections, and community transit goals, objectives, and policies.

1.1.1 TDP Requirements

As a recipient of State Public Transit Block funds, the Florida Department of Transportation (FDOT) requires a major update of the CAT TDP every five years to ensure the provision of public transportation is consistent with the mobility needs of the local community. FDOT formally adopted the current requirements for TDPs on February 20, 2007. Major requirements of the regulation include the following:

- Major updates must be completed every 5 years, covering a 10-year planning horizon.
- A Public Involvement Plan (PIP) must be developed and approved by FDOT or consistent with the approved MPO public participation plan.
- FDOT, the Regional Workforce Development Board, and the MPO must be advised of all public meetings at which the TDP is presented and discussed, and these entities must be given the opportunity to review and comment on the TDP during the development of the mission, goals, objectives, alternatives, and 10-year implementation program.
- Estimation of the community's demand for transit service (10-year annual projections) using the planning tools provided by FDOT or a demand estimation technique approved by FDOT.

The Florida Legislature added a requirement for the TDP in 2007 with the adoption of House Bill 985. This legislation amended Florida Statutes (F.S.) 341.071, requiring transit agencies to "... specifically address potential enhancements to productivity and performance which would have the effect of

increasing farebox recovery ratio." FDOT subsequently issued guidance requiring the TDP and each annual update to include a 1–2-page summary report as an appendix to the full major TDP report on the farebox recovery ratio and strategies implemented and planned to improve it.

1.2 TDP Checklist

This 10-year plan meets the requirements for a TDP Major Update in accordance with Rule Chapter 14-72, F.A.C. Table 1-1 at the end of this section provides a list of TDP requirements from Rule 14-73.001 and indicates whether or not the item was accomplished in this 10-year plan.

1.3 Organization and Overview of Report

Section 2 summarizes the **Baseline Conditions** for Collier County, including a physical description of the study area, a population profile, and demographic and journey-to-work characteristics as well as a review of new developments and tourism information. Land use trends, major transit trip generators and attractors, economic factors, existing roadway conditions, major employers, and commuter workflow patterns are also explored. The information compiled and presented in this section provides a baseline assessment of current and future transportation needs as well as a basis for subsequent tasks of the TDP.

The review shows that growth in Collier County has and will continue to outpace Florida's growth. Additional areas explored include land use trends, major transit trip generators and attractors, existing roadway conditions, and other public transportation service providers. The review found that Collier County's current land use to be largely low-density uses, however future nodes featuring mixed-use activity centers along Tamiami Trail, Airport Pulling Road and Collier Boulevard have the potential to create a more transit-supportive environment.

Section 3 presents the **Transit Performance Evaluation** for CAT, including a review of the existing transit services in the study area, current fare structure, a vehicle inventory, a trend analysis conducted to examine the performance of CAT's transit services, and a peer review to assist CAT in setting measurable targets for ridership and improvements. CAT's declining trend in ridership from 2013 to 2018 mirror that of other transit agencies in the nation. CAT rated above the peer average for several measures including passenger miles, revenue miles, route miles, total operating expenses, operating expense per passenger mile, operating expense per revenue mile. The last three metrics indicate CAT costs for service exceed the peer average. CAT performed at the peer mean for farebox recovery ratio.

Section 4 describes **Public Outreach** efforts to date, including an onboard survey, discussion group workshops, stakeholder interviews, Review Committee meetings, virtual outreach, and online survey results. Based on the public survey, the general public generally agrees that transit services in Collier County must be provided (71%) and that higher frequency bus service was the most preferred improvement they would like to see (56.4%), followed by more bus service to new areas (55.5%). The impact of adding improved service frequencies will provide better service and improve ridership but is also the most expensive improvement to make since is more than doubles revenue hours

Section 5 provides the **Transit Demand Assessment** of current transit service, including a review of GIS-based tools to identify discretionary and traditional markets in Collier County and of the 10-year ridership projections for CAT. Also included is a **Gap Analysis** for CAT, which presents the gaps in service compared to the expected transit needs based on an analysis of socioeconomic data gathered. This step is vital in assessing the performance of public transit, especially in meeting the needs of transportation-disadvantaged populations as well as potential choice riders in the CAT service area. Based on the analysis, areas that have the highest potential for being underserved are located west and east of US-41 but south of Bonita Beach Road. Other major areas that are underserved include North Naples, Immokalee, Collier Boulevard between Rattlesnake Hammock Road and Radio Road and areas east of Goodlette-Frank Road.

Section 6 presents the Existing Transit Assessment, which documents existing ridership by month for the system, followed by a breakdown of ridership by month by route. Also included are an examination of route productivity (ridership per revenue hour and mile) and an evaluation of average daily passenger boardings by stop using Automatic Passenger Counting (APC) data from 2019 to evaluate productivity at the stop level compared to other stops in the service. Based on the APC data provided by CAT, the areas with the highest average boardings include Collier County Government Center, CAT Operations, and Creekside Transfer Center. Other parts of the CAT service area that have high average boardings are the Immokalee Health Department, Northbrooke Plaza Drive, and Walmart near Collier Boulevard/Tamiami Trail. Route segments with low productivity vary throughout the county but are primarily along Santa Barbara Boulevard between Radio Road and Davis Boulevard, Davis Boulevard between Airport Pulling Road and Santa Barbara, Golden Gate Parkway between I-75 west and Goodlette-Frank Road, Pine Ridge Road, and Airport-Pulling Road between Golden Gate Boulevard and Pine Ridge Road. In addition, several stops on Marco Island show zero average daily boardings.

Section 7 presents the **Situation Appraisal**, which assesses the operating context of CAT using data collected and analyses noted in the preceding sections. A review of local plans and other policy documents is presented to understand the overall planning context. An overview is provided of the key implications on transit of each document reviewed. The Situation Appraisal identifies and assesses strengths and weaknesses of the system. It identifies insights and key opportunities for addressing the threats impacting the provision of efficient transit service in the county based on review of socioeconomic trends, travel behavior and trends, tourism, public involvement, land use assessments, organizational attributes and funding issues, and technologies. The appraisal provides a key basis for developing potential transit improvements.

Section 8 sets forth CAT's **Mission**, **Goals and Objectives** to serve as a policy guide for implementation of the CAT TDP. A review and update to the vision, goals, objectives and initiatives for the public transit services was completed to match the needs of the local community and to improve operations and mobility services. The changes to the vision, mission, goals, and objectives were developed in collaboration with the TDP Working Group.

Section 9 presents potential transit improvements for the 10-year transit plan, also known as the **Alternatives Development**. The proposed improvements are based on the situation appraisal and

represent the community transit needs for the next 10 years. The improvements were developed without consideration of funding constraints and include improvements to existing routes, new service, mobility-on-demand, capital and technology needs. The alternatives were evaluated and prioritized using five criteria: public input, traditional market, proximity to employment, productivity, and cost and efficiency impacts.

Section 10 summarizes the **10-Year Implementation Plan**. The Implementation Plan includes both an unconstrained and a constrained Finance Plan. A discussion of the revenue assumptions and capital and operating costs used is included. The Implementation Plan identifies the funded service and capital improvements, potential year of implementation, as well as unfunded improvements.

Table 1-1: TDP Checklist

| Public | Involvement Process | TDP Section | | |
|-----------|--|-----------------------|--|--|
| √ | Public Involvement Plan (PIP) drafted | | | |
| √ | PIP approved by FDOT | | | |
| √ | TDP includes description of Public Involvement Process | Section 4, Appendix B | | |
| | Provide notification to FDOT | 7 '' | | |
| \\ | Provide notification to Regional Workforce Board | | | |
| Situat | ion Appraisal | | | |
| √ | Land use | Section 7 | | |
| √ | State and local transportation plans | Section 7 | | |
| √ | Other governmental actions and policies | Section 7 | | |
| √ | Socioeconomic trends | Section 7 | | |
| √ | Organizational issues | Section 7 | | |
| √ | Technology | Section 7 | | |
| √ | 10-year annual projections of transit ridership using approved model | Section 5 | | |
| 1 | Assessment of whether land uses and urban design patterns support/hinder | Coation 7 | | |
| V | transit service provision | Section 7 | | |
| √ | Calculate farebox recovery | Section 3, Appendix D | | |
| Missio | n and Goals | | | |
| | Provider's vision | Section 8 | | |
| √ | Provider's mission | Section 8 | | |
| √ | Provider's goals | Section 8 | | |
| √ | Provider's objectives | Section 8 | | |
| Altern | ative Courses of Action | | | |
| √ | Develop and evaluate alternative strategies and actions | Section 9 | | |
| √ | Benefits and costs of each alternative | Section 9 | | |
| $\sqrt{}$ | Financial alternatives examined | Section 9, Section 10 | | |
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| $\sqrt{}$ | Ten-year implementation program | Section 10 | | |
| $\sqrt{}$ | Maps indicating areas to be served | Section 9 | | |
| $\sqrt{}$ | Maps indicating types and levels of service | Section 9 | | |
| $\sqrt{}$ | Monitoring program to track performance measures | Section 8, Appendix E | | |
| $\sqrt{}$ | Ten-year financial plan listing operating and capital expenses | Section 10 | | |
| √ | Capital acquisition or construction schedule | Section 10 | | |
| √ | Anticipated revenues by source | Section 10 | | |
| Relation | onship to Other Plans | | | |
| √ | Consistent with Florida Transportation Plan | Section 7 | | |
| √ | Consistent with local government comprehensive plan | Section 7 | | |
| √ | Consistent with Collier MPO long-range transportation plan | Section 7 | | |
| √ | Consistent with regional transportation goals and objectives | Section 7 | | |
| Submi | | | | |
| √ | Adopted by Collier County Board of County Commissioners | October 27, 2020 | | |
| | Submitted to FDOT | November 1, 2020 | | |

2.0 Baseline Conditions

The baseline conditions analysis is designed to establish the existing and projected future conditions for the service area. The information compiled and presented in this section lays the foundation of the plan and will be used in the Situation Appraisal which provides the basis for the development of transit improvements. The information will also be compared to existing services in a later chapter. Considerations examined for the study area in the context of the TDP were reviewed and include:

- Physical description of the study area
- Population profile and demographic characteristics
- Labor and employment characteristics
- Work force
- Tourism
- Major trip generators
- Major developments
- Existing and future land use
- Commuter travel patterns
- Roadway conditions

A series of maps and tables illustrates selected population, demographic, and socioeconomic characteristics. Data from the U.S. Census, the American Community Survey (ACS), Collier County, and the Collier MPO 2045 Long Range Transportation Plan (LRTP) were used as primary data sources and were supplemented by other data from local and regional agency sources, as available. Note that the LRTP update is in the process of being completed, so some future data do not reflect 2045 projections.

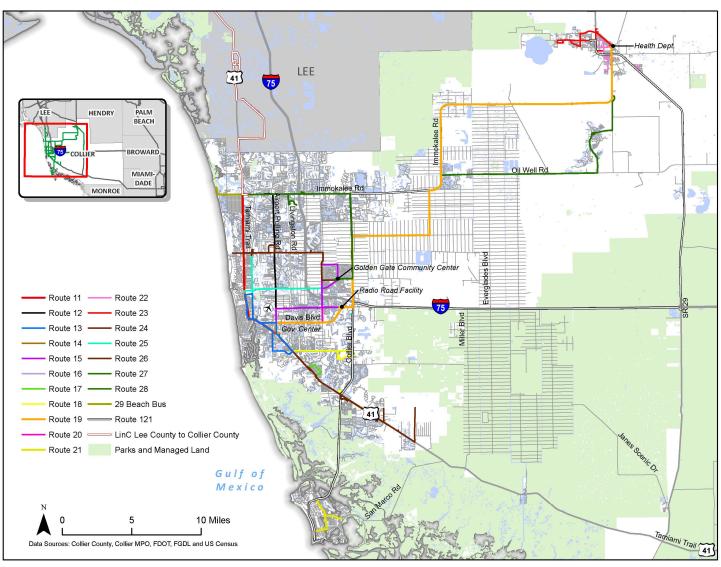
2.1 Physical Description of Study Area

Collier County is located in southwest Florida and is bordered on the northwest by Lee County, on the northeast by Hendry County, on the east by Broward and Miami-Dade counties, on the west by the Gulf of Mexico, and on the south by Monroe County. There are three municipalities within Collier County— Everglades City, Marco Island, and Naples, the County seat.

Collier County is the largest county in Florida geographically, at approximately 1,998 square miles.¹ A significant portion (more than 1.2 million acres), primarily in the eastern and southern areas of the county, is designated as protected lands. Map 2-1 shows the study area. For the purpose of transit service peer and trend analysis, presented in Section 3, the service area was reduced to the area of the county accessible to the fixed-route network based on a ³/₄-mile radius of the centerlines of the route network for route segments with bus stops. This reduced the service area to 310 square miles.

¹US Census Bureau, Census of Population and Housing. Land area based on current information in TIGER database, calculated for use with Census 2010.

Map 2-1: Study Area



2.2 Population Profile

In 2019, Collier County was ranked the 16th most populous county in Florida, with 1.8% of the state's total population, anticipated to grow to 2.1% by 2045 based on State population projections. The majority (90%) of the county's population resides in unincorporated areas of the county.

As with the rest of Florida, Collier County experienced a high rate of growth in recent decades. Except for during the Great Recession, the county's population growth generally has been consistently higher than that of Florida, averaging 2.5% annually compared to the state average of 1.7%. The county's annual growth rates are projected to continue outpacing that of Florida through 2030 (Figure 2-1).

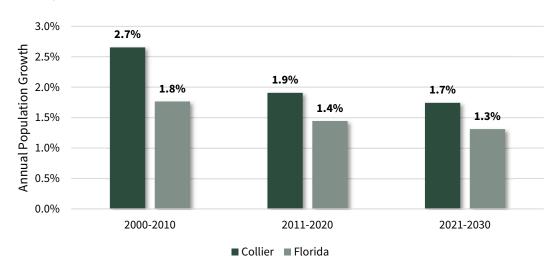


Figure 2-1: Historical and Projected Annual Growth Rate Trends (2000–2030)

 $Source: BEBR, Projections of Florida \ Population \ by \ County, 2020-2045, Estimates \ for \ 2018$

Annually, Collier County experiences a significant influx of tourists and seasonal residents, which greatly increases traffic congestion, particularly in the urbanized area and near the beaches. To better plan for the impact of seasonal demand on public facilities, the County developed annual peak seasonal population estimates and projections.

Figure 2-2 compares the historical and projected permanent and peak seasonal population figures countywide. As the county's peak seasonal population is projected using a constant adjustment factor, annual growth rates for the county's peak seasonal population mirror those of its resident population.

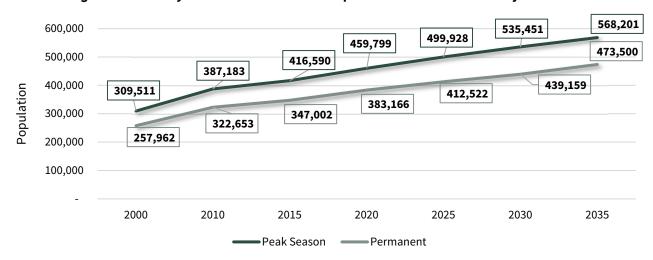


Figure 2-2: Countywide and Peak Season Population Estimates and Projections

Notes: Estimates and projections derived from data obtained from 2010 Census, BEBR population bulletins, Collier County Comprehensive Planning staff, and Planning staff from Naples and Marco Island. Peak season population derived by increasing each year's October 1 permanent population by 20% based on BEBR Medium Range growth rate projections.

Source: Collier County Growth Management Division, Comprehensive Planning Section, Population and Demographics (2018 Population Estimates & Projections)

To analyze population growth at a smaller geographic sub-unit, population projections by Traffic Analysis Zone (TAZ) were used. Maps 2-2 and 2-3 show population densities by TAZ for 2020 and 2030, developed based on socioeconomic data prepared to support the Collier County's 2045 LRTP. Currently, most (~77%) of the county's population lies west of CR-951 (Collier Boulevard) in what is the more urbanized coastal area. In addition to growth within the urbanized area primarily due to redevelopment, future growth is projected around Orangetree, Ave Maria, east/southeast of Naples, and, to some degree, in Immokalee. Slightly more growth in these areas is expected through 2045.

Maps 2-4 and 2-5 graphically display employment densities by TAZ for 2020 and 2030, respectively. Employment data are based on socioeconomic data prepared to support the Collier County 2045 LRTP. Based on the 2020 map, employment in Collier County is densest in the western portion of the county in the Naples area and Marco Island along the coast. In addition, some areas of Marco Island and in Immokalee include medium-range employment densities. Growth in employment is predicted to be highest in existing employment centers and the intersection of I-75/Collier Boulevard in addition to North Naples along the coastline.

Maps 2-5 and 2-6 show the dwelling unit density by TAZ for 2020 and 2030, respectively. The dwelling unit data are based on socioeconomic data prepared to support the Collier County 2045 LRTP. Similar to the population and employment density maps, the current density of dwelling units is concentrated primarily in the Naples area, Marco Island along the Gulf of Mexico, and Immokalee. Projected growth for 2030 is south and east of Naples along Tamiami Trail/US-41 and near the intersection of I-75/Collier Boulevard.

LEE PALM BEACH MIAMI-DADE Gulf of Mexico 11+
City Limits 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census [41]

Map 2-2: Population Density 2020

LEE PALM MIAMI-DADE - Transit Route 2030 Population per Acre Gulf of Mexico 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census 41

Map 2-3: Population Density 2030

LEE MIAMI-DADE MONROE - Transit Route Gulf of Mexico 11+ City Limits Parks and Managed Land 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census

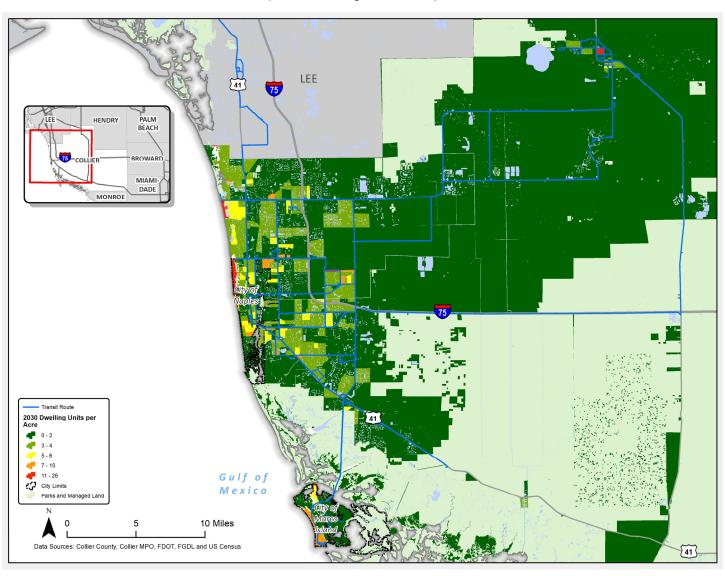
Map 2-4: Employment Density 2020

LEE MIAMI-DADE MONROE - Transit Route Gulf of Mexico 11+ City Limits Parks and Managed Land 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census

Map 2-5: Employment Density 2030

LEE MIAMI-DADE MONROE - Transit Route 2020 Dwelling Units per Acre Gulf of Mexico 11+ City Limits Parks and Managed Land 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census

Map 2-6: Dwelling Unit Density 2020



Map 2-7: Dwelling Unit Density 2030

2.3 Transportation Disadvantaged Population

The Transportation Disadvantaged (TD) population represents a key demographic with a growing need for public transit services, including fixed-route services. As part of its paratransit service known as CAT Connect, CAT provides transportation to the eligible TD population with service to those who are handicapped or high-risk or at-risk persons, who because of physical or mental disability, income status, or age or who for other reasons are unable



to transport themselves or to purchase transportation and are, therefore, dependent on others to obtain access to healthcare, employment, education, shopping, social activities, or other lifesustaining activities. "High-risk" or "at-risk" is defined in Section 411.202 Florida Statutes. Table 2-1 shows the trend in the size of the potential TD population and the number of TD passengers between 2014 and 2018 in Collier County. Potential TD population has risen nearly 18.9%, from 145,829 in 2014 to 173,410 in 2018, and the number of TD trips served through CAT's brokered system, as the Community Transportation Coordinator (CTC) for Collier County, increased 29.8%, from 84,465 in 2014 to 109,623 in 2018. Figure 2-3 shows the number of TD passengers served during the five-year period from 2014 to 2018. As shown, the total number of TD passengers served increased between 2014 and 2018. The cost to provide paratransit service is more expensive than fixed route service. If the growth trend of the TD population continues, there will be a growing need to provide more cost-efficient fixed-route service.

Table 2-1: Collier County Transportation Disadvantaged Population, 2014–2018

| | 2014 | 2015 | 2016 | 2017 | 2018 | % Change (2014–2018) |
|-------------------------|---------|---------|---------|---------|---------|-------------------------|
| Potential TD Population | 145,829 | 156,251 | 161,758 | 167,476 | 173,410 | 18.9% |
| TD Trips Served | 84,465 | 94,248 | 108,373 | 114,744 | 109,623 | 29.8% |

Source: Florida Commission for the Transportation Disadvantaged Annual Operation Reports (AOR)

140,000 120,000 100,000 80,000 40,000 20,000 0 2014 2015 2016 2017 2018

Figure 2-3: Collier County Transportation Disadvantaged Trips, 2014-2018

Source: Florida Commission for the Transportation Disadvantaged Annual Operation Reports (AOR)

2.4 Demographic Characteristics

Demographic characteristics were compiled for the 10-year transit plan and are shown in Table 2-2. Characteristics such as age, household income, poverty status and the number of vehicles available in a household are industry held indicators for higher transit propensity. The table shows that distribution of male and female ages remained nearly the same from 2000 to 2018, approximately half male and half female. Chronic conditions and disability can occur more frequently in old age, and thus limit the ability for older adults to drive or afford a personal vehicle. The number of those age 60 and older is continuing to increase, which may increase the demand for fixed-route transit and paratransit services.

Table 2-2: Collier County Demographic Characteristics

| Characteristic | 2000 | 2010 | 2018 | | |
|--------------------------------|-------|-------|-------|--|--|
| Gender | | | | | |
| Male | 50.1% | 49.3% | 49.3% | | |
| Female | 49.9% | 50.7% | 50.7% | | |
| Ethnic Origin | | | | | |
| White | 86.1% | 83.9% | 88.1% | | |
| Black or African American | 4.5% | 6.6% | 7.0% | | |
| Other | 7.2% | 7.6% | 3.6% | | |
| Two or more races | 2.2% | 1.9% | 1.3% | | |
| Hispanic Origin | | | | | |
| Not of Hispanic/Latino origin | 80.4% | 74.1% | 72.5% | | |
| Hispanic or Latino origin | 19.6% | 25.9% | 27.5% | | |
| Age | | | | | |
| <15 years | 16.4% | 16.0% | 14.6% | | |
| 15–59 years | 52.4% | 50.4% | 47.3% | | |
| 60+ years | 31% | 33.7% | 38.1% | | |
| Household Income | | | | | |
| Under \$10,000 | 6.0% | 6.5% | 4.1% | | |
| \$10,000-\$49,999 | 45.7% | 41.0% | 33.0% | | |
| \$50,000 or more | 48.4% | 52.5% | 62.7% | | |
| Poverty Status | | | | | |
| Above poverty level | 89.7% | 83.8% | 87.7% | | |
| Below poverty level | 10.3% | 16.2% | 12.3% | | |
| Vehicle Available in Household | | | | | |
| None | 4.9% | 5.2% | 5.2% | | |
| One | 42.6% | 42.4% | 20.9% | | |
| Two | 41.5% | 41.7% | 44.7% | | |
| Three or more | 11.1% | 10.7% | 29.2% | | |

Source: 2000 Census, 2010 Census, 2010 ACS 1-year estimates, 2018 ACS 5-year estimates

Annual household income is a key indicator for transit use; households with incomes close to the poverty level typically may not be able to purchase and maintain a personal vehicle. Households earning \$50,000 or more increased from 48.4% in 2000 to 62.7% in 2018. The percentage of population below the poverty line decreased 3.9% from 2010 to 2018 but increased 2% when compared to 2000 Census data. Similarly, households that do not own vehicles may not own one because they are not able to drive a vehicle, afford a vehicle, or due to lifestyle choice. These households are more likely to use alternative modes of transportation, such as transit, walking, and biking. The percentage of zero-vehicle-households increased slightly, from 4.9% in 2000 to 5.2% in 2018, and the percentage of households with two cars increased from 41.5% in 2000 to 44.7% in 2018. The growth in zero auto

households indicates a growing need for mobility services within a population that is vulnerable due to limited access to mobility.

Although the demographics reviewed represent the traditional rider and populations with a higher need for public transportation, choice riders are also a target public transportation user. Areas with a higher potential of choice riders are explored in Section 5 (see Discretionary Market Assessment).

2.5 Labor and Employment Characteristics

Figure 2-4 shows the percentage of population by employment sector in Collier County. Understanding the employment sectors within the County provides an understanding of the share of jobs that are low paying compared to high paying. This provides context for assessing mobility needs. Areas with high employment in retail, hospitality and other service sector jobs tends to translate to low income workers who may not be able to afford and automobile.

The largest service area in the county includes educational services, healthcare, and social assistance, at 16%. The second-highest sectors are split between professional, scientific, management, administrative and waste management services, and the arts, entertainment, recreation, accommodation and food services, both at 15%.

Retail trade, the fourth-largest sector, makes up 12% of the labor force in Collier County. However, in 2010., both retail trade and manufacturing services were ranked as the second highest sectors. In 2018, retail services and construction are ranked as 12% and 11% respectively. Manufacturing declined from 11% in 2010 to 4% in 2018.

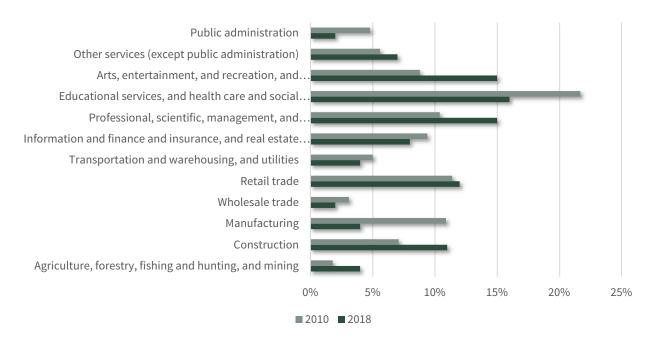


Figure 2-4: Collier County Labor Force Distribution by Service Area, 2010 and 2018

Source: 2010 ACS 5-year estimates, 2018 ACS 5-year estimate

Figure 2-6 shows the relative consistency among trends in the unemployment rate for Collier County, Florida, and the US based in ACS 5-year estimates. Based on the information, unemployment has decreased substantially over the eight-year period from 2010 to 2018.

10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
United States
Florida
Collier County

Figure 2-5: National, State and County Unemployment

Source: 2010 and 2018 ACS 5-year estimates

2.6 Educational Attainment

Understanding the education levels within the population correlates with income potential and thus potential for mobility need. Figure 2-6 shows education attainment for population ages 25 and older. As of 2018, 25.4% had a high school degree or the equivalent, 17.4% had some college or no degree, 7.4% had an associate's degree, and 36.2% had a bachelor's degree. While education level is increasing in the County, approximately 30% of the population does not have a college degree which lowers potential earnings and increases likelihood of requiring transit service.

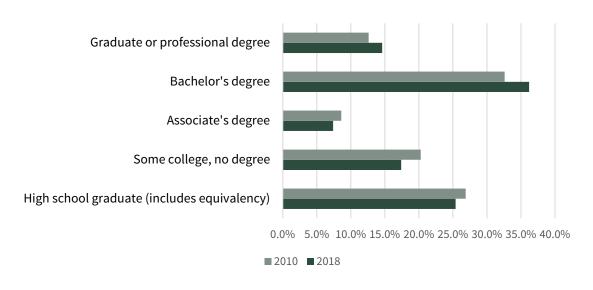


Figure 2-6: Collier County Education Attainment

Source: 2010 and 2018 ACS 5-year estimates. Note: Population Ages 25 and older

2.7 Tourism

The "Paradise Coast" in southwest Florida is a key tourist destination. Collier County includes the City of Naples, City of Marco Island, Everglades City, Immokalee, and Ave Maria and access to beaches, resorts, shopping, recreation, wetlands, and wildlife areas. Collier County is an entrance to the Everglades National Park, the third largest national park in the lower 48 states, and consists of 2,400 square miles of canals, ponds, sloughs, and sawgrass marshes.

Tourism, an important business for Naples, Marco Island, and the Everglades, is the leading employer and primary economic engine for the region and is responsible for 38,500 jobs in Collier County. Per the Collier County Tourist Development Council, tourism brought in 2 million visitors in 2018, resulting in an economic impact of more than \$2.1 billion in the County. Visitors pay more than \$28 million in tourist development taxes in Collier County and generated over \$130 million in sales and gas tax revenue in 2018.

Seasonal visitors and residents increase the demand for transportation services. Transit is often used

by tourists, particularly those who are accustomed to using transit in their communities. Touristic areas such as Naples and Marco Island pose special opportunities in meeting the needs for public transportation services and aiding economic development of the tourism industry.



Image source: https://www.colliercountyfl.gov/

2.8 Major Trip Generators

Identifying major trip generators helps determine locations where additional public transportation resources should be provided. Ensuring public transportation to major trip generators provides important access to employment, retail, and other services. Major trip generators for Collier County include several large industries, particularly in retail, healthcare, and hospitality.

Table 2-3 shows the top 25 employers in Collier County in 2019 according to the Southwest Florida Economic Development Alliance and Collier County Business & Economic Development. Major employers for Collier County included healthcare centers such as Naples Community Hospital, Collier County Schools, and Collier County Government. Although employment in Collier County fluctuates throughout the year due to tourists and seasonal residents, Publix Supermarkets, Arthrex, and Walmart make up the top three private sector employers. The CAT service area covers the majority of these locations, with some businesses having multiple locations.

Table 2-3: Collier County's Top 25 Employers (2019)

| Employer | Number of Employees |
|---------------------------------|---------------------|
| NCH Healthcare System | 7,017 |
| Collier County School District | 5,604 |
| Collier County Local Government | 5,119 |
| Publix Super Market | 3,083 |
| Arthrex, Inc. | 2,500 |
| Walmart | 1,480 |
| Ritz Carlton-Naples | 1,450 |
| City of Naples | 1,169 |
| Physicians Regional | 950 |
| Mooring Park | 888 |
| Seminole Casino | 800 |
| Naples Grande Beach Resort | 750 |
| Germain Cars | 554 |
| Downing Frye Realty | 550 |
| Gulf Bay Group of Companies | 500 |
| Bentley Village A Classic | 500 |
| Agmart Produce Inc. | 500 |
| Home Depot | 480 |
| John R Wood Properties | 470 |
| McDonald's | 441 |
| Walgreens | 373 |
| Naples Beach Hotel & Golf Club | 350 |
| Naples Lakes Country Club | 320 |
| Nordstrom | 313 |
| Lowe's Home Improvement | 310 |

Source: Southwest Florida Economic Development Alliance, Collier County Business & Economic Development and Regional Economic Research Institute

2.9 Major Developments

A review of major development in Collier County was conducted and Table 2-4 shows the top 10 planned unit developments (PUDs) by acreage.

Map 2-8 shows the Developments of Regional Impact (DRIs) in Collier County. These developments are noted for potential impacts to existing and future travel demand. The existing CAT transit network serves some of these developments and identifies those that are not directly served. As development occurs, CAT should monitor transit propensity in these areas and expand service if needed.

Table 2-4: Collier County Top 10 Planned Unit Developments (2019)

| Planned Unit Development | Acres | Transit | |
|--------------------------|-------|-----------------|--|
| Fiddler's Creek | 8,135 | Route 24 | |
| Ave Maria | 5,027 | Route 28 | |
| Lely Resort | 2,880 | Routes 17/18/24 | |
| Heritage Bay | 2,562 | Route 27 | |
| Sabal Bay | 2,416 | Route 13/14/24 | |
| Hacienda Lakes | 2,264 | No service | |
| Pelican Marsh | 2,191 | Route 12/25 | |
| Orange Tree | 2,131 | Route 19/28 | |
| Pelican Bay | 2,114 | Route 11 | |
| Winding Cypress | 1,960 | Route 24 | |

Source: Collier County GIS Services

2.10 Existing and Future Land Use

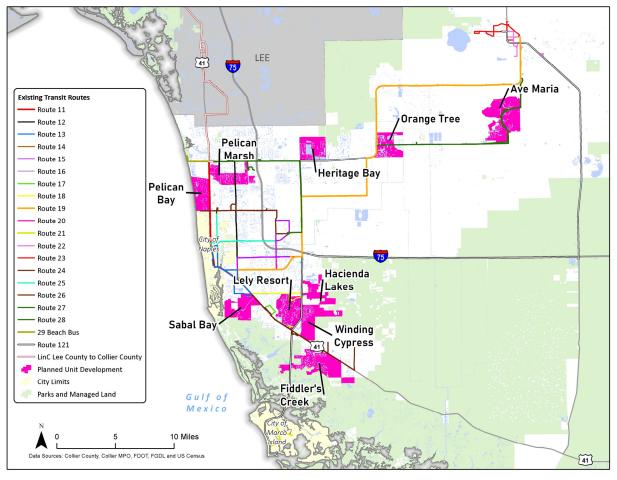
Existing and future land use patterns were reviewed to identify transit supportive land uses. Collier County's current land use to be largely low-density uses which is not considered to be transit supportive. Analysis of 2019 existing land use verifies that an overwhelming majority (68%) of county land is owned by a government entity and used primarily for conservation. Table 2-5 lists the existing land uses and number of acres occupied. Of the other land uses, agricultural uses are the next largest, at 16% countywide, followed by utility/other lands (7%) and single-family residential (5%). Analyzing only commercial and residential uses reveal that single-family and vacant uses account for nearly all other land uses, at 87%.

Future Land Use designations mirror those of existing uses, in that conservation and agricultural lands make up nearly 80% of all land in Collier County. However future nodes featuring mixed-use activity centers along Tamiami Trail, Airport Pulling Road and Collier Boulevard have the potential to create a more transit-supportive environment. Various residential and commercial uses are the second most abundant uses, at 16%. Table 2-6 identifies sending and receiving areas in Collier County which serve as tools to redirect development away from more vulnerable natural environments in the "sending" districts towards more desired "receiving" districts.

Table 2-5: Collier County Existing Land Use, 2019

| Existing Land Use | Acres | % of Area |
|---------------------------|-----------|-----------|
| Federal | 568,934 | 46% |
| Agricultural | 202,005 | 16% |
| State | 247,643 | 20% |
| Utility/Other | 88,914 | 7% |
| Single-Family Residential | 56,190 | 5% |
| Vacant | 31,756 | 3% |
| County | 30,013 | 2% |
| Commercial | 6,300 | 1% |
| Mobile Home | 1,962 | <1% |
| Industrial | 1,954 | <1% |
| Institutional | 1,693 | <1% |
| Multi-Family Residential | 1,659 | <1% |
| Municipal | 549 | <1% |
| Public Schools | 1,836 | <1% |
| Colleges | 82 | <1% |
| Forest, Parks and Rec | 5 | <1% |
| Total | 1,241,494 | 100% |

Source: Florida Department of Revenue



Map 2-8 Developments of Regional Impact (DRI)

Source: Collier County GIS Services

Table 2-6: Collier County Future Land Use (2019)

| Existing Land Use | Acres | % of Area | |
|--------------------------|------------|-----------|--|
| Conservation | 808,997 | 58% | |
| Agricultural | 266,140 | 19% | |
| Estates | 101,289 | 7% | |
| Urban Residential | 90,299 | 7% | |
| RF – Sending | 42,583 | 3% | |
| RF – Receiving | 23,002 | 2% | |
| Incorporated Area | 17,916 | 1% | |
| Industrial | 1,839 | <1% | |
| Urban Coastal Fringe | 11,752 | 1% | |
| RF – Neutral | 8,839 | 1% | |
| Urban Residential Fringe | 5,458 | <1% | |
| Mixed Use | 4,565 | <1% | |
| Rural Settlement | 2,813 | <1% | |
| Rural Industrial | 918 | <1% | |
| Commercial | 380 | <1% | |
| Total | 1,386,790* | - | |

^{*}Acres do not match Existing Land Use due to varying GIS geographies. Source: Collier County GIS

LEE 41 MIAMI-DADE MONROE City Limits Parks and Managed Land **Existing Land Use** Vacant Residential Single Family Mobile Home Multi-Family Vacant Commercial Commercial Golf Course Industrial Agricultural Vacant Institutional Institutional Gulf of Mexico Government Utility/Other 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census

Map 2-9: Existing Land Use

LEE [41] BROWARD MIAMI-DADE MONROE Bayshore/Gateway Triangle Redevelopment Future Land Use Agricultural/Mixed Use District Collier Blvd Community Facility Subdistrict Rural Settlement Area Conservation Designation Orange Blossom/Airport Crossroads Comm'l Subdis Davis-Radio Commercial Orange Blossom Mixed Use District Neighborhood Commercial Subdis Vanderbilt Beach/Coller Blvd
Commercial Subdist Industrial District Interchange Activity Center Subdistrict Livingston/Pine Ridge Commercial Infill Subdistric Livingston/Radio Rd Commercial Infill Subdistrict Livingston/Veterans Mem Commercial Infill Subdist Mixed Use Activity Center Subdistrict Livingston/ Eatonwood Ln Commercial Infill Subdist RF-Neutral Livingston Road Commercial Infill Subdistrict RF-Receiving RF-Sending Goodlette/Pine Ridge Mixed Use Subdistrict Rural Industrial District East Tamiami Trail
Commercial Infill Subdistrict Urban Coastal Fringe Subdistrict Estates Desingation Urban Residential Fringe Subdistrict Corkscrew Island
Neighborhood Commercial
Subdist Urban Residential Subdistrict Vincentian Mixed Use Subdistrict

Map 2-10: Future Land Use

Agricultural / Rural Designation

Parks and Managed Land

City Limits

Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census

Gulf of

Mexico

10 Miles

Buckley Mixed Use Subdistrict

Residential Density Bands

41

2.11 Commuter Travel Patterns

Journey-to-work characteristics and commuter flow patterns were compiled for the 10-year TDP. A low proportion of commuters using alternative modes of transportation like walking and transit may indicate a less transit supportive environment including limited access to transit. It also reflects the share of the population that uses transit because they have no other mobility options.

Table 2-7 shows that the use of transit as a mode has increased slightly since 2000. Driving alone decreased slightly between 2010 and 2018 but is consistent with the percentage of the population driving alone in 2000. Carpooling has slightly increased since 2010 but decreased in comparison to 2000 Census data. Working at home has continued to increase over the 18-year period as working from home becomes more commonplace. Travel times have remained consistent, with 78% of people traveling 10–44 minutes to work. Departure times to work have shown a slight change, with fewer people commuting during the 6:00–9:00 AM timeframe and more people commuting at other times. The share of Collier residents that work outside of the County is growing.

Table 2-7: Journey-to-Work Characteristics

| Characteristic | 2000 | 2010 | 2018 |
|------------------------|-------|-------|-------|
| Place of Work | | | |
| Worked inside county | 92.2% | 89.3% | 89.8% |
| Worked outside county | 7.8% | 8.2% | 8.3% |
| Mode to Work | | | |
| Drive alone | 74.4% | 76.3% | 74.4% |
| Carpool | 14.9% | 10.9% | 12.1% |
| Public transit | 1.9% | 1.6% | 2.2% |
| Walk | 1.8% | 1.8% | 1.4% |
| Work at home | 4.7% | 6.4% | 7.4% |
| Other Means | 2.2% | 3.0% | 2.5% |
| Travel Time to Work | | | |
| <10 minutes | 12.7% | 9.6% | 11.1% |
| 10–19 minutes | 31.5% | 33.9% | 30.9% |
| 20–29 minutes | 21.4% | 25.5% | 25.7% |
| 30–44 minutes | 18.7% | 19.0% | 21.0% |
| 45+ minutes | 11.1% | 12.0% | 11.3% |
| Departure Time to Work | | | |
| 6:00-9:00 AM | 67.1% | 66.0% | 65.6% |
| Other times | 28.2% | 34.0% | 34.4% |

Source: 2010 Census, 2010 ACS 5-year estimates, and 2018 ACS 5-year estimates

Map 2-11 illustrates the location of workers who commute to work outside of Collier County by census Block Group. Per Table 2-7, the percentage of working residents who work outside Collier County grew by 6.4% between 2000 and 2018 and the percentage of residents who work within Collier County decreased by 2.6%.

Regarding commute times for persons using transit, it is important to note that Immokalee residents who travel to Lee County by transit must first travel to Naples to connect with one of CAT Routes (11,

12 or 27) that connect to the LinC. The time travel requirements present barriers for residents who make this trip by transit.

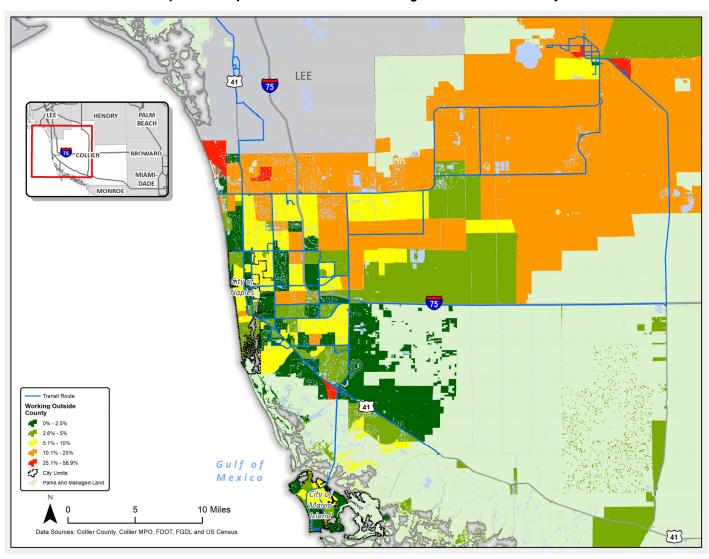
According to the ACS 2018 5-Year Estimates, of the 8% of the county's population that commutes outside the county, the majority live in the northern portion of the county (shown in orange and red). The highest proportion of residents that commute to jobs in other counties are in the northwest area bordering Lee county and the Immokalee area. Variations exist within the remainder of the county, which are driven more by land use and seasonal residency than permanent residency.

According to LODES Jobs Count by Places (2017) data, the top work destinations outside the county are Bonita Springs, Fort Myers, and Estero Village, and 37% of workers are employed in Collier County but live outside the county. The majority (63%) of jobs in Collier County are employed by workers who live within Collier County, followed by 18% who live in Lee country, and 3% in Miami-Dade County.

For workers who live in Collier County but work outside of the County, 12% work in Lee County, 3.5% work in Broward County, 3% work in Miami-Dade, and 3% work in Palm Beach County.

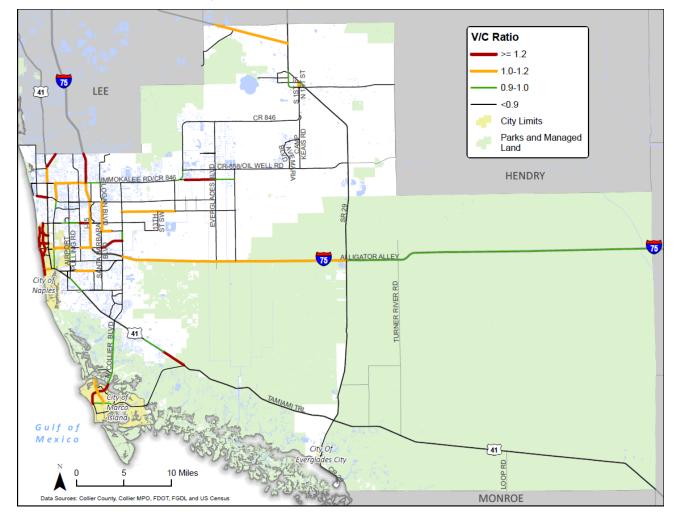
2.12 Roadway Conditions

Existing roadway conditions were reviewed as part of the assessment of baseline conditions to identify roadways that may impact transit running time and on-time performance. Congestion may also serve as an indicator of sought-after destinations (trip attractors) with a potential need for additional transportation such as public transportation. Map 2-12 illustrates the anticipated 2023 volume-to-capacity (V/C) ratio of major roadways in Collier County that factors committed roadway improvements on an average weekday during the PM peak hour using a travel demand model to assign future year traffic volumes to the Existing plus Committed network. A V/C ratio equal to or greater than 1.2 is considered heavy congestion, and a V/C ratio of 1.0–1.2 is considered congested.; roadways with V/C ratios of 0.9–1.0 are considered approaching congestion.



Map 2-11: Proportion of Residents Working Outside Collier County

Source: 2013-2018 ACS Census



Map 2-12: Existing + Committed Roadway Improvement V/C Ratio (2023)

2.13 Inventory of Other Transportation Service Providers

Private transit service can complement and/or compete with public transportation services. In Collier County, Greyhound, RedCoach and Florida Red Line Shuttle provide transit services with connections to major cities in Florida. Greyhound offers connections to Plantation, Cape Coral, and Tampa, and the Florida Red Line offers connections to Tampa to Miami with stops in Bradenton, Sarasota, Fort Myers, and Fort Lauderdale (FLL Airport and Port Everglades Cruise Port). The Greyhound stop at the Shell station at 3825 Tollgate Boulevard and the RedCoach station near the Greyhound station at 8875 Davis Boulevard are accessible by CAT routes 19, 22, 25, and 28. The Florida Red Line stop at 6065 Pine Ridge Road is accessible by CAT routes 20 and 26, also shown in Figure 2-7. CAT staff currently are working on a conditional use amendment for the Radio Road Transfer Facility to facilitate more private/public partnerships with regional bus lines

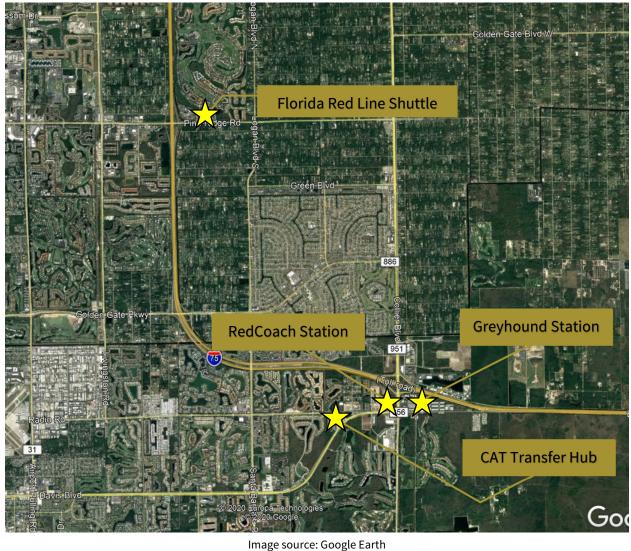


Figure 2-7: Bus Stop Locations of Private Transit Operators

Uber and Lyft are major ride-hailing services available in the Naples/Fort Myers area. Shared-ride services within these platforms, such as Shared Lyft, UberPool, or Uber Express Pool services, mimic transit services by allowing clients to join other passengers on the same route but are not available within Collier County. However, demand for transit services may exist in areas with a high demand for ride-hailing services. The Uber website indicates the areas of high demand for trip pick-ups in Collier County are the Naples Grande Beach Resort, the Ritz-Carlton in Naples, Vanderbilt Beach, and the LaPlaya Beach and Golf Resort, all high tourism areas, as shown in Figure 2-8.

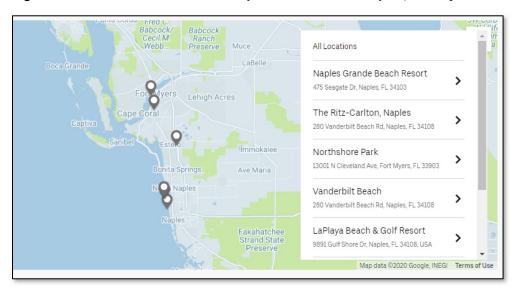


Figure 2-8: Uber-Recommended Hot Spots for Drivers in Naples/Fort Myers Area

Image source: https://www.uber.com/drive/fort-myers/where-to-drive/

3.0 Transit Performance Evaluation

This section includes a review of existing transit services in Collier County, a trend analysis, and a peer analysis of various transit performance characteristics. A review of existing transit service offered in Collier County was conducted to identify the extent of the service operating today and any supporting capital equipment/facilities used to provide the service. In addition, other significant providers of transit were reviewed based on available data. A review of performance trends for the public transit service using data for the last five years also was conducted, as was a peer review analysis, including review of peers for CAT service selected based on various criteria typically used for comparing public transit services.

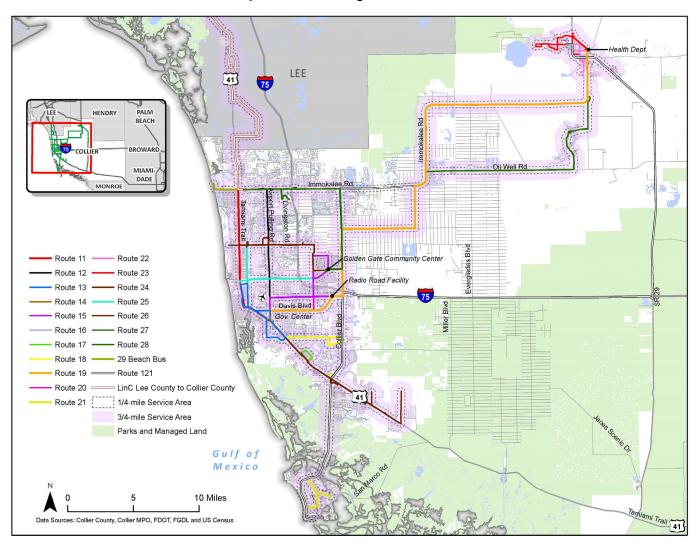
3.1 Existing Transit Services

Transit services in Collier County are provided by CAT and are open to the general public. Since formally launching fixed-route bus service nearly 20 years ago, CAT's fixed-route network has gradually become a more significant component of the multimodal transportation system in Collier County. Today, CAT operates 19 bus routes and has provided an average of nearly 1 million annual trips over the last five years combined on its fixed route and demand responsive services. Map 3-1 shows CAT's existing routes and the corresponding ¾-mile service area, the longest distance a transit rider is willing to walk to a station, as well as ¼-mile, the distance most transit riders are willing to walk to a stop.

CAT also provides non-fixed-route services, including paratransit service under the CAT Connect program, which includes complementary Americans with Disabilities Act (ADA) service and TD services. Medicaid transportation services are provided through a network of transportation providers overseen by MTM, Inc., the County's Medicaid transportation services broker. Collier County also serves as the CTC under Chapter 427 of Florida Statutes. As the CTC, the Public Transit and Neighborhood Enhancement (PTNE) Division administers the coordination of countywide transportation services for TD individuals.

Service is provided 7 days per week from 3:35 AM to 8:48 PM Monday through Saturday (depending on the route) and limited service is provided n Sundays from 5:30 AM to 7:50 PM (depending on the route). No services are provided on major holidays, including on Thanksgiving Day, Christmas Day, New Year's Day, Memorial Day, Independence Day, and Labor Day.

The fare structure for CAT is presented in Table 3-1.



Map 3-1: CAT Existing Transit Services

Table 3-1: Collier Area Transit Fare Structure

| Fare Category | Fare | | | |
|-----------------------------------|---------|--|--|--|
| Full Fare | \$2.00 | | | |
| Reduced Fare | \$1.00 | | | |
| Children 5 Years and Younger | Free | | | |
| Marco Express | \$3.00 | | | |
| Marco Express Reduced | \$1.50 | | | |
| Transfers | Free | | | |
| Day Passes | \$3.00 | | | |
| Day Passes Reduced | \$1.50 | | | |
| Smart Card Passes | | | | |
| 15-Day Pass | \$20.00 | | | |
| 15-Day Pass Reduced | \$10.00 | | | |
| 30-Day Pass | \$40.00 | | | |
| 30-Day Pass Reduced | \$20.00 | | | |
| Marco Express 30-Day Pass | \$70.00 | | | |
| Marco Express 30-Day Pass Reduced | \$35.00 | | | |
| Summer Paw Pass (students) | \$30.00 | | | |
| 30-Day Corporate Pass (300+ | \$29.75 | | | |
| employees) | \$29.15 | | | |
| Smart Media Fees | | | | |
| Smart Card | \$2.00 | | | |
| Registration | \$3.00 | | | |
| Replacement with Registration | \$1.00 | | | |

3.1.1 Transit Facilities

CAT currently operates services from a County-owned facility at 8300 Radio Road in Naples, as shown in Figure 3-1. Operations for CAT buses and passenger transfers occur at this location. Routes 15, 16, 19, 20, 25 and 28 service this station and serves over 50 passenger boardings per day on average. In-person customer service, schedules and pass sales are available at this location.

Figure 3-1: CAT Radio Road Transit Facility





Image source: Google Streetview

The CAT Intermodal Transfer Station at the Government Complex, shown in

Figure 3-2, was completed in 2013 and serves as a catalyst for intermodal transfers between pedestrians, bicyclists, and "kiss-and-ride" passengers. In-person customer service, schedules and pass sales are available at this location and it is serviced by routes, 11, 12, 13, 14, 15, 16, 17, 18, 19, 24, and 28. Although parking is free, this is currently not an "official" park-and-ride location. The facility includes a busway with a turn-around, six sawtooth-configured bus berths, a passenger platform with benches and trash receptacles, restrooms, an air-conditioned passenger lobby, and a customer service area.



Figure 3-2: CAT Intermodal Transfer Station

Image source: Google Maps 3D View

CAT has dedicated parking spaces at the Orange Blossom Library, Golden Gate Parkway Library, Golden Gate Estates Library, Marco Island Library, and Immokalee Library. In addition, CAT is coordinating on a regional park and ride program study. The park and ride program is addressed in the Situational Appraisal section as part of the review of plans and studies. The park and ride study is underway.

3.1.2 Vehicle Inventory

Collier County maintains a fleet of 29 fixed-route vehicles that are fully accessible to patrons in wheelchairs. An inventory of vehicles for fixed-route services is provided in

Table 3-2. The vehicle types and sizes provide a range consistent with passenger volumes with larger vehicles serving higher demand corridors. CAT makes decisions about the type and size of vehicles as vehicles are replaced and added.

3.2 Trend and Peer Comparison Analysis

This section presents the results of the trend and peer comparison analyses conducted as part of Collier County's 10-year TDP to examine transit system performance. The evaluations were conducted using data available from the Florida Transit Information System (FTIS), which derives its data from the National Transit Database (NTD). As part of the overall performance review of the system, these analyses assist with assessing the extent to which CAT's service is meeting its goals and objectives.

Table 3-2: CAT Fixed-Route Vehicle Inventory (2013)

| Number of Vehicles | Purchase Year | Vehicle Make | Length | Source Funded by |
|-----------------------|------------------|-----------------|------------------|-----------------------------|
| 1 | 2006 | Gillig | 30-ft bus | County |
| 2 | 2006 | Gillig | 30-ft bus | Section 5307 |
| 3 | 2007 | Gillig | 30-ft bus | Section 5307 |
| 3 | 2010 | Gillig | 35-ft bus | Section 5307 |
| 2 | 2010 | Gillig | 35-ft hybrid bus | 5307 ARRA |
| 3 | 2011 | Gillig | 35-ft bus | Section 5307 |
| 1 | 2012 | Gillig | 35-ft bus | Section 5307/CMS flex funds |
| 1 | 2012 | Gillig | 35-ft bus | Section 5307 |
| 1 | 2012 | Gillig | 35-ft bus | CMS flex funds |
| 2 | 2013 | Gillig | 40-ft bus | Section 5307 |
| 1 | 2015 | Gillig | 40-ft bus | Section 5307 |
| 1 | 2016 | Freightliner | 30-ft Glaval bus | Section 5307 |
| 2 | 2017 | Gillig | 35-ft bus | Section 5307 |
| 4 | 2017 | Gillig | 30-ft bus | Section 5307 |
| 1 | 2018 | Gillig | 30-ft bus | Section 5307 |
| 1 | 2019 | Gillig | 30-ft bus | Section 5307 |

Source: CAT Fixed-Route Vehicle Inventory

Analyses include statistical tables and graphs that summarize selected performance indicators and effectiveness and efficiency measures to review various trend components, as follows:

- *Performance measures* report absolute data for the selected categories; these tend to be key indicators of overall system performance.
- Effectiveness measures refine the data further and indicate the extent to which various service-related goals are being achieved.
- Efficiency measures involve reviewing the level of resources required to achieve a given level of output; it is possible to have very efficient service that is not effective or to have highly effective service that is inefficient.

Seven peer systems were selected for the peer analysis and represent transit systems with service areas characteristics and services similar to CAT. The peer selection methodology is described in the Peer Selection Memorandum dated February 21, 2020, shown in Appendix A. The peer systems are:

- City of Montgomery Montgomery Area Transit System, AL
- Tri-State Transit Authority Huntington, WV
- The Wave Transit System Mobile, AL
- ART (Asheville Redefines Transit) Asheville, NC
- Gwinnett County Lawrenceville, GA
- Pasco County Public Transportation Port Richey, FL
- Cape Fear Public Transit Authority Wilmington, NC

Table 3-3 shows the peer system sizes in terms of the number of routes and route miles compared to CAT. As shown, CAT has the highest number of routes compared to the peer group and falls above the peer average of 14 routes. CAT also has the highest number of route miles of compared to the peer systems and supplies 57.1% more route miles than the peer average of 278 route miles. Table 3-4 shows the measures used in the performance peer and trend analyses.

Table 3-3: Peer System Characteristics

| System | Location | # of Routes | Route Miles (2018) | |
|------------------------------|--------------------------|-------------|--------------------|--|
| CAT | Collier County 19 | | 436 | |
| The M | Montgomery, AL | 14 | 305 | |
| TTA (Tri-State Transit) | Huntington, WV | 14 | 289 | |
| The Wave Transit System | Mobile, AL | 12 | 259 | |
| ART | Asheville, NC | 18 | 179 | |
| GCT (Gwinnett Transit) | Lawrenceville, GA | 11 | 187 | |
| PCPT, (Pasco Transit) | Transit) Port Richey, FL | | 371 | |
| The Wave (Cape Fear Transit) | Wilmington, NC | 14 | 195 | |

Source: Agency websites for number of routes, 2018 NTD data for route miles

Table 3-4: CAT Performance Review Measures

| General Measures | Effectiveness Measures | Efficiency Measures | | |
|--------------------------------|----------------------------------|--------------------------------------|--|--|
| Passenger Trips | Vehicle Miles per Capita | Operating Expense per Capita | | |
| Passenger Miles | Passenger Trips per Capita | Operating Expense per Passenger Trip | | |
| Vehicle Miles | Passenger Trips per Revenue Hour | Operating Expense per Passenger Mile | | |
| Revenue Miles | Passenger Trips per Revenue Mile | Operating Expense per Revenue Mile | | |
| Vehicle Hours | | Farebox Recovery Ratio | | |
| Route Miles | | Revenue Miles per Vehicle Mile | | |
| Operating Expenses | | Revenue Miles per Vehicle | | |
| Vehicles Available for Max Svc | | Vehicle Miles per Gallon | | |
| Fuel Consumption | | Average Fare | | |

3.2.1 General Performance Measures

General performance indicators are used to gauge the overall system operating performance. Figures 3-3 through 3-11 present the performance indicators of CAT from FY 2013 through FY 2018 (trend analysis) and its performance relative to the selected peer systems (peer analysis).

3.2.1.1 Passenger Trips

Passenger trips, or passenger boardings, are the number of passengers who board public transit vehicles and are counted each time they board a vehicle, no matter how many vehicles to which they transfer. It is a measure of the market demand for the service; a higher number of passenger trips is a positive metric. The total number of passenger trips in Collier County decreased from approximately 1.3 million in 2013 to 0.84 million in 2018, a 38% decrease. Ridership decline has been consistent in the transit industry since the end of the Great Recession. CAT ridership is 19.3% below the peer mean of about 1.0 million trips.

Since 1.6 1.4 1.2 1.2 GCT, Lawrenceville PCPT, Port Richey 1.2 The M, Montgomery 1.0 The Wave Transit System,... 8.0 The Wave, Wilmington 0.6 ART, Asheville 0.4 TTA, Huntington 0.2 CAT, Naples 0.0 2,000,000 1.000.000 2013 2014 2015 2016 2017 2018 Péer Mean ■ Passenger Trips

Figure 3-3: Trend and Peer Comparison for Passenger Trips

3.2.1.2 Passenger Miles

Passenger miles is a measure of passengers served over miles of service operated. Passenger miles are calculated through randomized and statistically valid survey sampling that counts elapsed miles traveled for each passenger boarding and alighting. Higher passenger miles is a positive metric. For CAT, passenger miles decreased since 2013, from 11.4 million in 2013 to 6.1 million in 2018. Overall, passenger miles decreased by 46.7% from 2013 to 2018. CAT compares favorably to the peer mean, ranking second in the peer group.

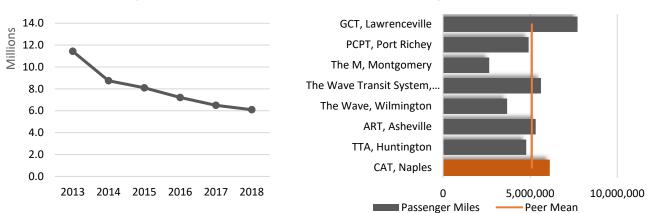


Figure 3-4: Trend and Peer Comparison for Passenger Miles

3.2.1.3 Vehicle Miles

Vehicle miles are the miles that transit vehicles travel while in revenue service plus deadhead miles. This is a measure of how much service coverage is provided or the supply of service. Vehicle miles as a metric by itself is not positive or negative but should be viewed in relation to productivity and cost-effectiveness measures. CAT's total vehicle miles of service increased 6.4% overall, from 1.3 million in 2013 to 1.4 million in 2018. CAT's vehicle miles are 9% higher than the peer mean, likely due to the dispersed, low-density land use patterns in the county.

1,500,000 GCT, Lawrenceville PCPT, Port Richev 1,000,000 The M, Montgomery The Wave Transit... 500,000 The Wave, Wilmington ART, Asheville TTA, Huntington 0 CAT, Naples 2013 2014 2015 2016 2017 2018 1,000,000 2,000,000 ■ Vehicle Miles Peer Mean

Figure 3-5: Peer and Trend Comparison for Vehicle Miles

3.2.1.4 Revenue Miles

Revenue miles are the total number of miles for which the public transit service is scheduled or that are operated while in revenue service excluding miles traveled when passengers are not on board (deadhead travel), training operations, and charter services. Revenue miles increasing faster than total vehicle miles generally indicates a positive operational trend and points to a decreasing proportion of deadhead miles over time relative to total miles. Revenue miles as a metric by itself is not positive or negative but should be viewed in relation to productivity and cost-effectiveness measures. Revenue miles is a measure of service provided and should be slightly lower than vehicle miles to reflect efficiency in service. CAT experienced an increase in revenue miles of 3.5% for 2013–2018. CAT's revenue miles were 5.6% higher than the peer mean and ranks third in the peer group.

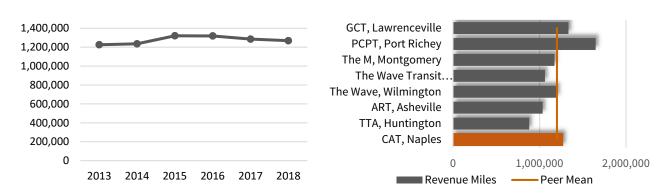


Figure 3-6: Trend and Peer Comparison for Revenue Miles

3.2.1.5 Vehicle Hours

Vehicle hours are the total hours of travel a transit vehicle is being operated, including both revenue service and deadhead travel, and is a measure of service provided. Vehicle hours as a metric by itself is not positive or negative but should be viewed in relation to productivity and cost-effectiveness measures. CAT had a plateauing increase in vehicle hours, with an overall 10.6% increase in vehicle hours from 2013 to 2018. CAT's vehicle hours metric was 5.6% lower than the peer mean.

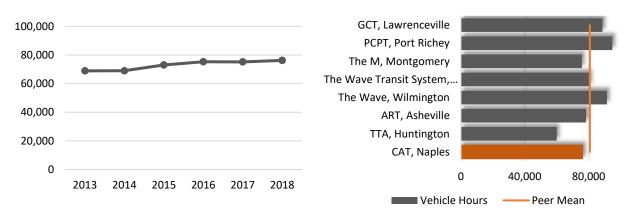


Figure 3-7: Trend and Peer Comparison for Vehicle Hours

3.2.1.6 Route Miles

Route miles represent the total length of all routes in the network and are a measure of the linear extent of the transit network. Route miles for CAT increased from 279 to 436 miles for 2013–2018, representing a 15% increase overall. CAT ranked the highest in the peer group for route miles.

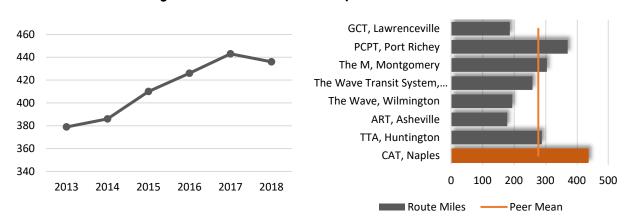


Figure 3-8: Trend and Peer Comparison for Route Miles

3.2.1.7 Operating Expenses

Total operating expense includes all costs associated with operating the transit agency (vehicle operations, maintenance, and administrative costs). CAT's total operating expense increased by 6% from 2013 to 2018; however, when considering the effects of inflation, the actual total operating expense measured in 2013 dollars increased by only 2% in the six-year period, indicating that overall operating expenses increased annually. CAT had the fourth lowest total operating expense in the peer group, 9% below the peer mean.

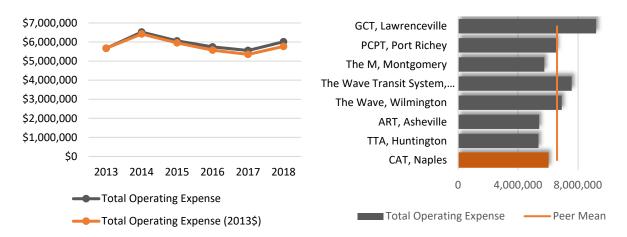


Figure 3-9: Trend and Peer Comparison for Operating Expenses

3.2.1.8 Vehicles Operated in Maximum Service

Vehicles operated in maximum service (VOMS) are a measure of the number of vehicles required to operate at peak full service and are an important metric when assessing fleet size, as it is directly related to the network structure, number of routes, and frequency of service of each transit agency. CAT increased its supply of vehicles operating in maximum service from 16 vehicles in 2013 to 19 in 2018, an approximate 19% increase. CAT is below the group mean of 22 vehicles.

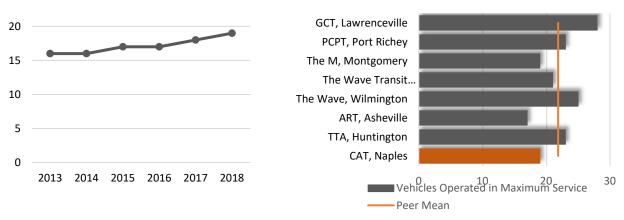


Figure 3-10: Trend and Peer Comparison for VOMS

3.2.1.9 Fuel Consumption

Generally, fuel consumption is tied to vehicle miles of service and type of vehicle power employed. CAT's gas consumption fluctuated since 2013, but overall decreased by 11% in the six-year period. For this performance measure, CAT is 11.3% above the group mean, indicating a potential need for increased fuel efficiency.

GCT, Lawrenceville PCPT, Port Richey The M, Montgomery The Wave Transit.. The Wave, Wilmington ART, Asheville TTA, Huntington CAT, Naples 100 200 300 400 2015 2016 2017 2018 Thousands Total Gallons Consumed Peer Mean

Figure 3-11: Trend and Peer Comparison for Fuel Consumption

3.2.2 Effectiveness Measures

2014

2013

350,000

300,000

250,000

200,000

150,000

100,000

50,000

Effectiveness measures indicate the extent to which service-related goals are being met and include service supply, service consumption, and quality of service and are represented by variables such as vehicle miles per capita, passenger trips per revenue hour, and average age of fleet.

3.2.2.1 Vehicle Miles per Capita

Vehicle miles per capita are derived from the total system vehicle miles divided by the service area population within a ¾-mile distance of service provided and measure the supply of service provided based on the population of the service area. For CAT, vehicle miles per capita experienced an increase from a low of 4.0 miles in 2013 to per capita 5.2 in 2018, a growth of 31%. The spike that occurred between 2016 and 2017 is due to the correct reporting of service area population beginning in 2017, which reflects calculated service area population, not county-wide population. Vehicle miles per capita for CAT are close to the peer group mean of 5.7, an indication that the supply of service is similar to what is typically experienced by peer agencies.

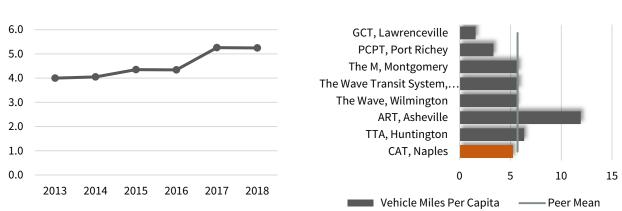


Figure 3-12: Trend and Peer Comparison for Vehicle Miles per Capita

Note: 2017 and 2018 updated using service area population manually calculated using TBEST 2019 Land Use Model

3.2.2.2 Passenger Trips per Capita

Passenger trips per capita are calculated by dividing the total transit boardings by service area population and quantifies transit utilization in the service area. It is desirable that trips per capita are high, meaning greater utilization of the service. Passenger trips per capita in Collier County experienced a 24% decrease between 2013 and 2018. CAT ranks sixth in the peer group, 46% below the peer mean. Compared to the peers, CAT ridership as a percentage of the population is less than the peer mean.

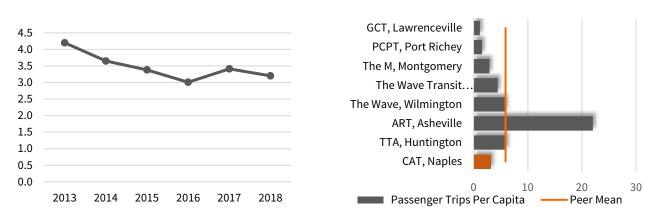


Figure 3-13: Trend and Peer Comparison for Passenger Trips per Capita

Note: 2017 and 2018 updated using service area population manually calculated using TBEST 2019 Land Use Model.

3.2.2.3 Passenger Trips per Revenue Hour

Passenger trips per revenue hour are a measure used to quantify productivity and service consumption and can help evaluate the amount of resources consumed in providing service. It is desirable for this metric to be high, reflecting greater utilization of the service per unit of service provided. From 2013 to 2018, CAT's passenger trips per revenue hour decreased by 43%. The decline in passenger trips per revenue hours is consistent with the increase in revenue miles and hours of service and the decrease in ridership. CAT is 15% below the peer mean for this metric.

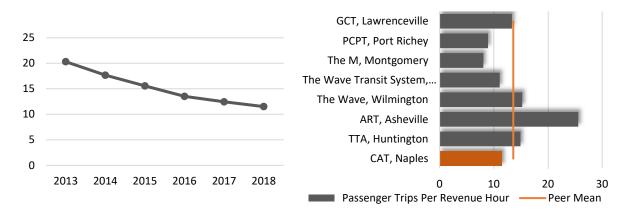


Figure 3-14: Trend and Peer Comparison for Passenger Trips per Revenue Hour

3.2.2.4 Passenger Trips per Revenue Mile

Passenger trips per revenue mile are calculated by dividing transit boardings by revenue miles and are a measure of the productivity of the revenue service provided. It is desirable for this metric to be high, meaning greater utilization of the service per unit of service supplied. In Collier County, passenger trips per revenue mile experienced a decrease of 41% during the six-year period, indicating that the agency experienced lessening ridership productivity during the time period. The decreasing trend is driven by the decrease in ridership during that time period. CAT is 27% below the peer mean for this metric, indicating a need for improvement in service consumption.

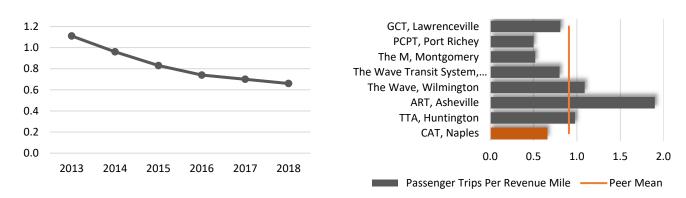


Figure 3-15: Trend and Peer Comparison for Passenger Trips per Revenue Mile

3.2.3 Efficiency Measures

Efficiency measures focus on costs and other measures of efficiency. Figure 3-16 through Figure 3-24 present the efficiency measures for CAT's peer review and trend analysis. Similarities between CAT and the peers in this category may be related to the peer selection process, which is largely based on transit service characteristics. The following section summarizes the trend and peer analysis by efficiency measure type.

3.2.3.1 Operating Expense per Capita

Operating expense per capita measures the investment in providing public transport relative to the population within the service area. This metric is complex in that although a higher cost reflects a greater investment in transit, it must be viewed in context of direct costs per unit of service relative to peers as well as demand and productivity for the service. When excluding inflation, the operating expense per capita for Collier County increased from \$17.51 in 2013 to \$22.89 in 2018, an increase of 31% and since CAT is 25% below the peer group mean, it suggests that CAT is making an effort to expand transit and doing so a direct cost that is lower than the peer average.



Figure 3-16: Trend and Peer Comparison for Operating Expense per Capita

Note: 2017 and 2018 updated using service area population manually calculated using TBEST 2019 Land Use Model.

3.2.3.2 Operating Expense per Passenger Trip

Operating expense per passenger trip measures the efficiency of transporting riders and the cost of operations relative to the resulting ridership and reflects on how service is delivered and the market demand for the service. The goal is to minimize cost per passenger trip. Operating expense per passenger trip is shown in 2018 values and is also deflated to 2013 values to show how cost has changed when inflation is removed. The operating expense per passenger trip in Collier County increased from \$4.17 in 2013 to \$6.86 (2013\$) in 2018, an increase of 65% overall. The decline in this metric is driven primarily by the declining trend in passenger trips during that time period. CAT is performing just above the the peer mean of \$7.01 (2019\$).

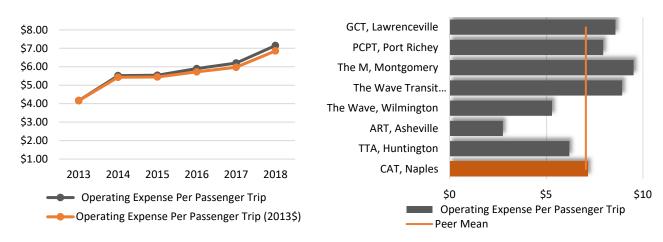


Figure 3-17: Trend and Peer Comparison for Operating Expense per Passenger Trip

3.2.3.3 Operating Expense per Passenger Mile

Operating expense per passenger mile measures the impact of ridership, average trip length, and operating cost. The goal is to minimize cost per passenger miles. CAT's operating expense per passenger mile nearly doubled between 2013 and 2018. Despite this trend, CAT is 28% below the peer mean for this measure and is performing more efficiently than the peer group.

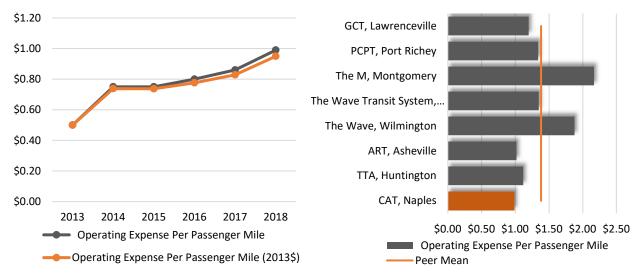


Figure 3-18: Trend and Peer Comparison for Operating Expense per Passenger Mile

3.2.3.4 Operating Expense per Revenue Mile

Operating expense per revenue mile indicates how efficiently a transit service is delivered. The goal is to minimize cost per revenue mile. Overall, the metric has remained stable, with an overall increase of 3%. CAT is 15% below the peer mean, indicating more efficient transit service delivery than its peers for this measure.

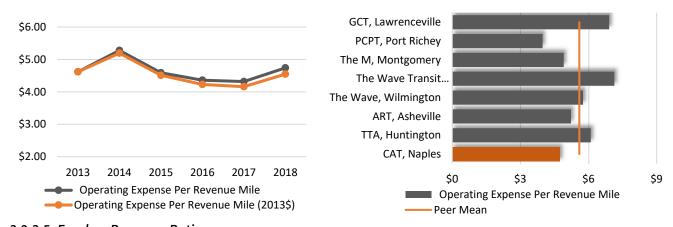


Figure 3-19: Trend and Peer Comparison for Operating Expense per Revenue Mile

3.2.3.5 Farebox Recovery Ratio

The farebox recovery ratio is a measure of the percentage of the transit system's total operating expenses that are funded with fares paid by passengers and is calculated by dividing the total fare revenue collected by the total operating expenses. The goal is to increase farebox recovery, meaning more of the costs are absorbed by users. CAT's farebox recovery declined from 21% in 2013 to 13.9% in 2018, at 34% overall. The farebox recovery ratio for CAT is at the peer group mean.

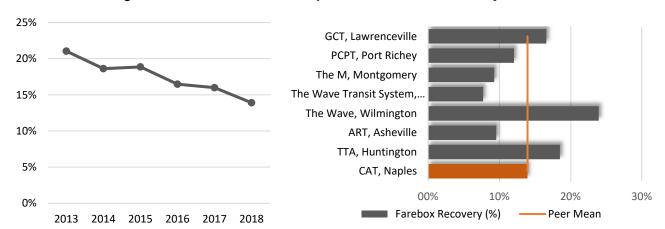


Figure 3-20: Trend and Peer Comparison for Farebox Recovery Ratio

3.2.3.6 Revenue Miles per Vehicle Mile

Revenue miles per vehicle mile are a measure of vehicle utilization. A higher ratio of revenue miles traveled to total vehicle mile generally indicates higher system productivity; the goal is to maximize the ratio of operations in revenue service to total operations. For CAT, revenue miles per vehicle mile remained stable, with a slight decrease of 3% over the six-year period. This measure for CAT is 3.5% below the peer group mean, indicating a near-average use of fixed-route bus vehicles within the peer group mean.

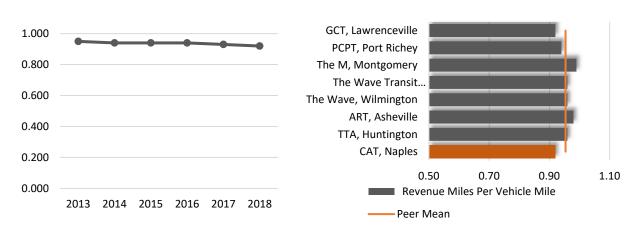


Figure 3-21: Trend and Peer Comparison for Revenue Miles per Vehicle Mile

3.2.3.7 Revenue Miles per Total Vehicles

Revenue miles per total vehicles also is a measure of vehicle utilization. Interpretation of this metric is complex and must be taken in context of fleet size, revenue miles, and age of the fleet. CAT experienced an overall decrease of approximately 15% over the six-year period, indicating a decline in vehicle utilization, however, CAT ranks 9% above the peer mean of 41,207 revenue miles per total vehicles.

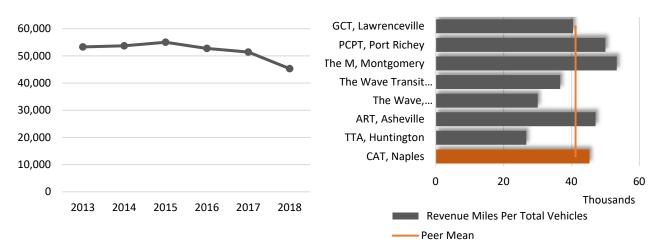


Figure 3-22: Trend and Peer Comparison for Revenue Miles per Total Vehicle

3.2.3.8 Vehicle Miles per Gallon

Vehicle miles per gallon, the ratio between fuel consumed and distance traveled, are an indication of fuel efficiency and apply only to diesel- and gasoline-powered vehicles. It is desirable to maintain a higher fuel economy, i.e., more miles per gallon. For CAT, vehicle miles per gallon (or fuel efficiency) remained relatively constant, from 5.02 in 2013 to 4.8 in 2018, a decrease of 4% overall. CAT is 4% below the peer mean, indicating CAT could consider more fuel-efficient vehicles when new vehicles are procured in the future. Maintaining a younger fleet will improve fuel efficiency.

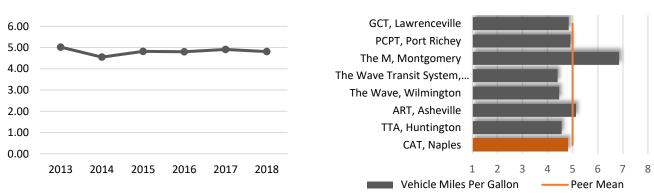


Figure 3-23: Trend and Peer Comparison for Vehicle Miles per Gallon

3.2.3.9 Average Fare

Average fare is calculated by dividing total passenger fare revenue collected by ridership. The average can be lowered by systems that offer free transfers or discounted/free rides. CATS's average fare increased from \$0.88 in 2013 to \$0.99 in 2018, at 12% overall. The mean average fare for the peer systems is \$0.95. This means that, on average, CAT riders pay close to the mean fare of the peers.

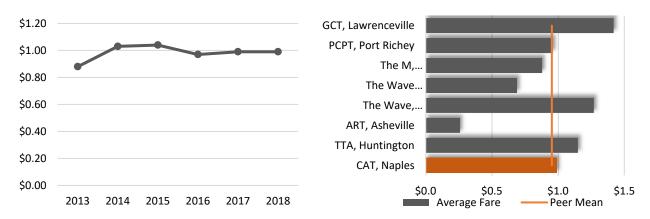


Figure 3-24: Trend and Peer Comparison for Average Fare

3.2.4 Key Findings of Trend and Peer Analyses

The trend analysis is only one aspect of transit performance evaluation. When combined with the peer review analysis (summarized later in this section), the results provide a starting point for understanding the transit system's operating environment over time when compared to other systems with similar characteristics. Key trends observed for the CAT system from 2013 to 2018 are summarized as follows:

- The amount of service provided by CAT has increased with respect to total vehicle miles, revenue miles, vehicle hours and route miles, and vehicle miles per capita, CAT placed above average compared to peers. CAT has increased the amount of service and the large and dispersed CAT service are results in high vehicle miles and hours of service.
- Passenger trips and passenger miles have declined over the six-year period, which mirrors the
 national trend in transit ridership decline. CAT performed 19.3% below the peer mean for
 passenger trips and 19.6% above the peer mean for passenger miles. This reflects the very large
 service area and the overall lower density of demand characteristics of the CAT service area.
 Shifting to a streamlined network and adding on-demand services in lower density areas rather
 than fixed route will help CAT better match service supply to service demand.
- Total operating expenses have increased moderately by 6% over the six-year period. Operating expense per passenger trip and operating expense per passenger mile have seen dramatic increases that were driven largely by decreasing passenger trips and passenger miles, suggesting a decline in efficiency. CAT performed better than the peer mean with respect to total operating expenses, operating expense per passenger mile, and operating expense per revenue mile, suggesting that CAT has a better cost efficiency compared to its peer group. Operating expense per revenue mile fluctuated between 2013 and 2018, but only with a slight increase of 2.6% overall.
- Passenger trips per capita, passenger trips per revenue mile, and passenger trips per revenue hour have decreased over the six-year period, indicating a negative trend in service consumption. CAT performed below the peer group mean for these measures. This is largely a function of the large and dispersed service area.

The farebox recovery ratio decreased 34% but, compared to the peer group, CAT is performing near the peer mean. Table 3-5 summarizes the trend and peer analyses and shows the positive and negative trends identified in the analysis. The desired trend indicates whether a positive or negative trend is needed to show improvements for CAT. Certain metrics, such as some listed in the table as General, are external factors, not controlled by CAT. Likewise, the amount of service provided (revenue miles and hours) is not independently good or bad, it should be dependent on demand and fiscal capacity. Adding new service when there is not demand for it is not a wise investment. Adding service when there is a positive ridership response suggests a needed investment in mobility. The information in the table below provides a sense of how CAT fares relative to peers and trends and directionality or objectives for performance targets.

Table 3-5: CAT Trend and Peer Analysis Summary, 2013–2018

| | Indicators | Trend Change | Desired Trend | Trend Status | Percent from Peer Mean |
|---------------|--|-----------------|------------------|---------------|------------------------------|
| | Service Area Population * | -18.9% | - | Externality | -18.0% |
| | Service Area Size (sq. mi) * | -84.5% | - | Externality | 18.4% |
| | Passenger Trips | -38.2% | 7 | Decreasing | -19.3% |
| | Passenger Miles | -46.7% | 7 | Decreasing | 19.6% |
| <u> </u> | Vehicle Miles | 6.4% | - | Increasing | 9.0% |
| General | Revenue Miles | 3.5% | - | Increasing | 5.6% |
| ğ | Vehicle Hours | 10.6% | - | Increasing | -5.6% |
| | Route Miles | 15.0% | - | Increasing | 57.0% |
| | Total Operating Expense | 6.1% | - | Increasing | -9.0% |
| | Vehicles Available for Maximum Service | 21.7% | - | Increasing | -6.7% |
| | Total Gallons Consumed | 11.1% | - | Increasing | 11.3% |
| | Vehicle Miles Per Capita* | 31.1% | 7 | Improving | -8.1% |
| Effectiveness | Passenger Trips Per Capita | -23.8% | 7 | Not Improving | -45.8% |
| Ven | Passenger Trips Per Revenue Mile | -40.5% | 7 | Not Improving | -27.3% |
| ij | Passenger Trips Per Revenue Hour | -43.3% | 7 | Not Improving | -15.3% |
| l # | Number of Vehicle System Failures | 181.5% | 7 | Not Improving | -18.0% |
| | Revenue Miles Between Failures | -63.2% | 7 | Improving | -54.6% |
| | Operating Expense Per Capita* | 30.7% | 71 | Improving | -24.4% |
| | Operating Expense Per Passenger Trip | 71.5% | 7 | Not Improving | 1.4% |
| 5 | Operating Expense Per Passenger Mile | 98.0% | 7 | Not Improving | -28.5% |
| Efficiency | Operating Expense Per Revenue Mile | 2.6% | 7 | Not Improving | -15.3% |
| | Farebox Recovery (%) | -33.9% | 71 | Not Improving | -0.3% |
| | Revenue Miles Per Total Vehicles | -15.0% | 7 | Not Improving | 10.0% |
| | Vehicle Miles Per Gallon | -4.2% | 7 | Not Improving | -3.7% |
| | Average Fare | 12.5% | 7 | Improving | 3.9% |

^{*2017-2018} service area population calculated using TBEST Source: FTIS

4.0 Public Outreach

This section summarizes public outreach activities conducted as part of the TDP. Activities completed include an on-board survey, an online survey, stakeholder interviews, discuss group workshops, and public meetings. The public outreach described in this section was completed in compliance with the CAT Public Participation Plan (PPP) presented in **Appendix B**, along with FDOT correspondence related to the identified process. Note that percentages in some figures may not equal to 100% due to rounding. In other instances, questions for which the respondent may provide multiple answers, will not equal 100%.

4.1 On-board Survey

The on-board survey for the CAT TDP was completed by January 19, 2020, with weekday surveying on January 15 and 16 and weekend surveying occurring on January 18 and 19. The on-board survey was administered on every fixed-route and targeted 50% coverage of CAT's fixed-route service. Surveyors were deployed from CAT's main bus facilities at Collier Area Transit at 8300 Radio Road and from the Government Center Transfer Center at 3301 Tamiami Trail E in Naples and were stationed on buses to distribute surveys to passengers. Surveys were provided in Spanish, and Haitian Creole, in addition to English.

Results of the on-board survey help to understand the attitudes, gaps in transit service, preferences, and habits of current riders for market research purposes. To that end, the survey was not specifically designed for model input or validation. This section discusses key results from the on-board survey effort. Copies of the on-board survey instruments in each language are provided in Appendix C.

4.1.1 Survey Characteristics

The survey consisted of questions to identify passenger socio-demographics, travel characteristics, and rider satisfaction:

- Socioeconomics and demographics:
 - Age
 - Gender
 - Ethnic origin
 - Household motor vehicle ownership
 - Household income
 - Language used at home
- Travel characteristics:
 - Bus route used for this trip
 - Trip purpose
 - Method for reaching the bus for this trip
 - Trip origin for this trip
 - Trip destination for this trip

- Fare type used
- Number of transfers on this trip
- Number of days CAT is used in a week
- Mode of travel if not bus
- Length of time using CAT services
- Improvement priorities and rider satisfaction:
 - Service feature improvement rankings
 - Express service
 - New service routes
 - New on-demand service
 - Greater frequency
 - Later service
 - Other suggested improvements

In total, 1,090 CAT passengers responded to the survey. Figure 4-1 shows a breakdown of the routes used by respondents at the time of the survey.

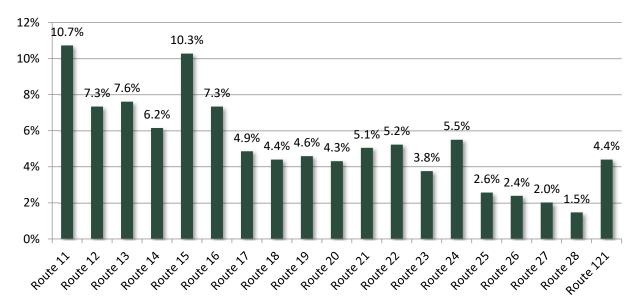


Figure 4-1: Please identify your current route.

4.1.2 Trip Purpose

Passengers were asked to identify the main purpose of their current trip to understand where people were coming from or going to while using CAT service, as shown in Figure 4-2. For the overall system, 467 passengers (43.6%) said they were going to work, 206 (19.2%) were shopping, and 166 (15.5%) were making personal/business trips. Travel for recreational purposes was noted by 90 passengers (8.4%), medical was noted by 72 passengers (6.7%), and school was noted by 58 passengers (5.4%); 7 respondents said they were going to church (0.7%).

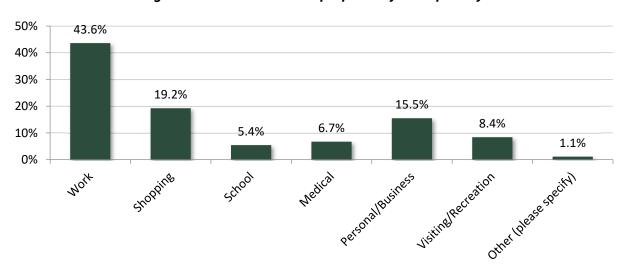


Figure 4-2: What is the main purpose of your trip today?

4.1.3 Passenger Travel Characteristics

Passengers were asked to identify how they arrived at the bus stop for their current trip (Figure 4-3). In total, 618 passengers (57.5%) said they walked to reach the stop, 214 (19.9%) got a ride, and 98 (9.1%) transferred from a different CAT bus; 12 passengers (1.1%) transferred from LeeTran Route 600, and 28 (2.6%) drove themselves to the stop and parked nearby. More than 100 passengers (9.7%) selected "Other," with most riding a bicycle to the stop or using a scooter or skateboard; some indicated using a wheelchair to access the stop.

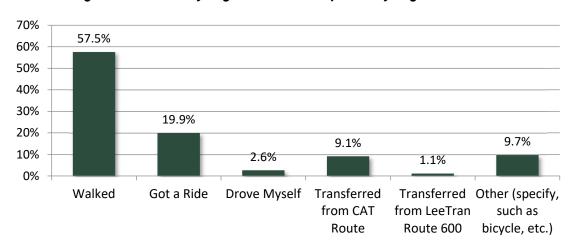


Figure 4-3: How did you get to the bus stop where you got on this bus?

As part of this question, passengers who walked were asked how far they traveled to reach the stop to board the bus. In total, 92 (14.9%) traveled 1 block, 123 (19.9%) traveled 2 blocks, 87 (14.1%) traveled 3 blocks, and 58 (9.4%) traveled 4 blocks. In addition, 251 (40.6%) walked more than 4 blocks to reach the stop.

4.1.4 Transfers

Of the passengers who transferred from a different route, 10 (16.7%) came from routes 11, 12, or 19, 5 (8.3%) came from Route 23, and 4 (6.7%) came from routes 13 or 15. The remaining 17 passengers (28.33%) originated from an unspecified route. Passengers were asked how many transfers were required to complete their trip (Figure 4-4). Of the 1,024 passengers who responded, 367 (35.8%) did not have to transfer; of those who planned to transfer, 285 (27.8%) required one transfer and 261 (25.5%) required two transfers.

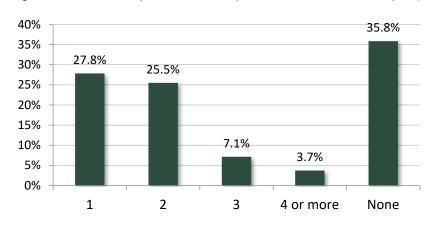


Figure 4-4: How many transfers will you make on this one-way trip?

4.1.5 Origin and Destination Characteristics

Passenger were asked to indicate the ZIP code from which they were coming from on this trip. In total, 542 responded; 64 originated in the 34112 area (18 specifically from the Government Center), and 56 came from the 34142 area (26 specifically rom the Health Department in Immokalee); 65 passengers started their trip in the 34116 area. These areas represented 42.3% of all starting locations. Many of the remaining trip starting points were from areas surrounding Naples or were listed as various retail locations such as Walmart, Seminole Casino, airport, and surrounding malls.

Passengers also were asked to indicate the ZIP code to which they were going. In total, 526 responses were provided for trip destinations. Ending points were more dispersed than starting points, but concentrations were in Naples (58 trips), the 34112 area (47) and Government Center (24), the 34142 area (33) and the Health Department (30), and various retail locations, including 22 at a Walmart and 20 at surrounding malls.

4.1.6 Fare Information

Passenger were asked to indicate what fare they used to board the bus. Of 1,021 passenger responses (Figure 4-5), 289 (28.3%) paid a one-way fare, 286 (28.0%) used a day pass, and 212 (20.8%) used a 30-day pass.

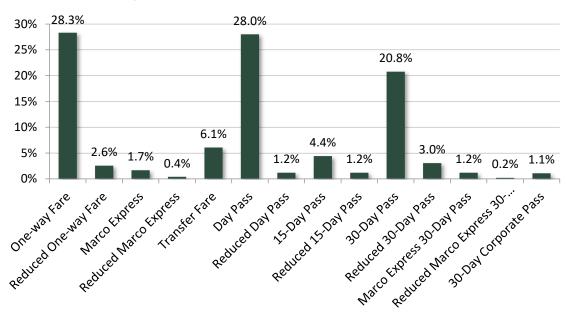


Figure 4-5: How did you pay for your fare on this bus?

4.1.7 Transit Dependency

Passengers were asked how they would make their trip if the bus was not available (see Figure 4-6). Across service types, most indicated they would use rideshare (26.5%), catch a ride with someone (25.0%), or ride a bike (22.6%); 13.3% said they would not make the trip if their bus was not available.

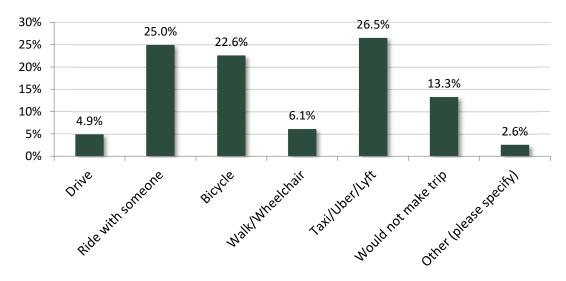


Figure 4-6: How would you make this trip if the bus were not available?

4.1.8 Ridership Frequency

When asked about the frequency with which they use CAT services, approximately 51% said they used CAT four or more days per week across all service types, as shown in Figure 4-7. Another 332 (32.45%)

said they rode the bus two or three days of the week, and 2.8% said this was their first-time riding CAT services; only 2.4% said they used CAT only on weekends.

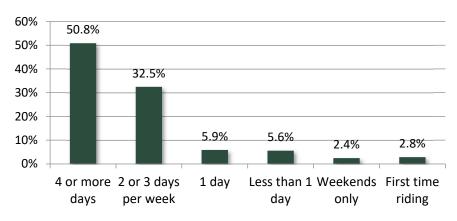


Figure 4-7: How many days per week do you ride CAT?

Passengers were also asked how long they have been using CAT services. Of the 1,039 responses, the majority indicated using CAT for more than two years (Figure 4-8).

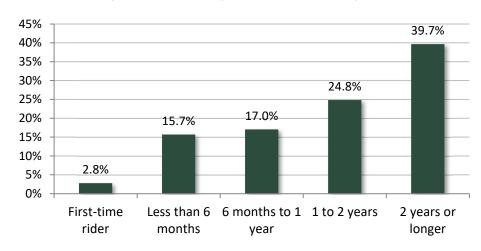


Figure 4-8: How long have you been riding CAT?

4.1.9 System Improvements

Passengers were given the opportunity to rank various system improvements and amenities according to the perceived importance of a particular feature (Figure 4-9). Using a scale from 1 to 5, with 5 being the most important, respondents rated 10 transit services and amenities. A desire for more frequent service had the highest weighted score, at 4.61 out of 5, followed closely by on-time performance (4.53) and earlier/later service (4.50). Availability of Wi-Fi on board buses was ranked lowest by a relatively significant margin, at 4.05.

In total, 411 respondents wanted to see more express buses, with some more common route suggestions from Naples to Miami and from Immokalee to Naples. Approximately 354 passengers

expressed a desire for additional bus routes that included a Naples to Miami route and routes to surrounding counties, area beaches, and Marco Island. A total of 322 passengers called for new ondemand service; the most common areas were in downtown Naples and Immokalee. Of the passengers who expressed the need for more service frequency, the most cited transit routes in CAT service were Route 11 (33), Route 24, (19), and Route 19 (16). Passengers who expressed a need for later service (588 respondents) identified these routes most frequently for later service: Route 11 (31 responses), Route 19 (24 responses), Route 24 (23 responses), and Route 17 (22 responses) for later service.

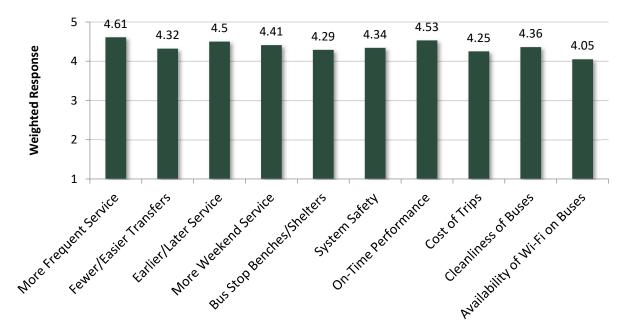


Figure 4-9: Rate important of CAT services.

4.1.10 Passenger Demographic Information

As a part of the on-board survey, passengers were asked to provide information about the following categories to help understand the demographic profile of an average CAT rider:

- Age
- Gender
- Ethnicity
- Number of automobiles available in their household
- Household Income
- Language

As indicated in Figure 4-10, most CAT passengers were between ages 35–44 (23.6%), followed by 25–34 (21.9%), and 45–54 (15.8%). Approximately 3% were under age 18, and 5.0% were age 65+.

Figure 4-10: Age of Transit Passenger

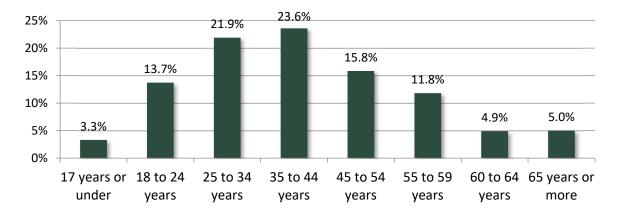


Figure 4-11 shows the gender of passengers who took the survey. Of the 517 who responded to the survey, nearly 53% indicated male, 46% indicated female, and nearly 1% indicated non-binary.

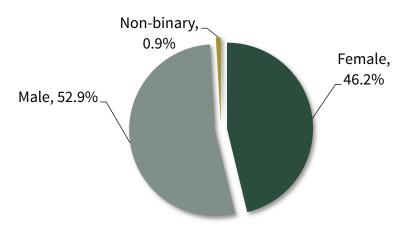


Figure 4-11: Gender of Transit Passenger

As shown in Figure 4-12, riders were asked about their ethnic origin. A total of 382 (38.0%) were Hispanic/Latino, 279 (27.7%) were White/Caucasian, and 249 (24.8%) were Black/African American. Of the 22 who selected "Other," most provided a response written in Haitian Creole.

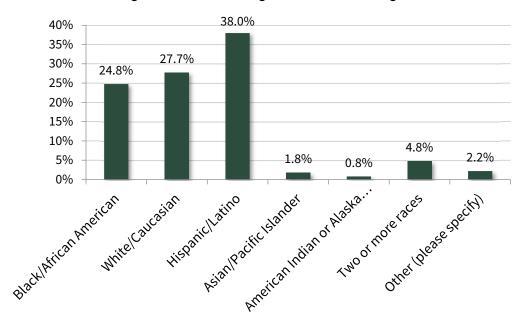


Figure 4-12: Ethnic Origin of Transit Passenger

Transit passengers were asked how many working motor vehicles were available in their household (Figure 4-13). Most responses, 503 (53.1%), answered that they had no vehicles in the household. Another 347 (36.6%) had one vehicle, 79 (8.3%) had two vehicles, and 19 (2.0%) had three or more vehicles available.

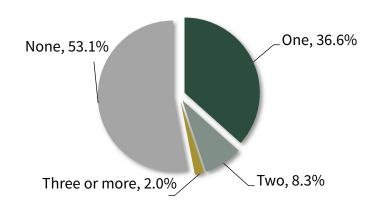


Figure 4-13: Motor Vehicles Available to Transit Passenger

Passengers were asked to provide their annual household income. As shown in Figure 4-14, approximately, 131 riders (19.4%) had an annual household income of \$15,000–\$19,999, 116 (17.2%) said \$20,000–\$24,999, and 101 (14.9%) said less than \$10,000 per year; 64 passengers (9.5%) said they had an annual household income of \$40,000 or more.

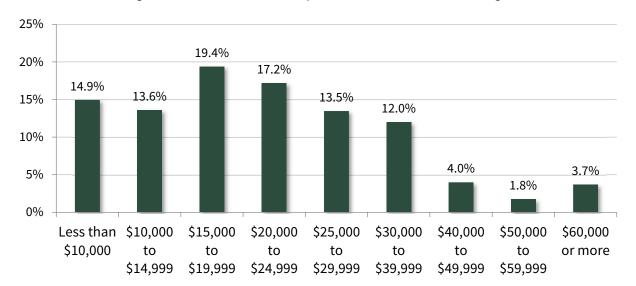


Figure 4-14: Annual Income by Household of Transit Passenger

Figure 4-15 shows the percent of people who reported speaking another language at home other than English. The survey was translated in Spanish and Creole for non-English speaking passengers. In total, 454 (46.3%) said they did not speak a different language at home, and 516 (52.6%) said they did. Of these 516, 282 said they spoke Spanish, 93 said Haitian Creole, 10 said French, and 5 said German.

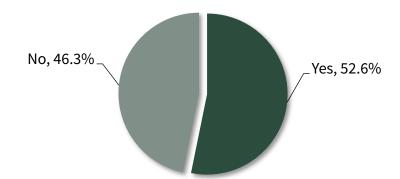


Figure 4-15: Percent of People WhoSpeak Another Language at Home Other Than English

4.1.11 On-board Survey Findings Summary

Findings of the survey were used to better understand the needs, transit service gaps, experiences, and priorities of existing CAT riders. This information will be useful in targeting riders in the future as CAT makes service improvements and can be used to program and prioritize mobility improvements. A copy of the on-board survey can be found in **Appendix C**.

4.2 Online Surveys

To better understand the needs and concerns of persons who use and do not currently use the CAT services, CAT and MPO staff and the consulting team developed two online surveys to elicit responses useful to CAT/MPO staff to better understand how services are perceived and what mobility services are in demand. The surveys were posted on the Collier County, CAT, and Collier MPO websites and were distributed via a set of email lists (940 contacts) and social media outlets in two phases during the TDP. The first survey focused on the perception of existing transit services and mobility needs in Collier County and was live from mid-February to March 15, 2020.

4.2.1 Phase I Public Input Survey

In total, 17 questions were asked to gather opinions about mobility needs, current services, and willingness to use public transit and to gauge public awareness on transit and gather sociodemographic information about survey respondents. The first online survey had a total of 220 responses and are summarized below.

Respondents were asked about their experience with Collier County's public transportation and related mobility services. The majority (59.6%) responded that they had seen the bus but did not ride it.

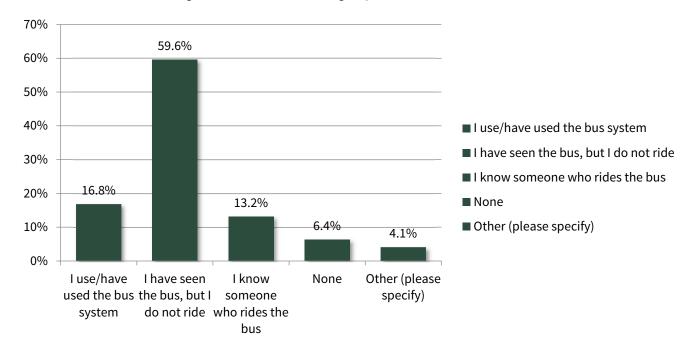
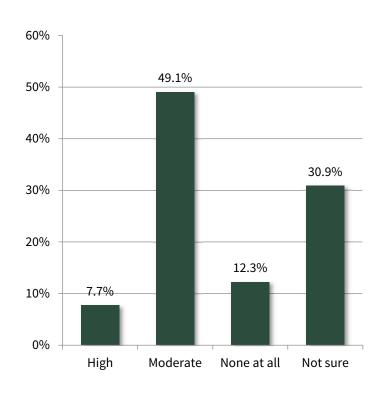


Figure 4-16: Understanding/experience with CAT

Although 49.1% of respondents indicated they were only moderately aware of public transit services (Figure 4-17), 71.4% said that it must be provided, as illustrated in Figure 4-18. Respondents were asked about their perception of transit's role in Collier County. Figure 4-19 shows that most agreed that transit serves persons who do not have access to a vehicle (95.4%) and that transit provides service to workers

and commuters (83.6%). About half agreed that transit serves tourists/visitors (52.5%) and helps to relieve parking and congestion (55.3%).

Figure 4-17: Awareness of transit/public transportation

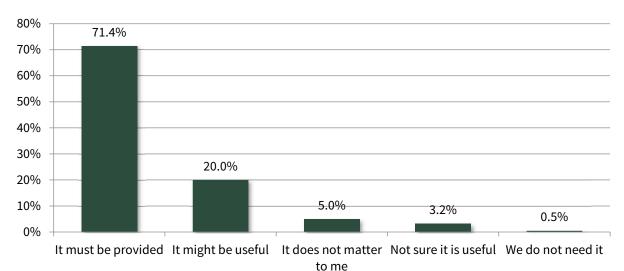


"I have employees that don't have cars and getting to work is a big issue with no reliable public transportation"

"My business depends on it."

"I was considering buying the monthly pass; however, I sometimes start work at 6 am, and sometimes leave work at 7:30 pm. The bus system does not work for my work schedule...."

Figure 4-18: Opinion of transit services in Collier County



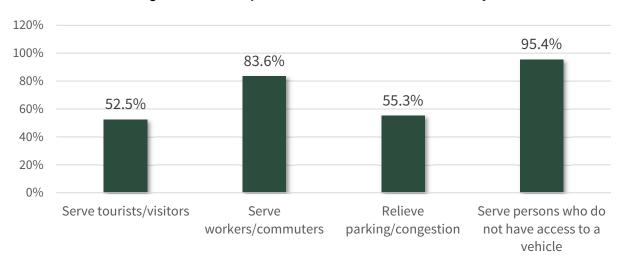


Figure 4-19: Perception of transit's role in Collier County

Respondents were asked to indicate what transit improvements they would like to see in Collier County (Figure 4-20). The top three responses were higher-frequency bus service, more bus service to new areas, and expanded bus service hours. Comments included the need for bus pullouts, more services for older adults, increased maintenance of stops, light rail on major arterials, service outside the community for festivals, and community shuttle services.

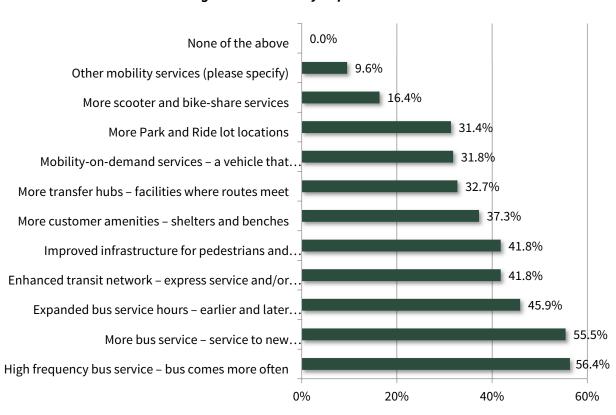


Figure 4-20: Mobility improvements

Respondents were asked for which of the following they would use a park-and-ride lot. Figure 4-21 shows that almost half of the respondents said they would use it to access a beach shuttle, and 38.2% said they would use it to access bus service. Suggested locations for park-and-ride lots included the Golden Gate area, East Naples for use with Marco Island Express service, the Estates, Publix on Pine Ridge Road/Collier Boulevard, the Orange Tree area, Eagle Lakes, apartment buildings in South Collier County, and at I-75 access points.

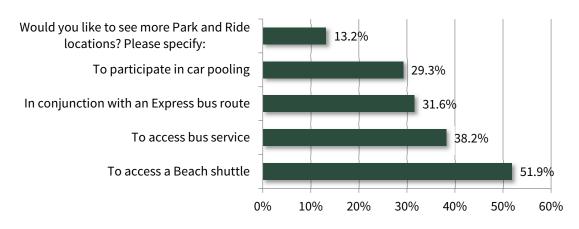


Figure 4-21: Park-and-ride usage

Respondents were asked who should benefit from mobility improvements. Figure 4-22 shows that 66.2% of respondents believe that all should benefit, 17.8% said that it should benefit those without a vehicle, and 14.6% said those who choose to use transit or an alternate mobility.

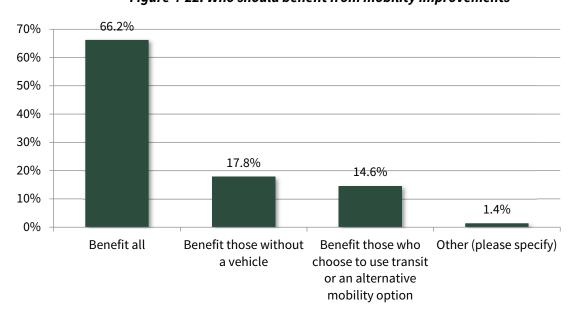


Figure 4-22: Who should benefit from mobility improvements

To understand the public's perception of how transit should be funded, respondents were asked how expanded mobility service should be paid for and could select all that apply. The top three responses,

tied at approximately 63.0%, were creation of partnerships with businesses, advertising revenue, and user fees, followed by roadway funds (38.5%) and revenue from a mobility fee (28.0%). One respondent commented that a sales tax, similar to HART's in Tampa, should be used, another suggested developer funding via impact fees, and a third suggested a tourism tax. One respondent suggested that special event sponsors should be assessed a fee and required to provide services; three respondents suggested grants.

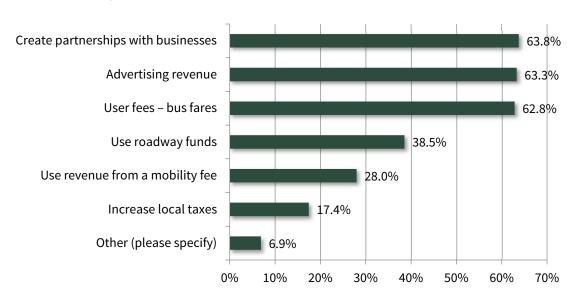


Figure 4-23: How should we pay for expanded mobility service

To gauge additional insight on the public's perception of CAT services, respondents were how much they agree or disagree with six statements regarding CAT services. The statements with the highest percent of disagreement were:

- "Existing CAT service covers the areas I need to travel to regularly" (18.1%).
- "CAT services are effective, convenient and easy to use" (8.8%).
- "CAT is effective at making the public aware of existing transit and mobility service" (6.0%).

The statements with the highest percent of agreement were:

- "Collier County needs more service and/or more service options" (59.6%).
- "Additional public transit service will improve economic opportunities in Collier County" (53.7%).
- "Collier County should invest more into expanding mobility services and options" (48.6%).

Table 4-1 shows the responses to each statement by their level of agreement.

Table 4-1: Do you agree or disagree

| | Agree | Somewhat Agree | Neutral | Somewhat Disagree | Disagree |
|--|-------|-------------------|---------|----------------------|----------|
| CAT services are effective, convenient, and easy to use. | 17.5% | 19.8% | 42.4% | 11.5% | 8.8% |
| Collier County needs more service and/or more service options. | 59.6% | 23.9% | 12.8% | 1.4% | 2.3% |
| Existing CAT service covers the areas I need to travel to regularly. | 8.8% | 13.9% | 43.1% | 16.2% | 18.1% |
| Collier County should invest more into expanding mobility services and options. | 48.6% | 27.5% | 19.7% | 1.8% | 2.3% |
| Additional public transit service will improve economic opportunities in Collier County. | 53.7% | 25.7% | 15.1% | 3.2% | 2.3% |
| CAT is effective at making the public aware of existing transit and mobility services. | 11.6% | 23.6% | 36.1% | 22.7% | 6.0% |

The remaining questions collected socio-demographic information on the respondents. When asked about their age, more than half indicated they were ages 45–64, 17.9% said they were 25–34, and 15.1% said 35–44. One respondent indicated being under age 18, and five indicated they were age 18–24.

35% 31.7% 30% 25.2% 25% 20% 17.9% 15.1% 15% 10% 7.3% 5% 2.3% 0.5% 0% 18-24 years 25-34 years 35-44 years 45-54 years 55-64 years 65 years or more

Figure 4-24: Your age is ...

As shown in Figure 4-25, 63.6% of respondents identified themselves as female and 36.5% were male. None of the respondents identified as nonbinary.

Figure 4-25: You are ...

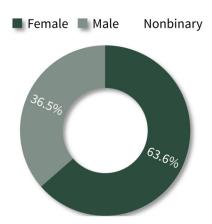
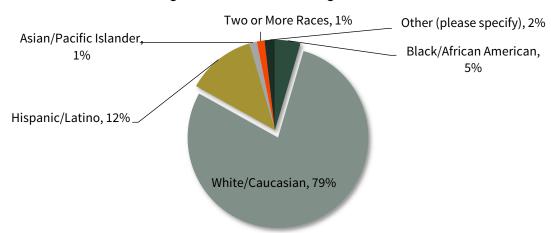


Figure 4-26 shows the ethnic origins the respondents reported. The majority indicated they were White/Caucasian (79%), followed by Hispanic/Latino (12%) and Black/African American (5%). This contrasts with the responses of the on-board passenger survey, where just over a quarter of respondents indicated they were white.

Figure 4-26: Your ethnic origin is ...



Additionally, respondents were asked about access to a vehicle in their household. Most respondents (53.0%) reported having two vehicles, followed by one vehicle (28.8%) and three or more (16.9%). One percent of respondents (3 total) reported having none, as shown in Figure 4-27. This is a stark contrast to the results of the on-board passenger survey, where over half of the respondents (53.0%) indicated they did not have a vehicle available.



Figure 4-27: How many motor vehicles in your household are available for your use?

As shown in Figure 4-28, approximately 74% of respondents indicated their household income was 60,000 or more, followed by 50,000-59,000 (8%), 40,000-49,000 (7%), and 30,000-39,000 (5%). A total of 5% indicated their household income was less than 29,000.

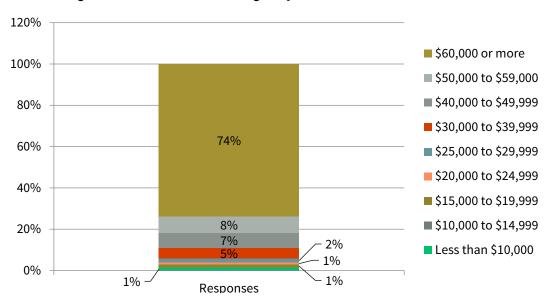


Figure 4-28: What was the range of your total household income for 2019?

Respondents were asked if they speak a language other than English at home; 23% indicated that they did and 77% did not. As shown in Figure 4-29, respondents selected the ZIP code of their residence. Most respondents indicated that they lived in ZIP codes 34104 (east of Naples), 34120 (Orangetree), 34117 (east of Golden Gate area). Some respondents lived in Lee and Hendry counties.

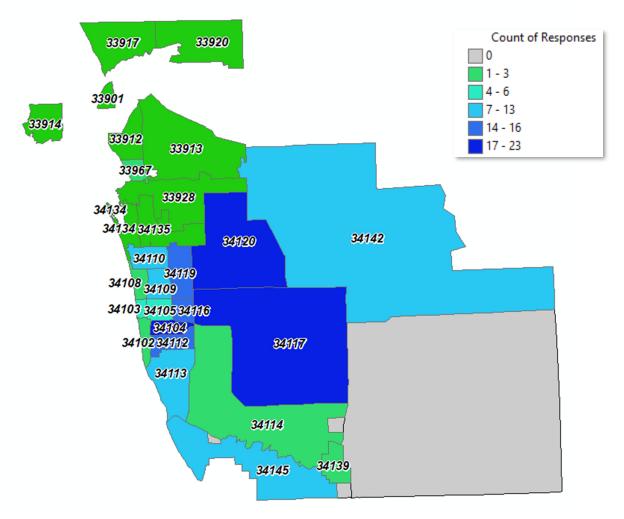


Figure 4-29: Home ZIP Code Responses

The final question asked respondents if they had any other comments or suggestions that would help CAT improve mobility services. Several respondents made suggestions about the need for more stops and bus shelters, including a park-and-ride for the Estates along the SR-951 corridor to connect riders to hubs such as the Government Center and Horseshoe. Other themes were the need for service through downtown, earlier and later service, increasing service in Immokalee, more bicycle and pedestrian infrastructure, and more service to Everglades City.

This is for my disabled son. The bus system does not go to places he needs service at the times he needs service. The routes are hard to understand.

Consider smaller electric vehicles like the paratransit vans and run service more frequently on some routes. I encourage more coverage and more frequent routes. As a restaurant manager, many of my staff rely on CAT service and it takes them hours to get to and from work.

Cut the ride time in half. The 12 and 11 routes should come every 45 mins instead of one hour and a half. More buses route to Walmart on 951. More time bus until 8 p.m. I'm forgetting what's night life is like at Naples because the last bus is at 6:30. Each business should advertise bus route schedule booklet. Or advertise a bus stop on the map with a business name. Or make bus schedule booklet a collector item for tourists.

I see people waiting for the bus on Rattlesnake and while here and there, there is a bench, there is no cover from inclement weather. Many people waiting have small children with them or are VERY pregnant. A simple issue, but I believe a very important one.

4.2.2 Phase II Public Input Survey

The second online survey was available from July 15 to August 15, 2020 and focused on educating the public on the proposed transit improvements and receiving their input on how to prioritize the improvements. A copy of both online survey questionaire can be found in **Appendix C**. The second online survey had a total of 48 responses, which are summarized below.

Respondents were asked for their home zip code. Most of the responses reported their home zip code was 34112, and 34142, and 34116. The most responses for work or school zip code was 34142 and 34104. Table 4-2 summarizes the responses.

Table 4-2: Home and Work/School Zip Code Responses

| Zip Code | Home Responses | Work/School Responses |
|-----------------|----------------|--------------------------|
| 34112 | 23% | 8% |
| 34142 | 20% | 27% |
| 34116 | 10% | 0% |
| 34110 | 8% | 4% |
| 34119 | 8% | 0% |
| 34109 | 5% | 8% |
| 34113 | 5% | 8% |
| 34105 | 5% | 0% |
| 34108 | 5% | 0% |
| 34103 | 3% | 8% |
| 33967 | 3% | 0% |
| 33993 | 3% | 0% |
| 34117 | 3% | 0% |
| 34120 | 3% | 0% |
| 34104 | 0% | 27% |
| 33901 | 0% | 4% |
| 34143 and 34102 | 0% | 4% |
| 34145 | 0% | 4% |
| Total Responses | 40 | 26 |

Respondents were asked about their typical travel needs within Collier County. Respondents were asked to select the best option when they travel for work/school, shopping, medical services, and other reasons: 1-3 days/weeks, 4+ days/week, or not applicable. Over half of respondents travel 4+ day per week for work (57.9%), and most travel for other reasons 1-3 days per week (55.3%). Most of respondents travel for shopping 1-3 days/week and 41.0% of travel for medical services 1-3 days per week. Table 4-3 lists the responses by trip purpose.

Table 4-3: Typical travel needs within Collier County.

| | N/A | \ | 1-3 days | week | 4+ days | /week | Total |
|--------------------------------|-------|----|----------|------|---------|-------|-------|
| I travel for work or school: | 29.0% | 11 | 13.2% | 5 | 57.9% | 22 | 38 |
| I travel for other reasons: | 15.8% | 6 | 55.3% | 21 | 29.0% | 11 | 38 |
| I travel for shopping: | 7.7% | 3 | 82.1% | 32 | 10.3% | 4 | 39 |
| I travel for medical services: | 53.9% | 21 | 41.0% | 16 | 5.1% | 2 | 39 |

Respondents were asked about their usual mode of transportation. Most respondents (79.2%) reported that they usually travel by car/motorbike, followed by walking (8.3%), bus (6.3%) and bike (4.2%), as shown in Figure 4-30.

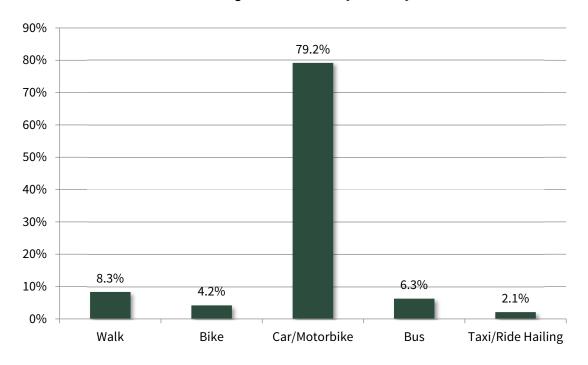


Figure 4-30: I usually travel by...

Of the respondents who usually travel by bus, the most frequent routes they reported riding were routes 15 (2 responses), 16 (2 responses), followed by routes 12, 17, 18, 24 with one response each.

In order to understand what type of service improvements the community would prefer; respondents were asked to choose between more frequent service and longer hours of service. The majority (77.1%) selected more frequent service, as shown in Figure 4-31.

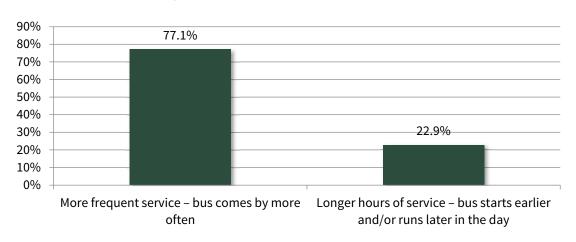


Figure 4-31: Frequency vs. Service Span Preference

Respondents were asked to choose between a faster bus ride (fewer bus stops on the street) or easier access to bus stops (more bus stops and buses turning into shopping centers and apartment complexes to stop). Most respondents (61.1%) chose easier access to bus stops, as shown in Figure 4-32.

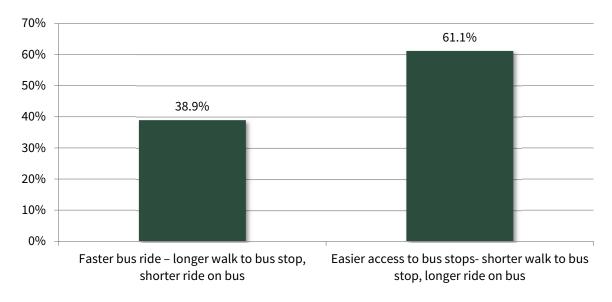


Figure 4-32: More Direct Ride vs. Shorter Walk Preference

Respondents were asked to choose between longer hours of service and a longer route serving more destinations. Most respondents (66.7%) selected longer hours of service, as shown in Figure 4-33.

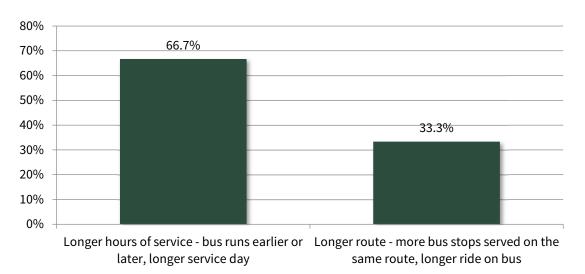


Figure 4-33: Service Span vs. Longer Bus Ride Preference

A description of mobility on demand services was provided in the survey before asking respondents how likely they would use this type of service. Over one-third of respondents selected very likely to use this type of service, while 22.2% selected not likely, as shown in Figure 4-34. Respondents were permitted to leave comments about MOD service. Many were in favor of this type of mobility because it is flexible. Some noted there is a need for this service along Livingston Road, Vanderbilt Road, and in Ave Maria and Immokalee.

Sounds like a great idea!

I believe folks without a vehicle would use it.

I think this service is essential for the community of Immokalee. Especially for those needing to go to Ave Maria and Naples for medical treatments.

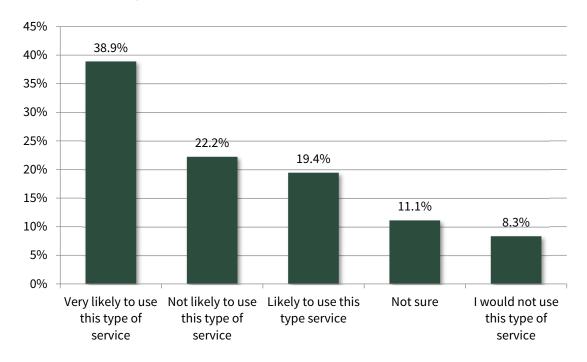


Figure 4-34: Preference for mobility on demand services

Respondents were asked to rate the importance of providing MOD service in North Naples, Naples, and Golden Gate Estates. Naples received the most responses for having a higher priority, followed by North Naples and Golden Gate Estates. Respondents could provide comments on the proposed MOD zones. Some respondents indicated that the zones would not service their area and one respondent emphasized the need for this service in Immokalee.

The survey provided a map with service improvements including route realignments and new service in the Naples area. Respondents were asked how important each improvement was. The responses

ranged from Higher Priority to Not a Priority and were weighed. Higher Priority responses received a weight of "5" and Not a Priority received a weight of "0". The proposed realignments to routes 13, 17/18 and 19/28 ranked highest in weighted response. Proposed improvements receiving the least priority include Route 12 extension, Naples Pier Electric Shuttle, Goodlette-Frank Road, Premium Express, combining Route 20/26, Collier Boulevard, and the autonomous circulator. The remaining responses and their weighted response rate are illustrated in Figure 4-35.

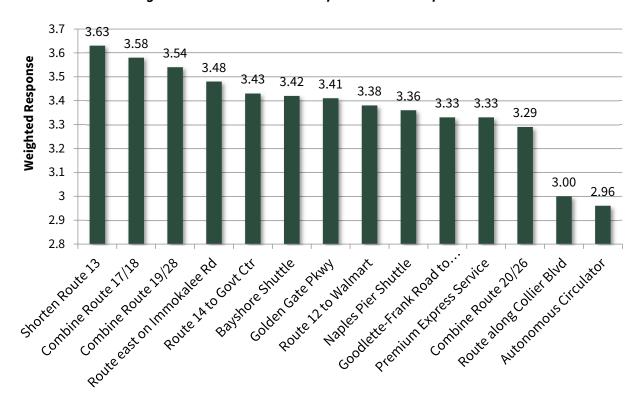


Figure 4-35: Preference for Proposed Service Improvements

The survey provided a map featuring service improvements in Marco Island and were asked to rate the importance of each service improvement. Adding trips to Route 121 received the highest priority, followed by the New Government Center-Marco Island Express, and Everglades City Van Pool. The Island Trolley and the Marco Island MOD service received the highest number of "Not a Priority" responses. Respondents could provide comments on the Marco Island area improvements. One respondent indicated that more trips for Route 121 are needed and another indicated that many residents in Immokalee travel to Marco Island for work. Another respondent indicated that all the improvements are very important while two indicated they get around by private automobile. The weighted average responses are illustrated in Figure 4-36.

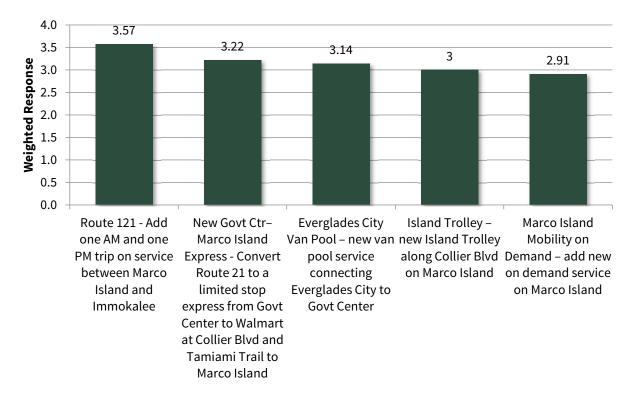


Figure 4-36: Marco Island Area Improvements

Respondents were provided a map of proposed service changes in Immokalee and were asked to rate each in terms of importance. The three responses received similar levels high priority support, with 50% of responses rating each improvement as a "Higher Priority". The weighted responses are shown in Figure 4-37. Respondents could provide comments on the proposed changes. Several indicated there is a need to connect Immokalee to Lee County. One respondent suggested modifying Route 23 to go to Esperanza Plaza and then to McDonalds on Immokalee Drive and Mainstreet. Another suggested one route travel to the Shelly Stater Shelter instead of having both Routes 22 and 23 travel along Lake Trafford Road. These recommendations were evaluated but all required an increase to the fleet and deemed not feasible at this time.

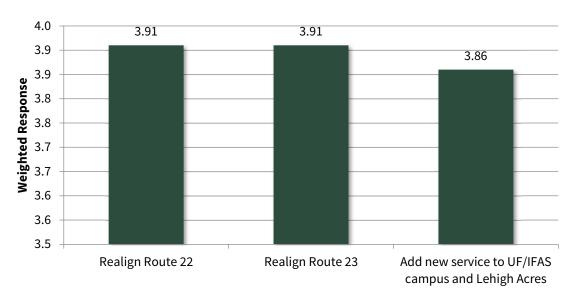


Figure 4-37: Immokalee Improvements

Thinking about how often the bus comes by, respondents were asked to tell us how important the following frequency improvements are to them. All the improvements had similar response rates, with Route 12 frequency improvements having a slight lead in its weighted average due to having the highest number of "Higher Priority" responses, as shown in Figure 4-38.

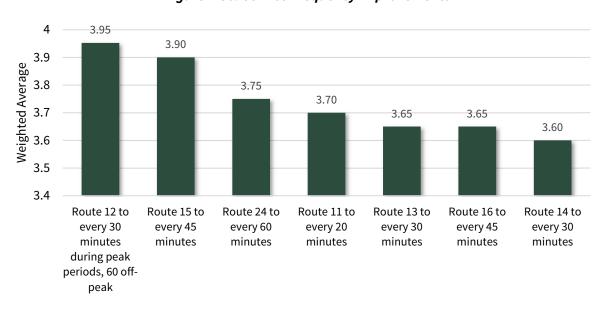
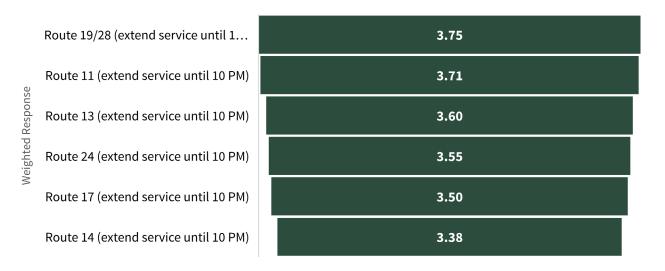


Figure 4-38: Service Frequency Improvements

The final question in the survey asked respondents to rate how important span improvements (until 10 PM) for routes 11, 13, 14, 17, 19/28, and 24 are to them. All the routes had responses that gave them all higher priority, however routes 19/28, 11 and 13 scored the highest in priority overall. Figure 4-39 shows the weighted average response by route.

Figure 4-39: Service Span Improvements



4.3 Stakeholder Interviews

Understanding local conditions are an important part of the TDP and should include knowledge of the perceptions and attitudes of community decision-makers and leaders towards transit and its role in the community. To obtain this information, a total of 12 stakeholders also were invited to be a part of this public involvement process. The interviews were held throughout April 2020.

All interviews followed a similar format using an interview guide that was developed with a list of questions and discussion topics to steer the discussions. Stakeholders were advised that CAT is in the process of updating its TDP, a 10-year planning document that serves to guide investments, provide direction on future initiatives, and respond to community needs. Respondents were thanked for their participation and advised that, as CAT prepares to update its guidance documents, their participation would be critical to helping develop insights and identify trends. Each respondent was asked to provide their perspective and insights as a stakeholder from their individual vantage point. Respondents were advised that the interview would ask for their perception of transit, how much awareness there is in Collier County about public transportation, which mobility improvements they would prefer to see in Collier County, who should benefit from mobility improvements, and how it should be funded.

Table 4-4 provides a list of stakeholders contacted and/or interviewed as part of this outreach effort.

Table 4-4: CAT TDP Stakeholders Contacted/Interviewed

| Stakeholder | Organization | Title |
|------------------|-------------------------------|----------------|
| Terry Hutchinson | City of Naples | Vice Mayor |
| Gary Price | Naples City | Council Member |
| Erik Brechnitz | Marco Island City | Council Member |
| Charlette Roman | Marco Island City | Council Member |
| Andy Solis | Collier County | Commissioner 1 |
| Burt Saunders | Collier County | Commissioner 2 |
| Leo Ochs | Collier County | Manager |
| Charles Chapman | City of Naples | City Manager |
| Michael McNees | City of Marco Island | Manager |
| Michael Dalby | Naples Chamber of Commerce | President |
| Danny Gonzalez | Immokalee Chamber of Commerce | President |
| Michelle McLeod | City of Naples | Council Member |

Major themes were identified from the feedback. The following key themes were gathered from the interviews:

- Awareness of transit services in Collier County was viewed as low to moderate, with most stakeholders feeling that the public knows the CAT bus system exists but are not familiar with how to use it or where it operates.
- The role of transit was viewed primarily as a service for workers to access jobs and to serve persons without access to a vehicle. Secondarily, it was viewed as a service to help relieve parking and roadway congestion and in certain locations as a service for visitors.
- The highest priorities for making improvements to the transit system were increasing the span of service, increasing service frequency, adding shelters, introducing mobility-on-demand services, and connecting service with sidewalks and bicycle/multimodal improvements.
- In terms of who should benefit from transit improvements, stakeholders expressed consensus that persons without access to a vehicle should be the primary beneficiaries, with additional benefits accruing to the community, the environment, businesses, and tourism.
- For how to pay for transit improvements, views were largely ordered as follows—user fees, including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising.
- All stakeholders overwhelmingly expressed a positive recognition that more transit service and service options were needed in Collier County and overwhelmingly shared the sentiment that improving transit services and adding more mobility options would be good for the community and the local economy.

4.4 Discussion Group Workshops

Two invitation-based discussion group workshops with a small group of participants (8–12 persons) were held to serve as a subject matter roundtable in which all participants took part in assessing existing services and determining future transit needs using questions to motivate and inspire conversation about the transit development process. The first discussion group workshop represented the business workforce while the second represented community resources. The workshops were conducted virtually.

At the start of each workshop, the project team explained that the purpose of the TDP is to develop a 10-year strategic plan for transit that would evaluate existing conditions, determine future needs, and outline phased service and implementation plans. The project team reviewed the requirements and best practices for the TDP, explaining how the Federal Transit Administration (FTA) encourages transit agencies to conduct plan updates to the TDP every three to five years. In Florida, the requirement is a funded mandate called the State Block Program. As part of this process, FDOT wants the inclusion of a vision plan as a part of the TDP, an important component of the plan that will include a financial strategy but also identify future needs for the transit system.

The project team presented a baseline data review of baseline condition findings, exploring both the existing and projected socioeconomic, demographic, population, and employment conditions to take into consideration the changing dynamics of the county. Existing and potential land use, development and major activity centers, travel flows journey-to-work, and job accessibility via transit were presented. The project team facilitated a discussion with participants on a wide range of questions, which is discussed in more detail in the following summary information.

4.4.1 Discussion Group #1 - Business Workforce

The Business Workforce discussion group was held on March 31, 2020, from 10:00 AM to 12:00 PM. Participants were from Anthrex, the Collier County Economic Development Department, the Collier County Tourism Department, Southwest Florida Workforce Development Board, Inc., d.b.a. CareerSource Southwest Florida, the Florida Restaurant and Lodging Association, the Greater Naples Chamber of Commerce, the Immokalee Chamber of Commerce, and Enterprise Holdings (Commuter Services).

4.4.1.1 Mobility Perspectives

Workshop participants felt that awareness of CAT's services could be improved. Many in the community do not know how the system works and/or how to access the routes. One participant stated that the service is useful for those who cannot afford to live in the more dense and expensive areas but who need to work there (service industry); it is also useful for areas with shopping and entertainment so people can access them without driving. Another participant commented that public transit is particularly useful for international visitors, which comprise 20% of visitors who expect transit to be available but are surprised that there is none. In addition, the Beach Shuttle is not available during the time that international visitors tend to come. When asked if certain areas need more service, one participant said that the Golden Gate Estates area has a welfare-dependent population that needs

service for work and school, including the adult education centers, Florida Southwestern State College, and Lorenzo Walker Technical College.

Participants agreed that Mobility-on-Demand could be applicable to Collier County, noting that Pinellas County has used it to provide greater connection to fixed-route service and has increased ridership. Leveraging partnerships with the private sector would be beneficial. The need for park-and-ride lots should depend on density and need. A collection point near residential areas and/or near a major road would be a suitable place. CAT staff noted that there is an ongoing park-and-ride study.

4.4.1.2 Mobility Needs

Participants were asked to comment about their role and interest in the community as it related to the mobility needs and improvement strategies. Participants believed that employers should be more aware of CAT services that are offered to their employees. The group agreed that the Golden Gate community, Immokalee and East Naples are likely focal points for increased frequency and service for service workers and lower income individuals. The tourism and beach areas may need a separately branded solution.

4.4.1.3 Funding Support

The group was asked about support for funding via the community and/or business sector sharing the associated costs to benefit their employees and customers. A participant agreed that funding is important and suggested that the business community is at a point where funding options should be discussed in detail. Employers may be willing to subsidize in some way but it's really a public service and it's time to have a conversation to push more public funding to public transit.

4.4.1.4 Other Mobility Needs

When asked about other mobility needs in the community, participants agreed that the youth population needs better transportation options, as it is difficult for them to get around the county for work, school, and extracurricular activities. Transportation was cited as the biggest impediment to connect high-school-age youth to internships and for students at Lorenzo Walker Technical College and Florida Southwestern State College.

4.4.2 Discussion Group #2 – Community Resources

The Community Resources discussion group was held on March 31, 2020, from 2:00–4:00 PM. Participants from the Collier County Sheriff's Office, Lighthouse of Collier, Youth Haven Homeless Shelter, Hodges University, Blue Zones, Enterprise Holdings (Commuter Services), Collier County CRA, and Golden Gates Estates Area Civic Association contributed to the discussion. Input from the workshop was categorized and summarized as follows.

4.4.2.1 Mobility Perspectives

Participants were asked about their understanding of and experience with CAT mobility services. Participants indicated that paratransit services were popular and were essential. Several knew of riders who use transit, including teens in disadvantaged locations and those who use it for medical trips, and

a few indicated that they use it themselves. A participant indicated that the bus schedule does not meet the needs of workshop schedules and that their organization would fail without paratransit. A participant inquired about the level of ridership needed to get more frequent services and whether smaller buses with more frequent service could achieve higher ridership. Another participant inquired if there was a trip planning app for youth, and the CAT team indicated that there was, and that CAT was working to improve coordinating with other mobility types.

4.4.2.2 Mobility Needs

Participants were asked what mobility improvements they would prefer to see provided in the county. A participant indicated that shelters at bus stops should be a priority, as there are usually 3-4 days of thunderstorms per week during the summer season. Frequency of service was a major concern, but it was noted that it would be costly to run all routes at one-hour headways. Several participants indicated that Collier County is not a walkable community, as there is a lack of sidewalks near many bus stops; there was consensus that the community needs more and wider sidewalks. Several participants indicated that the span of service needed to be increased, particularly for workers at the mall and those who reside in Immokalee. A participant indicated that peak-hour travel demand should prioritize transit, especially along I-75. A need for more bus stops near the homeless shelter was also mentioned in the discussion. Another participant indicated that gated communities should be opened, as local roadways to facilitate transportation for older adults.

4.4.2.3 Transit's Role

Participants expressed that everyone should benefit from transit services, including workers, commuters, and transit-dependent populations. There was an agreement that transit increases economic development opportunities.

4.4.2.4 Other Mobility Needs

Participants felt that more awareness of transit services could mean more ridership, but the service is inconvenient, which could stifle ridership. A participant expressed a need to invest more in a range of mobility options to improve overall system. Park-and-ride locations were suggested to be established near Livingston Road and Immokalee Road, Ave Maria, Immokalee, near Lee County, in eastern Collier County, and near areas with a large concentration of students and transportation disadvantaged populations.

4.4.2.5 Mobility Strategies Discussion

Given participants' roles and interest in the community, they were asked about other mobility needs and the improvements that would most benefit the community. Participants expressed there was a need for more shelters, more frequent service, connecting sidewalks, and transit-only lanes and a more pedestrian- and bicycle-friendly environment, as well as a need to get workers to Marco Island, especially with the parking shortage in the island. Another participant suggested a focus on vanpool service, as bus drivers are the largest share of the cost of operating transit services. Participants suggested a special districts and tax increment financing to generate more revenue for mobility improvements.

4.5 Public Transit Advisory Committee (PTAC)

A presentation to the PTAC was held July 21, 2020, with representatives from FDOT, Career Source of SWF, LeeTran, Collier Transportation Planning, Collier Transportation Engineering, Marco Island Growth Management, Collier Housing, a transportation industry expert, Collier County Attorney, Collier MPO, and CAT staff. The presentation updated the committee on the status of the TDP, reviewed the proposed network, changes and requirements, followed by a summary of outreach events. Several topics and suggestions were discussed during the meeting including

- **Commuting** The number of people without vehicles and the number of people using transit are different measures.
- **Visitors** Are tourists making trips on transit? There is an expectation from international travelers to better serve tourists in the area to alleviate congestion and parking concerns. CAT staff, however, do not receive information regarding visitors, but they are aware of the European visitors during the summer months in the beach area. A priority to serve commuters may be beneficial since Collier County may experience fewer international visitors in the coming years.
- Vision and goals The vision statement seems very broad; statements should be updated to show more emphasis on economic benefit and development. The Mission Statement should consider on-time performance, minimizing transfers, and more convenient service. For Goal #1, it was suggested to focus on workforce and convenience. For Goal #2, it was suggested to consider rising tides or climate change in relation to Collier County. For Goal #3, a participant suggested adjusting the goal to focus on education and public awareness, as well as hotel infrastructure and tourism. Another participant suggested that Goal #4 consider including addition mobility options (i.e., scooters, rider share, etc.).
- **Mobility strategies** There was a discussion that safety needs to be considered to promote better and safe choices for transportation. Designated mass transit lanes and sidewalks can help promote safer transportation opportunities.
- Needs A need for more transit services in Immokalee was expressed. It was suggested to
 increase the amount of transportation service from this area. There is also a need for parkand-ride services from residential areas to commercial areas, primarily on the east side of the
 county to the west side of the county—more specifically, east Collier Boulevard to the urban
 core. A representative from Collier County Community Planning noted that the County is
 adding policy requirements for transit stations and park-and-rides in new towns and villages.

4.6 TDP Working Group Meetings

The TDP Working Group, this project's technical advisory group, was comprised of representatives from FDOT, Collier MPO, CAT, Southwest Florida Workforce Development Board, Inc., d.b.a. CareerSource Southwest Florida, LeeTran, Collier County Transportation Planning, Collier County Traffic Operations, City of Naples, Marco Island Transportation/Growth Management Department, Collier County Housing, Collier County Community Planning, a member of PTAC, and Collier County Attorney's office.

Participants were selected based on their subject matter expertise and knowledge in relevant technical, policy, and community considerations to provide technical and contextual review and advice for the TDP update.

Three working group meetings were held virtually. The first addressed findings related to existing and future conditions and mobility needs, services, and service gaps. The second reviewed results from public outreach, the mobility vision, the initial program of improvements, and initial priorities. The third reviewed the final recommendations prior to Board and MPO approval. The group provided recommendations related to public outreach and feedback, which is required to inform the recommended prioritized program of mobility improvements.

Working Group Meeting #1

The first Working Group meeting was held April 1, 2020, from 10:00 AM to 12:00 PM. The purpose and overview of the TDP were presented, followed by the project schedule, PIP, existing conditions of service area (market), existing services, highlights from the peer and trend analysis, results from the onboard survey, mobility perspectives, and CAT mission and goals. Thereafter, a guided discussion on CAT mobility strategies was held, including questions such as "What is your perspective on transit's role in Collier County" and "Who should benefit from mobility improvements?"

Participants were asked how much they agreed or disagreed with a series of statements. There was a general recognition that CAT services could be more effective, convenient, and easy-to-use and that there is a gap between knowing the services exist and knowing enough to use the service. General comments and responses include:

- The number of people without vehicles and the number of people using transit are different measures.
- It would be interesting to see what the peers are doing so that CAT can consider similar services going forward.
- Data on how tourists use transit would be useful to see what changes are needed to serve them
 better. There is an expectation from international travelers that transit services be available
 to better service the area to alleviate congestion and parking concerns. Data on tourism,
 however, is not available, however there is an expectation from the European maker to serve
 riders during the summer months along the beach as they would like to see more transit in the
 summer.
- The vision statement seems very broad. The statements should be updated to show more emphasis on economic benefit and development.
- The mission statement should consider more on-time performance, less transfers and more convenient service.
- Goal #1 should make adjustments to focus on workforce and convenience.
- Goals #2 should consider rising tides or climate change in relation to Collier County.

- Consider adjusting Goal #3 to focus on education and public awareness, as well as hotel infrastructure and tourism.
- Consider including additional mobility options, e.g., scooters, rider share, to Goal #4.
- Regarding mobility strategies, safety should be considered. We need to promote better and safe choices for transportation. Designating mass transit lanes and more sidewalks would promote safer transportation.
- There is a need to increase transportation service from Immokalee.
- Park and rides should work to connect residential areas to commercial areas, primarily on the
 east side of the count to the west side. More specifically, east of Collier Boulevard to the urban
 core.

Overall, there was strong agreement that the county needs more service and more mobility service options and that the County should invest more to expand mobility services. Participants also agreed that more transit will improve economic opportunities. Participants had varied views about whether CAT service covers all areas that need service and whether CAT is effective at making the public aware of existing transit services. Working Group participants also discussed key mobility needs within the community (access to work, education, services) and ease of access to existing transit services (awareness of the service, routes, span), especially for areas with a high transit propensity. It was noted that policy requirements for transit stations and park and rides in new towns are being added.

Working Group Meeting #2

The second Working Group meeting was held May 13, 2020 from 10:00 am–12:00 pm via GoToMeeting and was attended by 19 members. The meeting provided an update on the status of the TDP, presented findings from the onboard and online surveys, summarized the stakeholder interviews, presented the service gap analysis, and presented initial recommendations for service alternatives. Questions were asked about the level of objection to bus advertising by the stakeholders, the high range of ridership activity in the APC map, what is included in the cost per rider metric, how revenue is accounted for in transfers, ridership levels in Immokalee, cost neutral improvements, premium service vs express routes, mobility on demand. General comments and responses include:

- Consider providing more transit coverage in the northwest corner of the county that has a high transit propensity. Mobility on demand may be a good option.
- Ensure proposed routing in Immokalee to directly serve the transfer facility.
- Review the eliminated service on Davis Boulevard between US 41 and Airport Road.
- MOD service may need to operate differently on Marco Island and Immokalee.

The priorities discussion supported advancing the proposed changes, examining ridership, operating requirements (hours, vehicles, frequency, span), and costs.

Working Group Meeting #3

The third Working Group meeting #3 was held July 22, 2020, from 10:00 AM to 12:00 PM. The meeting provided an update on the status of the TDP followed by an in-depth explanation of the guiding principles for the proposed network. The existing and new networks were presented, with a detailed discussion of the route realignments, frequency and span improvements, new services, operating requirements, and an unconstrained phasing plan.

One participant expressed the need to provide more service to connect workers in Immokalee to employment in other locations within Collier and Lee counties. Another indicated that he liked the variety of options being offered. One noted that innovations are good because they provide flexibility and choice in mobility options. Some innovations are a few years out, but the planning is good because transit is evolving. The commuter van proposal was viewed with interest as a way to serve mobility needs in remote and lower-density parts of the county. A discussion focused on the need for coordinating transit improvements with the regional Long Range Transportation Plan to include innovations such as transit signal priority, policies requiring bus stop infrastructure with new developments, and how transit can be incorporated into the travel demand model. Overall, there was strong support for the proposed changes, particularly for new services such as the Bayshore Shuttle, Marco Island Trolley, and the downtown circulators.

4.7 TDP Presentations

Presentations on the proposed improvements were made to the City of Naples (August 10) and to the City or Marco Island (August 17) and included an overview of the TDP, the purpose of the TDP and process, followed by review of the proposed network, including service changes within their respective municipalities, anticipated impacts, and project phasing. The presentations were followed by a review of next steps in the review and endorsement process.

Questions were addressed following both presentations and these focused on how the Cities would like to work with CAT staff to review and define specific projects and services. Both the City of Naples and the City of Marco Island endorsed the draft TDP as presented.

Table 4-5 lists the remaining meetings that were conducted for the TDP review; each meeting was conducted virtually and resulted in an endorsement of the TDP. The final meeting was with the Collier Board of County Commissioners and resulted in approval of the TDP.

Table 4-5: TDP Review Meetings

| Meeting | Meeting Date | Meeting Start Time |
|---------------------------------------|----------------------------|-----------------------|
| TAC | Monday, August 31, 2020 | 9:30 am |
| CAC | Monday, August 31, 2020 | 2:00 pm |
| Collier MPO Board | Friday, September 11, 2020 | 9:00 am |
| Collier Board of County Commissioners | Tuesday October 27, 2020 | 9:00 am |

4.8 Public Workshops

Two public workshops were conducted in the second phase of the TDP. The workshops were promoted using email blasts (1,426 email contacts), social media, agency websites, and flyers on buses. The first

workshop was held July 30 from 5:30-7:00 PM and presented the proposed network changes to gather feedback from the public on the proposed changes. The second workshop was held August 12 from 5:30-7:00 PM and the recommended presented transit improvements and projects included in the TDP. Due to the COVID-19 pandemic that began in March 2020, the workshops were conducted virtually using the GoToMeeting (webex) platform. The workshops were recorded and posted to both the CAT website and the Collier MPO website.

Sixteen participants attended the first public workshop. The transit network changes, expected service impacts, and new services such as Mobility on Demand, frequency increases, and span of service improvements were explained. Participants were urged to complete the online survey and were encouraged to ask questions (visible only to panelists) during the presentation. Several questions were asked and answered by the panelists, consisting of Collier MPO staff, CAT staff, and the consulting team. The remaining comments and suggestions were used to help prioritize the proposed improvements.

View this email in your browser







Help us prioritize improvements for CAT's Ten-Year Transit Development Plan!

Collier Area Transit (CAT) wants your help to review and prioritize transit and mobility improvements to be included in our program of projects to be funded over the next 10-years. These projects will improve the CAT transit system and add new services to make it easier for you to get around Collier County.

Online Survey

First, we invite you to take a **survey** that walks you through the improvements. Through the survey you will be able to let CAT know what you think about the proposed changes and provide your own suggestions. **Take** the CAT Survey by clicking here. The survey will be active until August 15th.

Take the Survey

Virtual Meeting

Second, you are invited to participate in a **Virtual Public Meeting**, it will be held online on **July 30th from 5:30PM to 7:00PM**. During this meeting you will learn more about the proposed improvements, be able to ask questions, and talk about the changes you would like to see to improve transit services in Collier County.

Email Blast used for public online survey and public workshops



Figure 4-40: Virtual Public Workshop #1

A summary of the comments and questions are as follows:

- More covered bus shelters and benches are needed. CAT staff explained the prioritization process for shelters and recent construction of stop shelters.
- More information was requested about the autonomous circulator and the Naples Pier shuttle.
 CAT staff explained these pilot projects are proposed to address mobility, parking, and congestion needs in the area and the services will be developed through a separate set of projects when funding is secured to study these in greater detail.
- There was interest in potential revisions to the Land Development Code to encourage, transit stops/pullovers for the CAT vehicles. CAT staff noted that that policies were being proposed in conjunction with the ongoing Transit Impact Study.
- Questions were asked about funding sources currently used for transit and additional funding needs to improve transit services. A similar question was asked about statutes or rules corresponding to transit operational improvements and needs. CAT staff response provided a discussion of farebox revenue, federal and State grants, and local funding sources.
- Questions concerning how Mobility on Demand services would work were addressed by the
 project team explaining the service would pick up the passenger on request and transport
 them to any location within the zone. For destinations beyond the MOD zone, the riders would
 be connected to a fixed route bus at a mobility hub or at another bus stop to complete their
 trip.
- Comments were made about how the COVID-19 pandemic is changing transit and if it is anticipated that it would impact transit in perpetuity, i.e., reduce ridership due to fear of being in close confined spaces. The project team responded that this is still to be determined but that much has been learned with the experiences in responding to social distancing and attempts to prevent spread of the virus. The ability to pilot more on-demand service has proved beneficial and has likely resulted in wider adoption of mobility on demand strategies.

- A question was asked about the availability of technology to monitor available space on a bus for a bicycle? It was noted that a study on technology needs was recently conducted for CAT that did not include this technology; however, it is possible and could be added as needed, as that would improve rider experiences for reliability.
- A question was asked if the extra trips on the Route 121 would stagger trips earlier or later in the day or if there would be midday trips as wells. CAT staff responded that they coordinate with major employers on Marco Island to determine the best times to run Route 121.

Several suggestions were provided by participants and are noted below for further consideration by CAT staff as opportunities become available through new funding sources, funding levels, and policy direction make additions of service possible. These changes should be considered as part of the upcoming COA project:

- Consider a mid-day bus trip between Naples and Immokalee.
- Run Route 22 or 23 service to Immokalee Drive past Esperanza Place.
- Provide later service in Golden Gate City.
- Consider changes to Route 22 and/or Route 23 to limit service on Trafford Lane in favor of service south along Immokalee Drive.
- Improvements are needed for the bus stop on CR-951 in Golden Gate City across from the Shell station, the stop serves 15–30 people who must stand against a guard rail from 4:30–5:00 pm.

Seven participants attended the second public workshop. Like the first public workshop, the transit network changes, expected service impacts, and new services such as Mobility on Demand, frequency increases, and span of service improvements were explained. The proposed implementation plan was presented as set a funded and unfunded improvements. Participants were urged to complete the online survey and were encouraged to ask questions (visible only to panelists) during the presentation. Several questions were asked and answered by the panelists, consisting of Collier MPO staff, CAT staff, and the consulting team. A summary of the questions and their responses is as follows:

- There was interest in the ability to view the webinar later for those who could not attend live.
 The organizer responded that the meeting was recorded and would be available to view later on the CAT website.
- A question was asked about whether bus replacements would favor alternative fuels. CAT staff
 responded that the existing bus fleet is diesel and that CAT is programming electric vehicles as
 part of the fleet replacement.
- A question was asked about the useful life of CAT vehicles, due to the high cost of buses, and if service modifications would reduce the mileage on CAT vehicles to reduce the frequency of replacement. CAT staff explained that per FTA guidelines, the useful life of a motor bus is 12 years and a replacement schedule is mandated by FTA. Staff commented that shorter routes would reduce the mileage on the vehicles and some route modifications would require additional buses to improve frequency and other modifications.

- A question was asked about why more service improvements were not considered for Golden Gate City. CAT staff and the consulting team responded that frequency improvements to Route 15 and 16 are being proposed in the area and MOD service is being recommended which would serve areas adjacent to Golden Gate City.
- The mobility on demand service concept was explained by the project team including the
 difference between transportation networking companies, the proposed mobility on demand
 service, complementary paratransit service, and a description of how the service could
 potentially look like from a user's perspective

5.0 Transit Demand Analysis

As a part of the CAT TDP, a vital step is comparing existing service to the discretionary market and the transit orientation index (TOI), the two predominant rider markets for transit service. Analytical tools for conducting each market analysis include a density threshold assessment (DTA) for the discretionary market, a TOI for the traditional market, and a ridership projection using T-BEST. These tools can determine if existing transit routes are serving appropriate areas that include locations with transit-supportive characteristics consistent with a robust transit market. This section documents the analytical tools that helped to identify gaps in the current service area that ultimately will be addressed with new service and/or modifications to existing service.

5.1 Discretionary Market Assessment

The discretionary market refers to potential riders living in higher-density areas of the service area who may choose to use transit as a commute or transportation alternative but who have other options with which to meet their mobility needs. Whereas discretionary markets may not represent a typical CAT rider, it is important to identify areas with higher density that may capture other markets such as choice riders. A demand assessment of traditional transit market follows this section.

The DTA conducted for CAT used industry-standard thresholds to identify areas within the CAT service area that experience transit-supportive residential and employee density levels. Three density thresholds were developed to indicate if an area has sufficient density to sustain a level of fixed-route transit operations. The analysis assesses an areas ability to support Minimum, High, or Very High transit service level investments:

- **Minimum Investment** reflects minimum dwelling unit or employment densities to consider basic fixed-route transit services (i.e., local fixed-route bus service).
- **High Investment** reflects increased dwelling unit or employment densities that may be able to support higher levels of transit investment (i.e., increased frequencies, express bus) than areas meeting only the minimum density threshold.
- **Very High Investment** reflects very high dwelling unit or employment densities that may be able to support higher levels of transit investment (i.e., premium transit services) than areas meeting the minimum or high-density thresholds.

Table 5-1: Transit Service Density Thresholds

| Level of Transit Investment | Dwelling Unit Density Threshold ¹ | Employment Density Threshold ² |
|-----------------------------|--|---|
| Minimum Investment | 4.5–5 dwelling units/acre | 4 employees/acre |
| High Investment | 6-7 dwelling units/acre | 5–6 employees/acre |
| Very High Investment | ≥8 dwelling units/acre | ≥7 employees/acre |

¹ Transportation Research Board National Research Council, TCRP Report 16, Volume 1 (1996), "Transit and Land Use Form," November 2002, Metropolitan Transportation Commission Resolution 3434, Transit Oriented Development Policy for Regional Transit Expansion Projects.

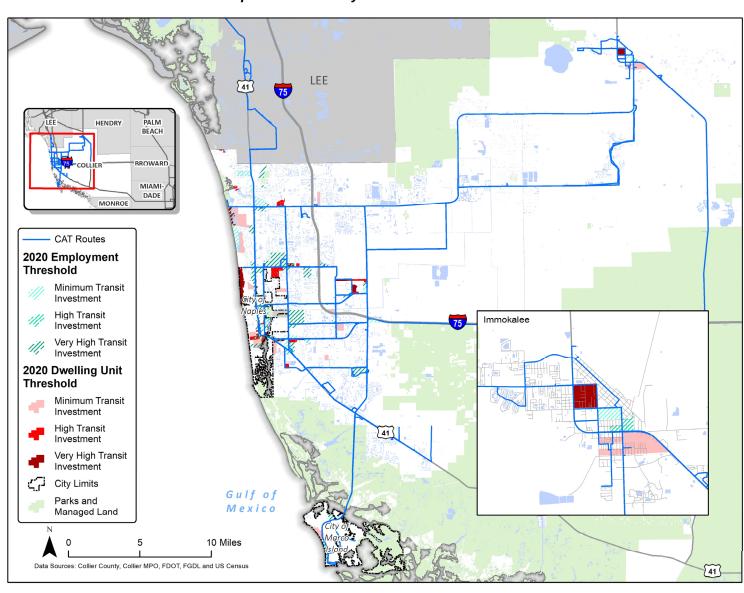
² Based on review of research on relationship between transit technology and employment densities.

Collier County dwelling unit density largely falls below 4.5–5 dwelling units per acre and, therefore, will have fewer areas that are traditionally considered to be transit-supportive. Despite industry-held standards, Collier County's ridership is higher in some locations, as reflected in the Automatic Passenger Count (APC) data reviewed in Section 6.

Map 5-1 illustrates the results of the 2020 DTA analysis and identifies areas that support different levels of transit investment based on existing household and employment densities. The analysis indicates that the employment-based discretionary transit market is concentrated in areas throughout the CAT service area. Major concentrations of employment-related transit investments are located east of Naples Airport and north of Pine Ridge Road; other areas of "High" to "Very High" employment-related transit investments are located along Tamiami Trail.

Household unit-based discretionary areas with transit investment opportunities are fewer but follow the same densities as employment-based discretionary areas. The areas that meet or surpass the "High" threshold are located along the coastal area which includes the City of Naples, Marco Island and Collier County, north of Pine Ridge Road, south of Pine Ridge Road, and in Immokalee east of Sunshine Boulevard.

Map 5-2 illustrates the results of the 2030 DTA, which are similar to the 2020 discretionary transit markets; however, there is projected growth surrounding the Golden Gate Community Center area, in Immokalee and areas of Marco Island, and adjacent to areas already meeting a minimum transit investment threshold. Areas with a "High" to "Very High" employment -based discretionary transit market are concentrated in areas around the airport, Davis Boulevard, Pine Ridge Road, along Goodlette-Frank Road, along Tamiami Trail in Naples, the coastal area in North Naples, and Collier Boulevard near I-75.



Map 5-1: 2020 Density Threshold Assessment

LEE 75 PALM MIAMI DADE MONROE CAT Routes 2030 Employment Threshold Minimum Transit Investment High Transit Investment Immokalee Very High Transit Investment 2030 Dwelling Unit Threshold Minimum Transit Investment High Transit [41] Investment Very High Transit Investment City Limits Gulf of Parks and Mexico Managed Land 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census [41]

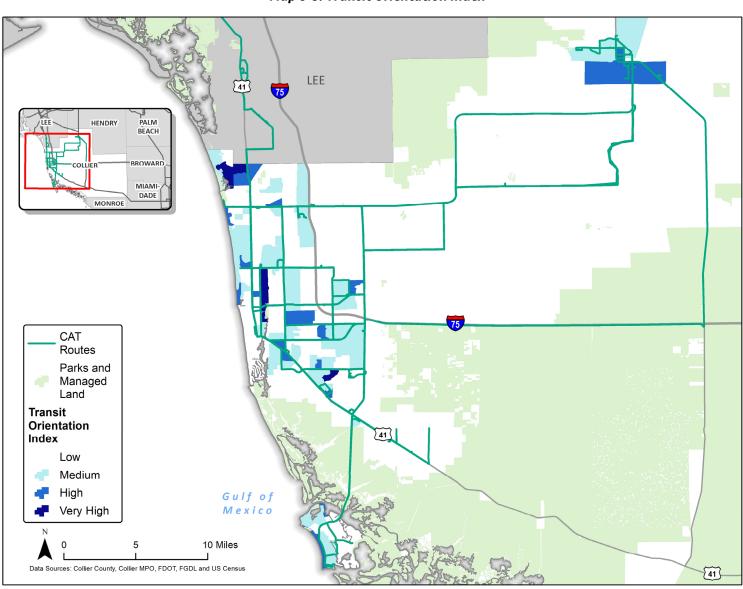
Map 5-2: 2030 Density Threshold Assessment

5.2 Traditional Market Assessment

As a part of the transit market assessment, four socioeconomic and demographic characteristics traditionally associated with the propensity to use transit were used to develop the TOI. American Community Survey (ACS) data layers were overlaid to develop a composite ranking for each Census Block Group of "Very High," "High," "Medium," and "Low" with respect to the level of transit orientation. The areas that ranked "Very High" reflect a very high transit orientation, i.e., a high proportion of transit-dependent populations, and those ranked "Low" indicate much lower proportions of transit-dependent populations. Map 5-3 illustrates the TOI, reflecting areas throughout the CAT service area with varying traditional market potential. Also shown is the existing transit route network to exhibit how well CAT routes currently cover those areas.

The CAT service area includes Census Block Groups with significant transit-dependent populations. Areas north of downtown Naples and near Lee County show "High" and "Very High" TOI scores due to higher concentrations of older adults, youths, younger adults, and households in poverty. In addition, Block Groups in Immokalee also show "High" to "Very High" TOI scores, with data indicating high concentrations of zero-vehicle households, older adults, youths, and younger adult populations.

As noted above for older adult, youth, and younger adult populations, the areas with a high TOI score, especially suburban and lower-density settings, tend to trigger the "Very High" TOI thresholds that do not necessarily indicate a higher need for traditional fixed-route transit service. These areas may be better suited for mobility-on-demand services rather than traditional fixed-route bus service. These areas include suburban settings around Immokalee. Ultimately, the strategic use of the TOI is beneficial to filling in service gaps, as discussed in the following section.



Map 5-3: Transit Orientation Index

5.3 Potential Future Transit Demand using T-BEST

The ability to forecast demand is necessary to support transit development planning. Rule 14-73.001, F.A.C., specifically mentions ridership forecasting to estimate current and potential future transit demand using FDOT-approved tools or an FDOT-approved transit demand estimation technique with supporting demographic, land use, transportation, and transit data. The result of the transit demand estimation process must be a 10-year annual projection of transit ridership.

Projected ridership demand for existing fixed-route transit services over the next 10 years were analyzed with the following scenarios:

- "2021 No Improvements" projects ridership demand to 2021 with the current transit system
- "2030 No Improvements" projects ridership demand to 2030 with the current transit system

The projections were prepared using T-BEST (Transit Boardings Estimation and Simulation Tool) Version 4.6, the FDOT-approved ridership estimation software. T-BEST is a comprehensive transit analysis and ridership-forecasting model that can simulate travel demand at the individual route level. The software was designed to provide near- and mid-term forecasts of transit ridership consistent with the needs of transit operational planning and TDP development. In producing model outputs, T-BEST also considers the following:

- *Transit network connectivity* the level of connectivity between routes within a bus network— the greater the connectivity between bus routes, the more efficient the bus service becomes.
- Spatial and temporal accessibility service frequency and distance between stops—the larger
 the physical distance between potential bus riders and bus stops, the lower the level of service
 utilization; similarly, less frequent service is perceived as less reliable and, in turn, utilization
 decreases.
- *Time-of-day variations* peak-period travel patterns are accommodated by rewarding peak service periods with greater service utilization forecasts.
- Route competition and route complementarities competition between routes is considered; routes connecting to the same destinations or anchor points or that travel on common corridors experience decreases in service utilization; conversely, routes that are synchronized and support each other in terms of service to major destinations or transfer locations and schedule benefit from that complementary relationship.

The following section outlines the model input and assumptions, describes the T-BEST scenario performed using the model, and summarizes the ridership forecasts produced by T-BEST.

5.3.1 Model Inputs / Assumptions and Limitations

T-BEST uses various demographic and transit network data as model inputs. The inputs and the assumptions made in modeling the regionally significant routes in T-BEST are presented below. The regional model used the recently released T-BEST Land Use Model structure (T-BEST Land Use Model

2019), which is supported by parcel-level data developed from the Florida Department of Revenue (DOR) statewide tax database.

It should be noted that the model is not interactive with roadway network conditions. Therefore, ridership forecasts will not show direct sensitivity to changes in roadway traffic conditions, speeds, or roadway connectivity.

5.3.1.1 Transit Network

The transit route network for regionally significant routes was created to reflect 2019 conditions, the validation year for the model. General Transit Feed Specification (GTFS) data created by CAT staff were used to create the base transit system and include:

- Route alignments
- Route patterns
- Bus stop locations
- Service spans
- Existing headways during peak and off-peak periods (frequency at which a bus arrives at a stop—e.g., one bus every 60 minutes)

The GTFS data were verified to ensure the most recent bus service spans and headways, and edits were made as needed. Interlined routes and transfer locations were manually coded in the network properties.

5.3.1.2 Socioeconomic Data

The socioeconomic data used as the base input for the T-BEST model were derived from ACS 5-Year Estimates (2013–2017), the Bureau of Labor Statistics, the Bureau of Economic Analysis, 2015 InfoUSA employment data, and 2018 parcel-level land use data from the Florida DOR. Using the data inputs listed above, the model captures market demand (population, demographics, employment, and land use characteristics) within ¼-mile of each stop.

T-BEST uses a socioeconomic data growth function to project population and employment data. Using 2045 socioeconomic forecasts from the Collier Metropolitan Planning Organization (MPO), population and employment growth rates were applied at a Traffic Analysis Zone (TAZ) level. Population and employment data are hard coded into the model and cannot be modified by end-users. As applied, the growth rates do not reflect fluctuating economic conditions as experienced in real time.

5.3.1.3 T-BEST Model Limitations

It has long been a desire of FDOT to have a modeling tool for transit demand that could be standardized across the state, similar to the Florida Standard Urban Transportation Model Structure (FSUTMS) model used by MPOs in developing long range transportation plans (LRTPs). However, although T-BEST is an important tool for evaluating improvements to existing and future transit services, model outputs do not account for latent demand for transit that could yield significantly higher ridership. In addition,

T-BEST cannot display sensitivities to external factors such as an improved marketing and advertising program, changes in fare service for customers, fuel prices, parking supply, walkability and other local conditions. Correspondingly, model outputs may over-estimate demand in isolated cases.

Although T-BEST provides ridership projections at the route and bus stop levels, its strength lies more in its ability to facilitate relative comparisons of ridership productivity. As a result, model outputs are not absolute ridership projections but, rather, are comparative for evaluation in actual service implementation decisions. T-BEST has generated interest from departments of transportation in other states and continues to be a work in progress that will become more useful as its capabilities are enhanced in future updates to the model. Consequently, it is important to integrate sound planning judgment and experience when interpreting T-BEST results.

5.3.2 Potential Future Transit Demand Results

Using these inputs, assumptions, and February/March 2019 route level ridership data, the T-BEST model was validated. Using the validation model as the base model, T-BEST ridership forecasts for this TDP Major Update planning start year (2021) and horizon year (2030) were developed. The generated annual ridership forecasts reflect the estimated level of service utilization if no changes were to be made to any of the fixed-route services, as required by F.A.C. Rule 14-73.001. Table 5-2 shows the potential demand in terms of number of annual riders by route in 2021 and 2030 and ridership growth rates for 2021–2030 derived from T-BEST.

Table 5-2: Potential Demand and Growth Rates with No Improvements, 2021-2030*

| Route | 2021 Average Annual Ridership | 2030 Average Annual Ridership | 2021–2030 Absolute Change | 2021–2030 Average Growth Rate |
|--------|----------------------------------|----------------------------------|------------------------------|----------------------------------|
| 11 | 108,083 | 123,855 | 15,772 | 14.6% |
| 12 | 82,923 | 96,211 | 13,288 | 16.0% |
| 13 | 73,580 | 91,681 | 18,101 | 24.6% |
| 14 | 55,388 | 65,657 | 10,269 | 18.5% |
| 15 | 103,042 | 107,980 | 4,938 | 4.8% |
| 16 | 50,253 | 52,259 | 2,006 | 4.0% |
| 17 | 39,922 | 44,056 | 4,134 | 10.4% |
| 18 | 27,661 | 31,555 | 3,894 | 14.1% |
| 19 | 66,732 | 77,813 | 11,081 | 16.6% |
| 20 | 9,091 | 9,180 | 89 | 1.0% |
| 21 | 12,812 | 21,449 | 8,637 | 67.4% |
| 22 | 54,895 | 64,340 | 9,445 | 17.2% |
| 23 | 27,698 | 33,854 | 6,156 | 22.2% |
| 24 | 51,055 | 58,822 | 7,767 | 15.2% |
| 25 | 17,308 | 20,897 | 3,589 | 20.7% |
| 26 | 6,044 | 6,547 | 503 | 8.3% |
| 27 | 33,319 | 47,517 | 14,198 | 42.6% |
| 28 | 26,719 | 34,023 | 7,304 | 27.3% |
| 121 | 25,280 | 35,710 | 10,430 | 41.3% |
| Totals | 871,805 | 1,023,406 | 151,601 | 17.4% |

^{*} Based on T-BEST model

5.3.3 Potential Transit Demand Analysis

Based on the T-BEST model results shown in Table 5-2, maintaining the status quo, demand for transit will experience a moderate increase for all routes over time, particularly for routes 21, 27, and 121. According to the projections, overall average annual ridership is expected to increase by 17.4% by 2030, an annual growth rate of about 1.7%. The model results show that the most significant absolute increase in demand in the network will occur within the next 10 years on routes 11, 12, 13, and 27.

For Collier County to increase its market share for transit, a combination of service efficiency and expansion will need to strategically occur in growing areas. The service improvements identified in this plan, in other transit planning efforts, and from the public feedback received combined will provide better transit services for the service area.

5.4 Gap Analysis Overview

This subsection presents the gap analysis, an evaluation process that compares existing service coverage to potential need using the TOI analysis results for the CAT service area. This approach is becoming increasingly common as a component of assessing the performance of public transit in meeting the needs of the transit-disadvantaged populations in a service area.

The gap analysis aims to identify geographical gaps in public transit where travel needs are high but services are non-existent (unserved) or insufficient (underserved). This is a twofold process that uses socioeconomic data and ArcGIS.

The first step involves determining transit service subareas with high transit TOI scores using factors such as youth and younger adult populations, older adult populations, households in poverty, and zero-vehicle households. The TOI score is then mapped to the CAT service area, as shown on Map 5-4.

The second step uses geographic analyses to determine the extent of each route's service reach by using ArcGIS buffer and erase tools. Ultimately, the two outputs are overlaid with one another to identify general gaps in the CAT transit service and, more specifically, high priority TOI areas that are served, unserved, or underserved. Note that areas beyond the route catchment area (buffered area along a route) are considered to be unserved.

As shown in Map 5-4, areas that noticeably may have the potential for being underserved are located west and east of US-41 but south of Bonita Beach Road. Other major areas that are underserved include North Naples, Immokalee, Collier Boulevard between Rattlesnake Hammock Road and Radio Road and areas east of Goodlette-Frank Road.

Once the gap analysis is prepared, service planning is applied to develop strategies to mitigate the gaps in service, especially in areas that resonate high in terms of TOI score. CAT has several options for serving targeted services gaps, including modifications to existing routes—adjusting route alignments, service spans, service frequencies, and application of MOD strategies.

LEE 41 MIAMI-DADE Transit Gap 1/4-mile Service Area CAT Routes Parks and Managed Land **Transit** Orientation Index Low Medium High Gulf of Mexico Very High 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census 41

Map 5-4: CAT Gap Analysis

6.0 Existing Transit Assessment

CAT operates 19 fixed-routes and provides door-to-door paratransit service called CAT Connect. This section documents existing ridership for CAT's services and any additional performance statistics that will help identify determine transit needs.

6.1 Route Level Ridership by Month

Route-level ridership in the study area by month is shown in Figure 6-1; Figures 6-2 through 6-5 show a more detailed representation of ridership by month by route:

- Ridership increases on most routes from February to May, as shown in Figures 6-2, 6-3, and 6-4.
- Routes 11 and 15 show the highest ridership in CAT service for FY 2019.

Figure 6-5 shows the months that Beach Bus has the highest ridership (late November through April); other times of the year the Beach Bus is not in operation.

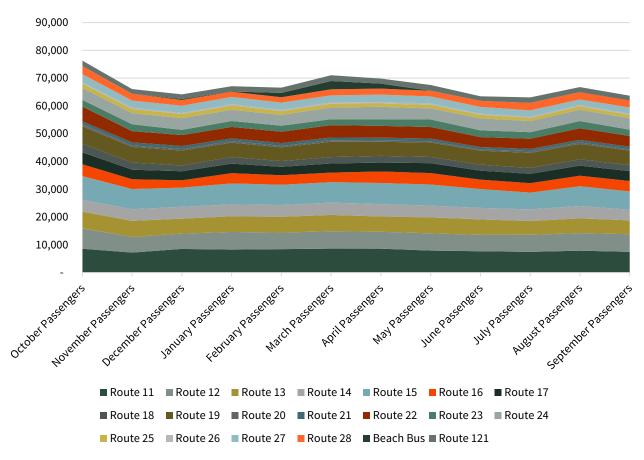


Figure 6-1: CAT Systemwide Ridership, 2019

Figure 6-2: Monthly Ridership by Route, Routes 11-15

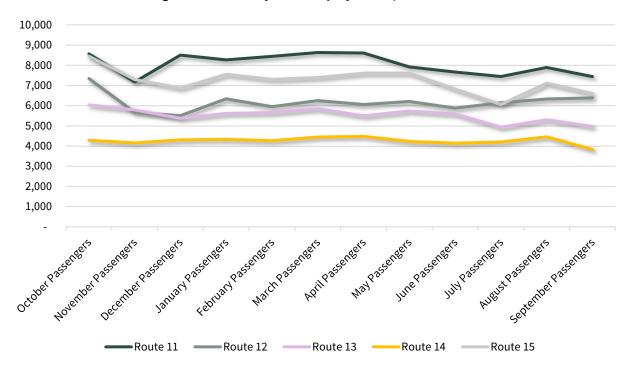


Figure 6-3: Monthly Ridership by Route, Routes 16-20

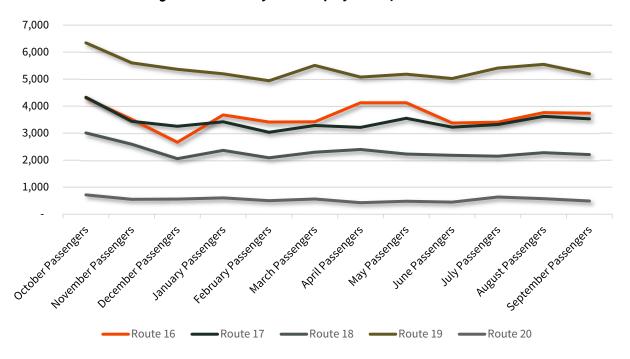


Figure 6-4: Monthly Ridership by Route, Routes 21-25

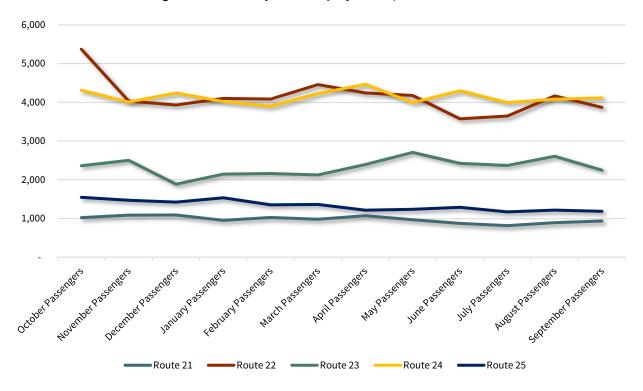
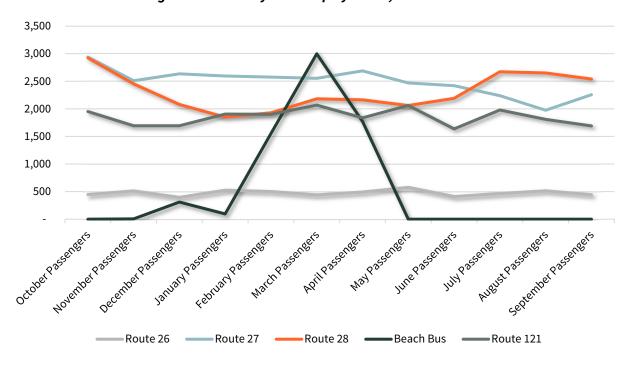


Figure 6-5: Monthly Ridership by Route, Routes 26-121



6.2 Route Productivity

Figures 6-6 and 6-7 show route productivity based on revenue mile and revenue hour for FY 2019. Figure 6-6 shows passengers per mile by route; overall, routes 20, 23, and 26 show the lowest productivity based on passengers per mile, and the highest passengers per mile by route are on routes 13, 15, and 14. Figure 6-7 shows the passengers per hour by route for 2019. As shown, the lowest recorded passengers per hour are on routes 20 and 26, and the highest recorded passengers per hour are on Route 15.

Figure 6-6: Passengers per Mile by Route, FY 2019

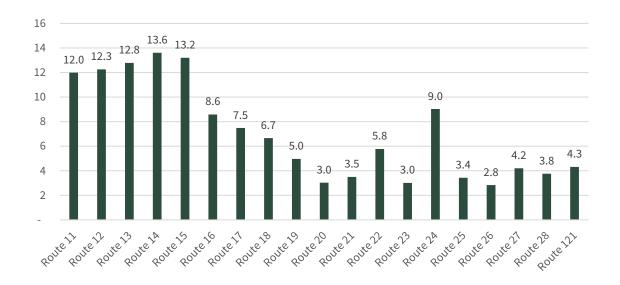
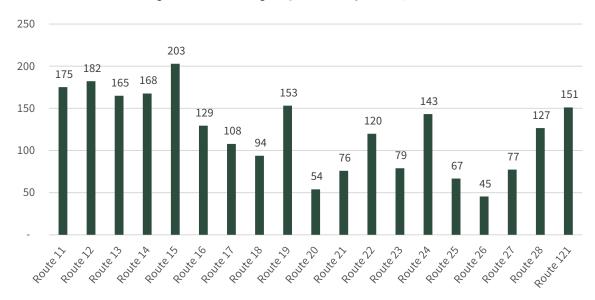


Figure 6-7: Passengers per Hour by Route, FY 2019



6.3 Automatic Passenger Count (APC) Data

APC data for 2019 was obtained to view average daily stop level boardings compared to system gaps, as shown previously in Map 6-1. APC data also were used to view route and stop level performance and to enhance or improve transit systems during the alternatives analysis stage. Based on the APC data provided by CAT, the areas with the highest average boardings include Collier County Government Center, CAT Operations, and Creekside Transfer Center, as shown in Map 6-1. Other areas of CAT service that have high average boardings are the Immokalee Health Department, Northbrooke Plaza Drive, and Walmart near Collier Boulevard/Tamiami Trail.

Roadway sections with zero average boardings by stop vary, but stops with zero boardings are most noticeable along Santa Barbara Boulevard between Radio Road and Davis Boulevard, Davis Boulevard between Airport Pulling Road and Santa Barbara, Golden Gate Parkway between I-75 west and Goodlette-Frank Road, Pine Ridge Road, and Airport-Pulling Road between Golden Gate Boulevard and Pine Ridge Road. Marco Island also has several stops that show zero average daily boardings. It should also be noted that Route 24 has fewer than six boardings per day past Collier Boulevard.

LEE MIAMI-DADE MONROE Boardings CAT Route Quarter-Mile Buffer Parks and Managed Land Transit Orientation Index Gulf of Mexico 10 Miles Data Sources: Collier County, Collier MPO, FDOT, FGDL and US Census

Map 6-1: Systemwide APC Data

7.0 Situation Appraisal

A central component of the TDP is review and assessment of relevant local, State, and federal plans, studies, and policies. This effort provides an understanding of transit planning in the County and region and an assessment of the operating environment of the transit system.

7.1 Plans Review

At the local and regional levels, several agencies/organizations conduct studies to produce plans and policies for addressing local and regional transportation issues and intermodal transportation that may impact CAT services. Various Federal and State plans and regulations also may impact the provision of transit services. This plans and policy review aids in understanding the support and pursuit of existing goals while pursuing its own goal of creating a viable and accessible transit system in Collier County. Relevant transportation planning and programming documents are summarized with an emphasis on issues having implications for CAT. Additionally, selected plans produced by the City of Naples, City of Marco Island, Golden Gate, Immokalee, and Collier County related to land use were reviewed to call attention to community goals, objectives, and policies that may have implications for current and future transit services. The following local, regional, State, and Federal plans and studies were reviewed to understand current transit policies and plans with potential implications for CAT service:

- Local Plans
 - City of Naples Comprehensive Plan
 - City of Marco Island Comprehensive Plan
 - Collier County Comprehensive Plan
 - CAT 2016–2025 TDP Major Update
 - Collier MPO Bicycle and Pedestrian Master Plan
 - CAT TDP 2018 Annual Progress Report
 - Collier County Transportation Disadvantaged Service Plan (TDSP)
 - Collier County Transit Impact Analysis Draft Report & Recommendations
- Regional Plans
 - Collier County 2040 Long Range Transportation Plan (LRTP)
- State and Federal Plans
 - Florida Transportation Plan: Horizon 2060
 - State of Florida Transportation Disadvantaged Five-Year/Twenty-Year Plan
 - Florida's Strategic Intermodal System Strategic Plan
 - FAST ACT
 - Implications to Public Transportation of Emerging Technologies

The transportation planning and programming documents reviewed are summarized in Tables 7-1 and 7-2 by their geographic applicability, type of plan, responsible agency, overview of the plan/program, and key considerations for the situation appraisal.

Table 7-1: Local Plans, Policies and Programs

| Tuble 7 1. Local Flans, Folicies and Frograms | | | | | | |
|--|-----------------------------|--------------------------|-----------------|-------------------------|--|--|
| Plan Title | Geographic Applicability | Most Recent Update | Type of Plan | Responsible Agency | Plan/Program Overview | Key Considerations/Implications for TDP |
| City of Naples Comprehensive Plan | City of Naples | 2019 | СР | City of Naples | Addresses land use, transportation, capital projects, public facilities, recreation, government coordination, conservation, and development goals, among others, for city. | Provides goals for ensuring a safe, efficient, and quality transportation system. Plan expresses support for expanding transit service to help reduce headway, traffic congestion, parking problems. In addition to supporting County in its efforts to provide and improve public transportation services (i.e., providing bus stops, constructing connections to transit routes, increasing public awareness), policies are set to support objective of strengthening entire multimodal network: Development regulations (compact, mixed-use development in prioritized corridors) and design standards for parking (maximum parking requirements or elimination thereof, park-and-ride lots, and on-street parking), circulation systems, and access points will ensure adequate transit, bicycle, and pedestrian site access to promote these modes in place of single-occupant vehicles. Bicycle and pedestrian connections from residential areas will be provided. Site plan review and traffic circulation system will encourage transit-friendly design features along roadways. |
| City of Marco Island Comprehensive Plan | City of Marco Island | 2009 | СР | City of Marco Island | Addresses land use, transportation, capital projects, public facilities, recreation, government coordination, conservation, and development goals, among others, for city. | According to the plan, City will continue to support CAT to promote continuation and expansion of public transportation for Island residents and visitors; however, there are limited policies that support public transportation. |
| Collier County Comprehensive Plan | Collier County | 2018 | СР | Collier County | Addresses land use, transportation, capital projects, public facilities, and economic development goals, among others, for county. | Discusses intention to invest in upgrading several existing transit shelters and building more where necessary. Prescribes transit-supportive goals, objectives, and policies, such as need to develop regulations that require new developments to become more mass transit-oriented, encourage maximum use of right-of-way, improve connections with pedestrian and bicycle networks, promote expansion of aviation through individual master plans, and coordinate with other transit agencies to meet regional mobility needs. |
| CAT 2015–2024 TDP Major Update | Collier County | 2015 | TDP | Collier Area Transit | Emphasizes transit improvements and additions during peak hours; outlines cost feasibility plan, focuses on limiting traffic congestion. | Emphasizes improvement of an efficient, quality and safe public transportation system which enhances the County's economic vitality. Supports green initiatives to reduce environmental impacts and continue to build partnerships which enhance economic and social well-being. Maximizing funding and continuing to interact with local, regional and state planning initiatives are also major goals. |
| Collier County Bicycle and Pedestrian Master Plan | Collier County | 2018 | MP | Collier County MPO | Addresses city's current transportation networks and emphasizes need for alternative transportation options. | Discusses alternative transportation options and implementation explored including: Off-street path connections, bike boulevards, bike boxes, pedestrian networks, and neighborhood traffic circles designed around transit stops Establishing multi-modal transfer center at airport Integrating pedestrian travel and bicycle use with transit Using technology to encourage multimodal transportation coordination |
| CAT TDP Annual Progress Report | Collier County | 2018 | APR | Collier Area Transit | Annual update that outlines past year's accomplishments, revisions for coming year, revised financial plan, revised goals and objectives. | Provides updates on variety of capital, facility, and service projects: Route changes to Route 6 (Elimination), Route 23 (future changes dependent on public meetings), Route 24 (future changes dependent on public meetings), and Route 29 (new route). Continued construction of ADA and sheltered bus stops Continuation of replacement within the fleet to operate a fleet with an average age of less than 5 years. |
| Collier County TDSP | Collier County | 2014 | TDSP | Collier County | Major TDSP update, emphasizes transit improvements and additions that serve needs of TD population in efficient and costeffective manner. | Supports overall goal of assuring availability of efficient, cost-effective, and quality transportation services for TD people. Developing short- and long-term goals to enhance local TD efforts to supply demand for all trips. Priorities include: Create more awareness of Collier County TD Program through marketing Pursue additional funding to help with service as demand surpasses revenue Improve referral systems with transportation providers to help meet demand of users |

Table 7-1: Local Plans, Policies and Programs (cont'd)

| Plan Title | Geographic Applicability | Most Recent Update | Type of Plan | Responsible Agency | Plan/Program Overview | Key Considerations/Implications for TDP |
|---|-----------------------------|---|-------------------------------|-----------------------|---|--|
| Collier County Transit Impact Analysis Draft Report & Recommendations | Collier County | Revised Draft for Review November 2019 | Transit Impact Analysis | Collier MPO | Identifies and evaluates opportunities for supporting and advancing transit revenue and development review solutions in Collier County. | Several policy recommendations provided, including: Site access requirements for transit when development situated along active transit routes but may also apply when development located along transit routes identified as needs in CAT's 10-year TDP or the Collier MPO's LRTP. Reconfigure Transportation Concurrency Exemption Areas and Transportation Concurrency Management Areas. Implementation of transportation impact fees or fair-share mitigation for TOD infill and redevelopment. Update of codified TDM options to require certain TDM-supportive infrastructure improvements such as transit site-access improvements, covered bicycle racks, parking policies, etc. Two new TDM strategies proposed including shared parking and providing shower and changing rooms. Evaluate mixed-use corridor and activity center density allowances. Proposes that Collier County Property Appraiser reevaluate surface parking lots, which are undervalued in comparison to the accompanying building value to generate additional property tax. |
| Collier County 2040 Long Range Transportation Plan (LRTP) | Collier County | 2014 | LRTP | Collier County | Addresses transportation, capital projects, improvement of existing bus, light rail, monorail systems. | Update of major goals and objectives in Collier County that include expanding and enhancing regional service to accommodate growing population in Collier County. Encourages growth of connectivity in Southwest Florida area, citing several future development areas and connections into Lee County. Note that the 2045 LRTP was being developed concurrent to this TDP. The results of this TDP will be included in the Cost Feasible Plan of the LRTP, the next 15 years of the planned projects and into the unfunded needs. |

Table 7-2: State and Federal Plans, Policies, and Programs

| Plan Title | Geographic Applicability | Most Recent Update | Type of Plan | Responsible Agency | Plan/Program Overview | Key Considerations/Implications for TDP |
|--|-----------------------------|--------------------------|--|--|--|---|
| State of Florida Transportation Disadvantaged 5-Year/20-Year Plan | Florida | 2007 | State | Florida Commission for the Transportation Disadvantaged (FCTD) | Developed to accomplish cost-effective, efficient, unduplicated, cohesive TD services in service area. | Develop and field-test model community transportation system for persons who are transportation disadvantaged; create strategy for FCTD to support development of universal transportation system. |
| FDOT Complete Streets Implementation Update: Handbook and Design Manual | Florida | 2018 | State | FDOT | Developed to create alternative transportation systems to facilitate "Complete Streets" focused design. | Plan includes: Revising guidance, standards, manuals, policies, other documents Updating how decision making processed Modifying evaluation of performance Managing communication between agencies Update training and education in agencies |
| Florida Transportation Plan: Horizon 2060 (FTP) | Florida | 2005 | State Transportation Plan | FDOT | Requires, as part of Florida Statutes, pursuit to make Florida's economy more competitive and communities more livable. Looks at 50-year transportation planning horizon and calls for fundamental change in how and where State investments in transportation are made. | Supports development of State, regional, and local transit services through series of related goals and objectives, emphasizing new and innovative approaches by all modes to meet needs today and in future. |
| FAST Act | National | 2015 | Federal Transportation legislation | 114th US Congress | Enacts five years of funding for US surface transportation infrastructure, including transit systems and rail transportation network. Provides long-term certainty and more flexibility for states and local governments, streamlines project approval processes, maintains strong commitment to safety. | Increases dedicated bus funding by 89% over life of bill. Provides stable formula funding and competitive grant program to address bus and bus facility needs. Reforms public transportation procurement to make Federal investment more cost effective and competitive. Consolidates and refocuses transit research activities to increase efficiency and accountability. Establishes pilot program for communities to expand transit through use of public-private partnerships. Provides flexibility for recipients to use federal funds to meet their state of good repair needs. Provides for coordination of public transportation services with other federally assisted transportation services to aid in mobility of older adults and individuals with disabilities. |
| "Implications to Public Transportation of Emerging Technologies" | National | 2016 | Research Report | National Center for Transit Research | Explores possible consequences for public transportation as a result of introduction of new technologies such as autonomous vehicles, connected vehicles, other innovations that impact efficiency, cost-effectiveness, overall demand for transportation. | Identifies key factors expected to influence public transportation system and current and potential users. Outlines potential impacts on travel behavior and travel decision-making; outlines areas that may be impacted by changes in travel costs for various existing and emerging modes; identifies potential implications on traveler safety along with traveler perceptions of emerging travel modes. Identifies current transit services as testbed for new technology deployment. Key areas of opportunity and savings include automated buses, enhancing quality of service via automation, and demand-response services. Key policy issues and potential hurdles are identified with recommendations for overcoming them. |

7.2 Situation Appraisal Context Analysis

The TDP Rule requires that TDP Major Updates include a situation appraisal of the environment in which the transit agency operates. Using information obtained through public outreach efforts, a review of CAT trends, and other technical analyses, this appraisal documents factors that will help CAT better understand its local environment and the critical issues that could impact programs and services over the TDP planning period. The situation appraisal has been organized in the context of the following elements:

- Socioeconomic trends
- Travel behavior
- Community feedback
- Land use policy and trends
- Service and operational trends
- Organizational attributes and funding
- Technology

7.2.1 Socioeconomic Trends

When assessing the impact of the growth in population on public transportation needs, it is important to understand the trends and markets that could be affected or may benefit from public transportation services. The following key trends were identified:

- Peak seasonal demand adds significant strain to the Collier County transportation system, particularly in the coastal areas. Peak season population in the county is expected to increase from 459,799 persons in 2020 to 535,451 persons in 2030.
- Currently, the majority (approximately 77%) of the county's population lies west of CR-951 (Collier Blvd) in the more urbanized coastal area. In addition to growth within the urbanized area primarily due to redevelopment, future growth is projected around Orangetree, Ave Maria, east/southeast of Naples, and, to some degree, in Immokalee with additional growth in these areas expected through 2030.
- Employment in Collier County is densest in the western portion of the county in the Naples area and on Marco Island along the coast. In addition, some areas of Marco Island and within Immokalee include medium-range employment densities. Projected growth in employment will be highest in existing employment centers along with the intersection of I-75 and Collier Blvd in addition to North Naples along the coastline. Map 2-4 and Map 2-5 in Chapter 2 illustrate this growth.
- The potential TD population increased dramatically, by 18.9% from 2014 to 2018.
- Collier County's population over age 60 is approximately 38%, and the population segment of age 15–59, a population within the workforce age group, represents approximately 47.3% of the total population in the county.

Implications – Transit service levels require optimization to match the seasonal demand experienced in Collier County. CAT currently increases transit service to accommodate seasonal demand and modifies schedules to compensate for increased traffic volumes. Existing CAT service covers the existing areas with higher densities and the areas that are projected to increase in density over the 10-year planning period. With a growing number of persons over age 60, there will be a continued increase in the need for additional transportation services over the next 10 years, both fixed-route and paratransit. Promoting access to fixed-route service and to general public mobility-on-demand service, depending on location, will help offset the high demand for high-cost paratransit service. Premium services that offer express services to employment centers and improved amenities at bus stops and new mobility-on-demand services, will help attract choice riders and alter opinions regarding transit as an option for many who are not currently transit users.

7.2.2 Travel Behavior

As transit service has grown, the demand on existing revenue sources to support the current system and its potential future growth has grown. Based on the large geographic area and distance between the municipalities and unincorporated areas, access to regional jobs and services has been identified as an issue. A need for direct connection to in-county and out-of-county work destinations for Bonita Springs, Fort Myers, and Estero Village exists. The fixed route network is anchored at the Government Center with service within Naples and connections extending to Immokalee and Marco Island and a route to Lee County.

According to the 2013–2018 ACS, the share of persons who live in Collier County work outside the county is 36.8%. The majority of those workers who live in Collier County and work outside the county work in Lee County (12.3%). A similar proportion (37.3%) of workers in Collier County commute from outside of the county, namely from Lee County (18%).

Private regional bus service providers such as Greyhound and Florida Red Line currently complement public transit services by closing gaps in regional travel to destinations such as Miami and Tampa. The Greyhound station near routes 19, 25, and 28 supports the use of transit use.

Ride-hailing services such as Uber and Lyft have the potential to negatively impact transit performance by competing with transit. Transit agencies are partnering with private ride-hailing service in attempts to provide more convenient and affordable alternative to residents while increasing ridership to the transit network with mixed results. It is recommended that CAT explore options for providing MOD service as a means to more cost-effectively serve areas with low density of demand, replace low performing fixed route service, address growing demand for paratransit, and to increase ridership and passenger miles for federal funding.

Annually, Collier County experiences a significant influx of tourists and seasonal residents, which greatly increases traffic congestion, particularly in the urbanized area and near the beaches.

Implications – A more direct connection from Immokalee to Lee County would eliminate the need for the residents of Immokalee to first travel west to Naples before accessing transit service to Lee County. Other regional connections between north Collier County and Lee County have the potential to provide job

access between to the two counties. A seamless fare system between LeeTran and CAT would facilitate travel between the two counties. Based on current funding levels, the implementation of future transit services that support the community and future private development within the 10-year planning period may require funding through public-private partnerships.

Effective competition with ride-hailing in high tourism areas will require more flexible transit options like Mobility on Demand. CAT should consider developing and adding general public mobility-on-demand services in hard-to-serve locations where traditional transit underperforms and/or locations where latent demand exists, but service is not provided. In the foreseeable future, traffic congestion may continue to adversely impact transit services. While transit service is unlikely to positively impact congestion in the area, significant investments multimodal facilities may.

7.2.3 Community Feedback

As a part of the on-board survey for this study, passengers were asked to rank service improvements they believed would make CAT better for their use. A desire for more frequent service had the highest weighted score, at 4.61 out of 5, followed closely by on-time performance (4.53) and earlier/later service (4.5). Those noting express service connections to other areas noted downtown Naples, Immokalee, and Marco Island most frequently. Areas needing new routes included Immokalee, the beaches, connections to adjacent counties and major destinations throughout Collier County, and potential connections to Miami, to name a few.

Passengers were asked to indicate which routes needed frequency changes; the majority of passenger indicated that all routes require frequency changes. The second highest was Route 11, followed by routes 19, 13, 24, and 17. Additionally, passengers were asked which routes needed later service; most passengers said the entire network warranted later service hours, as well as routes 11 and 19. Other routes included 13, 15, 17, and 28.

A review of the Public Participation Plan provides the strategy and schedule for public outreach and engaging community perspectives on mobility needs, existing services, and proposed mobility improvements and priorities.

Implications – As funding becomes available, in addition to providing more frequent and later service, CAT will need to prioritize improvements to areas in Naples, Immokalee, and Marco Island. Based on the operating performance trends and the large and dispersed CAT service area, CAT should be focusing on improving fixed route services on routes where density of demand and productivity is high and explore more cost-effective service options to address demand in areas with lower density of demand and to address growing paratransit demand.

7.2.4 Land Use Policies and Trends

In addition to agriculture and conservation, land use in Collier County is single-family residential and vacant single-family residential, particularly on the eastern side of the county. Multi-family uses are spread throughout the western side of the county, but not in particular areas or corridors. Several key commercial areas include Pine Ridge Road and US-41, Naples Blvd, the intersection of I-75 and

Immokalee Road, and the intersection of Collier Blvd and Immokalee Road. Major developments expected to impact the transportation system include Fiddler's Creek and Ave Maria; these developments are located in more remote parts of the county with limited roadways connecting to employment opportunities. This creates travel demand along major roadways connecting to these developments and presents opportunities to serve these trips by transit. Future land use indicates mixed-use development around major intersections, including seven located along US-41. Most future use is designated as Urban Residential Subdistrict and Estates Designation.

Implications – Collier County's low-density development with limited roadway connectivity present challenges in managing roadway congestions and providing efficient and effective public transportation services. Transit options to better serve Planned Unit Developments such as Fiddler's Creek and Ave Maria will need to be considered to help manage congestion and offer attractive transit options for transit users and choice riders. There are limited mixed-use and other transit-supportive land uses in Collier County's Future Land Use map, therefore future land use may continue to negatively impact the provision of transit services.

7.2.5 Service and Operational Trends

Key service and operational trends observed in the peer and trend analysis include the following:

- CAT reflected an increase in service supply with respect to total vehicle miles, revenue miles, vehicle hours and route miles, and vehicle miles per capita. This is driven in part by the large and dispersed service area which requires more service supply to serve distributed demand. CAT ranked above the peer average for passenger miles, vehicle miles, revenue miles, and route miles compared to its peer group. Adding service in response to growth and demand is a positive action reinforced by increased ridership and productivity and CAT is monitoring trends to determine where and how much additional service is justified.
- CAT reflected a decrease in productivity with respect to passenger trips; however, transit agencies throughout the US are experienced similar declines. CAT performed 19.3% below the peer mean for passenger trips.
- CAT experienced a decline in efficiency between 2013 and 2018 with operating expenses increasing moderately by 6% over the six-year period. Operating expense per passenger trip and operating expense per passenger mile had dramatic increases that were driven largely by decreases in passenger trips. CAT, however, performed better than the peer mean with respect to total operating expenses, operating expense per passenger mile, and operating expense per revenue mile, suggesting that CAT has better cost efficiency compared to its peer group. Operating expense per revenue mile fluctuated between 2013 and 2018, but only with a slight increase of 2.6% overall.
- CAT experienced a decline in service effectiveness measures with passenger trips per capita, passenger trips per revenue mile, and passenger trips per revenue hour decreasing over the sixyear period. This indicates a negative trend in service consumption which is consistent with the national trends influenced by changes in the economy. CAT performed below the peer group

mean for these measures. The farebox recovery ratio decreased 34% but, compared to the peer group, CAT is performing near the peer mean.

Implications – CAT experienced an overall decline in efficiency and effectiveness, consistent with the national trends which are highly reflective of structural changes in the economy resulting from the great recession. The decline in ridership was influenced by several factors, including an improved economy, growth in the gig economy, increase in work from home employment, increasing automobile ownership, and increased use of ride-hailing services. CAT is likely more vulnerable to these impacts due to a high proportion of service sector jobs and a very large and dispersed service area which drives up vehicle miles of service relative to declining ridership during the period. However, CAT may consider operating general public mobility-on-demand services as a way of serving hard-to-reach areas within the county and offer a more cost-effective alternative to the public.

7.2.6 Organizational Attributes and Funding

Collier County's Public Transit & Neighborhood Enhancement Division (PTNE) administers CAT services and partners with Lee County Transit (LeeTran) to provide the LinC express route between the two counties. In addition to fixed-route services, CAT provides door-to-door service under the CAT Connect program that includes complementary ADA and TD paratransit services. Medicaid transportation services are provided through a network of transportation providers overseen by MTM, Inc., the County's Medicaid transportation services broker. Collier County also serves as the CTC under Chapter 427 of the Florida Statutes. As CTC, the PTNE Division administers the coordination of countywide transportation services for TD individuals.

CAT is assessing strategies to better connect transit and the development review process and should issue recommendations and guidance for consideration by the County as their evaluation process concludes. The development review process is key to understanding and managing the impacts of development on transit needs and operations as well as a means to help program and plan transit services and capital improvements. Recommendations should include considerations of valid and reliable rationale for connecting development review and supporting transit service and capital needs. This should include impacts on both roadway and transit levels of service as well as transit facilities needs to improve operating efficiencies and customer amenities. Considerations should measure and reflect the ability to improve mobility within the community including access to transit service and the societal and economic benefits of improved access to transit.

Implications –CAT relies primarily on fares, local budget allocations, and federal and state funding sources for the provision of CAT services. Since growth and development create the need for transit services and drive the cost of transit services, the ability to help plan and manage growth would help CAT better manage transit demand and help pay for transit costs. Currently the development review process does not support transit as a means of mobility in Collier County even though development drives travel demand and ridership and the resulting impacts of increased traffic congestion and increased operating cost of transit services. CAT would be well served to be a party to both the development review process and an integral element of the Comprehensive Planning process.

7.2.7 Technology Trends

CAT offers real-time fixed-route bus information on the CAT website and in the MyStop app. Passengers can board CAT buses using reloadable smart cards. The public can use the online trip planner on the Google Maps platform to find transit solutions. CAT had a technology consultant assess needs and these findings are summarized below.

CAT established organizational goals for technology as noted:

- Improve customer satisfaction and convenience (e.g., be more proactive with customers, provide customizable alerts/information);
- Obtain and utilize reliable data to make service improvements;
- Provide more coordination/collaboration/connection between fixed route and paratransit, and between transit and other modes (traffic, bike-sharing, ride-sharing, microtransit);
- Improve operational efficiency and service reliability;
- Establish a unified climate among CAT, the County, community and contractor (e.g., improve perception);
- Foster innovation within CAT;
- Adapt to changing customer needs and transportation ecosystem;
- Ensure fiscal discipline and explore financial options; and
- Ensure technology efficiency and minimize duplication.

Based on the above goals and in response to a ranking and prioritization effort, CAT has prioritized the following technology initiatives:

- Kiosk Information Media
- Enhanced Data Strategy
- On-board Surveillance System Enhancement
- Transit Signal Priority
- On-board Information Media
- Identify Super Users/Product Champions
- Upgrade Fare Logistics
- Paratransit IVR/Notifications
- Fixed Route Scheduling Software

• Replace/Upgrade Avail Systems

Implications – CAT should continue to advance the technology improvements and priorities based on final recommendations from the technology consultant as fiscal capacity will permit. CAT should integrate advances in technology and apply to enhance existing services and to deploy new and emerging technology-based mobility services. CAT should monitor use of its website and mobile applications by the public and identify opportunities to improve its use of technology to better inform the public about transit and mobility services and connect the public to these services. CAT should explore opportunities within Software-as-a-Service and Mobility-as-a-Service platforms to develop and deploy Mobility-on-Demand services to more cost-effectively provide mobility services to customers, especially in areas where lower density of demand results in low performance of the fixed-route services and where opportunities exist to serve growing ADA demand and persons aging in place.

8.0 Mission Goals and Objectives

This section provides the transit vision, mission, goals, objectives, and initiatives for the CAT TDP. These reflect the existing Vision, Mission, goals, and objectives from the previous TDP with edits. The goals and objectives presented were prepared based on the review and assessment of existing conditions, the public involvement process including the TDP Working Group and a review of local transportation planning documents. The revised mission, Vision, goals and objectives are consistent with the policies of the Collier County Public Transit & Neighborhood Enhancement Division.

8.1 CAT's Public Transit Vision

Collier Area Transit (CAT), provides effective and efficient multimodal mobility services to meet the mobility needs of workers, residents, visitors, to support economic, environmental, and community benefits.

8.2 CAT's Public Transit Mission

To provide safe, accessible, reliable, convenient, and courteous mobility services to our customers.

8.3 CAT's Public Transit Goals and Objectives

Goal 1: Operate reliable, convenient, and cost-effective mobility services that safely and efficiently meet the mobility needs of Collier County's workers, residents and visitors.

Objective 1.1: Improve efficiency, service quality, and level of service to adequately serve workers, residents and visitors while contributing to the economic vitality of the county.

Initiative 1.1.1: Operate east/west corridor service to provide access to jobs, education, healthcare and community services, and recreation.

Initiative 1.1.2: Operate north/south corridor service to provide alternative access to jobs, education, healthcare and community services, and recreation.

Initiative 1.1.3: Improve peak weekday service frequency to 45 minutes or better on CAT routes.

Initiative 1.1.4: Evaluate the feasibility of premium transit services, such as bus rapid transit (BRT) within corridors where density of demand and activity warrants frequent service.

Initiative 1.1.5: Provide mobility-on-demand service in areas with lower density of demand than is productive for fixed route service and to access areas that are not able to be served by fixed route.

Objective 1.2: Provide adequate bus stop amenities at all stops according to bus stop threshold and accessibility guidelines within available fiscal capacity.

Initiative 1.2.1: Pursue funding to maintain and improve existing bus stops.

Initiative 1.2.2: Install and maintain bus stop amenities according to an ADA compliant Passenger Amenities Program and Bus Stop Amenities Guidelines.

- Initiative 1.2.3: Install a minimum of ten ADA-compliant, accessible bus stop shelters per year.
- Initiative 1.2.4: Coordinate with the Collier County and local governments to include sidewalks and bus stop shelters in design and construction of roadway projects and new developments.

Initiative 1.2.5: Monitor and implement the recommendations from the CAT Bus Stop ADA Assessment report.

Objective 1.3: Structure transit service with a focus on providing job access for workforce and access to mobility for persons with no or limited access to a private automobile.

- Initiative 1.3.1: Improve transit service for areas with high mobility needs per the transit orientation index identified in the latest TDP Major Update.
- Initiative 1.3.2: Provide efficient transit and mobility access to major employment centers, development corridors, and other significant activity centers as funding allows.
- Initiative 1.3.3: Focus transit and mobility services in areas with high employment and dwelling unit densities and connect targeted jobs-housing locations to serve the workforce, including Golden Gate Estates and areas located in the eastern portion of the county.
- Initiative 1.3.4: Focus improved service frequency on transit routes that serve high mobility needs communities; target service frequency of hourly or better where demand and fiscal capacity allow; apply mobility on demand solutions for areas with lower population densities and where fixed-route service is not productive and cost-effective.

Objective 1.4: Create an optimized interconnected multimodal mobility network designed to fit the range of needs and conditions for the service market.

- Initiative 1.4.1: Focus improved service frequency on transit routes that serve high mobility needs communities; target service frequency of hourly or better where demand and fiscal capacity allow; apply mobility on demand solutions for areas with lower population densities and where fixed-route service is not productive and cost-effective.
- Initiative 1.4.2: Coordinate with FDOT Commuter Services to enhance and expand carpool and vanpool strategies and services to connect workforce communities with employment locations within the service area; identify properties for park-and-ride lots in areas with high mobility demand as funding is available. Implement recommendations from the current park-and-ride study.
- Initiative 1.4.3: Coordinate with the CAT Connect paratransit program to identify and target areas with high TD ridership and lower density of demand and develop programs to shift TD riders to a mobility on demand for all solution with connections to the fixed-route network.
- Initiative 1.4.4: Require local governments and FDOT to provide accessible sidewalks, bus stops, and other bus stop improvements within roadway projects and all new developments.
- Initiative 1.4.5: Coordinate with community improvement organizations that support investments in enhanced mobility such as: the Immokalee CRA, Bayshore Gateway Triangle CRA, Naples CRA,

Opportunity Naples, Golden Gate Estates Civic, Immokalee Chamber of Commerce, and the Greater Naples Chamber of Commerce to affect improvements in mobility through increased funding, roadway and sidewalk improvements, new developments, to assure transit and mobility services are integral to economic development planning and decision-making.

Initiative 1.4.6: Make transit and mobility reviews a part of the development and redevelopment review and approval process within the county and cities. Require the development community, as part of the development review and approval process, to follow guidelines on bus stop siting and design, land use, and roadway design factors that affect transit design; and to coordinate with CAT for transit services during the development process. Include CAT as a reviewing agency within the development review and approval process. Consider adding a transit component to traffic impact studies.

Initiative 1.4.7: Develop and adopt a transit level of service (LOS) policy and guidance to provide a framework and metrics for improving, modifying, funding transit services.

Objective 1.5: Provide coordinated transportation services between Collier and adjacent counties to support workforce commutes to major employment centers and facilitate connections to both transit networks in support of regional economic and community benefits.

Initiative 1.5.1: Identify high travel volumes between Collier and adjacent counties; develop regional services for travel markets that have high transit propensity and support regional community and economic benefits, including Immokalee and East Naples communities.

Initiative 1.5.2: Coordinate with LeeTran and FDOT to identify funding for expanded cross county public transportation services.

Objective 1.6: Enhance transit services targeted at tourists, seasonal residents, and the workforce that supports this market.

Initiative 1.6.1: Broadcast CAT television commercials, radio advertisements, digital advertisements, and social media advertising, monitor ridership vis-a-vis marketing and advertising efforts to determine ridership increases attributable to marketing efforts.

Initiative 1.6.2: Develop CAT branded services and amenities within the coastal markets to better attract ridership by visitors, seasonal residents, and workers.

Objective 1.7: Enhance awareness of CAT services and accessibility to service information for riders, workers, residents, and visitors.

Initiative 1.7.1: Continue to leverage technology applications to increase and enhance awareness of CAT services and to connect riders with CAT services, including enhancing the access to fixed route through the introduction of mobility-on-demand service to the system.

Initiative 1.7.2: Obtain professional services for a market study and development of marketing strategies and best practices to increase awareness of CAT, CAT services, CAT image, and increase market share in terms of model split ridership. This effort should leverage use of technology, social

media, traditional media, branding, and develop and provide strategies to attract interest in CAT to build choice ridership and generally improve the image of CAT as a service.

Initiative 1.7.3: Continue to partner with the Chamber of Commerce to develop and disseminate information and materials to businesses, residents, visitors, about the value of CAT services, the benefits of riding CAT, and information about how to access and use CAT services.

Initiative 1.7.4: Provide travel training for persons interested in using the CAT system.

Initiative 1.7.5: Conduct outreach activities at community events, schools, and other organizations to teach students and the public how to use CAT and the benefits of CAT services.

Initiative 1.7.6: Garner relationships with local media and news outlets to keep the community aware and involved.

Goal 2: Increase the resiliency of Collier County, protecting our man-made and natural resources, by providing attractive and convenient mobility alternatives that will reduce adverse carbon and environmental impacts within our communities.

Objective 2.1: Provide services and programs to reduce vehicle miles traveled within Collier County.

Initiative 2.1.1: Coordinate with FDOT Commuter Services to enhance and expand carpool and vanpool strategies and services to connect workforce communities with employment locations within the service area; implement recommendations from current park-and-ride study as funding is available.

Initiative 2.1.2: Coordinate with the Naples Pathway Coalition, the MPO Pathways Advisory Committee, and local non-profit and/or for-profit groups to expand the use of bicycles as a commute and mobility option, including bicycle share programs.

Initiative 2.1.3: Coordinate with Collier County Driver License and Motor Vehicle Service Centers to promote CAT fixed-route services to persons unable to obtain a driver's license or with an unsafe and/or inoperable vehicle.

Initiative 2.1.4: Broadcast CAT television commercials, radio advertisements, digital advertisements, and social media advertising, monitor ridership vis-a-vis marketing and advertising efforts to determine ridership increases attributable to marketing efforts.

Initiative 2.1.5: Develop partnerships with employers and major activity centers (educational, government, healthcare, retail, residential, commercial) to provide education and awareness of CAT services and benefits, and incentives to use CAT services rather than drive.

Objective 2.2: Design mobility services to reduce environmental impacts.

Initiative 2.2.1: Transition fleet to alternative fuels vehicles.

Initiative 2.2.2: Transition to smaller cleaner vehicles and match service delivery to demand by time of day using a mobility on demand strategy where and when service area and demand characteristics

warrant; this may include converting low productivity fixed-route service to mobility on demand and/or transitioning fixed-route to mobility on demand at certain times of the day.

Objective 2.3: Improve resiliency for extreme weather events and changing environment.

Initiative 2.3.1: Use electric vehicles as back-up power for emergency facilities.

Initiative 2.3.1: Explore solar powered canopies to energize the maintenance building and buses and provide shade.

Goal 3: Build meaningful partnerships that increase awareness and education of and about mobility options and increase the viability of mobility services to promote livability and enhance economic and social well-being.

Objective 3.1: Develop marketing strategies to increase awareness of CAT services and to increase ridership.

Initiative 3.1.1: Participate in local job fairs and outreach/partnerships with employers to increase knowledge about the transit system and to encourage use.

Initiative 3.1.2: Develop marketing materials and programs to demonstrate the value and role of transit as a mobility option, including benefits accruing to personal finances, access to opportunities, and reduction of regional carbon emissions.

Initiative 3.1.3: Distribute transit service information and user-friendly brochures to at least 25% of businesses within ¼-mile of existing transit routes prior to initiating the next TDP Major Update.

Initiative 3.1.4: Continue the CAT public relations campaign, including television, radio, and social media advertisements, designed to promote transit ridership and sustainability.

Initiative 3.1.5: Facilitate social media tools and campaigns to promote CAT awareness, services, and benefits for individuals, businesses, organizations.

Initiative 3.1.6: Conduct an on-going program of outreach and education targeted at governments, employers, community organizations, community services, healthcare services to build and foster partnerships to provide, fund, and support mobility services.

Objective 3.2: Focus intergovernmental relationships to improve and expand regional mobility.

Initiative 3.2.1: Continue to coordinate and partner with LeeTran to improve and expand cross-county mobility services to support workforce travel demand with a focus on commuter express routes, connecting workers to employment, and provide connections strategically to the transit networks in Lee and Collier counties to facilitate access to key activity centers.

Initiative 3.2.2: Coordinate with FDOT Commuter Services to enhance and expand carpool and vanpool strategies and services to connect workforce communities with employment locations within the region; identify properties for park-and-ride lots in areas with high mobility demand as funding is available.

Goal 4: Coordinate the development and provision of mobility services with local, regional, state planning efforts and through public and private partnerships.

Objective 4.1: Coordinate integrated land use and transportation planning efforts to incorporate transit needs into the development review and approval process.

Initiative 4.1.1: Work with Collier County to implement recommendations listed in the Collier County Transit Impact Analysis.

Initiative 4.1.2: Participate in planning and development review meetings to ensure that county and city policies support transit services and funding needs.

Initiative 4.1.3: Require local governments and FDOT to provide accessible sidewalks, bus stops, and other bus stop improvements within roadway projects and for all new developments.

Initiative 4.1.4: Make transit and mobility reviews a part of the development and redevelopment review and approval process within the county and cities. Require the development community, as part of the development review and approval process, to follow guidelines on bus stop siting and design, land use, and roadway design factors that affect transit design; and to coordinate with CAT for transit services during the development process. Include CAT as a reviewing agency within the development review and approval process. Consider adding a transit component to traffic impact studies.

Initiative 4.1.5: Meet quarterly with staff from the Collier County Transportation Engineering and Planning departments to identify upcoming utilities, roadway, and /or stormwater projects, planning studies, and site developments that will affect the provision of transit services.

Goal 5: Use technologies and innovations in service delivery to improve productivity, efficiency, reliability, and cost-effectiveness of mobility services and operations.

Objective 5.1: Explore, monitor, test, and deploy technology applications to enhance mobility services, increase awareness of CAT services, and ease of access to CAT services.

Initiative 5.1.1: Improve customer information systems, including website and through directly curated and through available mobile applications, to enhance availability of and access to CAT service information and trip planning, to support increased ridership.

Initiative 5.1.2: Explore and acquire cloud-based Software as a Service (SaaS) and/or Mobility as a Service (MaaS) functionalities to support mobility on demand services, directly operated and/or operated through contract or partnership, to serve general public and augment or replace ADA paratransit services where and when warranted based on costs, productivity, and service quality.

Initiative 5.1.4: Explore use of account-based payment systems to reload smart cards and other fare media as part of a SaaS or MaaS platform and to facilitate compatible fare policy and fare technology with LeeTran.

Initiative 5.1.5: Explore technology to allow merchants and employers to reduce fares for patrons and employees using smart cards and/or mobile pay applications.

Goal 6: Monitor and improve mobility service quality and service standards.

Objective 6.1: Develop ongoing processes to measure and monitor service quality.

Initiative 6.1.1: Use the Route Monitoring Program to examine fixed-route services on an annual basis and make revisions to low-performing services as needed, including transitioning to mobility on demand solutions where and when warranted.

Initiative 6.1.2: Conduct a survey at least every two years to obtain passenger information including user demographics, travel behavior characteristics, transfer activity, and user satisfaction.

Initiative 6.1.3: Maintain an ongoing public involvement process to solicit and assess input through online reviews, calls/comments cards, discussion groups, surveys, and CAT booths at community events.

Initiative 6.1.4: Maintain an on-going process for operators to communicate transit service comments and suggestions to identify passenger needs and improve services and service performance; comments to be reviewed monthly by service planning and operations.

Initiative 6.1.5: Manage the CAT fleet of fixed-route vehicles to maintain an average fleet age of less than seven years as funding permits.

Initiative 6.1.6: Maintain an on-going process for operators to communicate potential vehicle maintenance problems to be logged with the preventative maintenance program to identify and investigate problems early.

Goal 7: Maximize the use of all funding sources available, including through partnerships with businesses, employers, and other institutions to increase and improve access to mobility services and mobility for workers, residents, visitors.

Objective 7.1: Increase and expand revenue sources.

Initiative 7.1.1: Explore opportunities for generating advertising revenue on and inside the buses.

Initiative 7.1.2: Educate the general public and local decision-makers on the importance of public transportation and the need for financial support.

Initiative 7.1.3: Submit grant applications available through Federal, State, local, and private sources.

Initiative 7.1.4: Annually seek to identify and obtain available alternative revenue sources for the provision of new and improved transit services.

Initiative 7.1.5: Serve on and coordinate with the Collier County Tourist Development Council (TDC) and to explore the potential for using tourist development tax revenue to expand and improve transit service for Collier County's tourists and visitors, help enhance awareness of CAT services, develop private-public partnerships to design and fund transit services that serve visitors and employees.

Initiative 7.1.6: Explore opportunities to leverage and enhance share of funding from existing taxes and fees to be assigned to transit. Explore means to secure impact fees, development fees, and new taxes to be secured for supporting transit, maintenance and expansion of transit services.

Initiative 7.1.7: Use a 501(c)(3) that allows persons to donate funds to CAT for the purpose of "adopting a shelter" or "adopting a rider."

9.0 Alternatives Development and Evaluation

This section identifies potential transit improvements, also known as transit alternatives, for CAT's 10-year TDP. The proposed improvements represent the transit needs for the next 10 years and they were developed without consideration of funding constraints.

The identified service improvements were prioritized using an evaluation process that considers input from the community and various technical analyses that identified transit gaps. The resulting prioritized list of improvements will be used to develop the 10-year implementation and financial plans, which will be presented in the full 2021–2030 TDP draft. As Collier County and the communities within the county continue to grow, these prioritized transit needs will assist CAT in selecting and implementing service improvements as funding becomes available.

9.1 Development of Alternatives

The CAT 2021–2030 TDP transit alternatives consist of improvements that optimize existing CAT services and expand transit service to new areas. The alternatives reflect the transit needs of the community and were developed based on information gathered through the following methods:

- **Public outreach** Multiple techniques were used to obtain substantive public input on transit needs throughout the CAT TDP planning process. An on-board rider survey, two online general public surveys, key person/stakeholder interviews, two well-attended mobility discussion group workshops, two public meetings, and a series of three Review Committee meetings were conducted to gather input from the public, stakeholders, elected officials, and the community regarding alternatives to be considered for the next ten years.
- **Transit demand assessment** As presented herein, an assessment of transit demand and needs was conducted for Collier County that included the use of various GIS-based analysis tools (e.g., DTA, TOI, APC review). These technical analyses, together with the baseline conditions assessment and transit performance reviews previously conducted, were used to help identify areas with potential transit demand and transit-supportive characteristics when developing the list of needs-based transit alternatives.
- Situation appraisal The CAT 10-year TDP is required by State law to include a Situation Appraisal of the environment in which the transit agency operates. This holistic analysis helps to develop an understanding of CAT's operating environment in the context of key elements specified in the TDP Rule. The implications from the Situation Appraisal findings were considered in identifying potential transit alternatives.

In addition, the transit network design efforts followed the following best practice guiding principles:

- Direct and bidirectional routing
- Avoid extensive loops
- Strategic duplication for transfer opportunities
- Make good use of transit hubs at activity centers

- Higher frequency, particularly at major commercial corridors, downtown corridors and for high demand routes.
- Creative solutions for lower density areas.
- Mobility on demand as an overlay to streamlined bus network downtown and lower density areas.

Based on these methods, alternatives were identified and grouped into three categories:

- Service Improvements
- Capital/Infrastructure
- Program Recommendations

Specific improvements identified in each category are summarized. Map 9-1 illustrates the proposed network that includes several realignments of existing routes and new service improvements. The following section provides additional detail regarding the development and envisioned service of the alternatives.

9.2 Service Improvements

Service improvements include enhancements to existing routes related to route and system network design, frequency, extended service hours, and/or additional days of service. This category also includes service expansion, including new routes/modes for operating in areas not currently served CAT.

9.2.1 Improvements to Existing Routes

Expanding hours and increasing frequencies of existing bus routes are significant needs identified through the public outreach efforts. Needed improvements and increased efficiencies to the existing fixed-route network include the following.

9.2.1.1 Improve Frequency on Selected Routes

It is recommended that enhanced frequencies be applied to routes with the highest ridership and/or serve as key connectors where transit level of service does not meet demand. The following frequency improvements are proposed for CAT:

- Add trips to Route 121 This route currently has only one AM and one PM trip but has the
 highest productivity, with a seating capacity that is regularly exceeded despite its two-hour
 travel time. Recommend adding two morning and two evening trips during peak periods and
 coordinating these trips with employee shift times at major employment locations such as the
 Marriott and several restaurants.
- Improve frequency on selected routes According to FY 2019 performance data, the highest performing routes include routes 11, 12, 13, 14, 15, 19, and 24. Based on population and

employment projections, the on-board survey and review of route performance, the following headways are proposed:

- Route 11 currently has 30-minute headway during peak hours; recommend 20-minute peak headway
- Route 12 -currently has headways of 25–90 minutes; recommend 30-minute peak headway and 60-min off-peak headway; initially this improvement would reduce headways to 45 minutes due to cost
- Route 13 currently has 60-minute headway throughout day; recommend 30-minute headway
- Route 14 currently has 60-minute headway throughout day; recommend 30-minute headway
- Route 15/16 currently has 90-minute headway; recommend 45-minute headway
- Route 24 currently has 85-minute headway; recommend 60-minute headway

To UF/IFAS and LeHigh Acres -Health Dept. LEE [41] **Targeted Service Improvements*** • Route 121 - Add one AM and PM trip • Improve frequency on routes 11, 12, 13, 14, 15, 16, 24 • Later service (unitl 10 PM) on routes 11, 13, 14, 17, 19, 24 *subject to funding Golden Gate Blvd [29] Golden Gate Community Center **Proposed Routes** Autonomous Circulator Electric Naples Pier Radio Road Facility Premium Express Route 14 **Mobility on Demand** Gov. Center Golden Gate Estates Route 19/28 North Naples ttlesnake Hammock Rd Route 20/26 Naples Everglades City Vanpool Island Trolley Marco Island Golden Gate Pkwy **Unchanged Routes** Goodlette-Frank Rd Route 15 Coordinated shared-ride Immokalee Road to and from Gov't Center Collier Boulevard for access to CAT's New Govt Ctr - Marco — Route 121 fixed route system Express LinC Lee County to Collier County Route 23 Gulf of Beach Bus - 111th Mexico Parks and Managed UF/IFAS and LeHigh Gulf of 10 Miles Tamiami Trail 41

Map 9-1: Alternatives in Proposed Transit Network

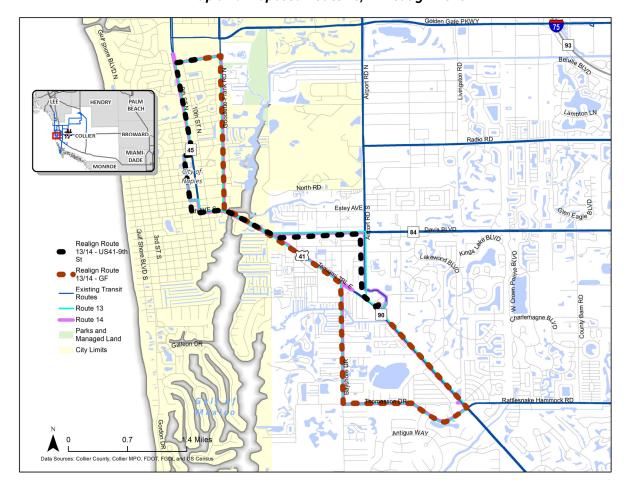
9.2.1.2 Later Service

Based on results from the on-board survey, a need for adding later service was identified as a priority. It is proposed to extend service later on routes 11, 13, 14, 17, 19, and 24. The end times for the service span of these routes currently ranges from 6:25 PM to 8:52 PM; it is recommended to extend service to 10:00 PM as a target as funding and service demand allow.

9.2.1.3 Realign Routes

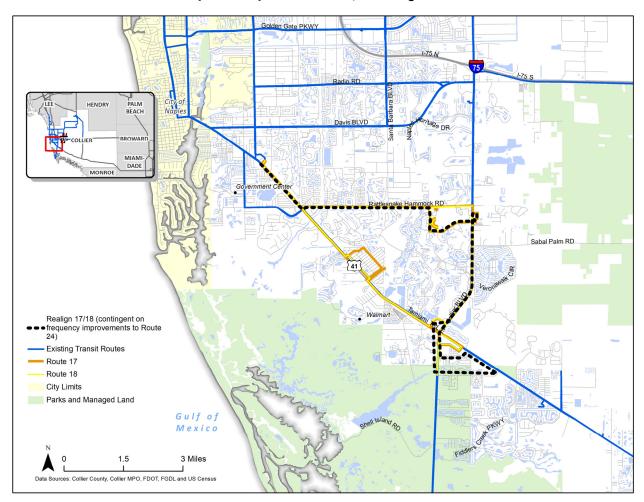
To improve directness of service, eliminate large loops, thereby reducing network redundancy, improving travel times, providing more direct connections, improving productivity, and simplifying route information for riders, the following route and network improvements are proposed. The objective of these recommendations is to streamline the route and network structure while being better to accommodate the anticipated population and employment growth identified in the Baseline Conditions. The route extensions and realignments work in tandem with other route improvements, and several route pairs proposed below combine separate one-directional routes to serve as single bidirectional routes:

- Extend Route 11 Establish a minor extension of the north endpoint, travel time permitting, to travel along Creekside Boulevard, north on Arthrex Boulevard, and then west on Immokalee Road to provide service to the Walmart on Tamiami Trail and Immokalee Road, pending agreements with the property owner. This extension will enhance connectivity to other improved routes such 12, 25, and 27. Other considerations include, connecting to the LinC at Walmart on Tamiami Trail and Immokalee Road rather than the existing location at Creekside and Immokalee Road.
- **Extend Route 12** The western portion of Route 12 ends on Immokalee Road and Creekside Way. The proposed improvement would extend service into Walmart and other shopping plazas at the intersection of Tamiami Trail and Immokalee Road.
- Realign Routes 13 and 14 Routes 13 and 14 operate as a one-way pair; separating them into two bidirectional routes would make the routes easier to understand from the rider perspective and enhance frequency on the proposed shorter Route 13. The routes would operate between Coastland Center and the Government Center. Route 13 would operate along 9th Street/Tamiami Trail to Davis Blvd to the Government Center every 40 minutes. Route 14 would operate along Goodlette-Frank Road to Tamiami Trail to Bayshore Dr to Thomason Dr to Tamiami Trail north to the Government Center. The realignment will shorten Route 13 making its headway 40 minutes while the Route 14 would continue to operate every 60 minutes. Map 9-2 illustrates the proposed alignments for routes 13 and 14.



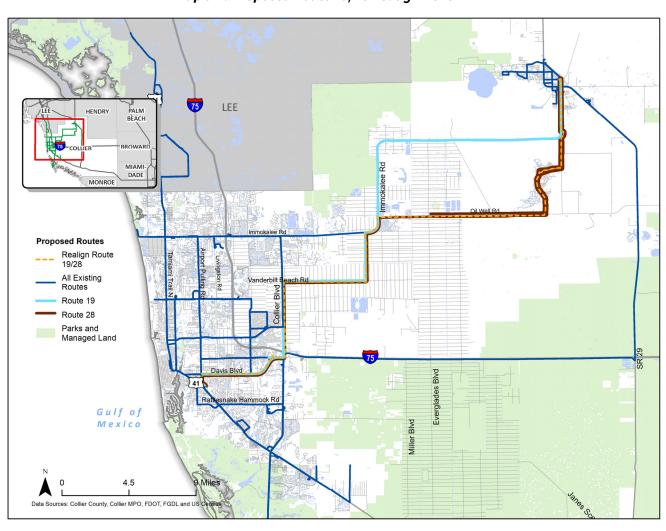
Map 9-2: Proposed Route 13/14 Realignment

• Realign Routes 17 and 18 – Routes 17 and 18 operate as a one-way pair to provide service between the Government Center along Rattlesnake Hammock Road, Collier Boulevard, and Tamiami Trail, with destinations such as Walmart Supercenter on Collier Boulevard. To provide a more grid-like network, simplify the routes, and reduce redundancy, the proposed improvement would no longer provide service along Tamiami Trail. This improvement is contingent on frequency improvements to Route 24 to ensure no loss of transit service to the Naples Manors area and Tamiami Trail between Collier Boulevard and Rattlesnake Hammock Road. Map 9-3 illustrates the proposed alignments for routes 17 and 18, which eliminates service along Tamiami Trail between Rattlesnake Hammock and Collier Boulevard but would provide bidirectional service from the Government Center to Rattlesnake Hammock to Collier Boulevard before deviating to Florida Southwestern State College and Physician's Medical Center on Collier Boulevard and finally to Freedom Square Plaza and the Walmart Supercenter on Collier Boulevard.



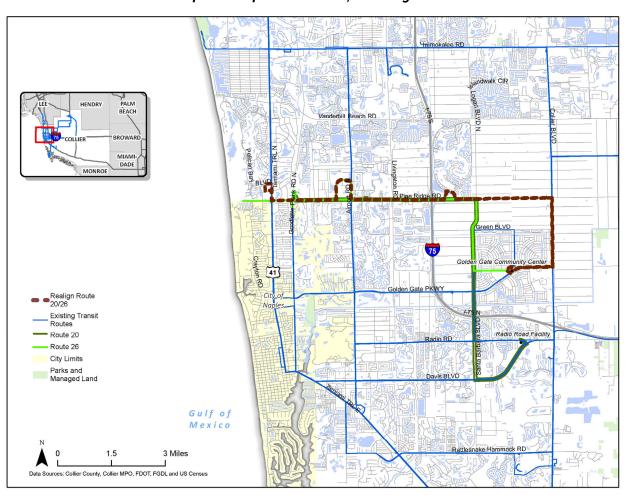
Map 9-3: Proposed Route 17/18 Realignment

• Realign Routes 19 and 28 – Routes 19 and 28 provide service from the Health Department in Immokalee to the Government Center using the same path, except Route 19 currently serves Immokalee Road instead of Ave Maria and Oil Well Road. To simplify the route, eliminate redundancy, eliminate unproductive route segments and to better accommodate future population growth in Orangetree and Ave Maria, it is proposed to eliminate Route 19 and combine the service hours into Route 28 to improve frequency to 70-minute headways. Combining the routes would eliminate service along the large bend on Immokalee Road at which a major development is anticipated in the future. As development grows in this area, CAT should consider realigning the route to serve this area as demand manifests. Map 9-4 illustrates the proposed alignment for the Route 19/28 combination.



Map 9-4: Proposed Route 19/28 Realignment

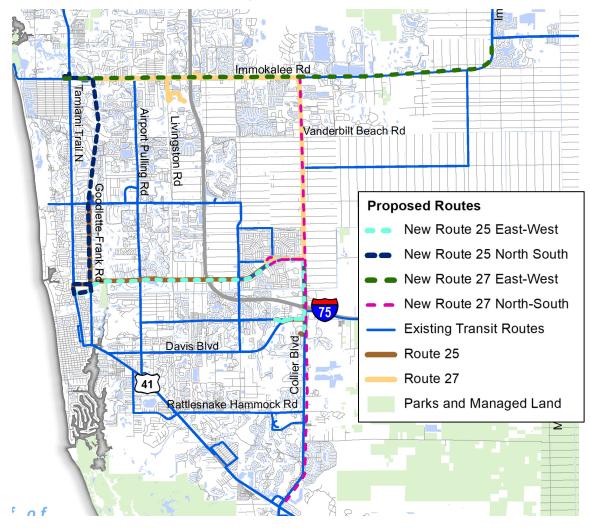
• Realign Routes 20 and 26 – Routes 20 and 26 are redundant along Pine Ridge Road and Santa Barbara Boulevard, and each provides three roundtrips per day. The proposed route eliminates service to Clam Pass Park, instead beginning at the Philharmonic Center for the Arts and Waterside Shops, then continuing east on Pine Ridge Road before deviating to Naples Boulevard, an industrial area with a notably high-density threshold in employment. The route would then pass through Boulevard Shoppes on Naples Boulevard, head south on Airport Pulling Road, and east on Pine Ridge Road, serving Physicians Regional Medical Center–Pine Ridge and stop at the Golden Gate Community Center, as shown in Map 9-5.



Map 9-5: Proposed Route 20/26 Realignment

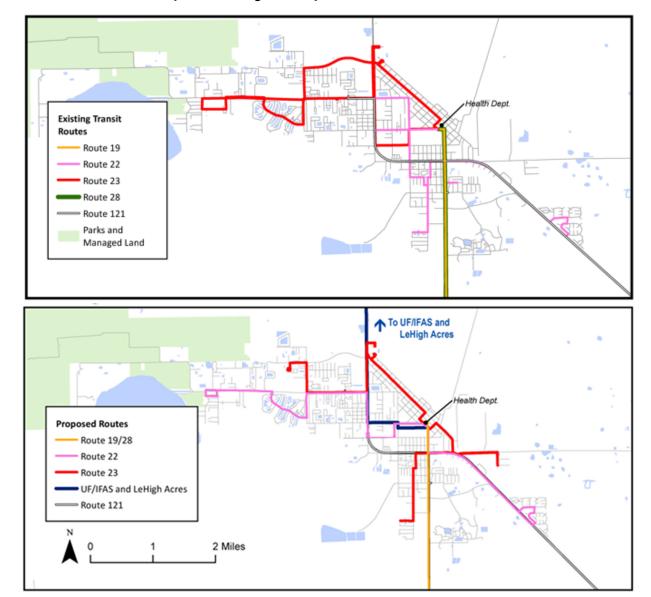
• Marco Island Government Center Express (Route 21) – This route would provide express service from Marco Island to the Walmart Supercenter on Collier Boulevard and to the Government Center. This provides a convenient connection at the Government Center to Marco Island for the majority of the routes in the CAT network. Riders would be able to access the express route on Marco Island using the proposed Marco Island MOD service and the Island Trolley, as discussed in the following section.

- Split and extend Routes 25 and 27 Routes 25 and 27 provide service in both the north-south and east-west directions. To create a more grid-like network, close gaps in transit service, make the service easier to comprehend for riders, and to better accommodate employment growth along Collier Boulevard Immokalee Boulevard, as identified in Baseline Conditions, it is proposed that the routes be split where they change directions and extended to provide more connectivity to destinations and other routes.
 - The new Route 25 North-South alignment (Goodlette-Frank Road) would provide service along Goodlette-Frank Road from Immokalee Road to the Coastland Center Mall. The East-West alignment (Golden Gate Parkway) would connect Coastland Center Mall to the Golden Gate Community via Golden Gate Parkway before turning south on Collier Boulevard, where it would service Walmart and the CAT Radio Facility.
 - Route 27 North-South (Collier Boulevard) would provide service along Collier Boulevard from Immokalee Road to Tamiami Trail with a deviation to the Golden Gate Community Center on Golden Gate Parkway. Route 27 East-West (Immokalee Road) would provide service along Immokalee Road from Walmart on Tamiami Trail to the Publix shopping center at Immokalee Road and Oil Well Road. Map 9-6 illustrates the proposed alignments for Routes 25 and 27.



Map 9-6: Proposed Alignments for Routes 25 and 27

- Route 22 This proposed route would realign Route 22 to streamline circulation in Immokalee, reduce duplication with Route 23, reduce the need for transfers between routes 22 and 23, and extend service east along Main Street and to the various packing houses that employ approximately 20,000 employees. Other destinations include Immokalee State Farmer's Market, Marion Fether Medical Center, the County Health Department, and Career Source. Map 9-8 illustrates the proposed New Market Road Route alignment.
- Route 23 This proposed route would realign Route 23 to provide direct connections between residential areas to several destinations while expanding the service area. The route would connect the westernmost residential cluster on Lake Trafford Road to the County Health Department, several packing houses along New Harvest Road, and finally to the easternmost residential cluster on Farm Worker Way. A deviation to provide service to the Roberts Center should be considered as an alternative alignment. Map 9-7 illustrates the proposed New Main Street Route alignment.



Map 9-7: Existing and Proposed Network in Immokalee

9.2.2 New Service

The following are proposed new services intended to address specific mobility, parking, congestion concerns as well as pilot and test the application of new technologies and emerging mobility concepts.

• Island Trolley –This fixed-route would travel along Collier Boulevard on Marco Island and connect to the realigned Route 21 Marco Island – Government Center Express route. It is envisioned that two vehicles are needed for 30-minute headways and that service would be a hop-on/hop-off type of service per discussions with the City. The Island Trolley would provide a frequent service available to all along a busy corridor and thus help mitigate the need to drive and help reduce congestion and parking demand.

- New UF/IFAS and Lehigh Acres Route A need to connect Immokalee to the University of Florida/IFAS satellite campus and Lehigh Acres was identified during public outreach. However, roadway constraints do not allow for transit vehicles to enter and exit the UF/IFAS campus. Further study is recommended for the alignment and endpoint of this route and to determine the demand and costs. This service should be explored jointly by CAT and LeeTran based on mutual considerations and consensus.
- I-75 Premium Express –It is envisioned that this route would be a premium express commuter service operating along managed lanes on I-75. The Route would begin service at the Government Center, head north on Airport Pulling Road, turn east on Radio Road, north on Livingston Road, east on Golden Gate Parkway and go north on I-75 before ending in the vicinity of the Florida Gulf Coast Town Center. The northern terminus and operating plan requires coordination with LeeTran. The route would require one vehicle to provide 90-minute headway service from 6 AM to 8 PM. Further study is recommended for the final alignment and endpoint of this route and to determine the demand and costs.
- **Bayshore Drive Electric Shuttle** The Bayshore Community Redevelopment Agency (CRA) has requested that CAT help mitigate parking needs by operating two shuttles within the
 - Bayshore CRA. This route is envisioned as a fixed-route electric shuttle that would operate as a hop-on/hop-off service, similar to the Beach bus, along Bayshore Drive, an area that has a growing vibrant nightlife and leisure culture. A survey was conducted by the Bayshore CRA to introduce the proposed service and vehicle, gauge community support,



and identify the most visited destinations in the Bayshore Area. The route would require one vehicle, but would likely need to purchase two, to provide 15-minute headway service from Weeks Avenue to the Naples Botanical Garden from 11:00 AM to 9:00 PM. Further study of this service concept is recommended by CAT.

- Downtown Autonomous Circulator The downtown autonomous circulator concept was
- developed as part of an effort to create a conceptual roadmap for CAT's sustainable future and to address congestion and the parking shortage in Downtown. The alignment of the circulator will be determined at a later date in coordination with the City of Naples.
- Electric Naples Pier Shuttle The electric shuttle concept was developed as part of an effort to create a conceptual roadmap for CAT's sustainable future and to alleviate congestion and demand for parking in Downtown. The shuttle would make stops at the Naples Pier,



Crayton Cove, as well as shops and restaurants within the area south of S 6th Avenue. CAT Staff

will coordnate with merchants and representatives with the City of Naples to determine the final route alignment for the Shuttle.

9.2.3 Mobility-on-Demand (MOD)

MOD uses on-demand information, real-time data, and predictive analytics to provide travelers with transportation choices that best serve their needs and circumstances. MOD service can be requested via a mobile app or website or by calling CAT. MOD service is designed to localize mobility (e.g., home to grocery store) and to provide connections to the fixed-route transit network for longer trips (e.g., home to bus stop to catch bus downtown). MOD is designed to work well in areas in which fixed-route service may not be nearby, where customers have limited mobility access to bus stops, or where the necessary infrastructure is not available for safe or convenient access to bus stops. MOD service is designed to operate as a point-to-point service in response to customer requests (immediate or scheduled for a future time).

When considering MOD service, input from public involvement, demographic characteristics, and the nature of the existing route network were considered. Many neighborhoods in proposed MOD zones have dead-ends and non-uniform street grids, thereby diminishing connectivity and walkability to bus stops. MOD zones are intended to fulfill unmet needs in these areas. In addition, MOD service is intended to be accessible by all, including the general public and ADA/TD-eligible persons. It, therefore, can be used to meet growing demand for CAT Connect service and may serve as a replacement for traditional paratransit service. Travel may be accommodated within a zone and may overlap into adjacent zones to complete short trips that cannot be served conveniently by fixed-route service. It can also be considered to supplement transit service in areas where transit services are being reduced due to decreased demand.

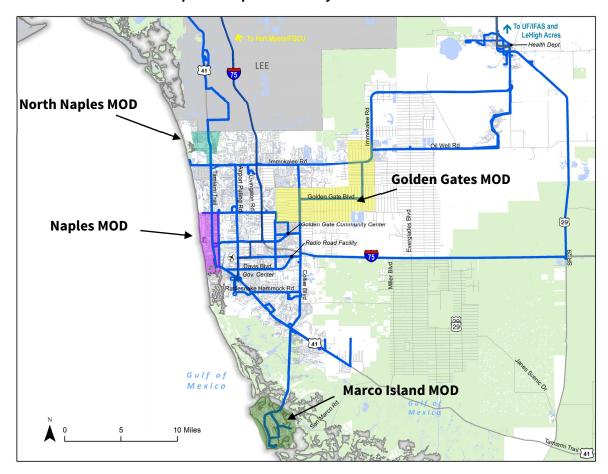
It is recommended to obtain a Software-as-a-Service (SaaS) cloud-based platform and operate MOD service as an additional CAT Connect general public dial-a-ride service. CAT may also elect to assess options to contract MOD operations as a Mobility-as-a-Service (MaaS) through a contract with a third party. However, this will reduce potential for CAT to leverage MOD as a way to supplement or mitigate TD/ADA demand from CAT Connect to MOD.

The following potential MOD zones were identified and are illustrated in Map 9-9:

- Golden Gate Zone This large MOD zone would include areas of Golden Gate Estates, a large development east of I-75. This zone currently has a high demand for paratransit service and would provide transit service to areas currently underserved by fixed-route transit; most are low-density and may require three vehicles in the peak and two during the off-peak to operate due to poor roadway connectivity.
- **North Naples Zone** This MOD zone was identified in the gap analysis as an area currently underserved by transit. This zone would cover the northeast quadrant of Collier County, which includes areas with high and very high TOI. The zone borders Bonita Beach Road and extends as far south as Immokalee Road and would serve areas east and west of US-41 as well as areas east and west of Old US-41 Road.

- Naples Zone This MOD zone would cover areas associated with high employment densities
 and areas with high and very high TOI as well as areas that are often difficult to navigate with
 regular fixed-route vehicles. Zone 5 spans the beach from Broad Avenue to Pine Ridge Road as
 far east as Goodlette-Frank Road.
- Marco Island Microtransit This microtransit service would serve Marco Island and provide transfer opportunities to the proposed Island Trolley route. This service would likely require more than one vehicle, as it would continue to provide connections to other routes in the CAT network. Marco Island is also another area in CAT service that has medium to high TOI.

The service operating concept, demand, and operating requirements will need to be studied for each proposed MOD zone prior to determining and deploying the service.



Map 9-9: Proposed Mobility on Demand Zones

9.2.4 Vanpooling

CAT is coordinating with Everglades City and FDOT to create a vanpool program as part of a districtwide program to be implemented early next fiscal year. A vanpool is like a carpool except it holds more people, typically a group of 5 or more people who commute to and from work together in a van or SUV. Typically, the van itself is leased and paid for by the riders, with the primary driver being the

leaseholder. The program implemented by CAT may vary slighted depending on the regional plan established by FDOT. The vanpool program provides a cost-effective way to connected shared rides from rural and more remote locations to employment and activity centers. The vanpool program would connect riders with vanpools on a regular basis and for intermittent travel needs.

9.3 Capital/Infrastructure

9.3.1 Park-and-Ride Lots

A CAT park-and-ride study conducted by Jacobs is currently underway to identify and develop a standardized methodology for locating, operating, and maintaining park-and-ride sites in Collier County. The study will consider each site's proximity to:

- Existing and planned transit routes
- Major employment locations
- Educational facilities
- Tourist destinations

Recommendations from the study should be added to future TDP updates.

9.3.2 Technology

The existing systems used by CAT are providing route and vehicle information in real-time via an interface to passengers, dispatchers, and supervisory personnel, and CAT has already deployed technology on both fixed-route and paratransit service. The agency is currently evaluating the feasibility of upgrading and possibly consolidating and implementing new intelligent transportation systems (ITS) technologies to improve the overall quality of transit service. Schweiger Consulting is conducting this study using a systems engineering analysis (SEA) approach. The study summarizes the results of a business and technical needs assessment, identify technologies that should be upgraded, and identify new technologies that may address CAT's goals, objectives, and needs. Needs related to technical enhancements noted in the study include the following:

- Implement fixed-route scheduling software.
- Replace or upgrade paratransit scheduling and dispatching software.
- Replace or upgrade computer-aided dispatch (CAD)/Automatic Vehicle Location (AVL) for fixed-route with supervisor remote laptop access.
- Install an Automatic Passenger Counter (APC) system for fixed-route vehicles.
- Install an Automatic Vehicle Announcement (AVA) system for fixed-route vehicles.
- Implement a transit signal priority (TSP) system.
- Update or replace the fare logistics fare collection system.
- Make on-board surveillance system enhancements.
- Establish a paratransit fare payment system.
- Install an Interactive Voice Response (IVR) system.
- Implement an on-board information media system.

According to the study, if CAT decides to replace the Avail CAD/AVL system, there will be an opportunity to replace most of the current RTIS components, including:

- Next Arrival Prediction Software uses the latest location and route/schedule adherence data to periodically establish updated predictions for fixed-route vehicle arrival times at stops throughout the system
- **Dynamic Message Signs (DMS)** provides current next arrival predictions directly to customers at selected stops using electronic displays
- Web Access provides current fixed-route next arrival predictions directly to customers for all stops throughout the system via a website that allows customers to select a specific route, direction, and stop
- **Smartphone Access** provides current fixed-route next-arrival predictions directly to customers for all stops throughout the system via smartphone apps that allow customers to select a specific route, direction, and stop; the app also can use the phone's built-in GPS to locate the closest stop to the user's current location
- Interactive Voice Response (IVR) Phone Access provides current fixed-route next-arrival predictions directly to customers for all stops throughout the system via a telephone system that allows customers to select a specific route, direction, and stop; also allows for automated reminders, confirmations, and cancellations of paratransit trips

During the Phase II outreach, a need for a system that enables riders to know bicycle rack availability with bicycle sensors was expressed. Such information would enhance reliability for users. This type of sensor could also be used to show availability of wheelchair areas in real time using a smartphone application.

9.4 Program Recommendations

Program recommendations, which include policy considerations and other improvements for CAT's transit service include:

- Pursuit of public-private partnerships with Marriott and other hotels in Marco Island to support routes 21 and 121 and pilot MOD service.
- A more detailed review of the existing CAT routes and network, particularly in Immokalee and
 potential connections to the UF IFAS satellite campus and Lehigh Acres is needed. Potential
 service along I-75 and Santa Barbara Boulevard also require further study. A study that
 explores the Everglades City vanpooling program as well as a transit hub along Immokalee
 Road is also recommended.
- A fare study is recommended.
- A MOD demand and operations requirements study is recommended.
- Marketing and branding to increase awareness of and use of CAT services such as branded beach buses, express routes, and neighborhood and MOD services.

• Create a transfer station along the urbanized area of Immokalee Road to facilitate passenger transfers and provide a place for vehicle staging and for driver relief.

9.5 Evaluation of Alternatives

The remainder of this section summarizes the evaluation process for service alternatives developed for the CAT TDP. Because many alternatives are identified, ranging from expansion of existing routes to implementation of new routes, it is important for CAT to prioritize these improvements to effectively plan and implement them within the next 10 years using existing and/or new funding sources.

9.5.1 Alternatives Evaluation Methodology

A quantitative-qualitative methodology was developed to evaluate and prioritize the transit alternatives presented in Section 9.2. To prioritize and program these service improvements, it was important to weigh the benefits of each service improvement against the others. By conducting an alternatives evaluation, CAT can better prioritize projects and allocate funding using an objective prioritization process. The remainder of this section identifies and defines the evaluation criteria used to prioritize the service improvements.

Three evaluation categories are identified for determining criteria for the evaluation:

- Public Outreach
- Transit Markets
- Productivity and Efficiency

Table 9-1 lists these evaluation categories and their corresponding criteria, the associated measure of effectiveness, and the assigned weighting for each criterion. A description of the elements in the table follows.

Table 9-1: Alternatives Evaluation Measures

| Category | Criteria | Measure of Effectiveness | Relative Weighting | Overall Category Weight |
|--------------------|-----------------------------------|---|-----------------------|-------------------------------|
| Public Outreach | Public Input | Level of interest in specific alternatives (Very High, High, Moderate, Low) | 40% | 40% |
| Transit | Traditional Market | Percent serving poverty | 15% | |
| Markets | Proximity to Employment Market | Percent of countywide employment market served | 15% | 30% |
| Productivity | Productivity | Trips per hour (T-BEST-generated trips and revenue hours of service) | 15% | 30% |
| and Efficiency | Cost Efficiency | Cost per trip (including new trips) | 15% | |
| Total | | | 100% | 100% |

Public Outreach

Due to the COVID-19 pandemic that began in March 2020, the public outreach process conducted for the CAT TDP 10-year planning effort was modified to be a virtual process. The outreach resulted in

numerous opinions and suggestions on transit services from workshop discussion groups involving transit users and nonusers, local governments, business and social organizations and an online survey. In addition, the public outreach process included three working group discussions with policy leaders to gauge their views on transit services and provide technical advice. Based on an in-depth review of input from this public outreach effort, interest in a particular route or type of service was categorized as "None," "Moderate," or "High" in the alternative evaluation process.

Transit Markets

For the evaluation of alternatives, two transit markets were identified—the traditional market and the employment market.

- Traditional Market Existing population segments that historically have a higher potential to
 use transit and/or are dependent on public transit for their transportation needs include those
 that fall under the federal poverty level. For the alternatives evaluation, the percent serving
 poverty was calculated as the percent of poverty serviced by each route using Remix using ACS
 2018 5-Year Estimates.
- **Proximity to Employment Market** The total number of private jobs countywide served by each potential service option, based on information produced through Remix using LODES 2017 data.

Productivity and Efficiency

Productivity is generally measured in terms of ridership. Service efficiency is used by transit agencies to gauge how well they are using their existing resources. Each measure is critical to the success of the agency, and services performing well in terms of their productivity and efficiency should receive a higher priority. Forecast ridership, revenue hours, and operating cost figures for each individual alternative are used in this measure.

- Ridership productivity is measured in terms of annual passenger trips per vehicle revenue hour of service (trips per hour). This metric refers to the number of passengers who board a vehicle per hour of revenue service. To provide for an equal comparison between alternatives, passenger trips and revenue hours of service were generated using output from T-BEST 2030 ridership projection data.
- Cost efficiency is evaluated for each alternative using a standard transit industry efficiency
 measure, operating cost per passenger trip. Operating costs used are calculated using
 operating cost per trip based on CAT performance data and T-BEST 2030 ridership projection
 data.

Figure 9-10 shows the 10-year transit service alternatives evaluation process, including criteria, measures, and weights used for each category. A summary of various criteria and measures used in each tier, as well as the alternatives scoring thresholds, are presented in the remainder of this section.

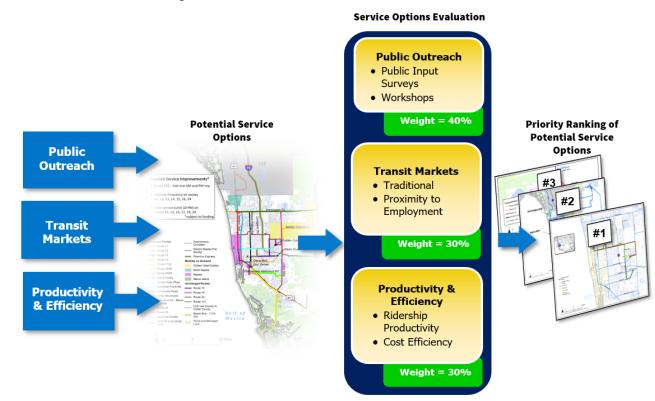


Figure 9-10: Alternatives Evaluation Measures

¹For illustration purposes only. See list of alternatives summarized previously.

Alternative Scoring Thresholds

As noted, each criterion is assigned a weight. Weighting the criteria affords the opportunity to measure the relative importance of each among the group of criteria to be applied. For each transit alternative, a score was determined either through the computation of the selected measure of effectiveness or through the educated judgment of the analyst. Potential scores were assigned depending on the relative comparison of a given transit alternative with other transit alternatives as it relates to a given criterion. A higher score is consistent with a higher ranking for a given alternative for the criterion being evaluated.

The thresholds for computation-based criteria were determined using the average of the entire data set and one standard deviation above or below the average. Table 9-2 shows the thresholds and scoring for each criterion used in the alternatives evaluation.

Table 9-2: Alternatives Evaluation - Scoring Thresholds

| Criteria | Range | Score |
|--------------------------------|--|-------|
| | None | 1 |
| Public Input | Moderate | 3 |
| (Interest in Improvement) | High | 5 |
| | Very High | 7 |
| | Less than (Average – 1 STDEV) | 1 |
| Traditional Market Potential | Between (Average – 1 STDEV) to Average | 3 |
| (% Serving poverty) | More than Average to (Average + 1 STDEV) | 5 |
| | More than (Average + 1 STDEV) | 7 |
| | Less than (Average – 1 STDEV) | 1 |
| Proximity to Employment | Between (Average – 1 STDEV) to Average | 3 |
| (Total Number of Private Jobs) | More than Average to (Average + 1 STDEV) | 5 |
| | More than (Average + 1 STDEV) | 7 |
| | Less than (Average – 1 STDEV) | 1 |
| Productivity | Between (Average – 1 STDEV) to Average | 3 |
| (Trips per Hour) | More than Average to (Average + 1 STDEV) | 5 |
| | More than (Average + 1 STDEV) | 7 |
| | More than (Average + 1 STDEV) | 1 |
| Cost Efficiency | More than Average to (Average + 1 STDEV) | 3 |
| (Operating Cost per Trip) | Between (Average – 1 STDEV) to Average | 5 |
| | Less than (Average – 1 STDEV) | 7 |

Note: STDEV = statistical standard deviation.

9.5.2 Alternative Evaluation Results Summary

Each alternative was evaluated using the process summarized above, and the detailed results of the evaluation are presented in Table 9-3. From this process, each alternative received a score. The alternatives were then separated by improvement type (i.e., route network/new service, frequency improvements and span improvements), and ranked based on their respective score. Table 9-4 presents the prioritized list of improvements based on this process.

Note that improvements like MOD, Naples Pier Electric Shuttle, and the Autonomous Circulator were not included in the technical analysis due to the limitations in the ridership estimation model.

Table 9-3: Alternatives Evaluation

| Evaluati | on Criteria | Poule 11 Enersion | Roune 12 Erem. | Route 13 Realign | Rome 14 Ress. | Route 11/18 B | Roure 19/20 Reall | Realign 20/26 | Route 21 New GOV. | Route 22 ame 23 B | New Route 22 | New Route 3 | New Route 23 | New Roufe 35 | Now Island T. | New L'35 Premium | New Byshops Shures |
|-----------------------|------------------|-------------------|----------------|------------------|---------------|---------------|-------------------|---------------|-------------------|-------------------|--------------|-------------|--------------|--------------|---------------|------------------|--------------------|
| | Level of Support | Moderate | Moderate | High | High | High | High | Moderate | Moderate | Very High | Moderate | High | High | Moderate | Moderate | Moderate | Moderate |
| Public Involvement | Score | 3 | 3 | 5 | 5 | 5 | 5 | 3 | 3 | 7 | 3 | 5 | 5 | 3 | 3 | 3 | 3 |
| | Weight | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% |
| Totalista and Mandage | % Poverty | 11.484% | 11.320% | 14.407% | 15.494% | 10.857% | 16.509% | 13.729% | 13.872% | 42.585% | 14.477% | 8.612% | 7.819% | 15.268% | 7.127% | 16.461% | 22.86% |
| Traditional Market | Score | 3 | 3 | 3 | 5 | 3 | 5 | 3 | 3 | 1 | 3 | 1 | 1 | 5 | 1 | 5 | 7 |
| | Weight | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| | Private Jobs | 41595 | 33646 | 21406 | 24889 | 8470 | 12606 | 24163 | 9924 | 4086 | 12700 | 15449 | 8563 | 5514 | 4117 | 15022 | 3328 |
| Employment Market | Score | 7 | 7 | 5 | 5 | 3 | 3 | 5 | 3 | 1 | 3 | 3 | 3 | 1 | 1 | 3 | 1 |
| | Weight | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| | Trip/Hour | 17.20 | 12.60 | 15.90 | 15.80 | 33.30 | 7.20 | 10.60 | 12.80 | 20.40 | 5.20 | 6.80 | 1.80 | 2.80 | 16.00 | 5.70 | 2.10 |
| Boardings per Hour | Score | 5 | 5 | 5 | 5 | 7 | 3 | 3 | 5 | 7 | 3 | 3 | 1 | 1 | 5 | 3 | 1 |
| | Weight | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Operating Cost per | Cost /Trip | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$3.76 | \$0.00 | \$6.77 | \$6.77 | \$40.47 | \$40.47 | \$3.76 | \$16.11 | \$27.09 |
| New Trip | Score | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 5 | 1 | 1 | 5 | 3 | 3 |
| item IIIp | Weight | 15% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Tot | al Score | 4.50 | 3.45 | 3.95 | 4.25 | 3.95 | 3.65 | 2.85 | 2.85 | 5.05 | 2.55 | 3.05 | 2.75 | 2.25 | 2.25 | 2.85 | 2.55 |

| Evaluatio | on Criteria | Route 121. Add | Route 11 to 20 | Route 2 to 30 mil | Roam 13 to 3, | Route 1403 | rimin to the state of the state | Pome 16to 46 | Ponte 24 to G. | Route 11 (mil.) | Como 13 lang. | Rome salmmi | Rome 17 (mm). | Roune 19 (mm) | And or Admin J. |
|--------------------------------|------------------|----------------|----------------|-------------------|---------------|------------|--|--------------|----------------|-----------------|---------------|-------------|---------------|---------------|-----------------|
| | Level of Support | Very High | Very High | Very High | Very High | Very High | Very High | Very High | Very High | Very High | Very High | Very High | Very High | Very High | Very High |
| Public Involvement | Score | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | Weight | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 40% |
| | % Poverty | 22.50% | 11.48% | 11.36% | 13.92% | 13.93% | 17.14% | 17.14% | 15.26% | 11.48% | 13.92% | 13.93% | 13.28% | 17.09% | 15.26% |
| Traditional Market | Score | 7 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 5 | 5 |
| | Weight | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| | Private Jobs | 8467 | 41597 | 33164 | 26604 | 26558 | 19189 | 19238 | 8068 | 41597 | 26604 | 26558 | 9653 | 12074 | 8068 |
| Employment Market | Score | 3 | 7 | 7 | 5 | 5 | 5 | 5 | 3 | 7 | 5 | 5 | 3 | 3 | 3 |
| | Weight | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| | Trip/Hour | 19.73 | 14.70 | 11.70 | 6.80 | 6.50 | 14.70 | 8.60 | 7.30 | 7.20 | 11.20 | 14.50 | 1.60 | 5.50 | 5.30 |
| Boardings per Hour | Score | 7 | 5 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 5 | 5 | 1 | 3 | 3 |
| | Weight | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Operating Cost nor | Cost /Trip | \$11.87 | \$14.00 | \$6.12 | \$8.04 | \$9.62 | \$5.42 | \$10.45 | \$15.17 | \$24.05 | \$11.85 | \$8.00 | \$115.25 | \$40.19 | \$30.87 |
| Operating Cost per New Trip | Score | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 1 | 1 | 3 |
| New IIIp | Weight | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Total | Score | 5.35 | 5.05 | 5.05 | 4.45 | 4.45 | 5.05 | 4.75 | 4.45 | 4.75 | 4.75 | 4.75 | 3.85 | 4.45 | 4.45 |

Table 9-4: Alternatives Ranking

| Proposed Improvement | Score | Rank |
|---|-------|------|
| Route Network and New Service | | |
| Route 22 and 23 realigned | 5.1 | 1 |
| Route 11 extension | 4.5 | 2 |
| Route 14 realign | 4.3 | 3 |
| Route 13 realign | 4.0 | 4 |
| Route 17/18 realign | 4.0 | 4 |
| Route 19/28 realign | 3.7 | 6 |
| Route 12 Extension | 3.5 | 7 |
| New Route 25 NS | 3.1 | 8 |
| Realign 20/26 | 2.9 | 9 |
| New I-75 Premium Express | 2.9 | 9 |
| Route 21 New Gov Center - Marco Express | 2.9 | 11 |
| New Route 27 EW | 2.8 | 12 |
| New Route 25 EW | 2.6 | 13 |
| New Bayshore Shuttle | 2.6 | 13 |
| New Route 27 NS | 2.3 | 15 |
| New Island Trolley | 2.3 | 15 |
| Frequency Improvements | | |
| Route 121 - add one AM and one PM | 5.4 | 1 |
| Route 15 to 45 min | 5.1 | 2 |
| Route 11 to 20 mins | 5.1 | 3 |
| Route 12 to 30-min peak. 60-off peak | 5.1 | 3 |
| Route 16 to 45 min | 4.8 | 5 |
| Route 13 to 30 min | 4.5 | 6 |
| Route 14 to 30 min | 4.5 | 6 |
| Route 24 to 60-min | 4.5 | 6 |
| Later Service | | |
| Route 11 (until 10 PM) | 4.8 | 1 |
| Route 13 (until 10 PM) | 4.8 | 1 |
| Route 14 (until 10 PM) | 4.8 | 1 |
| Route 19 (until 10 PM) | 4.5 | 4 |
| Route 24 (until 10 PM) | 4.5 | 4 |
| Route 17/18 (until 10 PM) | 3.9 | 6 |

10.0 Ten-Year Transit Plan

This section presents the recommended 10-year transit plan, including financial and implementation plans. First, the transit service, capital/infrastructure, technology, and policy improvements are summarized as unconstrained and constrained. Thereafter, a summary of the assumptions for capital and operating costs and revenues used in developing the TDP are presented, followed by the financial plan for the 10-year period. Next, the 10-year implementation program is presented for the CAT TDP.

10.1 Ten-Year Plan

The recommended improvements included in the 10-year TDP are the result of an extensive public outreach program and data review/evaluation process. The improvements identified fall into the categories of Service Improvements, Capital/Infrastructure Improvements, Technology, and Policy. These improvements are described in detail below.

10.1.1 Vision Plan

Table 10-1 lists the Vision Plan proposed service improvements by phase; the plan represents a 10-year fiscally unconstrained plan. The first phase, FY 2020–2025, includes route network changes and frequency and span improvements that are to be prioritized in the 10-Year Implementation Plan. The second phase, FY 2026–2030, represents improvements that are lower in priority.

Table 10-1: Vision Plan (Unconstrained)

| Service Improvements | Implementation Year |
|---|---------------------|
| Maintain Existing Service | |
| Maintain Existing Fixed-Route Service | 2020 |
| Maintain Existing Paratransit Service | 2020 |
| Replacement of Support Vehicles | 2020 |
| Route Network Modifications | |
| Extend Route 11 into Walmart Shopping Ctr | 2022 |
| Extend Route 12 into Walmart Shopping Ctr | 2022 |
| Realign Route 13 - shorten to 40 min. headway | 2022 |
| Realign Route 14 - operate at 60 min. headway | 2022 |
| Realign Route 17 - eliminate portions of US 41 Eliminate Route 18 | 2022 |
| Realign Route 19/28 - eliminate portions of 846 | 2022 |
| Realign Route 20/26 - eliminate Santa Barbara | 2022 |
| Realign Route 21 to create Marco Express | 2024 |
| Realign Route 22 | 2022 |
| Realign Route 23 - reduce headway 60 to 40 minutes | 2022 |
| Golden Gate Pkwy - Split Route 25 creating East-West Route | 2027 |
| Goodlette Frank Rd - Split Route 25 creating North-South Route | 2027 |
| Immokalee Rd - Split Route 27 creating East-West Route | 2027 |
| Collier Blvd - Split Route 27 creating North-South Route | 2027 |

Table 10-1: Vision Plan (Unconstrained) – continued

| Service Improvements | Implementation Year |
|--|---------------------|
| Increase frequency | |
| Route 15 from 90 to 45 min | 2022 |
| Route 16 from 90 to 45 min | 2022 |
| Route 24 from 85 to 60 minutes | 2022 |
| Route 121 add one AM, one PM | 2022 |
| Route 14 from 60 to 30 min | 2023 |
| Route 17/18 from 90 to 45 minutes | 2023 |
| Route 11 from 30 to 20 mins | 2022 |
| Route 12 from 90 to 45 mins | 2022 |
| Route 13 from 40 to 30 min | 2023 |
| Service Expansion | |
| Route 17/18 - Extend Hours to 10:00 PM | 2023 |
| New Route 19/28 - Extend Hours to 10:00 PM | 2027 |
| Route 24 - Extend Hours to 10:00 PM | 2027 |
| Route 11 - Extend Hours to 10:00 PM | 2029 |
| Route 13 - Extend Hours to 10:00 PM | 2029 |
| Route 14 - Extend Hours to 10:00 PM | 2029 |
| New Service | |
| New Island Trolley | 2024 |
| New Bayshore Shuttle | 2025 |
| New Autonomous Circulator | 2029 |
| New Naples Pier Electric Shuttle | 2029 |
| MOD – Golden Gate Estates | 2029 |
| MOD – North Naples | 2029 |
| MOD – Naples | 2029 |
| MOD – Marco Island | 2029 |
| New Route from UF/IFAS to Lehigh Acres | 2029 |
| I-75 Premium Express | 2029 |

Table 10-1: Vision Plan (Unconstrained) - continued

| Service Improvements | Implementation Year |
|--|---------------------|
| Other Improvements | |
| Technology improvements ³ | 2021 |
| Security - driver protection barriers | 2021 |
| Study: Santa Barbara Corridor | 2022 |
| Study: UF/IFAS Lehigh Acres Service | 2022 |
| Study: I-75 Premium Express | 2023 |
| Study: Everglades City Vanpool | 2023 |
| Study: Fares | 2024 |
| Study: Mobility on Demand | 2024 |
| Other Technology improvements ⁴ | 2021 |
| Study: Immokalee Road Transfer Hub | TBD |
| Brand beach area buses | TBD |
| Park and Ride Lots | Pending |

10.1.2 Capital Infrastructure Improvements

- **Expand and improve bus stop infrastructure** Improved infrastructure at bus stops, including benches, shelters, bicycle storage facilities, and other infrastructure, is included in the Cost Feasible Plan to enhance the rider experience while waiting for a bus and potentially attract new riders.
- Improve bus stop safety and ADA accessibility Ensuring the safety all riders while accessing bus stops and waiting for a bus and guaranteeing that ADA requirements are fulfilled for all transit facilities are important to the overall safety and accessibility of the transit system.
- **Replace/add new vehicles** Continued replacement of the existing vehicle fleet and the addition of new vehicles to serve the proposed service improvements and new routes are included in the Cost Feasible Plan.
- Technology As noted in the Situation Appraisal, Schweiger Consulting conducted a study regarding CAT's technology needs. Needs related to technical enhancements noted in the study include the following:
 - o Implement fixed-route scheduling software.
 - o Replace or upgrade paratransit scheduling and dispatching software.
 - Replace or upgrade computer-aided dispatch (CAD)/Automatic Vehicle Location (AVL) for fixed-route with supervisor remote laptop access.
 - o Install an Automatic Passenger Counter (APC) system for fixed-route vehicles.
 - o Install an Automatic Vehicle Announcement (AVA) system for fixed-route vehicles.
 - o Implement a transit signal priority (TSP) system.
 - o Update or replace the fare logistics fare collection system.
 - o Make on-board surveillance system enhancements.

- o Establish a paratransit fare payment system.
- o Install an Interactive Voice Response (IVR) system.
- o Implement an on-board information media system.

The study identifies the relative priority and identifies a phasing schedule for the following 10 years and a schedule of activities (e.g., specifications, request for proposals, development, procurement, and deployment).

Park-and-Ride Lots – A CAT park-and-ride study conducted by Jacobs is currently underway
to identify and develop a standardized methodology for locating, operating, and maintaining
park-and-ride sites in Collier County. Study recommendations should be reviewed and
implemented as applicable.

10.1.3 Program Recommendations

- Pursuit of public-private partnerships with Marriott and other hotels in Marco Island to support routes 21 and 121, the proposed Island Trolley and pilot MOD service.
- Establish Marketing and branding strategies such as for beach buses, express services, and neighborhood and proposed MOD services.
- Conduct a Comprehensive Operations Analysis (COA) for a more detailed review of the existing CAT routes and network. Additional study is needed to review service provided to Immokalee; service needs along Santa Barbara Boulevard; potential connections to the UF IFAS satellite campus in Immokalee; service connection to Lehigh Acres; and an express service on I-75 managed lanes.
- Continue coordination and study with FDOT and Everglades City for creation and deployment of the Everglades City Vanpool program.
- Conduct feasibility and concept of operations studies for MOD services as demand and fiscal capacity allows.
- Update review of fare policy and fare structure
- Create a transfer hub along the urbanized area of Immokalee Road to facilitate passenger transfers provide a place for vehicle staging and for driver relief.
- Establish a coordinating committee with Planning Departments of the local municipalities to review transportation needs of new developments and to ensure there are provisions for transit.
- Adopt transit LOS policies to adopt in Collier County's land development regulations.
- Modify the Land Development Code and Development Review processes to include recommendations from the transit impact study by coordinating with Collier County and local municipalities.
- Begin coordination with LeeTran to explore a seamless fare system between LeeTran and CAT to facilitate travel between the two counties

10.2 Finance Plan Assumptions

A financial plan was developed to help facilitate the implementation of CAT TDP improvements. Cost, revenue, and policy assumptions used to develop the financial plan are presented below, followed by a summary of cost and revenue projections for CAT in an unconstrained and constrained scenario. The summary includes annual costs for the service and technology/capital improvements that are programmed for implementation within the next 10 years together with supporting revenues that are reasonably expected to be available.

10.2.1 Operating Cost Assumptions

Numerous cost assumptions were made to forecast transit costs for 2021 through 2030. These assumptions are based on a variety of factors, including service performance data from CAT and information from other recent Florida TDPs. These assumptions are summarized as follows:

- Annual operating costs for fixed-route and paratransit services are based on the most recent validated NTD data. These costs include the cost to operate and maintain existing services and facilities, such as administrative buildings, maintenance facilities and transit hubs.
- An annual inflation rate of 1.8% was used for all operating cost projections, based on the average Consumer Price Index (CPI) historical data from 2009–2019.
- Annual operating costs for future service enhancements are based on the projected annual service hours and cost per revenue hour of \$82.32 for fixed-route service and \$63.91 for paratransit service (both in 2018\$). The cost per hour was derived using historical and current cost per revenue hour data for existing services. The operating cost per hours figures are inflated annually using a 1.8% factor.
- Implementing the new route alignments represents increased levels of service in improvements such as Route 14, Route 19/28, and Route 23 with no additional costs.
- As ADA paratransit service is not required for express routes or MOD, it is assumed that any express, and MOD would not require complementary ADA paratransit services if implemented.

10.2.2 Capital Cost Assumptions

Several assumptions were developed to project the costs for capital needs identified previously and are summarized as follows:

- New vehicles planned to be purchased include those necessary to replace vehicles within the
 existing fleet that have reached the end of their useful life and vehicles to implement the new
 service.
- Vehicles are assumed to cost \$495,000 for fixed-route bus and \$71,217 for paratransit cutaway vehicles, based on information provided by the CAT. Twenty-nine fixed-route vehicles and 58 paratransit vehicles will need to be purchased between 2020 and 2030.
- An annual growth rate of 1.8% was used for capital cost projections, based on average CPI historical data from 2009 to 2019.

- A 20% spare ratio was factored into the vehicle replacement and expansion schedule.
- A useful life for motor bus replacement is assumed to be 12 years. A useful life for paratransit vehicle replacement is assumed to be 7 years.
- The CAT FY 20/21 budget estimates 1% Enhancement Shelter Rehab to be \$28,829. Bus shelter expenses were assumed at the FY 2021 Collier County Government Requested Budget for the first fiscal year but thereafter based on the cost to construct 10 shelters annually to be consistent with the ADA Assessment Plan, with an annual inflation rate of 1.8%.
- Technology costs for Avail replacement, APCs, annunciators, onboard information media and farebox replace were obtained from the draft budget, "FY20 5307 and 5307 Cares POP Draft."

10.3 Unconstrained Financial Plan

Table 10-2 includes annual costs for proposed services and other capital improvements in an unconstrained scenario within the next 10 years with supporting revenues that are reasonably expected to be available.

A 2020 FTA 5339 Bus and Bus Facilities discretionary grant request submitted in January 2020 was in the process of review during the development of the TDP. This grant was recently awarded to CAT (October 2020) during the TDP final approval process (October 2020) in the amount of \$9,020,000 for the purchase of six 30' fixed route buses and the renovation of the Collier Area Transit Maintenance Facility on Radio Road. This grant is matched by \$2,051,324 in transportation development credits for a total value of \$11,071,324, to be awarded in 2021. This TDP will be revised following full approval of all funds to reflect these new federal grant funds and local match in the TDP.

Table 10-2: 10-Year Unconstrained Costs and Revenues Summary

| Cost/Revenue | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 10-Year Total |
|---|--------------|--------------|---------------|---------------|---------------|------------------|----------------|----------------|-----------------------------|-----------------------|-------------------------------------|
| Operating Cost | | | | | | | | | | | |
| Maintain Existing Service - Fixed Route | \$6,339,199 | \$6,451,530 | \$6,565,851 | \$6,682,198 | \$6,800,607 | \$6,921,113 | \$7,043,755 | \$7,168,571 | \$7,295,598 | \$7,424,876 | \$68,693,299 |
| Maintain Existing Service - Paratransit | \$4,533,375 | \$4,613,706 | \$4,695,461 | \$4,778,665 | \$4,863,343 | \$4,949,521 | \$5,037,227 | \$5,126,486 | \$5,217,328 | \$5,309,779 | \$49,124,892 |
| Route 22 Realigned - no cost | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Route 23 Realigned plus freq 60 to 40 | \$0 | \$393,782 | \$400,760 | \$407,861 | \$415.089 | \$422,444 | \$429,930 | \$437,548 | \$445,302 | \$453,192 | \$3,805,909 |
| New Route 25 EW, no change | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| New Route 25 NS, to Immokalee Rd | \$0 | \$0 | \$0 | | \$0 | \$0 | \$447,478 | \$455,407 | \$463,477 | \$471,690 | \$1,838,052 |
| New Route 27 EW, Immokalee to Randall | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| New Route 27 NS. Collier 441 to Immokalee Rd | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$924,557 | \$940,940 | \$957,613 | \$974,582 | \$3,797,691 |
| Route 121 - Add one AM and one PM | \$0 | \$168,896 | \$171.889 | \$174,935 | \$178,035 | \$181,190 | \$184,400 | \$187,668 | \$190,993 | \$194,378 | \$1,632,384 |
| Route 11 from 30 to 20 mins | \$0 | \$675,585 | \$687,556 | \$699,740 | \$712,139 | \$724,758 | \$737,601 | \$750,671 | \$763,973 | \$777,511 | \$6,529,536 |
| Route 12 from 90 to 45 mins | \$0 | \$292,754 | \$297,941 | \$303,221 | \$308,594 | \$314,062 | \$319,627 | \$325,291 | \$331,055 | \$336,921 | \$2,829,466 |
| Route 13 from 40 to 30 min | \$0 | \$0 | \$98,321 | \$100,063 | \$101,836 | \$103,640 | \$105,477 | \$107,346 | \$109,248 | \$111,184 | \$837,115 |
| Route 14 from 60 to 30 min | \$0 | \$0 | \$286,482 | \$291,558 | \$296,725 | \$301,983 | \$307,334 | \$312,780 | \$318,322 | \$323,963 | \$2,439,146 |
| Route 15 from 90 to 45 min | \$0 | \$168,896 | \$171.889 | \$174,935 | \$178.035 | \$181.190 | \$184,400 | \$187,668 | \$190,993 | \$194,378 | \$1,632,384 |
| Route 16 from 90 to 45 min | \$0 | \$0 | \$183,348 | \$186,597 | \$189,904 | \$193,269 | \$196,694 | \$200,179 | \$203,726 | \$207,336 | \$1,561,054 |
| Route 17/18 90 to 45 minutes | \$0 | \$0 | \$303,671 | \$309,052 | \$314,528 | \$320,102 | \$325,774 | \$331,547 | \$337,422 | \$343,401 | \$2,585,495 |
| Route 24 from 85 to 60-min | \$0 | \$211,683 | \$215,434 | \$219,252 | \$223,137 | \$227,091 | \$231,115 | \$235,210 | \$239,378 | \$243,620 | \$2,045,921 |
| Route 11 (until 10 PM) | \$0 \$0 | \$211,683 | \$215,434 | \$219,252 | \$223,137 | \$227,091 | \$231,115 | \$235,210 | \$127,329 | \$129,585 | \$2,045,921 |
| Route 11 (until 10 PM) | \$0 \$0 | \$0 \$0 | \$0 \$0 | | \$0 | \$0 | \$0 \$0 | \$0 \$0 | \$127,329 | \$129,585 | \$256,914 |
| Route 14 (until 10 PM) | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 | \$0 | \$0 | \$0 \$0 | \$86,584 | \$88,118 | \$174,702 |
| Route 17/18 (until 10 PM) | \$0 \$0 | \$0 \$0 | \$141,178 | \$143,680 | \$146,226 | \$148,817 | \$151,454 | \$154,138 | \$156,869 | \$88,118 \$159,649 | \$1,202,011 |
| Route 17/18 (until 10 PM) | \$0 \$0 | \$0 \$0 | \$141,178 | \$143,680 | \$146,226 | \$148,817 | \$131,434 | \$72,565 | \$73,851 | \$159,649 | \$1,202,011 |
| New Island Trolley | \$0 \$0 | \$0 \$0 | \$0 \$0 | | \$759,615 | \$773,076 | \$786,775 | \$800,716 | \$814,905 | \$829,345 | \$5,510,821 |
| , | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$746,389 | \$320,463 | | \$331,921 | \$337,802 | \$343,788 | \$349,880 | \$2,009,995 |
| New Bayshore Shuttle New Autonomous Circulator | \$0 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$320,463 | \$326,141 \$0 | \$331,921 | \$337,802 | \$259,751 | \$264,354 | \$524,105 |
| New Naples Pier Electric Shuttle | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 | \$0 | \$0 \$0 | \$0 \$0 | \$407.452 | \$414,673 | \$822,125 |
| Mobility on Demand - Golden Gate | \$0 \$0 | \$0 \$0 | \$0 \$0 | | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$810,053 | \$824,407 | \$1,634,460 |
| Mobility on Demand - Golden Gate Mobility on Demand - North Naples | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$405.026 | \$412.204 | \$1,634,460 |
| Mobility on Demand - North Naples Mobility on Demand - Naples | \$0 \$0 | \$0 \$0 | \$0 \$0 | | \$0 \$0 | \$0 | \$0 \$0 | \$0 \$0 | \$960.930 | \$977.958 | \$1.938.887 |
| Mobility on Demand - Naples Mobility on Demand - Marco Island | \$0 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 | \$0 | \$0 | \$0 \$0 | \$539,777 | \$549,342 | \$1,089,119 |
| Total Operating Costs | \$10,872,575 | | \$14,219,782 | | \$15,808,274 | \$16,088,397 | \$17,816,819 | \$18,132,533 | \$22,137,328 | | \$1,089,119 |
| Operating Revenues | \$10,672,575 | \$12,970,033 | \$14,215,762 | \$15,216,146 | \$15,606,274 | 310,000,337 | 317,010,013 | \$10,132,333 | \$22,137,320 | \$22,329,601 | \$105,000,205 |
| Federal Grant (5311) | \$364,222 | \$404,525 | \$379,787 | \$484,276 | \$492,857 | \$501,591 | \$510,479 | \$519,525 | \$528,731 | \$538,100 | \$4,724,092 |
| Local Match (5311) | \$364,222 | \$404,525 | \$379,787 | \$484,276 | \$492,857 | \$501,591 | \$510,479 | \$519,525 | \$528,731 | \$538,100 | \$4,724,092 |
| Federal Grant (5307) Operating | \$364,222 | \$1,035,014 | \$1,066,064 | \$484,276 | \$1,117,503 | \$1,137,306 | \$1,157,459 | \$1,177,969 | \$1,198,842 | \$1,220,086 | \$4,724,092 |
| Local Match (5307) Operating | \$1,020,014 | \$1,035,014 | \$1,066,064 | | \$1,117,503 | \$1,137,306 | \$1,157,459 | \$1,177,969 | \$1,198,842 | \$1,220,086 | \$11,228,302 |
| Federal CARES Act (ADA, Fixed Route) | \$1,020,014 | \$1,033,014 | \$1,000,004 | \$1,036,046 | \$1,117,303 | \$1,137,300 | \$1,137,439 | \$1,177,969 | \$1,136,642 | \$1,220,086 | \$2,779,869 |
| FDOT Transit Block Grant | \$1,377,728 | \$1,402,141 | \$1,224,824 | \$1,234,010 | \$1,255,877 | \$1,278,131 | \$1,300,779 | \$1,323,829 | \$1,347,287 | \$1,371,161 | \$12,613,348 |
| TD Funding | \$1,110,931 | \$935,216 | \$1,224,824 | \$992,170 | \$1,255,877 | \$1,027,644 | \$1,045,854 | \$1,064,386 | \$1,083,247 | \$1,371,161 | \$10,131,959 |
| Local Match for FDOT Block Grant | \$1,110,951 | \$1,166,499 | \$1,224,824 | \$1,234,010 | \$1,009,731 | \$1,027,644 | \$1,300,779 | \$1,323,829 | \$1,083,247 | \$1,102,442 | \$12,613,348 |
| Collier County CAT Enhancements | \$3,452,500 | \$3,513,678 | \$3,575,941 | \$3,639,306 | \$3,703,795 | \$3,769,426 | \$3,836,220 | \$3,904,198 | \$3,973,381 | \$4,043,789 | \$37,412,234 |
| Federal Grant (5307) - New | \$3,432,300 | \$3,313,678 | \$0,575,541 | \$401,024 | \$408,130 | \$415,362 | \$422,723 | \$430,213 | \$895,202 | \$911,065 | \$3,883,720 |
| FDOT Transit Block Grant - New | \$0 | \$0 | \$0 \$0 | \$200,512 | \$204,065 | \$207,681 | \$211,361 | \$215,107 | \$447,601 | \$455,532 | \$1,941,860 |
| Existing Paratransit Fare Revenue | \$254.776 | \$259,290 | \$263.885 | \$268,561 | \$204,065 | \$207,881 | \$211,361 | \$215,107 | \$293.214 | \$455,532 | \$2,760,819 |
| Fare Revenue - New Services | \$234,776 | \$239,290 | \$203,883 | \$115,367 | \$166,944 | \$169,902 | \$172,913 | \$175,977 | \$701,993 | \$714,432 | \$2,760,819 |
| Fare Revenue from Existing Services | \$916,887 | \$933,134 | \$949,669 | \$966,497 | \$983,624 | \$1,001,053 | \$1,018,792 | \$1,036,845 | \$1,055,218 | \$1,073,916 | \$9,935,635 |
| Total Operating Revenue | \$910,887 | | | | \$12,482,104 | \$1,001,053 | \$1,018,792 | \$1,036,845 | \$1,055,218 \$14,599,576 | | \$9,935,635 \$128,195,111 |
| | , , | | | | | | | | | | |
| Annual Revenues Minus Costs | \$1,027,666 | (\$721,297) | (\$3,125,666) | (\$3,002,045) | (\$3,326,171) | (\$3,385,110) | (\$4,888,430) | (\$4,975,053) | (\$7,537,752) | (\$7,671,321) | (\$37,605,179) |
| Rollover from Previous Year | \$5,522,602 | \$6,550,268 | \$5,828,971 | \$2,703,305 | (\$298,740) | (\$3,624,910) | (\$7,010,020) | (\$11,898,451) | (\$16,873,504) | (\$24,411,256) | |
| Operating Surplus/Shortfall (Cumulative) | \$6,550,268 | \$5,828,971 | \$2,703,305 | (\$298,740) | (\$3,624,910) | | (\$11.898.451) | (\$16,873,504) | (\$24,411,256) | (\$32,082,577) | (\$37,605,179) |

Table 10-2: 10-Year Unconstrained Costs and Revenues Summary (continued)

| Cost/Revenue | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 10-Year Total |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Capital Costs | | | | | | | | | | | |
| Vehicles | \$12,158,656 | \$5,347,337 | \$4,143,511 | \$3,080,763 | \$1,797,195 | \$3,741,263 | \$4,104,477 | \$5,074,734 | \$4,413,936 | \$782,072 | \$44,643,944 |
| Replacement Fixed Route Buses - Maintain Existing S | \$495,000 | \$2,050,793 | \$2,087,133 | \$1,593,088 | \$1,080,878 | \$0 | \$2,798,810 | \$2,278,724 | \$3,478,654 | \$0 | \$15,863,079 |
| Replacement Vans - Maintain Existing Paratransit Ser | \$724,786 | \$590,104 | \$525,490 | \$229,201 | \$77,754 | \$791,319 | \$644,273 | \$573,728 | \$250,241 | \$84,892 | \$4,491,787 |
| Replacement of Support Vehicles | \$91,595 | \$0 | \$0 | \$0 | \$0 | \$100,003 | \$0 | \$0 | \$0 | \$0 | \$191,598 |
| Preventative Maintenance | \$1,815,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,815,000 |
| New Vehicles for Improved, MOD & New Services | \$3,526,400 | \$1,538,095 | \$864,368 | \$531,029 | \$0 | \$1,650,047 | \$0 | \$1,467,206 | \$0 | \$0 | \$9,577,145 |
| Spares for New Service and Improved Existing Service | \$503,771 | \$512,698 | \$0 | \$0 | \$0 | \$550,016 | \$0 | \$0 | \$0 | \$0 | \$1,566,485 |
| Spares for New MOD Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$81,961 | \$0 | \$0 | \$81,961 |
| Other Capital/Infrastructure | \$5,002,103 | \$655,648 | \$641,520 | \$627,445 | \$638,563 | \$649,878 | \$661,394 | \$673,114 | \$685,042 | \$121,587 | \$10,356,295 |
| Bus Shelter Program | \$2,231,800 | \$500,000 | \$509,000 | \$518,019 | \$527,199 | \$536,541 | \$546,048 | \$555,724 | \$565,572 | \$0 | \$6,489,903 |
| Safety/Security Program | \$103,808 | \$105,648 | \$107,520 | \$109,425 | \$111,364 | \$113,338 | \$115,346 | \$117,390 | \$119,470 | \$121,587 | \$1,124,897 |
| Safety/Security - Driver Protection Barriers | \$81,587 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$81,587 |
| Technology - Avail Replacement | \$1,249,988 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,249,988 |
| Technlogy - APC | \$296,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$296,000 |
| Technology - Annunciators | \$36,200 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$36,200 |
| Technology - Onboard Information Media | \$50,470 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,470 |
| Technology - Farebox Replacement | \$952,250 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$952,250 |
| Study: Santa Barbara Corridor | \$0 | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Study: UF/IFAS Lehigh Acres Service | \$0 | \$0 | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Study: I-75 Managed Lanes Express | \$0 | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Study: Everglades City Vanpool | \$0 | \$0 | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Study: Fares | \$0 | \$0 | \$0 | \$50,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |
| Study: Mobility on Demand | \$0 | \$0 | \$0 | \$50,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |
| Total Capital Costs | \$17,160,759 | \$6,002,985 | \$4,785,031 | \$3,708,207 | \$2,435,758 | \$4,391,141 | \$4,765,871 | \$5,747,848 | \$5,098,978 | \$903,659 | \$55,000,239 |
| Capital Revenues | | | | | | | | | | | |
| Local Match - Planning | \$9,877 | \$9,877 | \$9,877 | \$11,410 | \$11,612 | \$11,818 | \$12,027 | \$12,240 | \$12,457 | \$12,678 | \$113,875 |
| Federal Grant (5307) Capital Assistance | \$1,998,517 | \$2,098,443 | \$2,203,365 | \$2,313,533 | \$2,354,529 | \$2,396,251 | \$2,438,713 | \$2,481,927 | \$2,525,906 | \$2,570,665 | \$23,381,849 |
| Local Match (5307) | \$499,630 | \$524,611 | \$550,842 | \$578,384 | \$588,633 | \$599,064 | \$609,679 | \$620,482 | \$631,477 | \$642,667 | \$5,845,470 |
| Federal Grant 5339 Capital Assistance | \$410,959 | \$431,507 | \$453,082 | \$475,737 | \$484,167 | \$492,746 | \$501,478 | \$510,364 | \$519,408 | \$528,612 | \$4,808,060 |
| Local Match (5339) | \$102,740 | \$107,877 | \$113,271 | \$118,934 | \$121,042 | \$123,186 | \$125,369 | \$127,591 | \$129,852 | \$132,153 | \$1,202,014 |
| Federal (FTAT + SU) for ADA Improvements | \$508,860 | \$517,877 | \$527,054 | \$536,393 | \$545,898 | \$555,571 | \$565,416 | \$575,435 | \$585,632 | \$596,009 | \$5,514,146 |
| Federal Grant - CARES Act Capital | \$4,592,837 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,592,837 |
| Total Capital Revenues | \$8,123,420 | \$3,690,192 | \$3,857,491 | \$4,034,391 | \$4,105,881 | \$4,178,637 | \$4,252,682 | \$4,328,040 | \$4,404,733 | \$4,482,784 | \$45,458,250 |
| Annual Revenues Minus Costs | (\$9,037,339) | (\$2,312,793) | (\$927,541) | \$326,184 | \$1,670,122 | (\$212,504) | (\$513,189) | (\$1,419,808) | (\$694,245) | \$3,579,125 | (\$3,058,046) |
| Rollover from Previous Year | \$6,483,942 | (\$2,553,397) | (\$4,866,190) | (\$5,793,731) | (\$5,467,547) | (\$3,797,425) | (\$4,009,929) | (\$4,523,118) | (\$5,942,926) | (\$6,637,171) | |
| Capital Surplus/Shortfall (Cumulative) | (\$2,553,397) | (\$4,866,190) | (\$5,793,731) | (\$5,467,547) | (\$3,797,425) | (\$4,009,929) | (\$4,523,118) | (\$5,942,926) | (\$6,637,171) | (\$3,058,046) | (\$3,058,046) |
| | | | | C- 1 10 | | | | | | | |

Note: After approval of local match, Table 10-2 will be updated to reflect award of Federal Grant 5339 Capital Assistance in the amount of \$9,020,000 for the purchase of six 30' fixed route buses and for renovations to the CAT Radio Road Transit Maintenance Facility. Local match to 5339 will be updated to reflect the associated transportation development credits soft match to these funds in the amount of \$2,051,324.

10.4 Constrained Financial Plan

Figure 10-1 illustrates the operating and capital costs included in the constrained implementation plan for the 10-year TDP.



Figure 10-1: Annual Operating and Capital Costs

A 2020 FTA 5339 Bus and Bus Facilities discretionary grant request submitted in January 2020 was in the process of review during the development of the TDP. This grant was recently awarded to CAT (October 2020) during the TDP final approval process (October 2020) in the amount of \$9,020,000 for the purchase of six 30' fixed route buses and the renovation of the Collier Area Transit Maintenance Facility on Radio Road. This grant is matched by \$2,051,324 in transportation development credits for a total value of \$11,071,324, to be awarded in 2021. This TDP will be revised following full approval of all funds to reflect these new federal grant funds and local match in the TDP.

10.4.1 Revenue Assumptions

Revenue assumptions for fixed-route service are based on information from several State and local agencies. Assumptions for different revenue sources, including annual operating revenues from existing federal, State, and local sources, are based on the FDOT Adopted Five-Year Work Program (FY 2021–2025), the CAT FY 2018 TDP Annual Progress Report, and the Collier County Government FY 2021 Requested Budget. The distribution of 10-year operating revenues included in the 10-year Cost Feasible Plan are shown in Figure 10-2.

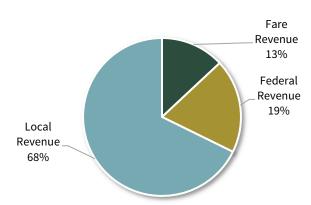


Figure 10-2: 10-Year Operating Revenues

Figure 10-3 illustrates the total local revenue included in the 10-year Cost Feasible Plan. Local revenues for CAT are anticipated to increase at a moderate rate of 1.8% annually starting in 2023. Under this plan, there are no new local revenue sources in the 10-year period.

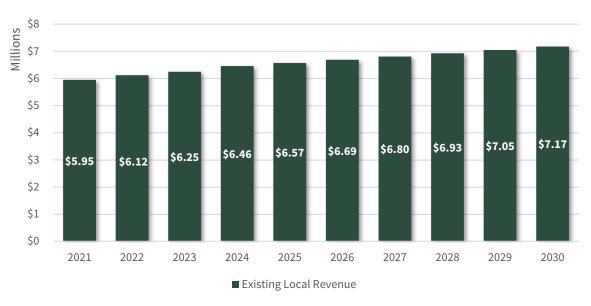


Figure 10-3: Local Operating Revenues for 10-Year TDP (millions)

- Federal Grants 5307 and 5311 for operating assistance from FY 2021–FY 2025 reflects FDOT Adopted Work Program FY 2021–2015 for Collier County; an annual growth rate (1.8%) is applied after FY 2021, to reflect 10-year average CPI increase to the revenue source.
- Federal and State grant 5305 funds for planning were based on the FDOT Adopted Work Program FY 2021–2015 for Collier County.
- Projected FDOT Block Grant revenues for 2021–2025 were obtained from the FDOT Adopted Work Program FY 2021–2015 for Collier County. A conservative annual growth rate of 1.8% was used to increase these revenues and thereafter were based on 10-year average CPI.

- Projected fare revenues for existing services are based on FY 2019 YTD Route Statistics data provided by CAT, with a conservative 1.8% annual growth rate applied.
- Projected local contributions were obtained from the FDOT Adopted Work Program FY 2021– 2025 for Collier County. A conservative annual growth rate of 1.8% was used to increase revenues and thereafter was based on 10-year average CPI.
- Based on vehicle information provided by CAT staff, a total of \$15.9 million in capital funds was assumed in the 10-year plan to fund the existing fixed-route bus replacement program and \$4.5 million for paratransit vehicles.
- New State Block Grant The formula to allocate Block Grant funds is based on three components: population of service area, ridership, and revenue miles. Block grant revenues are approximate based on information provided by FDOT's Public Transit Office. It is assumed these revenues will increase when implementing new/expanded transit services, two years after the start of new/expanded services.
- FTA Section 5307 Revenues are based on federal formula funding criteria such as increased ridership and passenger-miles. Funding levels are subject to change due to transit performance relating to route revenue miles, passenger trips, and performance of the whole system. For expansion to existing routes and new services, it is assumed these revenues will increase and would be realized two years from year of service expansion or new services.

The detailed 10-year Cost Feasible Finance Plan is presented in Table 10-3. Table 10-3 includes all services, facilities, and capital, existing and proposed, that is within the fiscal capacity of existing revenue streams.

Table 10-3: 10-Year Constrained Costs and Revenues Summary

| Cost/Revenue | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 10-Year Total |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|
| Operating Cost | | | | | | | | | | | |
| Maintain Existing Service - Fixed Route | \$6,339,199 | \$6,451,530 | \$6,565,851 | \$6,682,198 | \$6,800,607 | \$6,921,113 | \$7,043,755 | \$7,168,571 | \$7,295,598 | \$7,424,876 | \$68,693,299 |
| Maintain Existing Service - Paratransit | \$4,533,375 | \$4,613,706 | \$4,695,461 | \$4,778,665 | \$4,863,343 | \$4,949,521 | \$5,037,227 | \$5,126,486 | \$5,217,328 | \$5,309,779 | \$49,124,892 |
| Route 22 Realigned - no cost | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Route 23 Realigned plus freq 60 to 40 | \$0 | \$393,782 | \$400,760 | \$407,861 | \$415,089 | \$422,444 | \$429,930 | \$437,548 | \$445,302 | \$453,192 | \$3,805,909 |
| Route 121 - Add one AM and one PM | \$0 | \$168,896 | \$171,889 | \$174,935 | \$178,035 | \$181,190 | \$184,400 | \$187,668 | \$190,993 | \$194,378 | \$1,632,384 |
| Route 24 from 85 to 60-min | \$0 | \$211,683 | \$215,434 | \$219,252 | \$223,137 | \$227,091 | \$231,115 | \$235,210 | \$239,378 | \$243,620 | \$2,045,921 |
| Route 11 - Extend Hours to 10:00 PM | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$127,329 | \$129,585 | \$256,914 |
| Route 13 - Extend Hours to 10:00 PM | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$86,584 | \$88,118 | \$174,702 |
| Route 14 - Extend Hours to 10:00 PM | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$86,584 | \$88,118 | \$174,702 |
| Route 17/18 - Extend Hours to 10:00 PM | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$156,869 | \$159,649 | \$316,518 |
| Total Operating Costs | \$10,872,575 | \$11,839,598 | \$12,049,396 | \$12,262,911 | \$12,480,210 | \$12,701,359 | \$12,926,427 | \$13,155,484 | \$13,845,964 | \$14,091,315 | \$126,225,240 |
| Operating Revenues | | | | | | | | | | | |
| Federal Grant (5311) | \$364,222 | \$404,525 | \$379,787 | \$484,276 | \$492,857 | \$501,591 | \$510,479 | \$519,525 | \$528,731 | \$538,100 | \$4,724,092 |
| Local Match (5311) | \$364,222 | \$404,525 | \$379,787 | \$484,276 | \$492,857 | \$501,591 | \$510,479 | \$519,525 | \$528,731 | \$538,100 | \$4,724,092 |
| Federal Grant (5307) Operating Assistance | \$1,020,014 | \$1,035,014 | \$1,066,064 | \$1,098,046 | \$1,117,503 | \$1,137,306 | \$1,157,459 | \$1,177,969 | \$1,198,842 | \$1,220,086 | \$11,228,302 |
| Local Match (5307) | \$1,020,014 | \$1,035,014 | \$1,066,064 | \$1,098,046 | \$1,117,503 | \$1,137,306 | \$1,157,459 | \$1,177,969 | \$1,198,842 | \$1,220,086 | \$11,228,302 |
| Federal Grant - CARES Act | \$1,377,728 | \$1,402,141 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,779,869 |
| FDOT Transit Block Grant Operating Assistance | \$1,110,951 | \$1,166,499 | \$1,224,824 | \$1,234,010 | \$1,255,877 | \$1,278,131 | \$1,300,779 | \$1,323,829 | \$1,347,287 | \$1,371,161 | \$12,613,348 |
| TD Funding | \$907,976 | \$935,216 | \$963,272 | \$992,170 | \$1,009,751 | \$1,027,644 | \$1,045,854 | \$1,064,386 | \$1,083,247 | \$1,102,442 | \$10,131,959 |
| Local Match for FDOT Transit Block Grant | \$1,110,951 | \$1,166,499 | \$1,224,824 | \$1,234,010 | \$1,255,877 | \$1,278,131 | \$1,300,779 | \$1,323,829 | \$1,347,287 | \$1,371,161 | \$12,613,348 |
| Collier County CAT Enhancements | \$3,452,500 | \$3,513,678 | \$3,575,941 | \$3,639,306 | \$3,703,795 | \$3,769,426 | \$3,836,220 | \$3,904,198 | \$3,973,381 | \$4,043,789 | \$37,412,234 |
| Existing Paratransit Fare Revenue | \$254,776 | \$259,290 | \$263,885 | \$268,561 | \$273,320 | \$278,163 | \$283,092 | \$288,109 | \$293,214 | \$298,410 | \$2,760,819 |
| Fare Revenue - New Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Fare Revenue from Existing Services | \$916,887 | \$933,134 | \$949,669 | \$966,497 | \$983,624 | \$1,001,053 | \$1,018,792 | \$1,036,845 | \$1,055,218 | \$1,073,916 | \$9,935,635 |
| Total Operating Revenue | \$11,900,240 | \$12,255,536 | \$11,094,117 | \$11,499,199 | \$11,702,964 | \$11,910,341 | \$12,121,392 | \$12,336,183 | \$12,554,780 | \$12,777,251 | \$120,152,003 |
| Annual Revenues Minus Costs | \$1,027,666 | \$415,938 | (\$955,279) | (\$763,713) | (\$777,246) | (\$791,019) | (\$805,035) | (\$819,301) | (\$1,291,184) | (\$1,314,064) | (\$6,073,236) |
| Rollover from Previous Year | \$5,156,142 | \$6,183,808 | \$6,599,746 | \$5,644,466 | \$4,880,754 | \$4,103,508 | \$3,312,489 | \$2,507,454 | \$1,688,153 | \$396,969 | |
| Operating Surplus/Shortfall (Cumulative) | \$6,183,808 | \$6,599,746 | \$5,644,466 | \$4,880,754 | \$4,103,508 | \$3,312,489 | \$2,507,454 | \$1,688,153 | \$396,969 | (\$917,094) | (\$6,073,236) |

Table 10-3: 10-Year Constrained Costs and Revenues Summary (continued)

| Cost/Revenue | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 10-Year Total |
|--|---------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Capital Costs | | | | | | | | | | | |
| Vehicles | \$5,141,467 | \$2,640,896 | \$2,612,623 | \$1,822,289 | \$1,158,632 | \$891,322 | \$3,443,082 | \$2,852,452 | \$3,728,895 | \$84,892 | \$24,376,549 |
| Replacement Fixed Route Buses - Maintain Existing | \$495,000 | \$2,050,793 | \$2,087,133 | \$1,593,088 | \$1,080,878 | \$0 | \$2,798,810 | \$2,278,724 | \$3,478,654 | \$0 | \$15,863,079 |
| Replacement Vans - Maintain Existing Paratransit Se | \$724,786 | \$590,104 | \$525,490 | \$229,201 | \$77,754 | \$791,319 | \$644,273 | \$573,728 | \$250,241 | \$84,892 | \$4,491,787 |
| Replacement of Support Vehicles | \$91,595 | \$0 | \$0 | \$0 | \$0 | \$100,003 | \$0 | \$0 | \$0 | \$0 | \$191,598 |
| Preventative Maintenance | \$1,815,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,815,000 |
| Route 23 Realigned plus freq 60 to 40 | \$503,771 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$503,771 |
| Increase Frequency on Routes 24 and 121 | \$1,007,543 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,007,543 |
| Spares for New Service and Improved Existing Service | \$503,771 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$503,771 |
| Other Capital/Infrastructure | \$5,002,104 | \$655,648 | \$641,520 | \$627,445 | \$638,564 | \$649,879 | \$661,395 | \$673,115 | \$685,042 | \$697,181 | \$10,931,893 |
| Bus Shelter Program | \$2,231,800 | \$500,000 | \$509,000 | \$518,019 | \$527,199 | \$536,541 | \$546,048 | \$555,724 | \$565,572 | \$575,594 | \$7,065,497 |
| Safety/Security Program | \$103,809 | \$105,648 | \$107,520 | \$109,426 | \$111,365 | \$113,338 | \$115,346 | \$117,390 | \$119,471 | \$121,588 | \$1,124,901 |
| Safety/Security - Driver Protection Barriers | \$81,587 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$81,587 |
| Technology | \$2,584,908 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,584,908 |
| Study: Santa Barbara Corridor | \$0 | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Study: UF/IFAS Lehigh Acres Service | \$0 | \$0 | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Study: I-75 Managed Lanes Express | \$0 | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Study: Everglades City Vanpool | \$0 | \$0 | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Study: Fares | \$0 | \$0 | \$0 | \$50,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |
| Study: Mobility on Demand | \$0 | \$0 | \$0 | \$50,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |
| Total Capital Costs | \$10,143,571 | \$3,296,545 | \$3,254,144 | \$2,449,734 | \$1,797,196 | \$1,541,201 | \$4,104,477 | \$3,525,566 | \$4,413,937 | \$782,073 | \$35,308,442 |
| Capital Revenues | | | | | | | | | | | |
| Local Match - Planning | \$9,877 | \$9,877 | \$9,877 | \$11,410 | \$11,612 | \$11,818 | \$12,027 | \$12,240 | \$12,457 | \$12,678 | \$113,875 |
| Federal Grant (5307) Capital Assistance | \$1,998,517 | \$2,098,443 | \$2,203,365 | \$2,313,533 | \$2,354,529 | \$2,396,251 | \$2,438,713 | \$2,481,927 | \$2,525,906 | \$2,570,665 | \$23,381,849 |
| Local Match (5307) | \$499,630 | \$524,611 | \$550,842 | \$578,384 | \$588,633 | \$599,064 | \$609,679 | \$620,482 | \$631,477 | \$642,667 | \$5,845,470 |
| Federal Grant 5339 (Capital) Assistance | \$410,959 | \$431,507 | \$453,082 | \$475,737 | \$484,167 | \$492,746 | \$501,478 | \$510,364 | \$519,408 | \$528,612 | \$4,808,060 |
| Local Match (5339) | \$102,740 | \$107,877 | \$113,271 | \$118,934 | \$121,042 | \$123,186 | \$125,369 | \$127,591 | \$129,852 | \$132,153 | \$1,202,014 |
| Federal (FTAT + SU) for ADA Improvements | \$508,860 | \$517,877 | \$527,054 | \$536,393 | \$545,898 | \$555,571 | \$565,416 | \$575,435 | \$585,632 | \$596,009 | \$5,514,146 |
| Federal Grant - CARES Act Capital | \$4,592,837 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,592,837 |
| Total Capital Revenues | \$8,123,420 | \$3,690,192 | \$3,857,491 | \$4,034,391 | \$4,105,881 | \$4,178,637 | \$4,252,682 | \$4,328,040 | \$4,404,733 | \$4,482,784 | \$45,458,250 |
| Annual Revenues Minus Costs | (\$2,020,151) | \$393,647 | \$603,347 | \$1,584,657 | \$2,308,685 | \$2,637,436 | \$148,205 | \$802,473 | (\$9,204) | \$3,700,712 | \$16,735,752 |
| Rollover from Previous Year | \$6,585,943 | \$4,565,793 | \$4,959,440 | \$5,562,787 | \$7,147,445 | \$9,456,129 | \$12,093,566 | \$12,241,771 | \$13,044,244 | \$13,035,040 | |
| Capital Surplus/Shortfall (Cumulative) | \$4,565,793 | \$4,959,440 | \$5,562,787 | \$7,147,445 | \$9,456,129 | \$12,093,566 | \$12,241,771 | \$13,044,244 | \$13,035,040 | \$16,735,752 | \$16,735,752 |

Note: After approval of local match, Table 10-3 will be updated to reflect award of Federal Grant 5339 Capital Assistance in the amount of \$9,020,000 for the purchase of six 30' fixed route buses and for renovations to the CAT Radio Road Transit Maintenance Facility. Local match to 5339 will be updated to reflect the associated transportation development credits soft match to these funds in the amount of \$2,051,324.

10.5 10-Year TDP Implementation Plan and Unfunded Needs

The implementation plan in Table 10-4 presents service and capital improvements that are funded and unfunded. Table 10-4 shows implementation years, operating and capital costs associated with each service and capital improvement, and if existing or new revenues are anticipated to fund the improvement. It is important to emphasize that the schedule shown in Table 10-4 does not preclude the opportunity to delay or advance any projects. As priorities change, the project implementation schedule will be adjusted based on funding availability. The expansion of Federal 5307 formula funds and matching funds is assumed based on increased passenger-miles on existing services. After approval of the local match, the unfunded and funded needs plans will be updated by CAT to reflect award of Federal Grant 5339 Capital Assistance for six 30' fixed route buses and renovations to the CAT Radio Road Transit Maintenance Facility in the amount of \$9,020,000 with soft match of \$2,051,324.

Table 10-4: CAT TDP 2021-2030 Implementation Plan

| Service Improvements | Implementation Year | 10-Year Operating Cost | 10-Year Capital Cost | Existing or New |
|--|------------------------|---------------------------|-------------------------|--------------------|
| | | YOE | YOE | Revenues |
| Maintain Existing Service | | \$117,818,191 | \$20,796,704 | |
| Maintain Existing Fixed-Route Service | 2020 | \$68,693,299 | \$15,863,079 | Existing |
| Maintain Existing Paratransit Service | 2020 | \$49,124,892 | \$4,742,027 | Existing |
| Replacement of Support Vehicles | 2020 | \$0 | \$191,598 | Existing |
| Route Network Modifications | | \$9,441,652 | \$2,153,818 | |
| Extend Route 11 into Walmart Shopping Ctr | 2022 | \$0 | \$0 | Existing |
| Extend Route 12 into Walmart Shopping Ctr | 2022 | \$0 | \$0 | Existing |
| Realign Route 13 - shorten to 40 min. headway | 2022 | \$0 | \$0 | Existing |
| Realign Route 14 - operate at 60 min. headway | 2022 | \$0 | \$0 | Existing |
| Realign Route 17 - eliminate portions of US 41 | 2022 | \$0 | \$0 | Existing |
| Eliminate Route 18 | 2022 | \$0 | \$0 | Existing |
| Realign Route 19/28 - eliminate portions of 846 | 2022 | \$0 | \$0 | Existing |
| Realign Route 20/26 - eliminate Santa Barbara | 2022 | \$0 | \$0 | Existing |
| Realign Route 21 to create Marco Express | 2024 | \$0 | \$0 | Unfunded |
| Realign Route 22 | 2022 | \$0 | \$0 | Existing |
| Realign Route 23 - reduce headway 60 to 40 minutes | 2022 | \$3,805,909 | \$503,771 | Existing |
| Golden Gate Pkwy - Split Route 25 creating EW Route | 2027 | \$0 | \$0 | Existing |
| Goodlette Frank Rd - Split Route 25 creating NS Route | 2027 | \$1,838,052 | \$550,016 | Unfunded |
| Immokalee Rd - Split Route 27 creating EW Route | 2027 | \$1,898,846 | \$550,016 | Unfunded |
| Collier Blvd - Split Route 27 creating NS Route | 2027 | \$1,898,846 | \$550,016 | Unfunded |

Table 10-4: CAT TDP 2021-2030 Implementation Plan - (cont.)

| Service Improvements | Implementation Year | 10-Year Operating Cost YOE | 10-Year Capital Cost YOE | Existing or New Revenues |
|--|------------------------|----------------------------------|--------------------------------|-----------------------------|
| Increase Frequency | | \$22,092,501 | \$4,551,796 | |
| Route 15 from 90 to 45 minutes | 2022 | \$1,632,384 | \$503,771 | Unfunded |
| Route 16 from 90 to 45 minutes | 2023 | \$1,561,054 | \$503,771 | Unfunded |
| Route 24 from 85 to 60 minutes | 2022 | \$2,045,921 | \$503,771 | Existing |
| Route 121 - add one AM, one PM trip | 2022 | \$1,632,384 | \$503,771 | Existing |
| Route 14 from 60 to 30 minutes | 2023 | \$2,439,146 | \$512,698 | Unfunded |
| Route 17/18 from 90 to 45 minutes | 2023 | \$2,585,495 | \$503,771 | Unfunded |
| Route 11 from 30 to 20 minutes | 2022 | \$6,529,536 | \$503,771 | Unfunded |
| Route 12 from 90 to 45 minutes | 2022 | \$2,829,466 | \$503,771 | Unfunded |
| Route 13 from 40 to 30 minutes | 2023 | \$837,115 | \$512,698 | Unfunded |
| Service Expansion | | \$2,404,181 | \$0 | |
| Route 17/18 - Extend Hours to 10:00 PM | 2023 | \$1,202,011 | \$0 | Existing |
| New Route 19/28 - Extend Hours to 10:00 PM | 2027 | \$292,876 | \$0 | Unfunded |
| Route 24 - Extend Hours to 10:00 PM | 2027 | \$302,976 | \$0 | Unfunded |
| Route 11 - Extend Hours to 10:00 PM | 2029 | \$256,914 | \$0 | Existing |
| Route 13 - Extend Hours to 10:00 PM | 2029 | \$174,702 | \$0 | Existing |
| Route 14 - Extend Hours to 10:00 PM | 2029 | \$174,702 | \$0 | Existing |

Table 10-4: CAT TDP 2021-2030 Implementation Plan - (cont.)

| Service Improvements | Implementation Year | 10-Year Operating Cost | 10-Year Capital Cost | Existing or New |
|---|------------------------|------------------------------|-------------------------|--------------------|
| | | YOE | YOE | Revenues |
| New Service | | \$14,346,741 | \$2,862,604 | |
| New Island Trolley | 2024 | \$5,510,821 | \$864,368 | Unfunded |
| New Bayshore Shuttle | 2025 | \$2,009,995 | \$531,029 | Unfunded |
| New Autonomous Circulator | 2029 | \$524,105 | \$569,681 | Unfunded |
| New Naples Pier Electric Shuttle | 2029 | \$822,125 | \$569,681 | Unfunded |
| MOD – Golden Gate Estates | 2029 | \$1,634,460 | \$81,961 | Unfunded |
| MOD – North Naples | 2029 | \$817,230 | \$81,961 | Unfunded |
| MOD – Naples | 2029 | \$1,938,887 | \$81,961 | Unfunded |
| MOD – Marco Island | 2029 | \$1,089,119 | \$81,961 | Unfunded |
| New Route from UF/IFAS to Lehigh Acres | 2029 | Unknown | Unknown | Unfunded |
| I-75 Premium Express | 2029 | Unknown | Unknown | Unfunded |
| Other Improvements | | \$0 | \$2,866,495 | |
| Technology improvements* | 2021 | \$0 | \$2,584,908 | Existing |
| Security - driver protection barriers | 2021 | \$0 | \$81,587 | Existing |
| Study: Santa Barbara Corridor | 2022 | \$0 | \$25,000 | Existing |
| Study: UF/IFAS Lehigh Acres Service | 2022 | \$0 | \$25,000 | Existing |
| Study: I-75 Premium Express | 2023 | \$0 | \$25,000 | Existing |
| Study: Everglades City Vanpool | 2023 | \$0 | \$25,000 | Existing |
| Study: Fares | 2024 | \$0 | \$50,000 | Unfunded |
| Study: Mobility on Demand | 2024 | \$0 | \$50,000 | Unfunded |
| Other Technology improvements** | | TBD | | Unfunded |
| Study: Immokalee Road Transfer Hub | | TBD | | Unfunded |
| Brand beach area buses | | TBD | | Unfunded |
| Park and Ride Lots (pending study) | | TBD | | Unfunded |
| Funded Projects + Maintenance of Existing | ng Service | \$127,110,733 | \$20,796,704 | |
| Unfunded Projects | | \$37,093,687 | \$8,156,904 | |

*Avail Replacement, APC, Annunciators, Onboard Information Media, Farebox Replacement, paratransit scheduling software, TSP, onboard surveillance, paratransit fare payment, IVR

^{**}Fixed-route scheduling software

Appendix A: Peer Selection Methodology

PEER SELECTION MEMORANDUM

Date: April 2, 2020

To: Josephine Medina, Collier County MPO; Omar De Leon, Collier County; Zachary Karto,

Collier County; Brandy Otero, Collier MPO

From: Jessica Mackey, Tindale Oliver; Randall Farwell, Tindale Oliver

RE: CAT TDP 2020 Update – Peer Selection Update

Introduction

This is an update to the original peer selection memorandum. Based on the initial selection, three of the selected peers, after generating the peer analysis reports, were found not to have complete data and were subsequently eliminated.

This memorandum presents peer selection analysis for the CAT 2020 Transit Development Plan (TDP) Major Update. A preliminary set of peers were selected using input from the following:

- Tindale Oliver's 8-Variable Method
- Prior Peers from 2016-2025 TDP Major Update
- Peer review request by Collier County MPO staff

Best practice typically dictates that a peer group is comprised of six to eight peers but may include more. Peer comparisons using selected performance indicators, effectiveness measures, and efficiency measures are used to illustrate the performance of the CAT fixed-route system relative to the peer group. The peer identification methodology and the identified peers are described below.

Tindale Oliver Eight-Variable Method

Overview of Method

A set of potential peers was developed applying a peer selection methodology developed by Tindale Oliver using validated 2017 National Transit Database (NTD) data from the Florida Transit Information System (FTIS) database. The peer selection was conducted before 2018 NTD was released in FTIS. The universe of potential peers were drawn from transit agencies in southeastern United States. Transit systems were analyzed based on eight indicators, six operating characteristics, two exogenous variables.

- Operating Characteristics Indicators:
 - Average speed
 - Passenger trips
 - Revenue miles
 - Revenue hours

- Vehicles operated in maximum service
- Total operating expense
- Exogenous Variables Indicators:
 - Service area population
 - Service area population density

To select the systems most comparable with CAT, each indicator value for CAT was used as a base number. From this, 80%, 90%, 110%, and 120% of CAT values were calculated for each indicator for the universe of potential peers. Potential peers were then assigned a score for each indicator based on the following criteria:

- Peers falling between 90% and 110% of the CAT value were awarded 1.0 point.
- Peers falling between 80% and 90% of the CAT value or between 110% and 120% were awarded 0.5 points.
- Peers falling below 80% or above 120% of the CAT value were awarded 0.0 points.

Further, because Collier County is large with dispersed population centers, the population density was recognized as a key factor for selecting like peers. To this end, population density was awarded a score of 2.0 points. The total score, the sum of the indicator scores for each potential peer, were calculated and the universe of potential peers was then ranked based on total score. Transit agencies with one or more indicators that were significant outliers compared to CAT and the other peers, were eliminated.

Results

An initial set of 20 potential peers was identified for CAT (see Table 1). The top 10 peers with the highest likeness score to CAT were identified and selected as the CAT peer group. The top 10 selected peer systems are:

- City of Montgomery-Montgomery Area Transit System, AL
- The Tri-State Transit Authority Huntington, WV
- The Wave Transit System Mobile, AL
- Clarksville Transit System, TN
- Macon-Bibb County Transit Authority, GA
- ART (Asheville Redefines Transit) Asheville, NC
- Metra Transit System Columbus, GA
- Gwinnett County Lawrenceville, GA
- Pasco County Public Transportation Port Richey, FL
- Cape Fear Public Transit Authority Wilmington, NC

Two of the selected peers were peers from the previous TDP: Pasco County and Cape Fear.

Subsequently, based on the generation of the peer and trend analysis, three of the top 10 peers were found to have incomplete NTD data: Macon, GA; Columbus, GA; and Clarksville, TN. These systems were eliminated from the peer group. The seven final selected peers include:

- City of Montgomery-Montgomery Area Transit System, AL
- The Tri-State Transit Authority Huntington, WV
- The Wave Transit System Mobile, AL
- ART (Asheville Redefines Transit) Asheville, NC
- Gwinnett County Lawrenceville, GA
- Pasco County Public Transportation Port Richey, FL
- Cape Fear Public Transit Authority Wilmington, NC

Characteristics of Peer Systems

The following are brief descriptions of the CAT peer group for comparative purposes. Data were obtained from the 2018 NTD. The peer and trend analysis were conducted with this set of CAT peers.

Name: Collier Area Transit (CAT)

Services provided: CAT, a unit of Collier County government, provides
transit services in Collier County, FL, including Naples and other communities. CAT operates a network
of public bus service consisting of 19 fixed-routes as well as non-fixed-route services, including
paratransit service under the CAT Connect program that includes complementary Americans with
Disabilities Act (ADA) service and transportation disadvantaged (TD) services.

Service area population (2018): 262,699*

Service area population density (2018): 847 persons per sq. mi.*

Annual revenue hours (2018): 73,056 annual revenue hours of service

Annual ridership (2018): 840,961 passenger boardings

Operating costs (2018): \$6,013,801

Fleet (2018): 19 vehicles in maximum service

*Calculated using 2019 TBEST Land Use Model

Name: City of Montgomery-Montgomery Area Transit System (The M)

Services provided: Owned by the City of Montgomery, AL, the M

provides transit services within the municipality, operates a network of public bus service consisting of 14 fixed-routes, and provides ADA complementary paratransit services within a ¾-mile corridor of fixed-routes.

Service area population (2018): 205,764

Service area population density (2018): 1,524 persons per sq. mi.

Annual revenue hours (2018): 74,909

Annual ridership (2018): 605,572 passenger boardings

Operating costs (2018): \$5,763,964

Fleet (2018): 19 vehicles in maximum service



Name: Tri-State Transit Authority, Huntington, WV

Services provided: TTA, an independent transit authority, provides fixed-route and complimentary ADA paratransit services in the greater Huntington urbanized area. TTA operates a network of public bus service consisting of 9 fixed-routes, 2 shuttles, and 3 night routes that operate in the evening/night only.



Service area population (2018): 144,339.

Service area population density (2018): 1,568 persons per sq. mi.

Annual revenue hours (2018): 57,986

Annual ridership (2018): 865,683 passenger boardings

Operating costs (2018): \$5,370,586

Fleet (2018): 22 vehicles in maximum service.

Name: The Wave Transit System, Mobile, AL

Services provided: The Wave, a unit of the City of Mobile, provides

fixed-route and paratransit services in Mobile, operating a network of public bus service consisting of 12 fixed routes and 1 downtown circulator.

Service area population (2018): 190,265.

Service area population density (2018): 1475 persons per sq. mi.

Annual revenue hours (2018): 76,679

Annual ridership (2018): 850,596 passenger boardings

Operating costs (2018): \$7,591,657

Fleet (2018): 21 vehicles in maximum service

Name: ART (Asheville Redefines Transit), Asheville, NC

Services provided: ART, a unit of the City of Asheville Transit Division, provides fixed-route services in Asheville and adjacent portions of Buncombe County, operating a network of public bus service consisting of

18 fixed-routes; paratransit service is provided by Buncombe County as Mountain Mobility.

Service area population (2018): 89,121

Service area population density (2018): 1,980 persons per sq. mi.

Annual revenue hours (2018): 76,679 annual revenue hours of service

Annual ridership (2018): 1,964,651 passenger boardings

Operating costs (2018): \$5,370,586

Fleet (2018): 17 vehicles in maximum service.



MOBILE, ALABAMA

Name: GCT, Gwinnett County, Lawrenceville, GA

Services provided: GCT, a unit of the Gwinnett County Transportation Department, provides commuter express bus, local bus, and paratransit service in Gwinnett County and to Downtown Atlanta, operating a network of public bus service consisting of 7 fixed-routes and 5 express routes.



Service area population (2018): 920,260

Service area population density (2018): 2,106 persons per sq. mi.

Annual revenue hours (2018): 80,617

Annual ridership (2018): 1,075,995 passenger boardings

Operating costs (2018): \$9,229,461

Fleet (2018): 28 vehicles in maximum service

Name: Pasco County Public Transportation, Port Richey, FL



Services provided: PCPT is a service of Pasco County, providing fixed-route local bus and paratransit service. A total of 11 fixed-route bus routes serve the urbanized areas of West Pasco, Zephyrhills, and Dade City, including connections between Dade City and Zephyrhills. Route 54, the Cross County Connector on SR-54/56, operates from US-19 to Zephyrhills and Route 41 in Land O'Lakes. Paratransit services are provided countywide.

Service area population (2018): 525,643

Service area population density (2018): 704 persons per sq. mi.

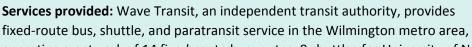
Annual revenue hours (2018): 92,485

Annual ridership(2018): 823,811 passenger boardings

Operating costs (2018): \$6,569,486

Fleet (2018): 23 vehicles in maximum service

Name: Wave Transit, Cape Fear Public Transit Authority, Wilmington, NC



operating a network of 14 fixed-route bus routes, 8 shuttles for University of North Carolina–Wilmington students and employees, 1 downtown circulator, and paratransit within ¾-mile of any fixed bus route.

Service area population (2018): 223,483

Service area population density (2018): 1117 persons per sq. mi.

Annual revenue hours (2018): 85,615

Annual ridership (2018): 1,306,099 passenger boardings

Operating costs (2018): \$6,926,980

Fleet (2018): 25 vehicles in maximum service

Table C-1: Selected and Potential Peers

CAT Fixed Route Peer Systems (Southeastern United States)

| CAT Fixed Route Peer Systems (Sout | ineastern Oniti | tu Sia | ies) | | | | | | | |
|---|-------------------|--------|-----------------------------|--------------------|------------------|-------------------------------|--|-------------------------------|------|------------------|
| NTD Name | City | State | Average Speed (RM/RH) | Passenger Trips | Revenue Miles | Service Area Population | Service Area Population Density | Total Operating Expense | VOMS | Revenue Hours |
| City of Montgomery-Montgomery Area Transit System | Montgomery | AL | 16.19 | 654,474 | 1,144,411 | 205,764 | 1,524 | 5,946,414 | 19 | 70,683 |
| The Tri-State Transit Authority | Huntington | WV | 16.25 | 866,021 | 1,031,977 | 144,339 | 1,569 | 5,637,564 | 27 | 63,524 |
| The Wave Transit System | Mobile | AL | 15.37 | 858,616 | 1,189,763 | 177,929 | 1,834 | 7,021,009 | 21 | 77,396 |
| ART (Asheville Redefines Transit) | Asheville | NC | 14.95 | 2,125,214 | 1,017,879 | 88,512 | 1,967 | 5,148,844 | 17 | 68,107 |
| Gwinnett County Board of Commissioners | Lawrenceville | GA | 17.71 | 1,035,561 | 1,236,630 | 920,260 | 2,106 | 9,143,524 | 26 | 69,829 |
| Pasco County Public Transportation | Port Richey | FL | 20.75 | 815,283 | 1,724,047 | 488,310 | 654 | 6,057,711 | 23 | 83,070 |
| Cape Fear Public Transportation Authority | Wilmington | NC | 14.04 | 1,359,911 | 1,201,922 | 216,479 | 1,082 | 6,516,506 | 25 | 85,636 |
| MS Coast Transportation Authority | Gulfport | MS | 13.13 | 740,636 | 891,905 | 117,629 | 1,238 | 4,496,399 | 20 | 67,930 |
| Greenville Transit Authority | Greenville | SC | 15.27 | 905,580 | 855,527 | 188,991 | 1,948 | 4,775,771 | 15 | 56,014 |
| Williamsburg Area Transit Authority | Williamsburg | VA | 14.58 | 2,465,072 | 1,301,626 | 153,600 | 1,067 | 6,492,296 | 31 | 89,252 |
| Athens Transit System | Athens | GA | 11.43 | 1,553,282 | 826,286 | 119,980 | 2,727 | 5,563,824 | 22 | 72,314 |
| City of Monroe Transit System | Monroe | LA | 15.28 | 1,053,444 | 729,985 | 49,601 | 1,600 | 5,062,181 | 13 | 47,785 |
| Lafayette Transit System | Lafayette | LA | 14.66 | 1,546,244 | 758,350 | 221,578 | 4,522 | 5,023,582 | 13 | 51,712 |
| Brazos Transit District | Bryan | TX | 16.98 | 407,223 | 816,601 | 132,500 | 1,791 | 5,199,782 | 27 | 48,097 |
| Mid-Ohio Valley Transit Authority | Parkersburg | WV | 14.50 | 497,403 | 661,550 | 39,587 | 2,828 | 3,134,071 | 18 | 45,632 |
| Fayetteville Area System of Transit | Fayetteville | NC | 13.21 | 1,460,633 | 1,221,278 | 150,131 | 1,580 | 6,413,301 | 24 | 92,472 |
| Transit Authority of Northern Kentucky | Northern Kentucky | KY | 14.51 | 3,202,515 | 3,263,063 | 278,653 | 1,044 | 19,557,731 | 97 | 224,901 |
| Clarksville Transit System | Clarksville | TN | 17.73 | 683,107 | 1,176,050 | 135,471 | 1,290 | 4,512,306 | 16 | 66,321 |
| Macon-Bibb County Transit Authority | Macon | GA | 16.29 | 816,194 | 1,019,938 | 153,691 | 2,196 | 6,143,421 | 19 | 62,603 |
| Metra Transit System (Columbus, GA) | Columbus | GA | 14.28 | 1,164,199 | 1,183,555 | 230,208 | 1,744 | 4,218,374 | 20 | 82,854 |
| Collier Area Transit | Naples | FL | 17.85 | 896,201 | 1,285,354 | 262,699 | 847 | 5,557,686 | 18 | 72,018 |
| Selected Peers Mean | | | 16.47 | 1,102,154 | 1,220,947 | 320,228 | 1,534 | 6,495,939 | 23 | 74,035 |

Source: 2017 NTD Data

Appendix B: Public Involvement Program



Florida Department of Transportation

RON DESANTIS GOVERNOR 801 N. Broadway Avenue Bartow, FL 33830 KEVIN J. THIBAULT, P.E. SECRETARY

March 19, 2020

Collier Metropolitan Planning Organization Ms. Anne McLaughlin, Executive Director 2885 South Horseshoe Drive Naples, FL 34104

RE: 2020 Transit Development Plan / Public Participation Plan

Dear Ms. McLaughlin:

This letter pertains to the Department's review of Collier Metropolitan Planning Organization 2020 Public Participation Plan (PPP) of the Transit Development Plan (TDP) for Collier Area Transit. District One Department staff received the PPP on Thursday, January 30, 2020.

The Department completed its review of the document based on Rule Chapter 14-73.001(3)(a), F.A.C. pertinent to the requirements for the TDP on Wednesday, March 18, 2020. The Department finds Collier Metropolitan Planning Organization 2020 PPP for the TDP to be in compliance with the Chapter 14-73, F.A.C. Please provide a copy of this compliance letter as an attachment within the final TDP Major Update.

The Department appreciates the efforts of the Collier Metropolitan Planning Organization staff to develop the 2020 PPP for the Transit Development Plan in compliance with Chapter 14-73, F.A.C.

If you have any questions, please contact Dale Hanson via email at Dale.Hanson@dot.state.fl.us or at (863) 519-2321.

Sincerely,

C-Dale Hanson

Transit Projects Coordinator

Cc: Brandy Otero, Collier MPO
Josephine Medina, Collier MPO
Randall Farwell, Tindale Oliver
Michelle Arnold, Collier Area Transit
Omar Deleon, Collier Area Transit
Michelle S. Peronto, FDOT





Collier Area Transit Transit Development Plan

Public Participation Plan

Final Revised

March 17, 2020

Prepared by







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1.0 Introduction

A simple, yet key ingredient, of any good public outreach effort is the effectiveness of listening and how that information is incorporated into the study process. The most effective plans include activities and methods oriented specifically to the project study area and an understanding of the local and regional character. Collier Metropolitan Planning Organization (MPO), Collier Area Transit (CAT), and the Consultant Team recognize the importance of public engagement and have developed strategies to engage the public, stakeholders and agencies involved in the development of the Transit Development Plan (TDP). The Public Participation Plan (PPP) for this project includes proven outreach efforts that go beyond "the minimum requirements". Our team has identified a menu of opportunities to provide the public information, listen to their concerns and suggestions, and find ways to incorporate solutions into the TDP.

Rule 14-73.001 requires that the TDP preparation include the following activities:

- A PIP approved by the Florida Department of Transportation (FDOT) or the local MPO's PPP, approved by both the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA).
- Description of the process used, and the public involvement activities undertaken.
- Solicitation of comments from FDOT, the MPO, and the regional Workforce Development Board on the mission, goals, objectives, alternatives, and 10-year implementation program.
- Notification of all public meetings at which the TDP is presented to or discussed with FDOT, the MPO, and the regional Workforce Development Board.

To ensure that CAT meets these requirements, the PPP will facilitate a public involvement process for the TDP effort that will encompass a range of activities that provide ample opportunity for participation by the required, and other interested, entities.

In addition, CAT, as a public transit agency and recipient of Federal and state Funding, is required to adhere to Federal non-discrimination regulations, including those outlined in Title VI of the Federal Civil Rights Act of 1964. CAT has developed a Title VI Program that outlines the policies, procedures, services, and steps that will guide the public involvement activities outlined in this PPP to ensure inclusive and representative participation, including persons with disabilities, limited English proficiency (LEP), and/or other factors that may limit their participation. By reference, this PPP integrates the policies and procedures into the programs, activities, and services of this TDP.

1.1 Project Background

The MPO and CAT, selected the Tindale Oliver Team (Team) to update the TDP to establish a refreshed framework for the future growth of transit in the community, as provided by the County's transit system, CAT, and ensure safe, convenient, and accessible public transportation for all residents, workers, and visitors in Collier County. An integral part of the TDP is the PPP, which acts as a guide for educating, gaining input from and disseminating information to the public and stakeholders.





1.2 Project Kick-off Meeting

The TDP project begins with a Kick-off Meeting with staff to review and coordinate on the scope, schedule, deliverables, data request, public outreach strategy, and project management to assure staff and the consultant team share the same expectations. This will help ensure the success of the project once it has begun. The kick-off meeting was held December 19th from 2:00-3:30.

A recommendation was made to form a TDP Working Group, comprised of a group of 6-10 technical and policy experts from the MPO, County, FDOT, and Workforce Development to serve as a sounding and advisory board for review of findings, recommendations, and priorities related to the resulting TDP program and priorities. The TDP Working Group will meet on three occasions during the TDP effort. Once after existing conditions and services review has been conducted, once to review the initial TDP improvements recommendations, and once to review the final TDP.

The first TDP Working Group meeting is scheduled to be conducted as a virtual meeting due to health advisory considerations related to Covid-19, the subsequent meetings will be conducted in person and/or as virtual meetings, depending on conditions at the time of the subsequent meetings.

In addition, the core project team will hold bi-weekly calls to review current efforts and coordinate on upcoming decisions and activities.

Based on the Team's prior proposed approach and the MPO's RFP, the PPP recommends the following public engagement activities be completed as part of the TDP process:

- Public Workshops (2)
- On-Board Passenger Survey (1)
- Online Survey (2)
- Stakeholder Interviews (10)
- Discussion Group Workshops (2)
- Draft and Final Presentations (6)
- Ongoing Social Media

2.0 Public Engagement Activities

The following content is a TDP-specific PPP that presents the public engagement activities that will be used to collect stakeholder and public input, and to educate and inform the community about the study and, ultimately, its results. Following are summaries of the activities that are envisioned to be included, some of which (as noted) will be completed by CAT/MPO staff, others to be provided by the Team. Public participation activities have been designed to encourage participation throughout the entire TDP process. Our Team has identified methods of communication that best serve the needs of Collier County, but are flexible enough to make changes, if necessary, to ensure maximum feedback. Our goal is to reach and hear from as many people and organizations as possible to ensure that their voices are heard.





2.1 Public Workshops

Two public workshops will be held at key milestones in the study process, first early in the process, to educate attendees about the TDP effort and collect input on gaps and unmet needs. The second public workshop will focus on obtaining feedback on the proposed improvements.

With input from the Team and CAT/MPO staff we will plan and schedule each meeting to maximize opportunities for citizen participation by selecting venues in areas that



have bus access and we will piggyback these workshops with other community events to ensure a good turnout. We will hold the meetings at times to best accommodate a variety of work and personal schedules. There will be a comment period open for one week before and one week after each public meeting (7 days) where the public can submit comments, questions, and concerns via email, phone call, social media, and written letters without being required to attend the public workshops. FDOT, Southwest Florida Regional Workforce Development Board and the Metropolitan Planning Organization will be notified at least fourteen (14) days in advance of each public workshop.

After completion of the early assessment of existing conditions and services, the Team will schedule and conduct a public workshop to introduce the TDP purpose, schedule, and to inform the public about existing services and socioeconomic conditions and to solicit ideas from the public concerning transit and mobility needs within the Collier County community. The first public workshop is targeted to be conducted in March or April, coincident with the Discussion Group Workshops. In response to health concerns associated with Covid-19, the first public workshop will be targeted for April or May and be conducted in person and/or via virtual meeting, depending on circumstances at the time.

A second public workshop will be held following completion of the draft TDP. The intent of this meeting is to present the public with our initial findings and recommendations for 5-year and 10-year service and capital improvements for transit and mobility services within the greater Collier County community. This meeting will be designed to facilitate engagement and dialog to hear the attitudes, concerns, and desires of the community regarding the draft TDP. The public will have an opportunity to review the draft TDP prior to the workshop (online and at designated locations) seven days prior to and following the workshop. The second public workshop is targeted to be conducted in June or July, coincident with the draft TDP presentations to the BCC, MPO, and other groups listed in Section 2.7. Depending on circumstances at the time, this second meeting will be conducted in person and/or as a virtual meeting.





Logistics/Format

Depending on the information to be presented, the meetings could be an informal event using a "station" format, where participants come and go at their leisure (if an in person meeting is conducted). Staff would be available for questions. If a more formal event is appropriate, or we are required to conduct a virtual meeting, we would develop a PowerPoint presentation with live explanation followed by a Question & Answer period. We will discuss the best possible format with CAT/MPO staff and the Working Group when the time is appropriate.

2.2 On-Board Passenger Survey

A passenger survey will be conducted of CAT fixed-route bus patrons on-board CAT vehicles to obtain information related to the demographics, attitudes, preferences, and habits of current riders for market research purposes (i.e., the survey will not be specifically geared for model input or validation).

To allow for enough valid survey responses that will support statistical rigor of the results (95% CL, ±10% MOE), yet accommodate the desired budget goal, it is proposed that the survey effort will cover 50 percent of CAT's scheduled fixed-route bus trips. The on-board survey methodology and implementation will be coordinated closely with CAT staff to ensure that study objectives are met, and data collection efforts are efficiently integrated with CAT operations. The survey instrument will be developed in conjunction with CAT/MPO staff. Prior to beginning the on-board survey process, our staff will meet with CAT operations staff to ensure a clear understanding of the methodology, process, and timeframe. We also will provide survey notices for CAT to distribute to its bus operators and on board its buses to notify patrons of the upcoming event. The on-board survey, a 25-question survey, was conducted January 15-16 weekday, January 18-19 weekend, with training on the 14th. A target of 1,000 completed surveys was established for the on-board survey and 1,090 surveys were completed.

2.3 Online Survey

Our Team will conduct a regional online survey of the general public in Lee and Collier Counties to help better understand their needs and concerns and, especially, persons who do not currently use the CAT services. Development of the online survey will be coordinated closely with CAT/MPO staff and LeeTran staff to ensure that survey objectives are met. We have had a lot of success using Survey Monkey on similar projects, so we would likely use this same tool for the TDP. Because considerable thought will be put into the questions, the online survey will elicit responses useful to CAT/MPO staff and CAT services.

The online survey will be posted on the County website and distributed via any current email/social media outlets and mailing lists available to Collier and Lee Counties, including opportunities to use relevant social media platforms. We will work with CAT/MPO staff and Lee Tran staff to identify social media platforms and email lists.

Our suggestion is to post and push out the online survey at two critical times. The first was posted on websites and accompanied by emails to persons on target mailing lists collected from CAT, the





MPO, and the County. This survey occurs early in the study with a fact sheet about CAT services and a focus on mobility needs, gaps, services. The second posting will include a fact sheet about the proposed improvements to the CAT network and a request for comments and suggestions. The first online survey was released in February and runs through March and the second is scheduled to be live April through May, but may be delayed until May and run through June, depending on circumstances related to Covid-19. We are targeting 500 completed online surveys.

2.4 Stakeholder Interviews

Our Team, working with CAT/MPO staff, will identify stakeholders and conduct up to ten stakeholder interviews. The starting point will be to obtain a list of potential stakeholders, mostly elected officials, from CAT/MPO staff. The purpose for the stakeholder interviews is to capture the best understanding of local conditions, knowledge, perceptions and attitudes of the community towards mobility needs and transit services. In person stakeholder interviews will be scheduled during planned trips to Collier County or by phone depending on convenience for each stakeholder. The interviews are targeted to be completed between April and May 2020.

2.5 Discussion Group Workshops

CAT/MPO staff and the consultants will conduct two invitation-based discussion group workshops using a set of questions prepared by our Team to educate and elicit dialog with participants about mobility needs and services.

The purpose of the workshops is to obtain additional input into the TDP process by selected groups. Participants will work in smaller groups (10–12 persons) to permit more in-depth and candid discussion about issues and needs. The workshops will be held at accessible venues coinciding with CAT's existing service area, including Lee County.

The focus will be on mobility needs and interests of the business community, tourists and tourism, health care access, community services, social



services, Department of Labor, seniors, and students. Participants will be identified by CAT/MPO staff. CAT/MPO staff will be responsible for securing the sites selected and inviting the participants. The consultant team will lead discussion and CAT/MPO staff will participate in the workshops. The consultant team will summarize the workshops and information gathered. The Discussion Group Workshops are scheduled for March 31st. Due to health concerns associated with Covid-19, the workshops are being conducted as virtual meetings.

2.6 Draft and Final TDP Presentations

After completion of the draft TDP, our Team will schedule and conduct six (6) presentations at the direction of CAT/MPO staff. Presentations of the Draft TDP will be targeted for June. Presentations of the Final TDP will be targeted for August. For this purpose, we will develop a user-friendly,





graphical presentation to support the communication and adoption of the TDP. The presentation file will be available for use by CAT/MPO staff beyond the adoption of the TDP. The audiences for the presentations include:

- Collier County Board of Commissioners
- MPO Board
- MPO Citizens Advisory Committee
- MPO Technical Advisory Committee
- Public Transit Advisory Committee

Other audiences that will be briefed directly or through the TDP Working Group, are FDOT and the Workforce Development Office.

Methods of Public Notice

To advertise/notice the meetings, it is suggested that staff prepare and distribute a press release to local media, post the announcement on the County and MPO websites, Twitter and Facebook pages, develop a notice to stakeholders, post notices on buses and at all government buildings and major organizations/institutions in the area. Utilizing the memberships of the business community, civic and community associations, and neighborhood associations would serve as an effective way to announce the meetings. Using the email and postal mail distribution lists of the County and MPO would be an effective way to reach a wide audience. To keep in line with TDP best practices, at least 14 days' notice will be given for public outreach events and 30 days for draft public TDP review and comments. A strategy for outreach will be developed in collaboration with staff and the Working Group. FDOT, the MPO, Southwest Florida Regional Workforce Development Board will be notified at least fourteen days in advance of the Draft and Final TDP Presentations. Additionally, the Southwest Regional Workforce Board shall be provided the draft TDP document for review and comment prior to going to the Board of County Commissioners for adoption.

2.7 Ongoing Social Media

In conjunction with the method of notices described above, leveraging the use of social media is cost-effective and can reach a large segment of population who are younger, trendy, and more prone to becoming involved in an issue that affects their community. Both social media and the County and MPO websites should be used appropriately to raise awareness about the project and to provide opportunities for the public to comment and used as a means to provide information and notice the public meetings and community workshops. Our Team will help prepare project information to be posted and uploaded throughout the study process.

2.8 Measures of Effectiveness

We will work with CAT/MPO staff to develop Measures of Effectiveness (MOE) for the public engagement activities included in this PPP. Quantitative targets will be set for each MOE, and the results of the outreach efforts will be documented in the TDP.

A set of proposed MOEs are presented in **Table 1** for consideration by CAT/MPO staff. The table include a range of targeted strategies and related MOEs designed to improve public awareness,





engagement, and feedback. Results of each public involvement activity will be documented in the TDP and compared with the MOEs established in **Table 1**.

This evaluation process will encourage adaptability and flexibility in the TDP engagement activities. If the MOE targets are not met for certain activities, then a change should be enacted to improve other TDP outreach efforts.





Table 1: TDP Public Involvement Measures of Effectiveness and Targets

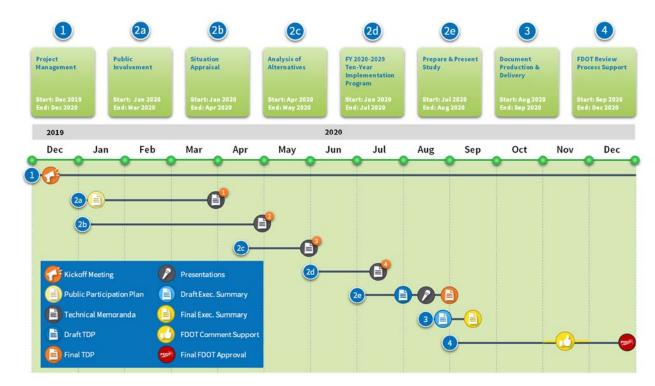
| Outreach Strategy | Measure of Effectiveness | Target |
|--|--|--------------|
| Stakeholder database | Number of persons in database who identify themselves as members of the general public | 500 |
| Public outreach efforts | Number of attendees or interactions with interested persons at each event/meeting | 25 per event |
| Public outreach input | Number of returned comment cards, or questionnaires from outreach events | 200 |
| Websites and other communications | Number of phone calls, emails, and visitors to County offices or websites regarding TDP update process | 200 |
| Accessibility of public meeting locations | Percentage of all public meeting locations served by at least one transit route | 100% |
| Accessibility to meeting locations by Environmental Justice (EJ) communities | Percentage of outreach events held in EJ communities. | 50% |
| Accessibility of LEP persons | Percentage of all TDP information distributed in Spanish/Creole versions | 25% |
| On-board bus rider survey | Number of completed surveys | 1000 |
| Online surveys (2) | Number of completed surveys | 500 |
| Accessibility to meeting locations by persons with disabilities | Percentage of meeting locations accessible by persons with physical disabilities as outlined by ADA | 100% |
| Accommodation of participant work schedules | Number of outreach events conducted in evenings or on weekends | 5 |





3.0 Schedule of Activities

The public engagement activities will be coordinated to fit with the overall project schedule, as shown in the table below.



4.0 Public Engagement Documentation

The documentation of public engagement activities creates a summary of outreach activities and commitments made as a result of the outreach activities. Access to the documentation allows the public to see that their input was evaluated and considered. We will include a summary of the public engagement activities in the Final TDP

Appendix C: Public Outreach Materials



Collier Area Transit (CAT) is developing a ten-year transit plan to guide the future of mobility in the region. Your comments will help to define CAT's vision to promote improvements that enhance mobility over the next decade.

Two online surveys will be distributed during the planning process. The first survey will be used to help understand the mobility needs and to identify gaps in existing services. Your responses to the survey will be used to define proposed mobility enhancements which will be included in the second survey in order to obtain your thoughts about the proposed mobility improvements. Your responses to these surveys will inform the recommendations that are developed and approved.

Thank you for your participation!

Click here to take the survey!

If you have any questions, please contact:

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Senior Planner

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CAT Mobility Needs Survey

Collier Area Transit (CAT) is developing a ten-year transit plan to guide the future of mobility in the region. Your comments will help to define CAT's vision to promote improvements that enhance mobility over the next decade.

Two online surveys will be distributed during the planning process. The first survey will be used to help understand the mobility needs and to identify gaps in existing services. Your responses to the survey will be used to define proposed mobility enhancements which will be included in the second survey in order to obtain your thoughts about the proposed mobility improvements. Your responses to these surveys will inform the recommendations that are developed and approved.

Thank you for your participation!

| 1. What is your understanding of and experience with Collier County's existing public transportation (CAT) and related mobility services in the area? |
|---|
| I use/have used the bus system |
| I have seen the bus, but I do not ride |
| I know someone who rides the bus |
| None |
| Other (please specify) |
| |
| 2. How much awareness is there in Collier County about transit/public transportation? |
| High |
| ○ Moderate |
| None at all |
| Not sure |
| |

| 3. What is your opinion of transit services in Collier County? |
|---|
| It must be provided |
| It might be useful |
| It does not matter to me |
| Not sure it is useful |
| We do not need it |
| |
| 4. What is your perception of transit's role in Collier County? Check all that apply. |
| Serve tourists/visitors |
| Serve workers/commuters |
| Relieve parking/congestion |
| Serve persons who do not have access to a vehicle |
| |
| 5. What mobility improvements would you prefer to see in Collier County? Please choose any that apply. |
| More bus service – service to new areas/surrounding counties |
| Expanded bus service hours – earlier and later service |
| High frequency bus service – bus comes more often |
| Enhanced transit network – express service and/or rail options |
| Improved infrastructure for pedestrians and bicyclists – sidewalks and bike lanes |
| More customer amenities – shelters and benches |
| More transfer hubs – facilities where routes meet |
| More Park and Ride lot locations |
| Mobility-on-demand services – a vehicle that responds when and where you need it |
| More scooter and bike-share services |
| None of the above |
| Other mobility services (please specify) |
| |
| |
| |
| |

| S // | |
|------|--|
| 0. V | Vhich of the following would you utilize a Park and Ride lot for? |
| | To access bus service |
| | In conjunction with an Express bus route |
| | To participate in car pooling |
| | To access a Beach shuttle |
| | Would you like to see more Park and Ride locations? Please specify: |
| _ | |
| | |
| | |
| ٧ | Vho should benefit from mobility improvements? |
| | Benefit all |
|) | Benefit those without a vehicle |
|) | Benefit those who choose to use transit or an alternative mobility option |
|) | Other (please specify) |
| | |
| | |
| 3. H | low should we pay for expanded mobility service? Check all that apply. |
| _ | User fees – bus fares |
| _ | Use revenue from a mobility fee |
| _ | |
| - 1 | Use roadway funds |
| | Use roadway funds Increase local taxes |
| _ | Increase local taxes |
| | Increase local taxes Create partnerships with businesses |
| | Increase local taxes Create partnerships with businesses Advertising revenue |
| | Increase local taxes Create partnerships with businesses |
| | Increase local taxes Create partnerships with businesses Advertising revenue |
| | Increase local taxes Create partnerships with businesses Advertising revenue |
| | Increase local taxes Create partnerships with businesses Advertising revenue |
| | Increase local taxes Create partnerships with businesses Advertising revenue |
| | Increase local taxes Create partnerships with businesses Advertising revenue |
| | Increase local taxes Create partnerships with businesses Advertising revenue |
| | Increase local taxes Create partnerships with businesses Advertising revenue |

| | Agree | Somewhat Agree | Neutral | Somewhat Disagree | Disagree |
|--|------------------|------------------------------|----------------------------|-------------------|------------|
| CAT services are effective, convenient, and easy to use. | 0 | 0 | 0 | 0 | 0 |
| Collier County needs more service and/or more service options. | \bigcirc | | \bigcirc | | |
| Existing CAT service covers the areas I need to travel to regularly. | 0 | | 0 | | \circ |
| Collier County should invest more into expanding mobility services and options. | 0 | | \bigcirc | | \bigcirc |
| Additional public transit service will improve economic opportunities in Collier County. | 0 | | 0 | | 0 |
| CAT is effective at making the public aware of existing transit and mobility services. | \bigcirc | \bigcirc | \bigcirc | | \circ |
| | | | | | |
| or statistical purposes, tell 10. Your age is | us a little abou | ut yourself. All replies are | confidential. | | |
| | us a little abou | ut yourself. All replies are | confidential. 45-54 years | | |
| 10. Your age is | us a little abou | ut yourself. All replies are | | | |
| 10. Your age is Under 18 | us a little abo | ut yourself. All replies are | 45-54 years | | |
| 10. Your age is Under 18 18-24 years | us a little abo | ut yourself. All replies are | 45-54 years 55-64 years | | |
| 10. Your age is Under 18 18-24 years 25-34 years 35-44 years 11. You are: | us a little abou | ut yourself. All replies are | 45-54 years 55-64 years | | |
| 10. Your age is Under 18 18-24 years 25-34 years 35-44 years 11. You are: Female | us a little abou | ut yourself. All replies are | 45-54 years 55-64 years | | |
| 10. Your age is Under 18 18-24 years 25-34 years 35-44 years 11. You are: Female Male | us a little abou | ut yourself. All replies are | 45-54 years 55-64 years | | |
| 10. Your age is Under 18 18-24 years 25-34 years 35-44 years 11. You are: Female | us a little abou | ut yourself. All replies are | 45-54 years 55-64 years | | |
| 10. Your age is Under 18 18-24 years 25-34 years 35-44 years 11. You are: Female Male | us a little abou | ut yourself. All replies are | 45-54 years 55-64 years | | |

| 12. | Your ethnic origin is | |
|------------|----------------------------------|---|
| \bigcirc | Black/African American | Asian/Pacific Islander |
| | White/Caucasian | American Indian or Alaska Native |
| | Hispanic/Latino | Two or More Races |
| | Other (please specify) | |
| | | |
| 13. | How many motor vehicles in your | household are available for your use? |
| | One | |
| | Two | |
| | Three or More | |
| \bigcirc | None | |
| 14. | What was the range of your total | nousehold income for 2019? |
| \bigcirc | Less than \$10,000 | \$30,000 to \$39,999 |
| | \$10,000 to \$14,999 | \$40,000 to \$49,999 |
| | \$15,000 to \$19,999 | \$50,000 to \$59,000 |
| | \$20,000 to \$24,999 | \$60,000 or more |
| \bigcirc | \$25,000 to \$29,999 | |
| 15. | Do you speak a language other th | an English at home? |
| | Yes | |
| \bigcirc | No | |
| L6. Ho | me ZIP code: | |
| | | |
| | | |
| | | suggestions that would help CAT improve mobility services? Please |
| explair | I | |
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Help us prioritize improvements for CAT's Ten-Year Transit Development Plan!

Collier Area Transit (CAT) wants your help to review and prioritize transit and mobility improvements to be included in our program of projects to be funded over the next 10-years. These projects will improve the CAT transit system and add new services to make it easier for you to get around Collier County.

Online Survey

First, we invite you to take a **survey** that walks you through the improvements. Through the survey you will be able to let CAT know what you think about the proposed changes and provide your own suggestions. **Take the CAT Survey by** clicking here. The survey will be active until **August 15th**.

Take the Survey

Virtual Meeting

Second, you are invited to participate in a **Virtual Public Meeting**, it will be held online on **July 30th from 5:30PM to 7:00PM**. During this meeting you will learn more about the proposed improvements, be able to ask questions, and talk about the changes you would like to see to improve transit services in Collier County.

View this email in your browser







Help us prioritize improvements for CAT's Ten-Year Transit Development Plan!

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Virtual Meeting

You are invited to participate in a **Virtual Public Meeting**, it will be held online on **August 12th from 5:30PM to 7:00PM**. During this meeting you will learn more about the proposed improvements, be able to ask questions, and talk about the changes you would like to see to improve transit services in Collier County.

To attend the Virtual Public Meeting, <u>click here</u> to register for the meeting. You will receive a confirmation email and information to join on the day of the meeting. To join by phone, call (562) 247-8422; code: 529-086-769. Once you register, you will receive updates and reminders before the meeting.

So, please help improve your community by helping CAT to make it easier to get around Collier!

Register for Virtual Meeting

If you are unable to attend one of the virtual workshops, written comments will be accepted

CAT NEEDS YOUR INPUT!



Help us prioritize improvements for CAT's Ten-Year Transit Development Plan!

If you are unable to attend one of the virtual workshops, written comments will be accepted through Friday, August 14, 2020 and may be sent to:

Attn: Zachary Karto
CAT TDP Project Manager
8300 Radio Road
Naples, Florida 34104

For disability accommodations, within at least five (5) business days before the meeting, please contact CAT at (239) 252-5840 between 8:00 AM—5:00 PM or contact the webmaster at webmaster@colliercountyfl.gov

Virtual Meeting

Collier Area Transit (CAT) is planning for its future, and we want your input! Please join our virtual meeting to learn about proposed transit and mobility improvements and to let us know how you think CAT should grow.

Virtual Workshop

Thursday, July 30, 2020 from 5:30 PM – 7:00 PM
Please click link to register and participate:
https://register.gotowebinar.com/register/8078226686733223947
To join by phone: 1 (415) 655-0060; code: 562-140-330

Please take our online survey to provide input on the proposed improvements to the CAT transit network. This survey will be available until August 15th.

Click link: https://www.surveymonkey.com/r/CAT2020-2029TDP







In accordance with Title VI of the Civil Rights Act of 1964 and other nondiscrimination laws, public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, familial, or income status. It is a priority for the CAT that all citizens of Collier County are given the opportunity to participate in the transportation planning process including low-income individuals, the elderly persons with disabilities, and persons with limited English proficiency. You may contact CAT at (239) 252-5814 if you have any discrimination complaints.



Please take 10 minutes to help us prioritize the transit needs in Collier County.

As a part of the proposed improvements, we have streamlined the route network and consolidated several routes to reduce travel times, reduce service duplication, and increase frequencies in some cases. In addition, based on funding availability, we are proposing service to new areas, increased service frequencies, and extended service hours.

| 1. Tell us about where you ty | pically travel. | | |
|--|------------------------|-----------------------------------|--------------------------|
| My home zip code is: | | | |
| My work or school zip code is: (if applicable) | | | |
| 2. Tell us about your typical | travel needs within Co | ollier County. (Check the best op | otion to each statement) |
| | N/A | 1-3 days/week | 4+ days/week |
| I travel for work or school: | \bigcirc | 0 | 0 |
| I travel for shopping: | | | |
| I travel for medical services: | \bigcirc | 0 | 0 |
| I travel for other reasons: | \bigcirc | \bigcirc | |
| * 3. I usually travel by: (sel | ect one) | | |
| Walk | | | |
| Bike | | | |
| Car/Motorbike | | | |
| Bus | | | |
| Taxi/Ride Hailing | | | |
| | | | |



| CAT 2020-2029 Trans | sit Development Plan | |
|---------------------------------|----------------------|---------------------------------------|
| * 4. I typically ride the follo | wing bus(es): | |
| Route 11 | Route 18 | Route 26 |
| Route 12 | Route 19 | Route 27 |
| Route 13 | Route 20 | Route 28 |
| Route 14 | Route 22 | Route 29 (Beach Bus) |
| Route 15 | Route 23 | Route 121 (Immokalee to Marco Island) |
| Route 16 | Route 24 | LinC (to Lee County) |
| Route 17 | Route 25 | |
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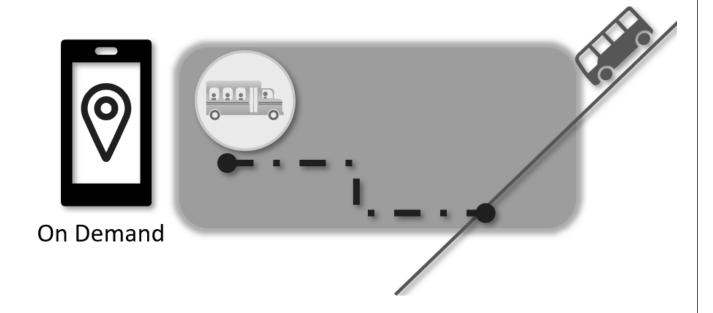
General Preferences

| 5. If I had a choice between more frequent service and longer hours of service, I would choose |
|---|
| More frequent service – bus comes by more often |
| Longer hours of service – bus starts earlier and/or runs later in the day |
| 6. If I had a choice between a faster bus ride (fewer bus stops on the street) or easier access to bus stops (more bus stops and buses turning into shopping centers and apartment complexes to stop), I would choose |
| Faster bus ride – longer walk to bus stop, shorter ride on bus |
| Easier access to bus stops- shorter walk to bus stop, longer ride on bus |
| 7. If I had a choice between longer hours of service and a longer route serving more destinations, I would choose |
| Longer hours of service - bus runs earlier or later, longer service day |
| Longer route - more bus stops served on the same route, longer ride on bus |



Proposed Mobility on Demand Zones

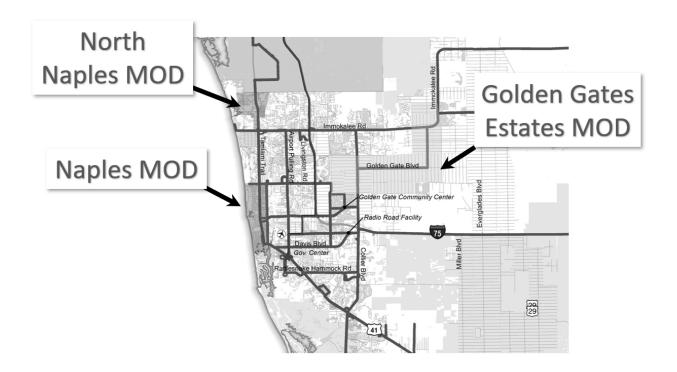
Mobility on Demand (MOD) is a shared ride service operated by CAT using small buses or passenger vans and work similar to ridesharing services like Uber and Lyft. Riders request a ride using a phone app or by calling a reservation line. Your ride can be immediate – I want to go now – or scheduled for later. Rides can be point-to-point to locations within your zone (e.g.; home to grocery store). Rides can also be regional by connecting you to a transit hub where you can catch the CAT bus for longer trips (e.g.; home to shopping center where you get the bus to downtown). MOD services are available to everyone (no eligibility required) and provide you with low cost option to getting around.



- 8. Based on the description of mobility on demand services, how likely would you be to use this type of service?
- Very likely to use this type of service
- Likely to use this type service
- Not likely to use this type of service
- I would not use this type of service
- Not sure



Looking at the map of areas where MOD service is being proposed, please tell us how important each service area is to you. A MOD service is proposed for Marco Island. A question about the Marco Island MOD service is provided later.



10. Please rate the importance of providing MOD service in the proposed service areas:

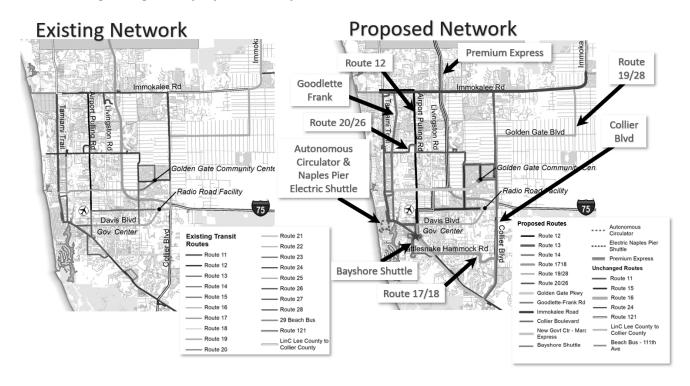
| | Not a Priority | Neutral Priority | Higher Priority |
|---------------------|----------------|------------------|-----------------|
| North Naples | | | |
| Naples | | | |
| Golden Gate Estates | | | |

| 11. | Please provide comments about these MOD changes: | |
|-----|--|--|
| | | |



Proposed Improvements for Naples and Golden Gate Area

The following changes are proposed in Naples and in the Golden Gate Area



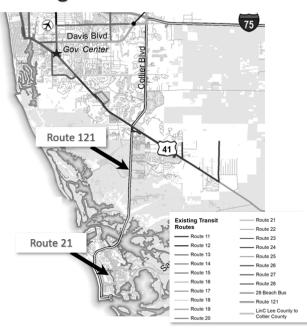
| ease rate the importance of each service improve | oment. | | | | |
|---|-------------------|------------|---------------------|------------|--------------------|
| | Not a Priority | | Neutral Priority | | Higher Priority |
| oute 12 – extend north on Goodlette-Frank Road to Tamiami rail/Immokalee Road | 0 | 0 | | 0 | 0 |
| oute 13 – two-way service Coastal Center to Govt Center, approved frequency from every 60 minutes to every 40 minutes | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| oute 14 – two-way service Coastal Center to Thomasson to ovt Center | \circ | | | | \circ |
| oute 17/18 – combines the 17 and 18 into a two-way route on ollier Blvd and Rattlesnake Hammock, improves frequency from 0 minutes to every 45 minutes | \bigcirc | | \bigcirc | \bigcirc | |
| oute 19/28 – combines routes and hours along the Route 28 ignment, add more trips provided per day | \circ | | | \circ | |
| oute 20/26 – combines the 20 and 26, improves service in olden Gate, adds more trips per day | \bigcirc | \bigcirc | \bigcirc | \bigcirc | |
| olden Gate Pkwy – splits Route 25, operates current east-west ervice along Golden Gate Pkwy | \circ | | \bigcirc | \circ | |
| oodlette-Frank Road – splits Route 25, extends north-south ervice along Goodlette-Frank Road to Walmart at Immokalee oad/Tamiami Trail | | | \bigcirc | \bigcirc | |
| nmokalee Road – splits Route 27, extends the route east on nmokalee Road to Randall Road | \bigcirc | | \bigcirc | | |
| ollier Blvd – splits Route 27, extends north-south service from nmokalee Road south to Walmart at Collier Blvd and Tamiami rail | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| remium Express – a new service using managed lanes on I-75 link the Government Center to the FGCU area in Lee County | \circ | | \bigcirc | | |
| ayshore Shuttle – new shuttle service on Bayshore between /eeks Ave and Botanical Gardens, operated every 15 minutes | \bigcirc | | \bigcirc | | |
| utonomous Circulator – new circulator in downtown Naples from th St N, west along 4th Ave, south on 3rd St S, to 13th Ave S, perates every 15 minutes | 0 | 0 | | | 0 |
| lectric Naples pier Shuttle – new electric shuttle connecting ambier Park along 8th St S to Marina and to Naples Pier via road Ave, operates every 15 minutes | | \circ | \bigcirc | \bigcirc | \bigcirc |
| . Please provide comments about these changes: | | | | | |



Proposed Improvements for Marco Island Area

The following changes are proposed for the Marco Island Area

Existing Network



Proposed Network



| New Govt Ctr–Marco Island Express - Convert Route 21 to a limited stop express from Govt Center to Walmart at Collier Blvd and Tamiami Trail to Marco Island Marco Island Mobility on Demand – add new on demand service on Marco Island Everglades City Van Pool – new van pool service connecting Everglades City to Govt Center Route 121 - Add one AM and one PM trip on service between Marco Island and Immokalee | Looking at the map of proposed service changes an ou. | d new serv | vices, plea | se tell us ho | w importa | nt each is t |
|---|---|------------|-------------|---------------|------------|--------------|
| Island Trolley – new Island Trolley along Collier Blvd on Marco Island New Govt Ctr–Marco Island Express - Convert Route 21 to a limited stop express from Govt Center to Walmart at Collier Blvd and Tamiami Trail to Marco Island Marco Island Mobility on Demand – add new on demand service on Marco Island Everglades City Van Pool – new van pool service connecting Everglades City to Govt Center Route 121 - Add one AM and one PM trip on service between Marco Island and Immokalee | Please rate the importance of each service improve | ment: | | | | |
| Island Trolley – new Island Trolley along Collier Blvd on Marco Island New Govt Ctr–Marco Island Express - Convert Route 21 to a limited stop express from Govt Center to Walmart at Collier Blvd and Tamiami Trail to Marco Island Marco Island Mobility on Demand – add new on demand service on Marco Island Everglades City Van Pool – new van pool service connecting Everglades City to Govt Center Route 121 - Add one AM and one PM trip on service between Marco Island and Immokalee 25. Please provide comments about these changes: | | | | | | |
| limited stop express from Govt Center to Walmart at Collier Blvd and Tamiami Trail to Marco Island Marco Island Mobility on Demand – add new on demand service on Marco Island Everglades City Van Pool – new van pool service connecting Everglades City to Govt Center Route 121 - Add one AM and one PM trip on service between | | \bigcirc | | \circ | | \bigcirc |
| everglades City Van Pool – new van pool service connecting Everglades City to Govt Center Route 121 - Add one AM and one PM trip on service between Marco Island and Immokalee | limited stop express from Govt Center to Walmart at Collier Blvd | \bigcirc | \bigcirc | \bigcirc | \bigcirc | |
| Everglades City to Govt Center Route 121 - Add one AM and one PM trip on service between Marco Island and Immokalee | | | | \circ | | |
| Marco Island and Immokalee | | \bigcirc | | \bigcirc | \bigcirc | \bigcirc |
| .5. Please provide comments about these changes: | | | \circ | | \bigcirc | \bigcirc |
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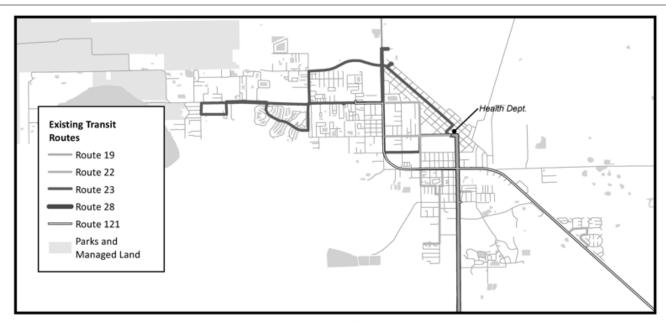


CAT 2020-2029 Transit Development Plan

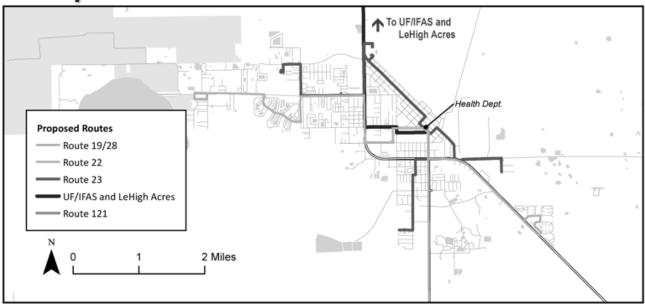
Proposed Improvements for Immokalee

The following improvements are proposed for Immokalee in order to reduce duplication, streamline the routes, and extend service area covered, and provide more direct routing.

- Realign Route 22 The route would connect the westernmost residential cluster on Lake Trafford Road to the County Health Department, several packing houses along New Harvest Road, and finally to the easternmost residential cluster on Farm Workers Way.
- Realign Route 23 This would extend service east along Main Street and to the various packing houses that employ. Other destinations include Immokalee State Farmer's Market, Marion Fether Medical Center, the County Health Department, and Career Source.
- New UF/IFAS to Lehigh Acres Route Connecting to the UF Agriculture Center and Lehigh Acres was identified from public outreach.



Proposed Network



16. Looking at the map of proposed service changes and new services, please tell us how important each is to you.

Please rate the importance of each service improvement:

| | Not a Priority | Neutral Priority | Higher Priority |
|--|-------------------|---------------------|--------------------|
| Realign Route 22 | | | |
| Realign Route 23 | | | |
| Add new service to UF/IFAS campus and Lehigh Acres | | | |
| | | | |

| 17. Please provide comments about these changes: | |
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CAT 2020-2029 Transit Development Plan

Frequency Improvements

18. Thinking about how often the bus comes by, please tell us how important the following frequency improvements are to you.

Please rate the importance of the proposed improvements:

| | Not a Priority | | Neutral Priority | | Higher Priority |
|---|-------------------|------------|---------------------|------------|--------------------|
| Route 11 to every 20 minutes | | | | | |
| Route 12 to every 30 minutes during peak periods, 60 off-peak | | \bigcirc | | | |
| Route 13 to every 30 minutes | | | | | |
| Route 14 to every 30 minutes | | | | \bigcirc | |
| Route 15 to every 45 minutes | | | | | |
| Route 16 to every 45 minutes | | \bigcirc | | \bigcirc | |
| Route 24 to every 60 minutes | | | | | |

| 19. Please provide comments about service frequency changes: | | | | | |
|--|--|--|--|--|--|
| | | | | | |
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CAT 2020-2029 Transit Development Plan

Span Improvements

20. Thinking about how late the bus runs, please tell us how important the following changes are to you.

Please rate the importance of the proposed improvements:

| | Not a Priority | Neutral Priority | | Higher Priority |
|---------------------------------------|-------------------|---------------------|------------|--------------------|
| Route 11 (extend service until 10 PM) | | | | |
| Route 13 (extend service until 10 PM) | | | \bigcirc | |
| Route 14 (extend service until 10 PM) | | | | |
| Route 17 (extend service until 10 PM) | | | | |
| Route 19 (extend service until 10 PM) | | | | |
| Route 24 (extend service until 10 PM) | | | | |

Thank you for taking our survey!

CAT Transit Development Plan - Stakeholder Questions

Collier Area Transit (CAT) is in the process of developing a ten-year transportation plan (TDP) to serve as a guide for the future of mobility in Collier County from 2021 to 2030. It will represent the CAT vision to promote improvements in transit services and enhanced access to mobility over the next decade. The TDP must be completed and filed with the Florida Department of Transportation by September 1, 2020 to fulfil requirements for Collier County to receive state and federal funding.

During this 30-minute scheduled call we will review and discuss your responses to the following questions about CAT services and mobility needs in Collier County. The questions are intended to be used to cover a range of issues and to generate thoughts and discussion so that your input can be included in helping to shape the mobility vision and priorities for the community.

Mobility needs in Collier County are increasing and are projected to continue to increase over the next several decades. Some of this increase is due to national trends, such as the aging of the population and a widening income divide due to changes in the economy. Other factors are more localized such as the rapid growth of the permanent and seasonal population, dispersed development patters over a large county, and high cost of housing near employment and service-based employment activity centers.

How we address existing mobility needs and prepare for the certain growth in mobility demand in Collier County will have an impact on the local economy and quality of life. This discussion is intended to understand your perspectives and ideas for the vision for mobility within Collier.

Discussion Questions

- 1. How much awareness is there in Collier County about transit/public transportation?
 - a. High
 - b. Moderate
 - c. None at all
 - d. Not sure
- 2. What is your perception of transit's role in Collier County?
 - a. It serves tourists/visitors
 - b. It serves workers/commuters
 - c. It helps relieve parking/congestion
 - d. It serves persons who do not have access to a vehicle
 - e. It does not have a defined role
- 3. Which mobility improvements would you prefer to see in Collier County?
 - a. Expanded bus service to cover new areas/surrounding counties
 - b. Expanded bus service hours earlier and later service
 - c. Improve the frequency of bus service bus comes more often
 - d. Provide enhanced transit services express bus service and/or rail-like options
 - e. Improve/expand sidewalks and bike lanes

| d. Add more bus shelters and be. Expand transfer hubs to conf. f. More park and ride locations g. Add flexible and/or mobility- h. Add scooter and/or bike-shai. None, why? j. Other mobility services | nect routes s – from where to v on-demand servic re services | | te does not work | | |
|---|---|---------------------------------|------------------|--|--|
| 4. Who primarily should benefit from m a. All should benefit from great b. Tourists and visitors should c. Persons without a vehicle sh d. Our communities, businesse mobility e. Other (please specify) | er mobility benefit from great ould benefit from s, and environmer | er mobility greater mobility | om greater | | |
| 5. Which sources should be used to pay a. User fees – bus fares b. Use revenue from mobility fees c. New developments d. Use roadway funds e. Increase local taxes f. Create partnerships with bus g. Advertising revenue h. Other (please specify) | sinesses | bility service? | | | |
| 6. Please specify whether you agree or | disagree with the | statements below. | | | |
| | Agree | Neutral | Disagree | | |
| CAT services are effective, convenient, and easy to use. Collier County needs more service and/or | | | | | |
| more service options. | | | | | |
| Existing CAT service covers the areas I think | | | | | |
| are most needed to travel to regularly. | | | | | |
| Collier County should invest more into | | | | | |
| expanding mobility services and options. | | | | | |
| Improved public transit service will improve | | | | | |
| economic opportunities in Collier County. | | | | | |
| CAT is effective at making the public aware | | | | | |
| of existing transit and mobility services. | | | | | |
| 7. Do you have any other comments or | suggestions that v | would help CAT imp | prove mobility | | |

services? Please explain: _____





Discussion Group Meeting #1

April 1, 2020 from 10:00 to 12:00 Virtual Meeting





Today's Workshop

- Introductions
- Overview and Purpose of TDP
- TDP Process and Schedule
- Public Outreach Plan
- Existing Conditions
- Peer &Trend Analysis
- On-board Survey
- Mobility Perspectives
- Mission, Goals and Objectives
- Mobility Strategy Discussion
- Next Steps









Introductions

- Project Team Introductions:
 - Josephine Medina, MPO Project Manager
 - Zachary Karto, CAT Project Manager
- Working Group Participants:
 - Michele Forrest, FDOT
 - Mary Ross, FDOT
 - Susan Corris, Career Sources
 - Robert Codie, Lee County
 - Lorraine Lantz, County Transportation Planning
 - Leandro Goicoechea, County Engineering
 - Greg Strakaluse, Naples Transportation
 - Daniel Smith, Marco Growth Management
 - Cormac Giblin, County Housing
 - Anita Jenkins, County Zoning
 - James Caton, PTAC
 - Derek Perry, County Attorney
- Others

Role of the Working Group

- Technical Advisors
- Policy Advisors
- Provide Community Context
- Preview Findings
- Preview Recommendations
- Help set mobility vision
- Help set priorities









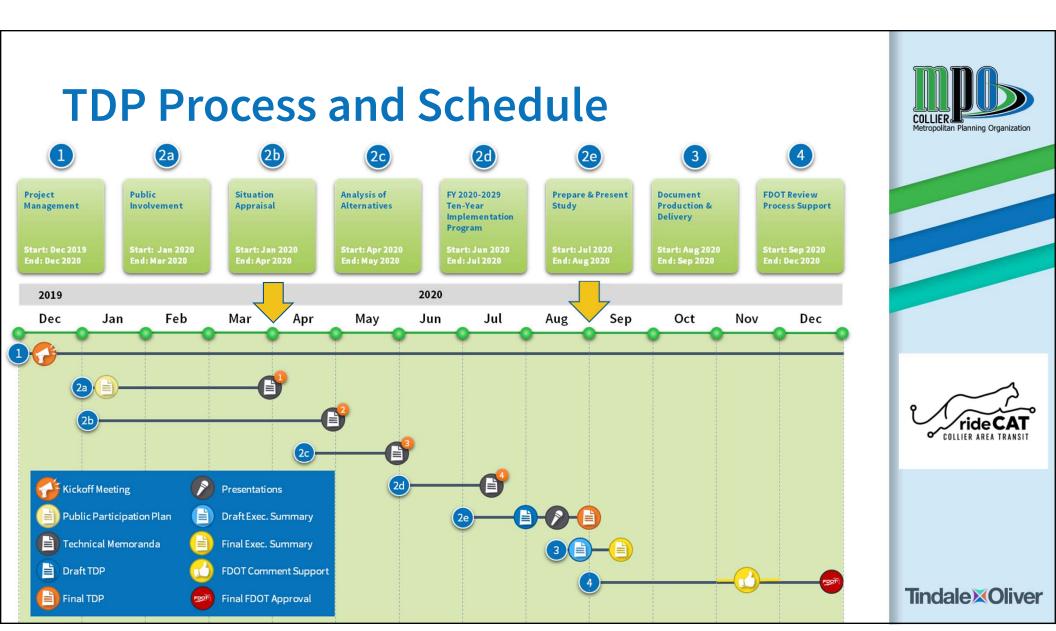
Study Overview and Purpose

- The Study is a Transit Development Plan
- A TDP is a 10-year strategic plan for transit and mobility
 - Evaluate demographics and travel behavior
 - Assess existing travel needs
 - Assess existing transit/mobility services
 - Conduct public involvement and outreach
 - Identify mobility gaps
 - Determine transit/mobility needs and goals
 - Develop mobility solutions
 - Develop service implementation and funding programs
- FDOT requirement
- Prioritized program of mobility investments for 10 years



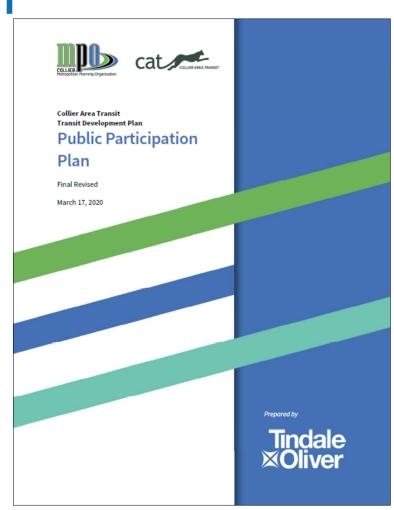






Public Outreach Plan

- Required by FDOT
- Focused on Engagement
- Target General Public
- Target Underrepresented
- Blueprint for Outreach
 - On-board survey
 - Online surveys
 - Small group discussions
 - Public workshops
- Approved by FDOT March 20th





Existing Conditions

Demographics

88.1% White

27.5% Hispanic

11.9% Nonwhite

Commuting



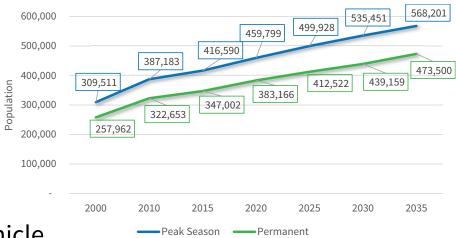
5.3% households without a vehicle

8.3% work outside county

2.2% take transit



12.3% below poverty level



Population Growth

48.5% from 2000 to 2020

23.6% from 2020 to 2035

Age Distribution

14.6% Youth under 15

38.1% Over 60 years old







Chart Source: Collier County Growth Management Division, Comprehensive Planning Section, Population and Demographics (2018 Population Estimates & Projections)

Existing Conditions



184,346 residents live within ½ mile of CAT (48%)



• 66.6% workers live within ½ mile of CAT



71.2% of jobs in Collier located within ½ mile of CAT





31,303 jobs accessible within a 30 min transit commute on average





Existing Conditions

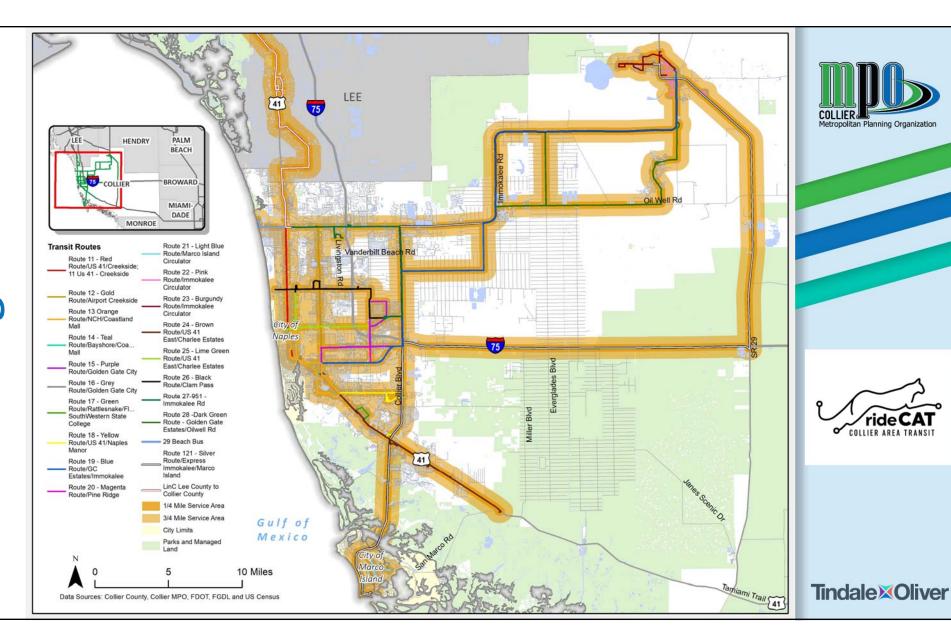
- Collier Area Transit
- Provides two service options
 - Fixed-route bus service 19 routes CAT
 - Paratransit service (door-to-door) CAP
 - For persons qualified for ADA and TD services
 - Fare \$3.00 one-way ADA, \$4.00 for TD trips
 - Requires 24-hour advanced reservation
 - Service delivery costs (NTD 2018)
 - Fixed route \$7.15 /boarding
 - Paratransit \$40.47/boarding
 - Service Productivity (NTD 2018)
 - Fixed route 11.5 boardings/vehicle hour
 - Paratransit 1.6 boardings/vehicle hour
- Major transfer centers:
 - Intermodal Transfer Station Govt Center
 - Radio Road Transit Facility







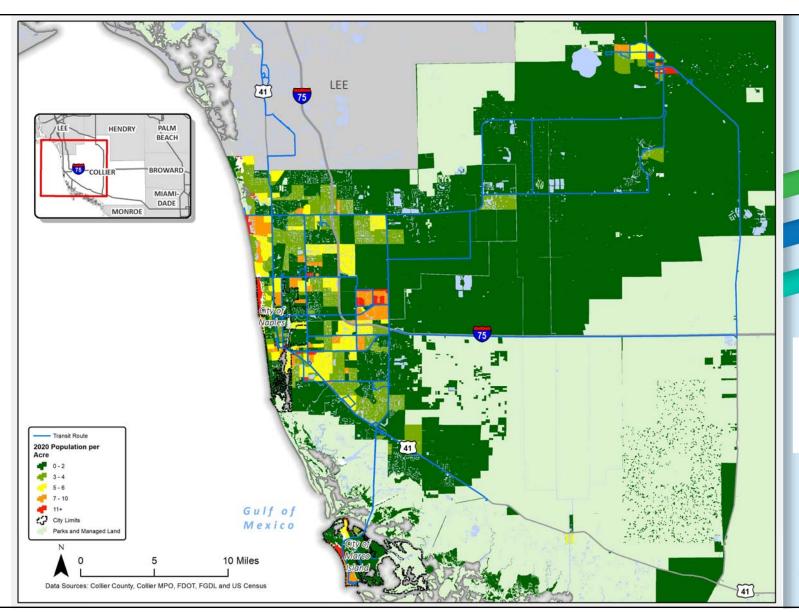




ride CAT

COLLIER AREA TRANSIT

2020 Population Density

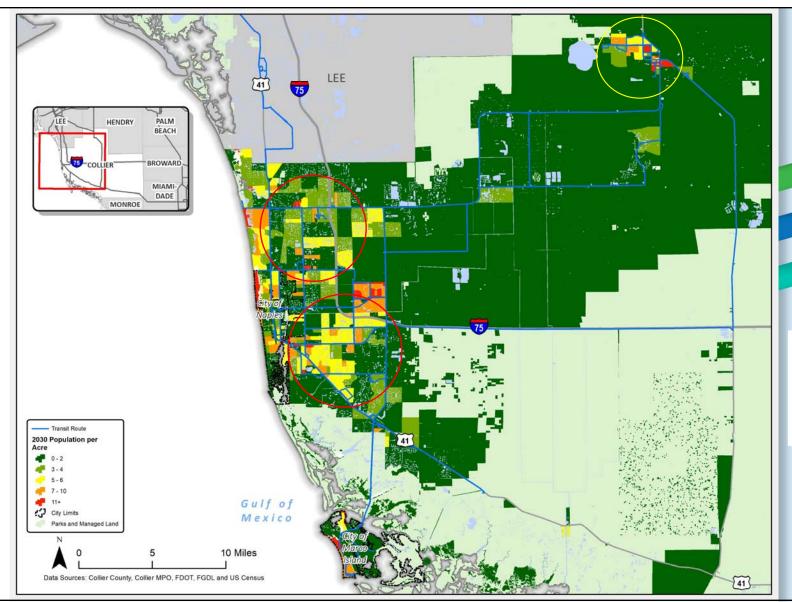






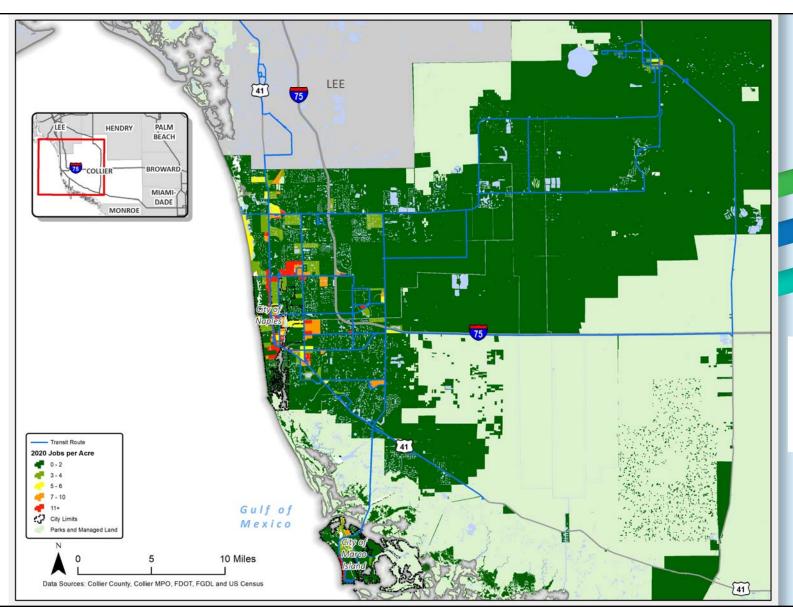


2030 Population Density





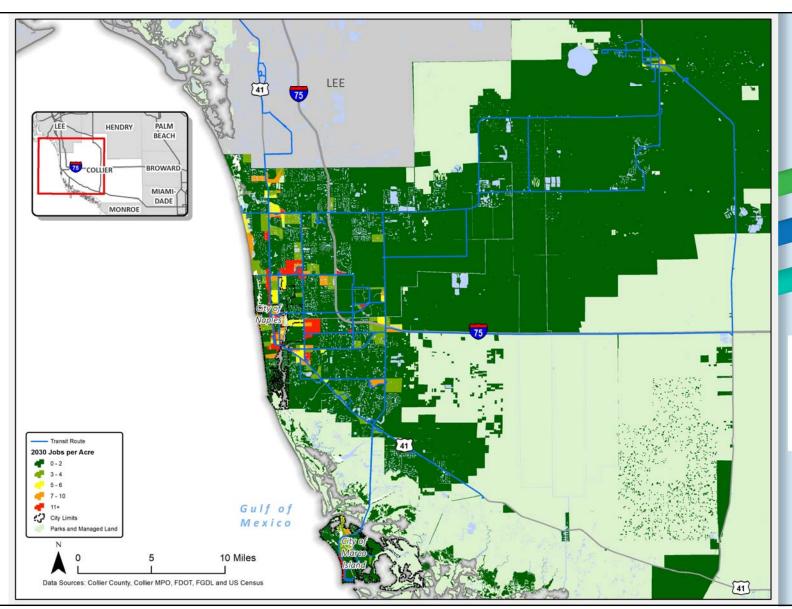








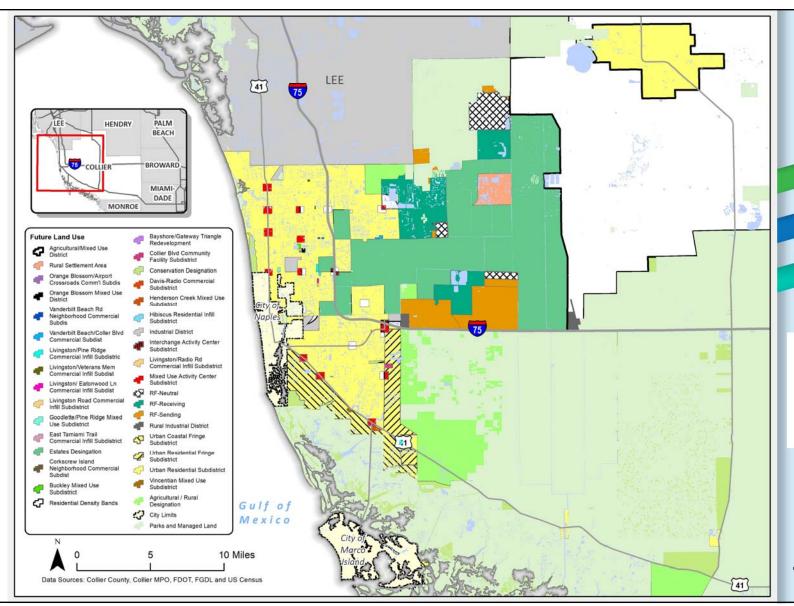








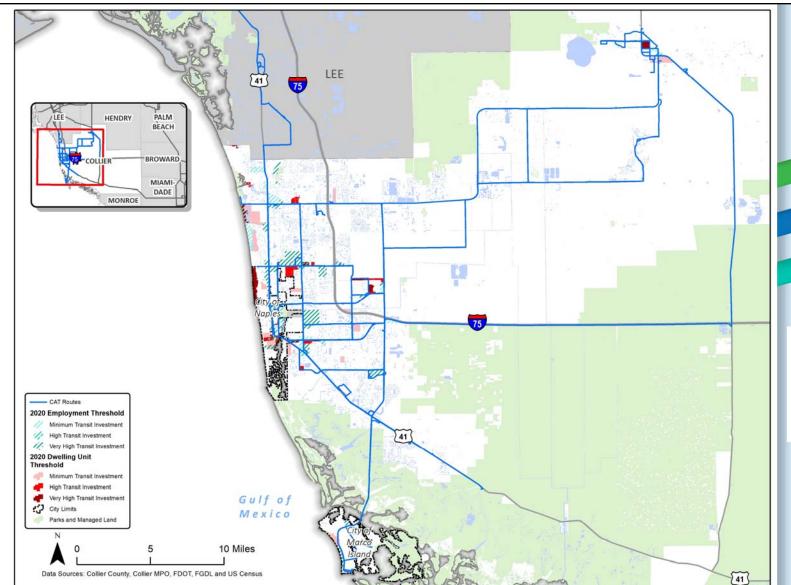








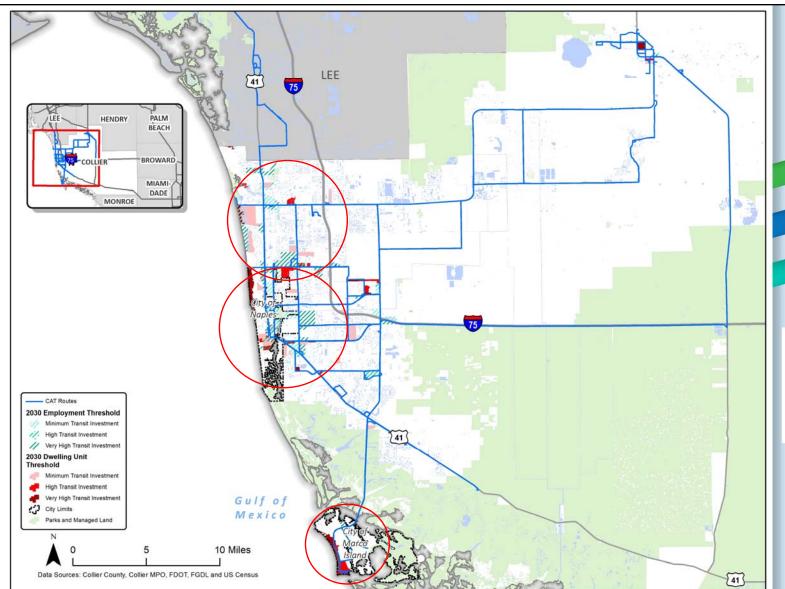
2020 Density Threshold





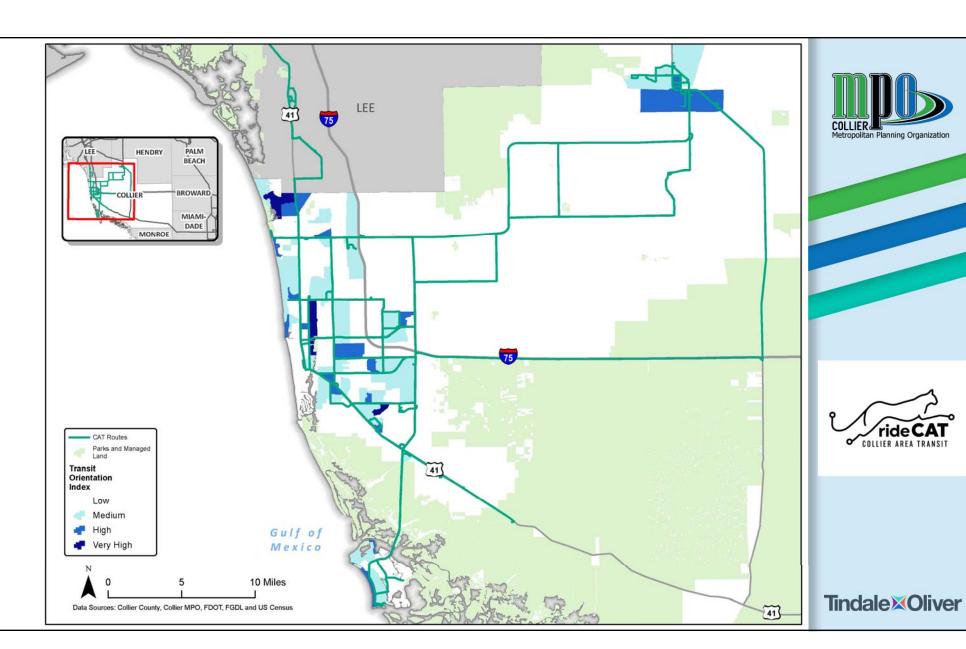


2030 Density Threshold

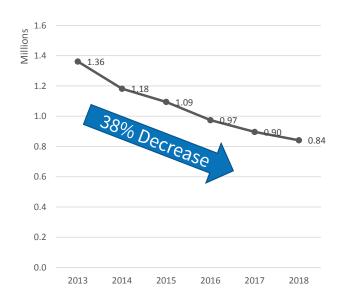




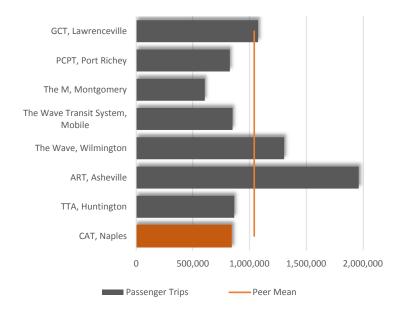




Annual Ridership



| Peer System | Location |
|------------------------------|-------------------|
| The M | Montgomery, AL |
| TTA (Tri-State Transit) | Huntington, WV |
| The Wave Transit System | Mobile, AL |
| ART | Asheville, NC |
| GCT (Gwinnett Transit) | Lawrenceville, GA |
| PCPT, (Pasco Transit) | Port Richey, FL |
| The Wave (Cape Fear Transit) | Wilmington, NC |

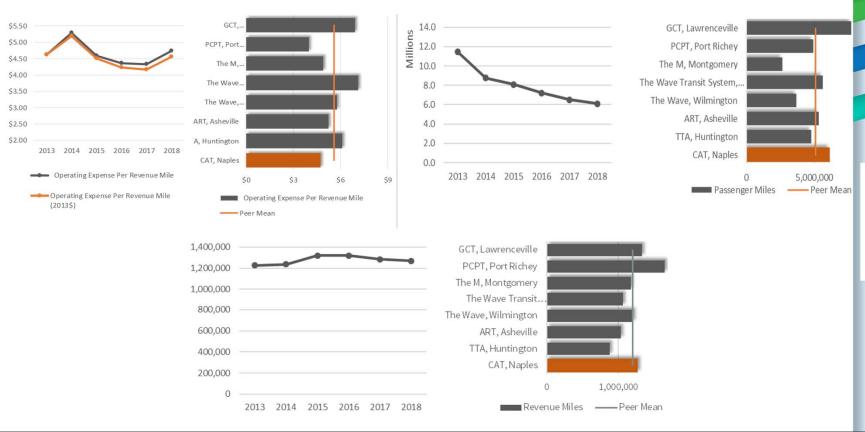








Cost per Revenue Mile, Change in Passenger Miles, Change in Revenue Miles









2013 2014 2015 2016 2017 2018

Operating Cost, Cost per Passenger Trip, Passengers/Revenue Hour



The Wave, Wilmington

ART, Asheville

TTA, Huntington

CAT, Naples

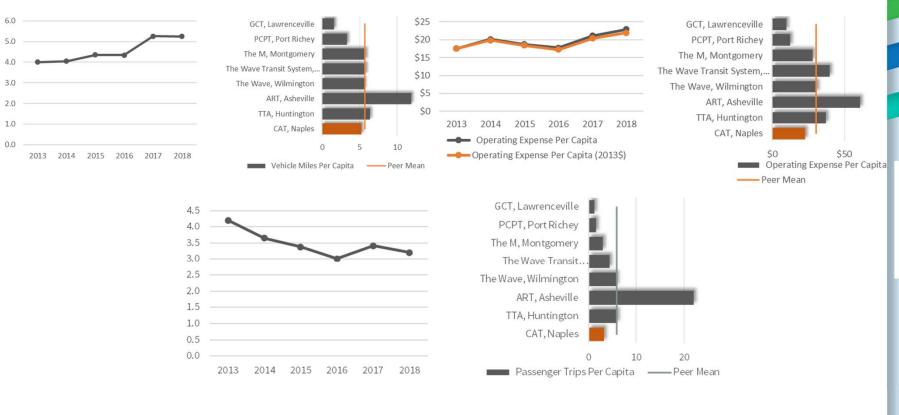
Passenger Trips Per Revenue Hour
Peer Mean







Service Supply, Service Cost, Service Use per Capita









- Twenty-five question on-board rider survey
- Provided in English, Spanish, Haitian Creole
- Conducted January 15th-16th and 18th-19th
- Surveyed all routes, mostly using tablets
- Completed 1,091 surveys
- Questions covered
 - Travel behavior
 - User satisfaction
 - Rider profile



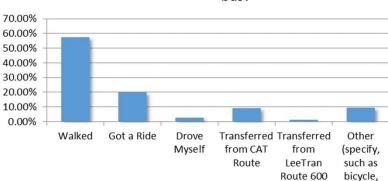




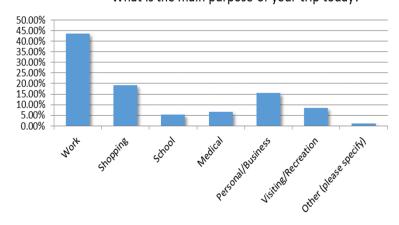




How did you get to the bus stop where you got on bus?

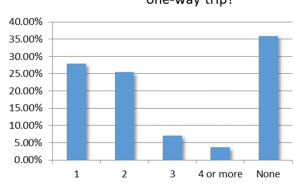


What is the main purpose of your trip today?



How many transfers will you make on one-way trip?

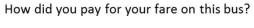
etc.)

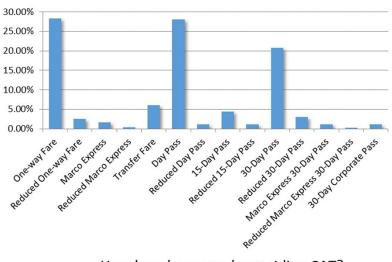




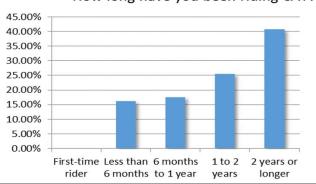




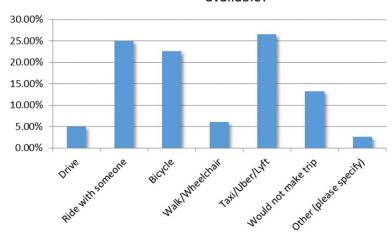




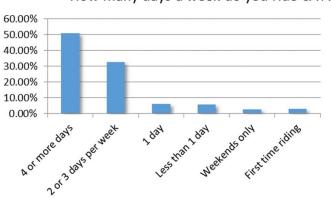
How long have you been riding CAT?



How would you make this trip if the bus were not available?



How many days a week do you ride CAT?

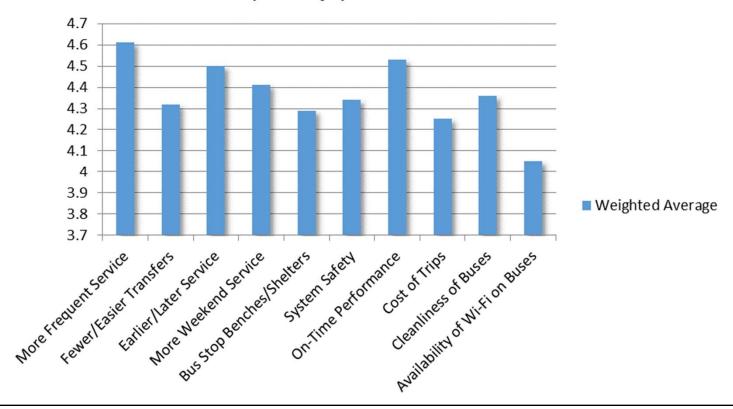








Please indicate how important each of the following features are to your enjoyment of CAT services.



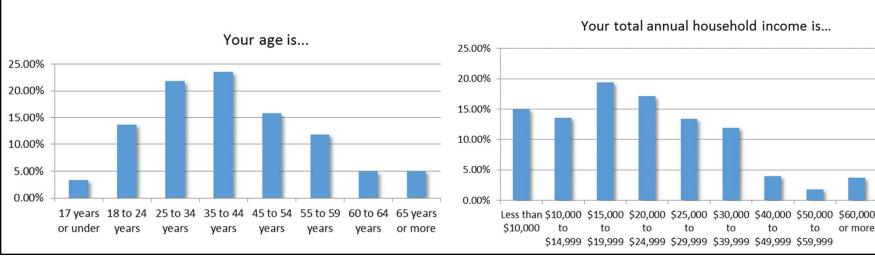






On-board Survey – Rider Profile

- 52% speak a language other than English at home
- 53% do not have access to a vehicle, 47% have at least one
- 53% are male, 46% female, 1% non-binary
- 38% Hispanic, 28% White, 25% Black









or more

Mobility Perspectives

- What's your perception of transit's role in the County?
 - Serve tourists/visitors
 - Serve workers/commuters
 - Relieve parking/congestion
 - Serve persons who do not have access to a vehicle
- Who should benefit from mobility improvements?
 - Benefit all
 - Benefit those without a vehicle
 - Benefit those who choose to ride transit or alternative mobility
 - Other, please explain







Mobility Perspectives

How do you respond to the following statements?

- CAT services are effective, convenient, easy to use.
- The County needs more service and/or more service options.
- Existing CAT service covers the areas I travel regularly.
- The County should invest more to expand mobility service/options
- More transit/mobility service will improve economic opportunities
- CAT is effective at making the public aware of existing transit/mobility services

Agree - Kind of Agree - Neutral - Kind of Disagree - Disagree







CAT Vision and Mission

Vision: To be an integral part of Collier County's multimodal transportation network providing effective and efficient fixed-route transportation and mobility options that meet the needs of residents and visitors and support economic and environmental benefits.

Mission: To provide safe, accessible, and courteous public transportation services to its customers.

ride CAT
COLLIER AREA TRANSIT

Can these be improved?



Existing CAT Goals

- 1. Operate a cost effective and sustainable public transportation system that safely and efficiently meets the mobility needs of Collier County's residents and visitors.
- 2. Reduce energy demand, implement green initiatives and sustainable processes, and protect Collier County's natural resources using cost-effective and efficient technologies.
- 3. Build meaningful partnerships that increase the visibility of CAT, promote livability, and enhance economic and social well-being.
- 4. Coordinate public transportation services with local, regional, and state planning efforts.
- 5. Use the most efficient technologies and innovations available for transportation system operations.
- 6. Monitor and maintain service quality and standards.
- 7. Maximize the use of all funding sources to increase services or to provide better services.

Can these be improved? What critical objectives should go with each goal?







Mobility Strategies Discussion

- 1. What are the key mobility needs within the community?
 - a) Access to opportunities, services, education, work
 - b) Young, Old, Low income, Disabled, Students, Choice riders
 - c) Increase mode shift from automobile, more choice riders
 - d) Support local economy and communities
- 2. What places need to be connected, better connected?
- 3. What types of mobility improvements are most needed?
- 4. How should we pay for mobility improvements?
- 5. What other thoughts do you have to improve existing CAT services and/or mobility in the community?







Next Steps

Thank you for participating in our first Working Group meeting!

Our next meeting will focus on initial network and mobility solutions. We will review the draft TDP. We will set initial priorities for mobility improvements and priorities to be implemented over the next 10 years. Set date May ____, 2020.

The third meeting will follow public workshops and review the final TDP prior to going to the MPO and BCC. Set date July _____, 2020.

Please contact us with questions and suggestions by email.

Randall Farwell – <u>rfarwell@tindaleoliver.com</u>

Josephine Medina – <u>Josephine.Medina@colliercountyfl.gov</u>

Zachary Karto – <u>Zachary.Karto@colliercountyfl.gov</u>











Discussion Group Meeting #2

May 13, 2020 from 10:00 to 12:00 Virtual Meeting





Today's Workshop

- Welcome and Introductions
- Update on Status of TDP
- Online Survey Summary
- Stakeholder Interview Summary
- Mobility Gap Analysis
- Initial Network Alternatives Review
- Initial Alternatives Priorities
- Next Steps
- Next Meeting (July 22)

















Welcome & Introductions

- Project Team Introductions:
 - Josephine Medina, MPO Project Manager
 - Zachary Karto, CAT Project Manager
 - Michelle Arnold, Director
- Working Group Participants:
 - Michele Forrest, FDOT
 - Mary Ross, FDOT
 - Susan Corris, Career Sources
 - Robert Codie, Lee County
 - Lorraine Lantz, County Transportation Planning
 - Leandro Goicoechea, County Engineering
 - Greg Strakaluse, Naples Transportation
 - Daniel Smith, Marco Growth Management
 - Cormac Giblin, County Housing
 - Anita Jenkins, County Zoning
 - James Caton, PTAC
 - Derek Perry, County Attorney
- Others

Today's Focus

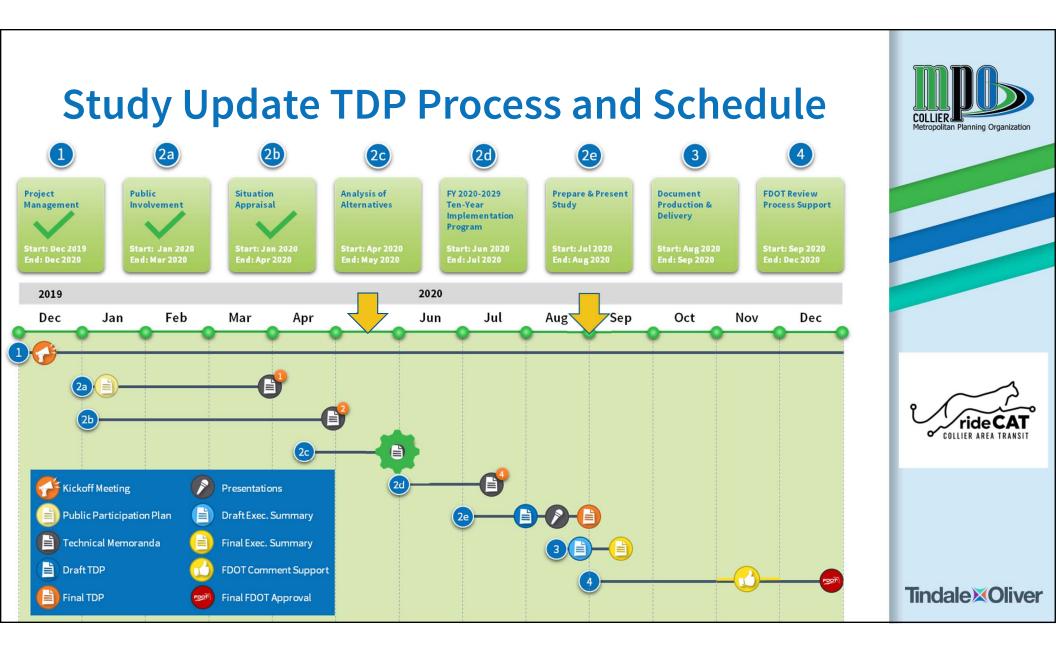
- Mobility Needs
- New Network Alternatives
- Improvement Priorities



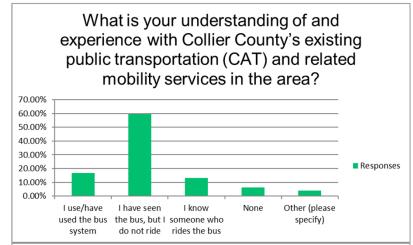


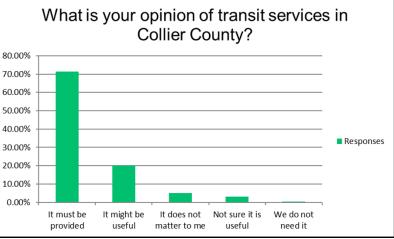


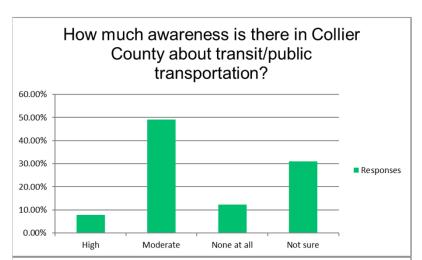


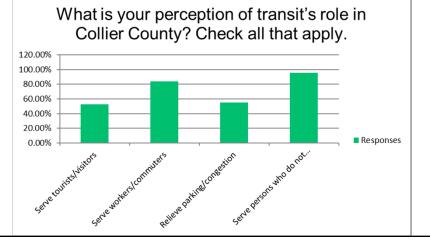


Online Survey







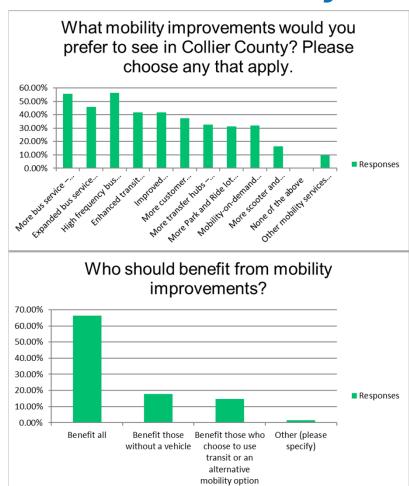


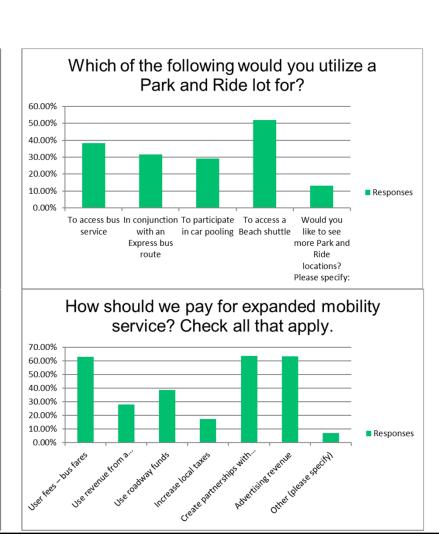






Online Survey



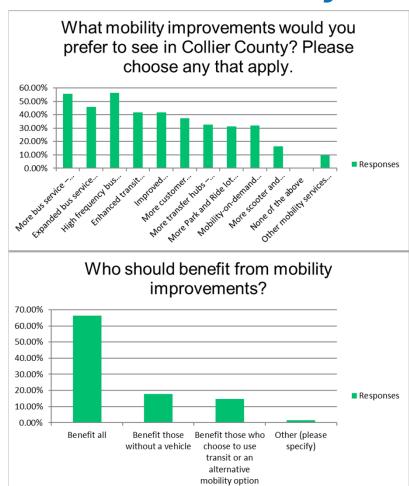


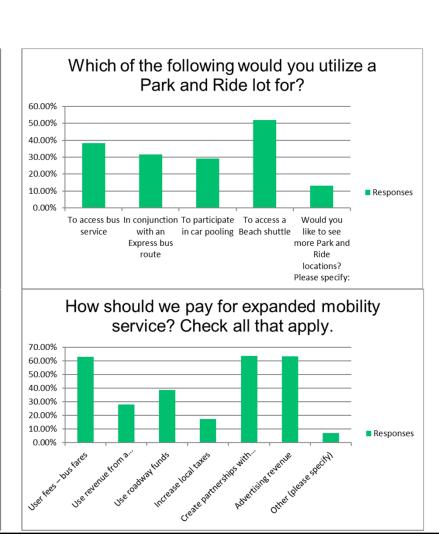






Online Survey



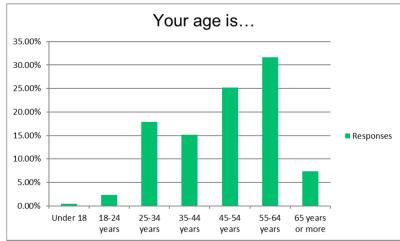


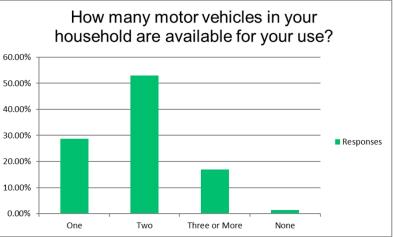


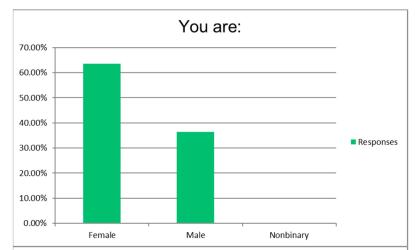


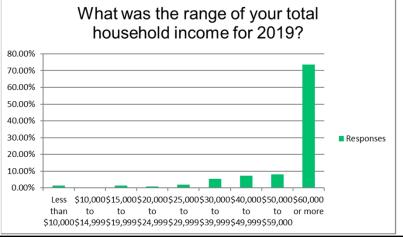


Online Survey – Respondent Profile















Stakeholder Interview Summary

Awareness of Transit

• low to moderate, folks see the buses but unsure with system

Role of Transit

 Serve workers, persons without a vehicle, relieve parking, serve some visitors

Key Improvements

 Span, frequency, shelters, MOD, shelters, multimodal, more service options

Who should Benefit

 Persons with no vehicle, community, environment, businesses, tourists

How to Pay for Transit

 User fee, new developments, partnerships, advertising

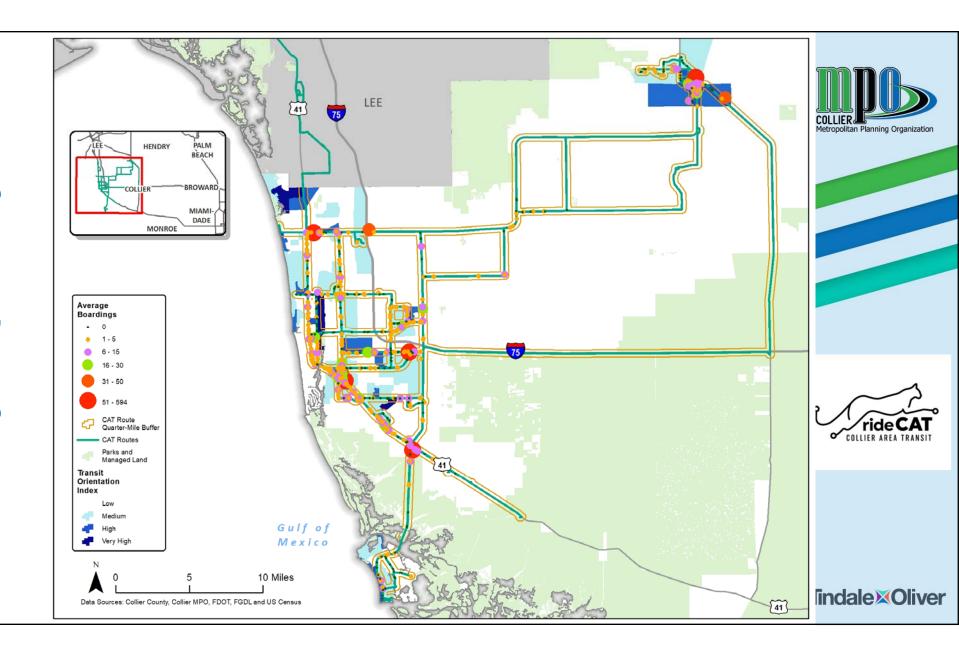
Need more service/options Good for community/economy







Mobility Gap Analysis



Transit Network Design Principals

- Direct and bidirectional routing
- Avoid extensive loops
- Strategic duplication for transfer opportunities
- Make good use of transit hubs at activity centers
- Higher frequency is better
 - Major commercial corridors
 - Downtown corridors
 - High demand routes
- Lower density requires creativity and flexibility
- Mobility on demand
 - As an overlay to streamlined bus network downtown
 - As a tool to serve lower densities areas







Network Alternatives

Collier Area Transit FY-19 Route Performance Metrics



| | | | | Rever | nue | Passengers | | Operating Cost | | Pass/Hr |
|--------------|------------|----------|-------------|-----------|--------|------------|----------|----------------|----------|---------|
| Route | Passengers | Revenue | Operating | Miles | Hours | Per Mile | Per Hour | Per Mile | Per Pass | Rank |
| 121 | 22,229 | \$34,142 | \$81,256 | 34,570 | 987 | 0.6 | 22.5 | \$2.35 | \$3.66 | 1 |
| 15 | 86,683 | \$85,941 | \$417,996 | 78,064 | 5,078 | 1.1 | 17.1 | \$5.35 | \$4.82 | 2 |
| 12 | 74,053 | \$77,372 | \$400,551 | 72,466 | 4,866 | 1.0 | 15.2 | \$5.53 | \$5.41 | 3 |
| 11 | 96,554 | \$91,889 | \$544,467 | 97,273 | 6,614 | 1.0 | 14.6 | \$5.60 | \$5.64 | 4 |
| 14 | 51,111 | \$54,396 | \$301,322 | 45,083 | 3,660 | 1.1 | 14.0 | \$6.68 | \$5.90 | 5 |
| 13 | 66,365 | \$69,644 | \$396,338 | 62,116 | 4,815 | 1.1 | 13.8 | \$6.38 | \$5.97 | 6 |
| 19 | 64,392 | \$88,167 | \$415,352 | 155,734 | 5,046 | 0.4 | 12.8 | \$2.67 | \$6.45 | 7 |
| 24 | 49,651 | \$52,627 | \$338,416 | 65,274 | 4,111 | 0.8 | 12.1 | \$5.18 | \$6.82 | 8 |
| 16 | 43,509 | \$52,179 | \$331,729 | 60,807 | 4,030 | 0.7 | 10.8 | \$5.46 | \$7.62 | 9 |
| 28 | 27,697 | \$39,142 | \$216,170 | 88,865 | 2,626 | 0.3 | 10.5 | \$2.43 | \$7.80 | 10 |
| 22 | 49,650 | \$58,905 | \$406,947 | 103,912 | 4,943 | 0.5 | 10.0 | \$3.92 | \$8.20 | 11 |
| 17 | 41,221 | \$37,232 | \$372,183 | 65,257 | 4,521 | 0.6 | 9.1 | \$5.70 | \$9.03 | 12 |
| 18 | 27,836 | \$26,564 | \$292,532 | 50,105 | 3,554 | 0.6 | 7.8 | \$5.84 | \$10.51 | 13 |
| 23 | 27,918 | \$34,158 | \$349,103 | 116,692 | 4,241 | 0.2 | 6.6 | \$2.99 | \$12.50 | 14 |
| 27 | 29,857 | \$32,435 | \$383,149 | 85,424 | 4,654 | 0.3 | 6.4 | \$4.49 | \$12.83 | 15 |
| 21 | 11,694 | \$16,959 | \$151,489 | 39,963 | 1,840 | 0.3 | 6.4 | \$3.79 | \$12.95 | 16 |
| 25 | 15,986 | \$19,069 | \$235,306 | 55,883 | 2,858 | 0.3 | 5.6 | \$4.21 | \$14.72 | 17 |
| 20 | 6,545 | \$7,279 | \$119,235 | 25,788 | 1,448 | 0.3 | 4.5 | \$4.62 | \$18.22 | 18 |
| 29 | 6,738 | \$0 | \$136,607 | 37,709 | 1,659 | 0.2 | 4.1 | \$3.62 | \$20.27 | 19 |
| 26 | 5,730 | \$7,137 | \$124,358 | 24,387 | 1,511 | 0.2 | 3.8 | \$5.10 | \$21.70 | 20 |
| | | | | | | | | | | |
| System Total | 805,419 | | \$6,014,508 | 1,365,373 | 73,063 | 0.6 | 11.0 | \$4.41 | \$7.47 | |

Note: Metrics in red fall below the average for the system.

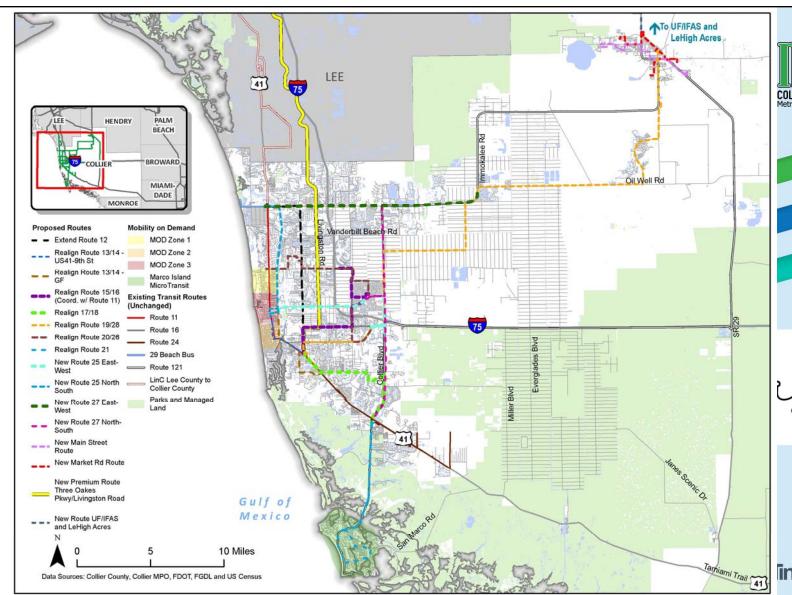
Note: MB operating costs based on FY2018 NTD

\$82.32





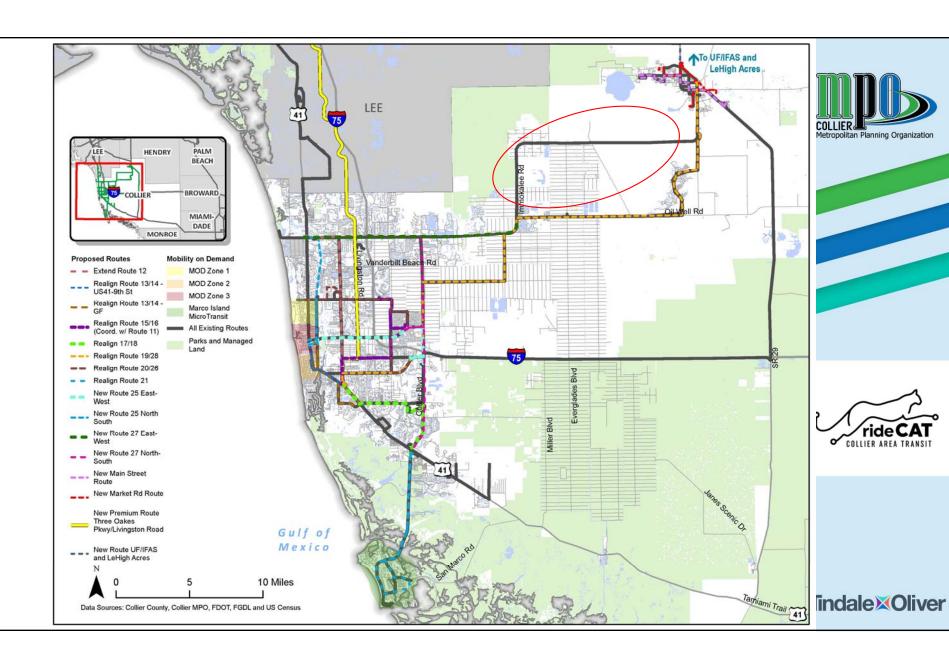


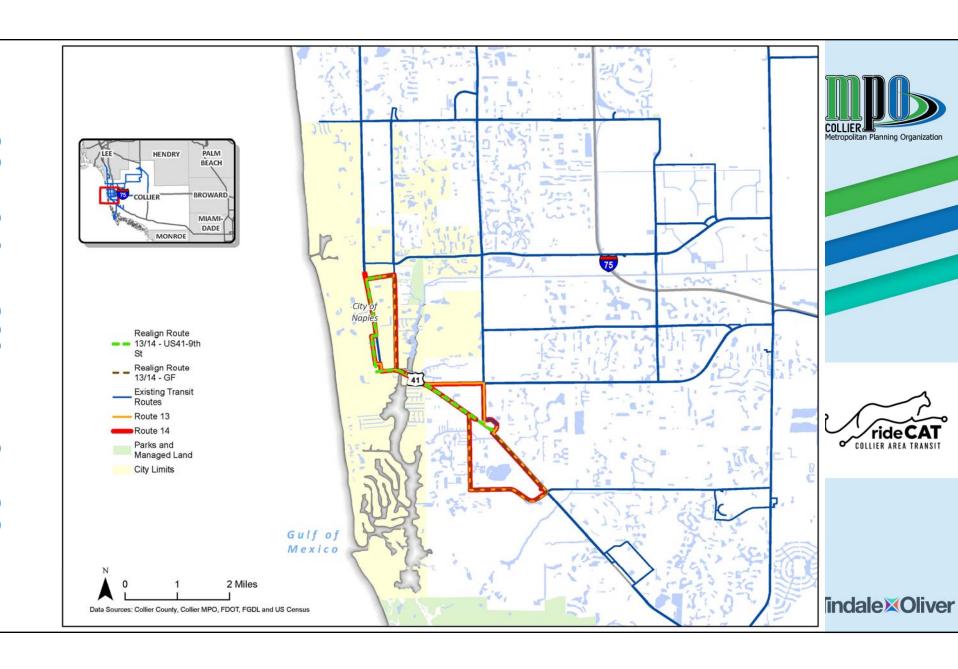


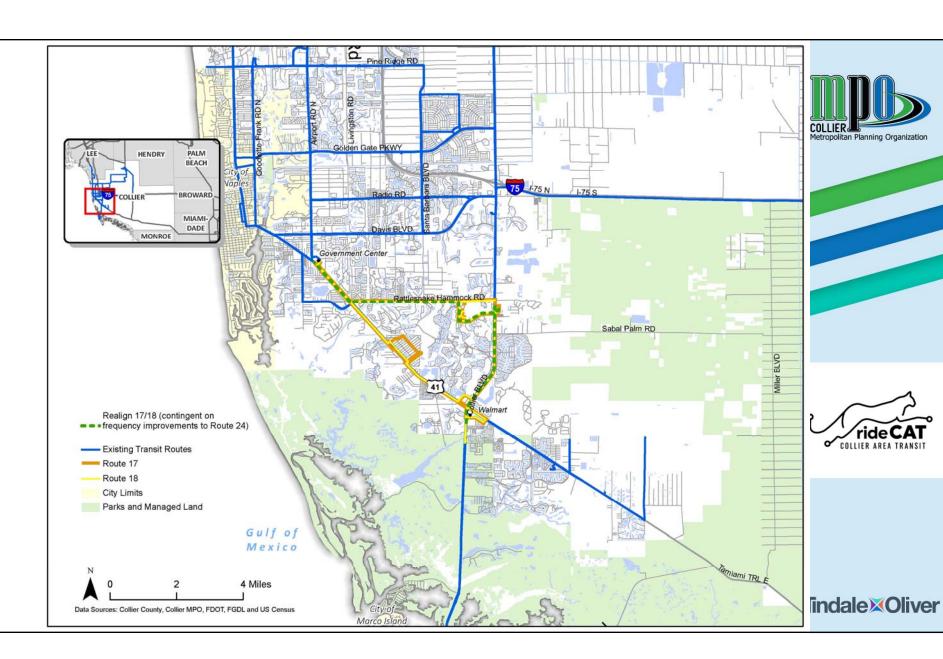




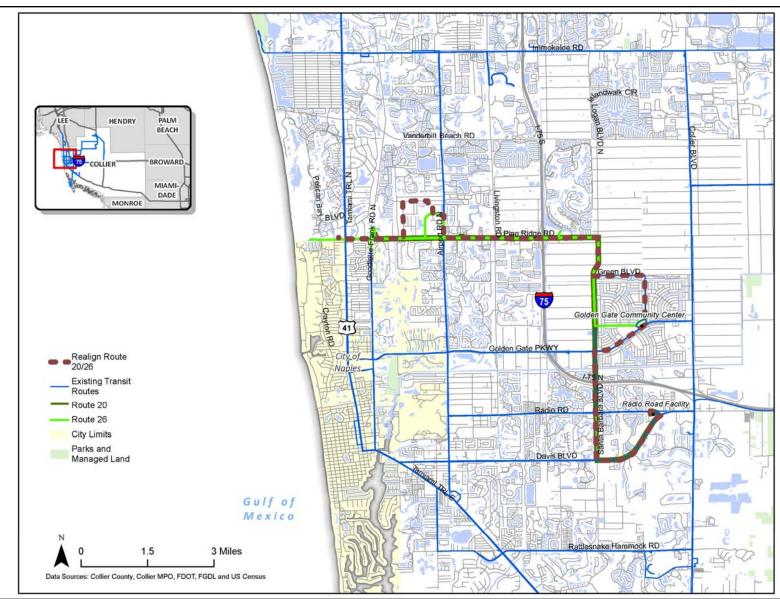








Network Alternatives

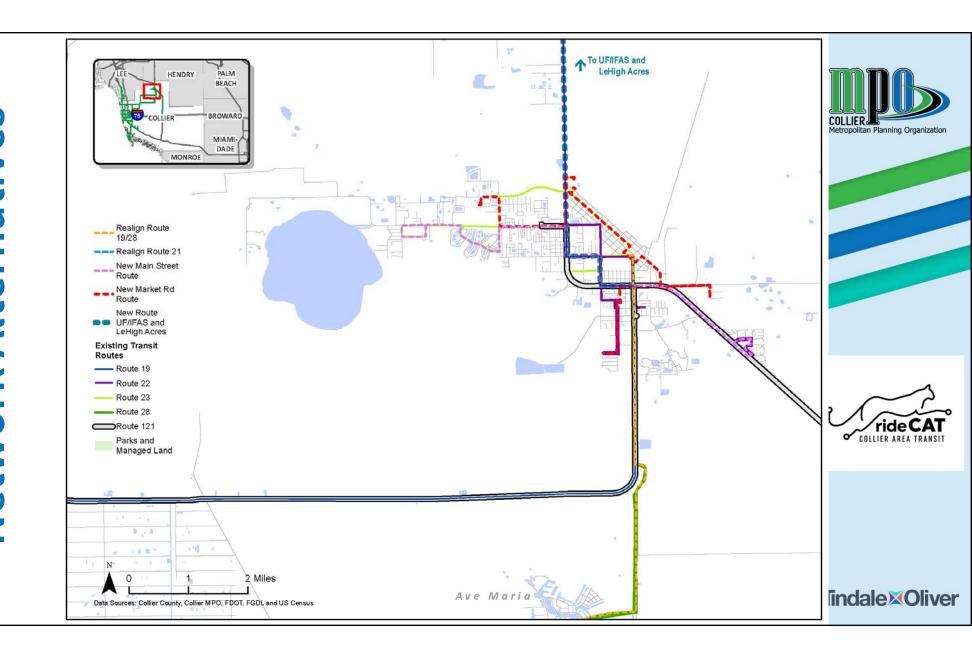


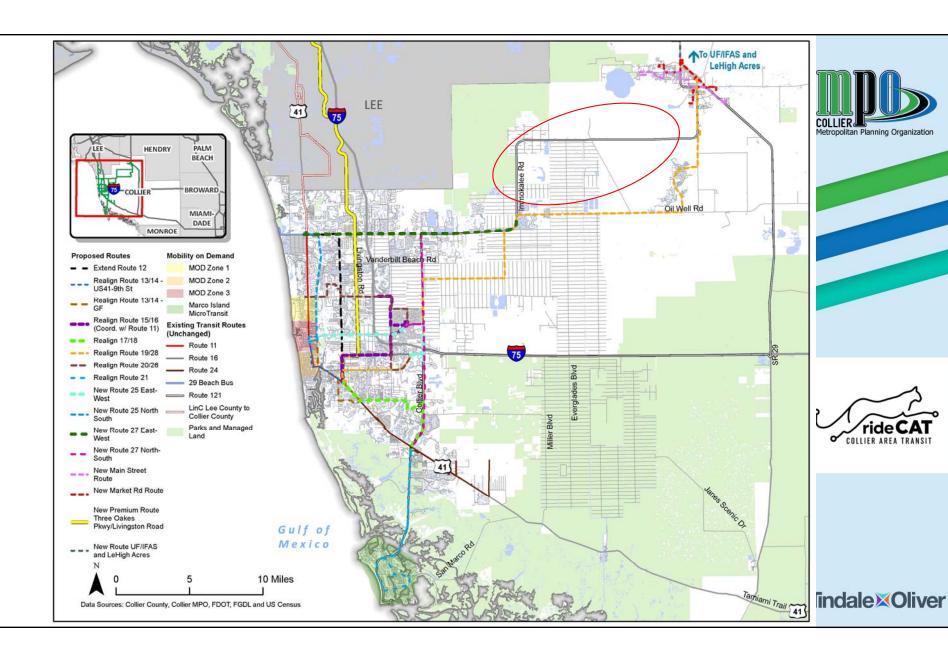






Network Alternatives





Transit Network Changes

- Eliminated extensive loops
- Created direct and bidirectional routing
- Enhanced and added service along key corridors
- Enhanced service to transit hubs at activity centers
- Saved service hours to improve frequency
- Mobility on demand downtown and Marco Island

Expected Impacts

- Increase network understandability and ease of use
- Increase service frequencies
- More direct travel and reduce travel times







Initial Alternatives Priorities

Route/Network Changes

- a) Route 12 extend service to 41/Immokalee Road
- b) Route 13/14 break into two bidirectional routes
- c) Route 15/16 combine into one bidirectional route
- d) Route 17/18 combine into one bidirectional route
- e) Route 19 eliminate, keep Route 28
- f) Route 20/26 combine, extend to 41 and Pine Ridge Road
- g) Route 21 streamline on Marco Island plus MOD
- h) Route 25 E-W and N-S bidirectional routes
- i) Route 27 E-W and N-S bidirectional routes
- j) Revised Routes in Immokalee, Lehigh Acres connection
- k) Lee County connector Govt Center to Gulf Coast Town Center







Initial Alternatives Priorities

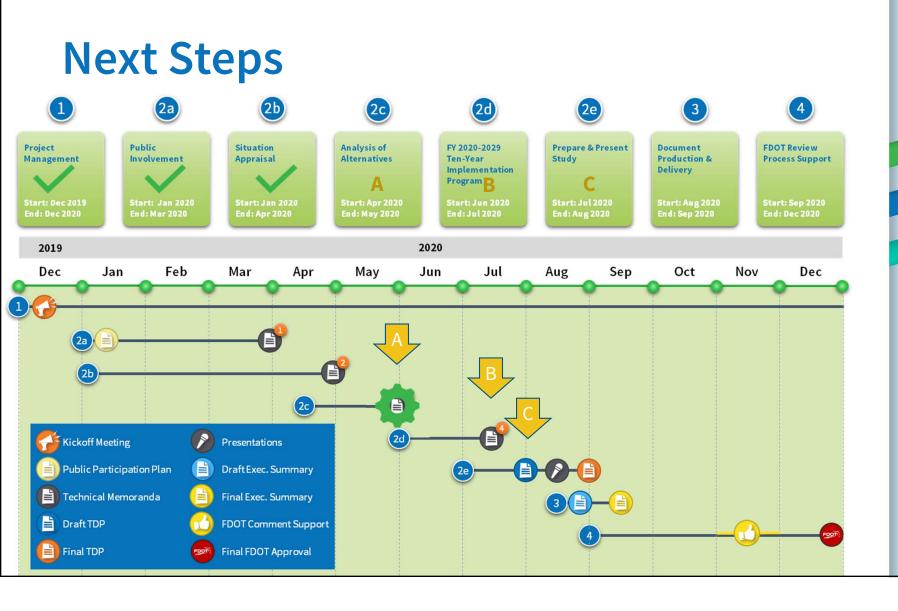
Technology and Policy Considerations

- a) MOD service zones
 - a) Naples, Marco Island
 - b) Immokalee, Golden Gate, other hard to reach areas with demand
 - c) Use of MOD for all to serve general public and growing ADA demand
- b) Emphasis on improved service frequency
 - a) Add AM and PM trip to Route 121
 - b) Add frequency to Route 24
 - c) Use saved service hours to add frequency top routes
- c) Role for premium service along key commercial corridors
- d) Role for park and ride lots, vanpools, express buses
- e) Need for more compact and connected land use
- f) Other mobility priorities















Next Meeting

Thank you for participating in this Working Group meeting!

The third meeting will follow public workshops. We will review the TDP prior to it going to the MPO and BCC.

The third meeting is scheduled for July 22, 2020.

Randall Farwell – <u>rfarwell@tindaleoliver.com</u>

Josephine Medina – <u>Josephine.Medina@colliercountyfl.gov</u>

Zachary Karto – <u>Zachary.Karto@colliercountyfl.gov</u>











Discussion Group Meeting #3

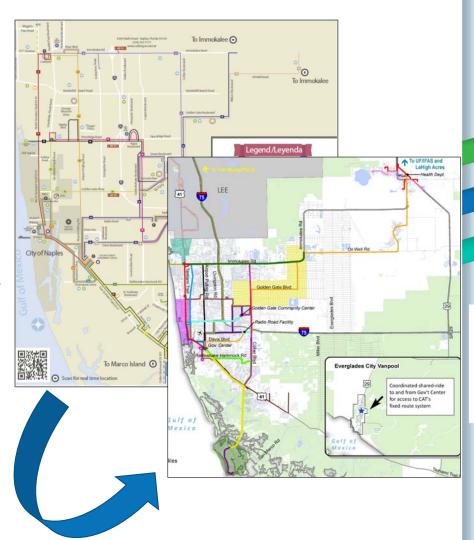
July 22, 2020 from 10:00 to 12:00 Virtual Meeting





Today's Meeting

- Welcome
- Update on TDP Status
- New Network Review
- Requirements and Phasing
- Outreach and Next Steps
- Adjourn









Welcome

- Project Team Introductions:
 - Josephine Medina, MPO Project Manager
 - Zachary Karto, CAT Project Manager
 - Michelle Arnold, Director
- Working Group Participants:
 - Michele Forrest, FDOT
 - Mary Ross, FDOT
 - Susan Corris, Career Sources
 - Robert Codie, Lee County
 - Lorraine Lantz, County Transportation Planning
 - Leandro Goicoechea, County Engineering
 - Greg Strakaluse, Naples Transportation
 - Daniel Smith, Marco Growth Management
 - Cormac Giblin, County Housing
 - Anita Jenkins, County Zoning
 - James Caton, PTAC
 - Derek Perry, County Attorney
- Others

Today's Focus

- New Network
- Requirements and Phasing
- Outreach and Next Steps









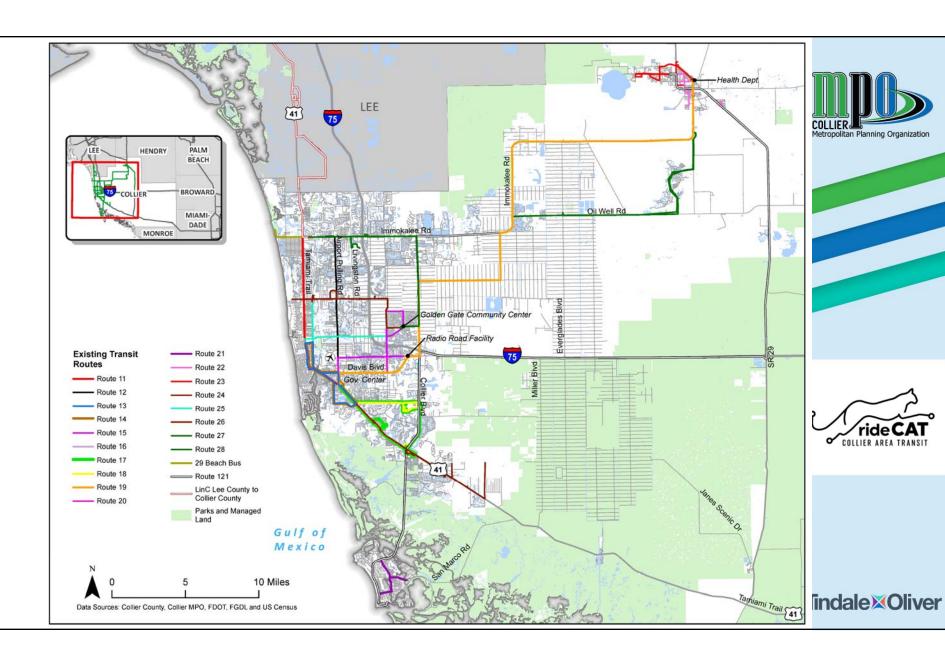
Study Update TDP Process and Schedule











Transit Network Changes

- Eliminated extensive loops
- Created direct and bidirectional routing
- Enhanced and added service along key corridors
- Enhanced service to transit hubs at activity centers
- Saved service hours to improve frequency
- Mobility on demand downtown and Marco Island

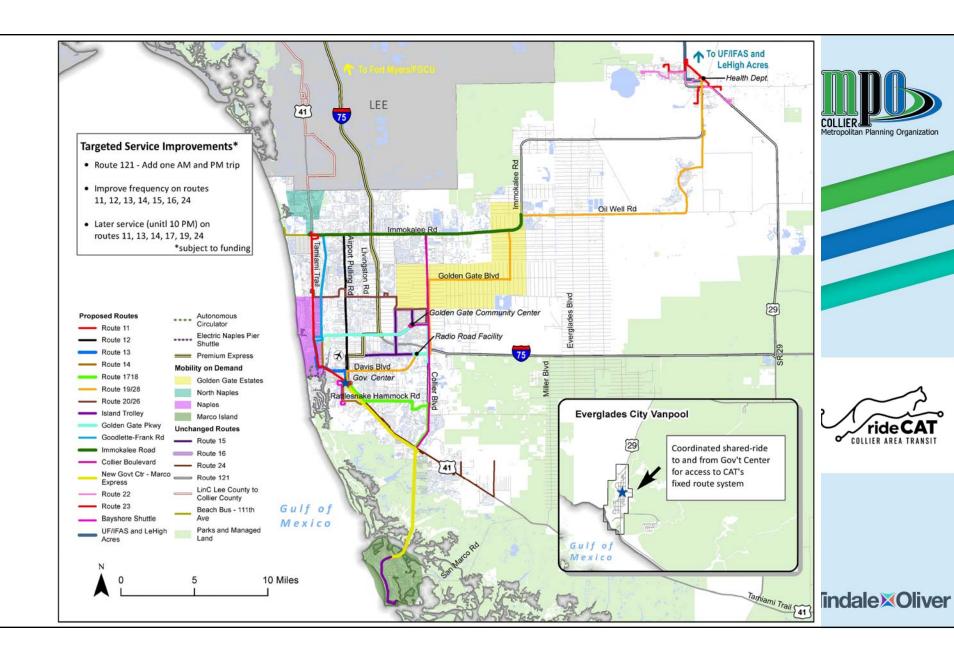
Expected Impacts

- Increase network understandability and ease of use
- Increase service frequencies
- More direct travel and reduce travel times









Operating Requirements and Impacts (FY 2030)

| Improvement | Ridership | VOMS | Revenue Hours |
|---------------------------|------------|------|---------------|
| 2030 Base Network* | 812,175 | 19 | 73,056 |
| Route Network Realignment | +307,451 | +4 | +18,689 |
| Increase Frequency | +231,285 | +8 | +28,611 |
| Span Improvements (10pm) | +41,055 | +0 | +7,627 |
| New Service | +71,400*** | +13 | +60,108 |

Ridership annualized weekday existing vs. new network FY-30 – realigned & new routes only Impacts for span and frequency improvements will also be included Phasing by route/service improvement will be shown







^{*} Existing Network Projected to FY 2030

^{**} Based on 2018 NTD Data

^{***} Excludes MOD, Autonomous Circulator, Electric Naples Pier

Phasing Plan (subject to funding)

| Improvement | FY 2020-2025 | FY 2026-2030 |
|---|--|---|
| Route Network | Route 11 Extended Route 12 Extended Route 13 - Realigned Route 14 - Shorter, 60 to 40 headway Route 17/18 - combined, 2-way Route 19/28 - combined, add trips Gov Ctr - Marco Express (Route 21) | Route 22 Realigned - Extended Route 23 Realigned, 60 to 40 headway Route 25 (EW and NS) – Split, E-W no change N-S Goodlette-Frank to Immokalee Rd Route 27 (EW and NS) – Split, E-W Immokalee Rd to Randall Rd N-S Collier Blvd, 441 to Immokalee Rd |
| Frequency | Route 15 – 90 to 45 headway Route 16 – 90 to 45 headway Route 24 - 85 to 60 headway Route 121 – add AM and PM trip | Route 11 – every 30 to 20 minutes Route 12 – 90 to 45 minutes Route 13 – every 60 to 30 minutes Route 17/18 – 90 to 45 minutes |
| Span Improvements (extend service to 10 PM) | Route 11 Route 13 Route 14 Route 17/18 | Route 19/28 |
| New Service/Other | | New I-75 Premium Express New Bayshore Shuttle Autonomous Circulator Naples Pier Electric Shuttle Mobility on Demand (includes Marco Island) |
| Financial Estimates | \$6,200,000 service plus inflation \$25,200,000 capital | \$63,100,000 service plus inflation \$28,000,000 capital |







Outreach

- Online Survey July 15th to 30th present network changes
- PTAC Jul 21st @ 3:00PM
- Public Meeting (virtual) July 30th present network changes
- TAC Aug 7th @ 9:30AM
- CAC Aug 7th @ 2:00PM
- Public Meeting (virtual) August 12th present final TDP
- BPAC Aug 18th @ 9:00AM
- BCC Sep 8th @ 9:00AM
- MPO Sep 11th @ 9:00AM







Adjourn and Next Steps

Thank you for participating in this Working Group meeting. The TDP document will be presented to the MPO and BCC. Final TDP will be submitted to FDOT by September 1, 2020.

Randall Farwell – <u>rfarwell@tindaleoliver.com</u>

Josephine Medina – <u>Josephine.Medina@colliercountyfl.gov</u>

Zachary Karto – <u>Zachary.Karto@colliercountyfl.gov</u>







Public Comments

CAT TDP Virtual Public Meeting #1

July 30, 2020, 5:30-7:00 PM

Are more covered bus shelters and benches included with these improved routes? Along with frequency improvements more shelters would be an asset.

naples and if you want/need to come back to immokalee early there's nothing available.

Is there a place to obtain maps that show the differences of the existing routes and the proposed changes? Can Route 22 or 23 go on Immokalee Drive pass Esperanza Place.

Will the proposed transit routes in Immokalee also consider/include existing transit needs which many citizens of Immokalee may have become used to? Thank you!!

Can you describe more about the automous circulator service around the Naples Pier. Is that an automous What is the measurable goal that you will be seeking with the mircotransit services (more riders, less congestion, cost less etc.)?

the CAT vehicles?

you mentioned that immokalee is a difficult area to serve. is that because of all the private roads?

I don't know if I missed it, but are you suggesting later service to Golden Gate City?

Both 23 and 22 go on Lake Trafford, maybe one can go south on Immokalee drive

Does anyone on the call know which statues or rules speak directly to which type of funds are allowed to be used towards transit operational improvements/needs?

When you add an extra bus to 121 in the am and pm, do you stagger to an different time, a little earlier or a little later? How do you determine the best times for these runs?

You need to do something with the bus stop on CR 951 in Golden Gate City across from the Shell station where Is there little demand for service on US41 north of Immokalee Road? Heading to Bonita Springs and connecting to How is mobility on demand different than Uber or Lyft? Why would the government want to compete with How far from the bus lines do you pick up micrptransit users?

Lee Tran?

private providers?

several people don't have them. Is that part of this plan?

Is there any technology that would tell me if there is room on the bus for my bicycle?

Estates).

What funding sources do you use for transit?

Is mobility on demand, pick me up and take me where I want to go in the zone or will you take me anywhere?

CAT operations.

How is COVID changing transit?

Do you anticipate that the COVID pandemic will change transit in perpetuity? i.e. reduce ridership due to fear of

CAT TDP Virtual Public Meeting #2

August 12, 2020; 5:30-7:00 PM

I have another webinar that I have to attend, will this be recorded?

Will this presentation be available online for viewing a later time?

You indicate that CAT replaces their fixed route buses every 12 years. However, historically CAT has reached the I had to sign off for another meeting, where will the proposed plan be in full? Thank you

Thank you. I wanted to have a copy of the phasing plan with 10 year funded and 10 year unfunded to refer to later What is the rationale of not providing extended service to Golden Gate City, which is a relatively dense area (4

How are the bus replacements powered? Are they all electric? Thank you

What do they run on? (gas, electric)

| CAT On-Board Rider Survey | | |
|---|--|--|
| August 12, 2020; 5:30–7:00 PM | | |
| Responses for other new or improved services: | | |
| Later service | | |
| Wish there was an inter bus leaving Marco | | |
| More frequent service on Route 121 | | |
| Larger buses on Route 121 | | |
| Service on holidays and Sundays | | |
| Improved service on Route 26 | | |
| Later service | | |
| Buses are too cold | | |
| Bathroom | | |
| Bus stops are too close to the road | | |
| Larger buses | | |
| Later night service. Timing is bad. When CAT has their meetings we can't get around because they stop running | | |
| A nicer driver | | |
| Later Sunday service | | |
| Expanded Sunday service | | |
| Earlier service | | |
| Later and more frequent Sunday service | | |
| More frequent Sunday service | | |
| Later and more frequent Sunday service | | |
| More frequent stops and pick ups | | |
| Later and more frequent Sunday service | | |
| Later service | | |
| Later and more frequent Sunday service | | |
| More stops and more frequent service | | |
| More comfortable seats | | |
| Cleaner stops and more benches. | | |
| Wifi | | |
| More frequent service, especially Sunday | | |
| Later and more frequent Sunday service | | |
| Later and more frequent Sunday service | | |
| Benches | | |
| Later and more frequent weekend service | | |
| Improved wheelchair accessibility, sheltered bus stops | | |
| More benches | | |
| Expanded Sunday service | | |
| Expanded Sunday service | | |
| More frequent and expanded Sunday service | | |
| Expanded Sunday service | | |
| More frequent and expanded Sunday service | | |
| More frequent and expanded weekend service, especially Sunday | | |
| More frequent service | | |
| Be always on time. Most are. | | |
| More benches | | |

Drivers are very friendly but sometimes run away to ear No good scheduling times There is construction at my stop and no where for me to get out of it Wifi More benches More comfortable seats Smoother rides Improved wheelchair accessibility More child-friendly buses, seatbelts More comfortable seats More frequent weekend service More frequent service More frequent service in Immokalee Have drivers be on time not early More frequent weekend service Have seen cockroaches at times, definitely longer hours wanted More comfortable seats Sheltered bus stops Larger buses Expanded weekend service More frequent Sunday service More frequent service Expanded Sunday service More bike racks on buses More frequent service More frequent weekend service Larger buses, wheelchair accessible paratransit, sheltered bus stops. More frequent service The bonita bus waits for the Naples bus but no Naples bus waits for the bonita bus More frequent weekend service Nicer drivers, hand sanitizer on buses You should put a sealed locked survey box on the busses so that we can leave comments about the driver or the Drivers are frequently early and cause me to be late to work. When I miss the bus because the driver is early by Later weekend service Can we get a shuttle bus for Friday Saturday nights to pick us up from the bars and take us home Expanded weekend service Expanded Sunday service Expanded weekend service More frequent service Expanded and more frequent weekend service Earlier weekend service Later weekend service Want route to Vanderbilt Beach/Law Libray Later weekend service Post wi-fi password in all buses Later and more frequent service Hand sanitizer on buses

Sheltered bus stops

Expanded and more frequent weekend service

Better route scheduling

Expanded service, especially Sunday

More frequent service

More frequent service

More frequent weekend service

Nicer drivers, sheltered bus stops, more frequent service

Don't take the buses much but it's better if u are not on a schedule. The scheduling is inconsistent with anything

Expanded weekend service

Buses are too cold

More frequent service

Expanded Sunday service

The routes are all messed up. The routes are changes twice a year. The times the busses come are awful. If I could

Nicer drivers, hand sanitizer on buses, more bus routes, especially to Marco Island

I like that there is a city transit but I hate that they are a

Expanded service

Hand sanitizer on buses, earlier service

Hand sanitizer on buses, more frequent service

Naples to Miami

More frequent service from Marco Island

Better on time performance

Later service

Buses need to be on time more often

Later service

More frequent service to Downtown Naples

Buses are too cold

More storage on buses

More frequent service

I don't understand the scheduling. I always get lost and can't find the right bus to get on

More frequent service

More bike racks on buses

More frequent service and farther reaching service

More benches

More frequent service

Express shuttle from Government Center to beaches

More frequent service

More frequent stops

More frequent service and stops

Availability is great and drivers are wonderful

Needs to have debit or credit card usage

Like the drivers

Love that the buses are here allows me to get around the city

All drivers are very friendly

I like the drivers

More faster pick ups and more comfortable seats

Timing is perfect

Like takes the stress from being behind the wheel More stops sometimes I have to walk far Bathroom cleaner Start 15 minutes earlier Chofer should be able to knowledge, hand sanitizer The buses always make me late for doctors Hand sanitizer, extended hours Better storage space Better storage space and a place to buckle baby into seat Everglades city Drivers have been early to the stops by more than ten minute More buses on every route Hand sanitizer, bicycle racks,tv Hand sanitizer More bike rack space Senior discount, more space for handicap Very convenient Frequency of drivers arrival Change routes of 24 and 18 because they run same time and same route. Need night service Punchy Early morning routes I wish the buses ran more late like Miami and they picked up more often than sometimes you have to wait an Drivers and cleanliness are wonderful. The busses stop running to early. Some people work late and can not get More routes Sunday bus routes are too limited Television More frequent stops and pick ups Naples to miami Bus good for ,e to be independent from my husband Temperature adjusted on buses Drivers are great Naples to miami More options for Marco Island and More service at night Cost efficiency compared to uber's Sunday service for routes 14 and 18 Frequency of route pick up times are very poor The drivers are awesome and transfers are smooth Bathroom clean, no smoking when they are waiting in areas Improve all services After 8pm More bus There should be routes going from immokalee straight to nch Just more busses coming from and to immokalee Air conditioning

Rout 13

Not frequent enough Like one way trips Cvery convenient the bus route should be for elders separate from workers Like the convenience but should run longer at night Customers Recline seats Responses for where Express Service should go (No. of Responses) Immokalee (7) Naples to Miami (7) Major destinations (5) Beaches (4) Other counties (4) Immokalee to Naples (3) Downtown Naples (2) Health Departments (2) Marco Island (2) 34142 (1) Ava Maria (1) Bus station (1) Collier County to Lee County (1) Everglades (1) Everglades City (1) Everywhere (1) Fort Myers to Immokalee (1) Golden Gate (1) Golden Gate to US 41 (1) Immokalee (1) Immokalee Rd (1) Immokalee to Fort Myers (1) Immokalee to Naples (1) Lee County (1) Livingston to Immokalee (1) Marco Island to Courthouse (1) Marco Island to Downtown Naples (1) Miami (1) Naples (1) Naples Manor (1) Naples to Beaches (1) Naples to Immokalee (1) Naples to Marco Island (1) Naples to Miami (1) North Naples to Golden Gate (1) Pine Ridge Rd (1) Retails stores (1) Santa Barbara to US 41 & Golden Gate (1) South Naples to North Naples (1) US 41 and Airport Rd (1)

US 41 to Bonita Beach Rd (1)

Vanderbilt Beach (1)

Winn Dixie (1)

CAT Mobility Needs Online Survey (1)

February - March 2020

Three adults in my household to not drive and rely on rideshare, public transit, a comboination of the two, or the I was considering buying the Monthly pass, however, I sometimes start work at 6 am, and sometimes leave work i want to take the bus, but it extends my trip to work by almost an hour.

I have been very involved with the maintenance of the buses and understand the operational requirements.

I have seen the bus but do not ride

Chairman - MI Bike/Ped Committee

My business depends on it.

I have employee that use it and employees that want to use it.

I have employees that don't have cars and getting to work is a big issue with no reliable public transportation

Responses to what other mobility improvements would you prefer to see in Collier County.

I don't need the following, but now and then I get calls from people who are bussing between Lee County and

Pull outs where the bus gets out of traffic when loading passengers

More services and options for the elderly who do not drive

For those that need door to door service

Bus stop detector

In the few public meetings I've attended (mostly CRA related) a great deal is discussed regarding traffic and

Buses going downtown for workers/visitors to use!

Software to calculate the proper route at the time needed

Community shuttle services

Better waiting areas for high passenger count stops

bike or scooter usage from place to place like bigger cities have. Service outside community for large festivals,

Existing bus stops relocated outside lanes of traffic

Need better cleanup and services at busy stops. The stop on Airport and Glades is trashed constantly. Litter

100% Rail options

Transportation more readily available for the visually impaired

Provide internet access and free service to all BCC staff

use weighted responses from bus riders

light rail on major arterials

Staffed transportation for individuals with special needs

Make it easier for people from low income areas ie Immmokalee to make it to Naples for Work/School

More flexible traffic pattern (not just a square around town)

Would to like to see more park and ride locations? Please specify:

Personally, there is no reason for me to need such a service and sadly I am not aware of how many locations there

Golden Gate area might benefit from this, located off collier or Golden Gate Blvd

There are two separate services for tourist and riders.

East Naples parking with Marco Island express service

Often times parking garages are dark, cramped, and unpleasant. I feel that better parking solutions would help Yes - for the Estates.

I think for car pooling or to access a shuttle to beach, 5th ave area, mercato etc..

Publix on Pine Ridge Rd. and 951 (Collier Blvd.)

I have no opinion

Golden Gate City

Yes, the availability of park and ride lots would increase my ability to use the county bus, take the beach shuttle, Tourist destinations like the zoo, Conservancy, County museums, Artis-Naples, etc.

Yes, in the Orange Tree area to potentially reduce commuter traffic from Golden Gate Estates.

To access paved pathways

It MIGHT help with getting people to the beach but, with most individuals being of the mindset that their time is Golden Gate Estates

Yes---from apartment buildings in South Collier County

Yes. Considering most of our workforce cannot afford to live in collier county because our wages are so low, it Golden Gate Estates would be great and more bus stops in golden gate estates along Everglades Blvd north and close to I-75 access points

EAST NAPLES, NCRP, EAGLELAKES,

for special events in downtown Naples, or facilities with smaller lots

Parking for beach access

In areas of need (immokalee and Golden Gate -both estates and city)

no, we have no use for them, uneeded

Not an issue for me, but important for Visitors, residents with impairments & employees who need to get to Park in East Naples and express bus to Marco Island - reduce cars on 951

Who should benefit from mobility improvements? If other, please specify:

Everyone could benefit from different types of transport. At a micro-local level small electric carts could help Under-served areas like Everglades City,

All of the above

How should we pay for expanded mobility service? Other:

use electric or natural gas buses

Cut any and all wasteful spending and use that money.

When time is right

Try everything and don't get too comfortable in any one solution.

Sales Tax similar to HART in Tampa.

Developer funded via impact fees

offer franchises for some routes

I honestly don't know.

Use some beautification funds toward mobility service. Yes, everyone comments on how beautiful our roads are Grants and other Federal money opportunities

Increase the tourism tax, as it will also benefit tourists.

GRANTS

special event sponsors should be assessed a fee and be required to provide services

Apply for grants, etc like other businesses who expand to serve Collier County.

Grants

Do you have any other comments or suggestions that would help CAT improve mobility services? Please bus pull-out lanes are essential so as not to impede through traffic.

I see people waiting for the bus on Rattlesnake and while here and there, there is a bench, there is no cover from I would use the CAT system for to/from work if I was able to get to work by 8a.m.

Fix the fare boxes on the buses. Larger buses. Scrap the "kneeling bus". Increase frequency and/or double up on none

I would like to see Everglades City have the benefit of at least one bus a few times a week...if the mayor, city More stops and locations and times. More public access sidewalks around town

CAT Bus has a high notoriety in Collier county and it's been not only effective towards our community but

None

I do not use the bus but I think it is important for the people who can't afford a car to be able to get to work and Consider smaller electric vehicles like the paratransit vans and run service more frequently on some routes.

PARATRANSIT NEEDS EXPANSION AND THE \$6.00 FEE EACH WAY IS TOO HIGH FOR MANY SENIORS WHO ARE LOW Provide a bus stop in Corkscrew Island Neighborhood.

Route 28 should go all the way to colier fair ground the go back to oil well

Pilot programs. Make it safe for small bike, cart, car, bus, jeepney, bus, etc to travel. Easy to board and disembark. NO

Please try a Park and Ride for the Estates along the 951 corridor with regular and express services. Express could I have had problems in the past where the CAT bus does not arrive on time to the bus stop, which makes me late Increase rides in areas where those who use bicycles can use the CAT service. DOWNTOWN needs buses to go This is for my disabled son. The bus system does not go to places he needs service at the times he needs service. Eliminate unsafe bus stops (Collier Blvd among the worst), create safe access for all people and bring bus stops more bus schedules throughout the county and make them less confusing to use

More routes and Sub Connection stations would be nice. But what we have now is good. I'm waiting for Wi-Fi Include periodical policing

Would love to see express bus service from Golden Gate Estates to the Collier County Government Complex THE MOST IMPORTANT THING ABOUT BUS STOPS IS ACTUALLY SEEING THEM AND HAVING A PLACE TO SIT. yes, you need to improve services for handicap or medical challenged individuals. More reasonable times for n/a

more stops/longer in the day service

I was recently in Kansas City and it provides a free 'on-rails' bus service along designated routes to

I do not, but taking this survey made me realize how little I know about our existing public transit infrastructure. I Would love a convenient way to get to the Government Center from Lee County to start work around 8. According Increase bus routes in Immokalee. Help the people get around in the county in a safe way. Longer hours.

I would use a train/railway service everyday to get work and out of the heavy traffic our area gets every year.

More bike/pedestrian PATHS that don't interfere with existing roadways

You do a good job with what little you have. You just need more support to expand service. Play off the desire to We desperately need to buses to run longer into the evenings and more often! It's so frustrating to have to wait 2 Need more loading lanes so the buses can pull out of the roadway for stops.

Smaller units and more often?

Traffic year round is HORRIBLE

Longer service hours and less time between route service would make the bus a more viable option for many Advertising more in public places, libraries, garages, businesses, Government Centers with different divisions, We need a rail option or something to help with road congestion, especially during season.

Providing BCC employees with the option to utilize CAT bus services for free may increase ridership rates and Working for the county, I have not seen any ads anywhere about the CAT program. Only things I have heard in Make Route maps more available and posted at stops, in social media, web applications.

COLLIER COUNTY NEEDS TO THINK OF THE WORKING CLASS CITIZENS OF ITS COUNTY. NOT EVERYONE IN THIS N/A

Decrease Collier County employee rates. It used to be \$10/month and then raised to I believe \$30/month.

no

Advertise CAT services as an environmentally sound way to reduce emissions, reduce traffic congestion, reduce Service needs to be extended to the Everglades area, i.e. Copeland, Plantation, Chokoloskee, etc. This externed Better lighting on streets in Immokalee like Jones or Delaware, for example, where there is a CAT stop or pickup. The para services are crucial to a growing number of individuals with disabilities. I know many individuals who We would like to see more frequent and convenient bus service. This may lighten traffic on the roads. We would

I manage a hotel and my associates tell me that if they were to utilize CAT it would take too many stops and too As it is, Collier County feel very spread out and most people outside the county really only think of Naples when expand service to Everglades, Immokalee area and Marco Island for service workers. Increase service options for There are a many native Neapolitans who live in low income areas and struggle to make ends meet, the biggest Better options to take ebikes and bicycles along.

I encourage more coverage and more frequent routes. As a restaurant manager, many of my staff rely on CAT Delete the personal questions in this survey,

Cut the ride time in half. The 12 and 11 routes should come every 45 mins instead of one hour and a half. More We have a seasonal demand for workers who need transportation to a job. It is super hot in the summer to stand Marco Island needs better transportation options to get workers to the city from affordable housing options in Routes need to connect more and come more often. App is also not user friendly. During rainy season, I'm sure NO

More services for the disabled and elderly who need to get around but an Uber is too expensive on their limited I am personally not dependent on CAT, but lots of our employees are and we could get more open positions filled not municipal. Add charging stations and free wi-fi to the buses to elevate the service. I know you can't add more Relief from summer sun when waiting at bus stop

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Home / 2nd Transit Development Plan Public Meeting (Virtual)

2ND TRANSIT DEVELOPMENT PLAN PUBLIC MEETING (VIRTUAL)



More News

m August 3, 2020

Please join us Wednesday, August 12, 2020 from 5:30 PM – 7:00 PM for Collier Area Transit (CAT) 10 Year Transit Development Plan (TDP) virtual meeting to learn about proposed transit and mobility improvements and to let us know how you think CAT should grow. Click link below to register and participate:

https://register.gotowebinar.com/register/4341140595842323472 or to join by phone: (562) 247-8422; Access code: 529-086-769.

CAT Needs Your Input! For further information about this meeting and how to provide your input please click here.

Please contact Josephine Medina at 239-252-5850 or Josephine.Medina@colliercountyfl.gov with any questions.

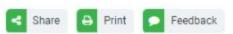
PREVIOUS

NEXT

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Home / Transit Development Plan Public Meeting (Virtual)

TRANSIT DEVELOPMENT PLAN PUBLIC MEETING (VIRTUAL)



More News

m July 16, 2020

Please join us Thursday, July 30, 2020 from 5:30 PM – 7:00 PM for Collier Area Transit (CAT) 10 Year Transit Development Plan (TDP) virtual meeting to learn about proposed transit and mobility improvements and to let us know how you think CAT should grow. Click link below to register and participate:

https://register.gotowebinar.com/register/8078226686733223947

To join by phone: 1 (415) 655-0060; code: 562-140-330

CAT Needs Your Input! For further information about this meeting and how to provide your input please click here.

Please contact Josephine Medina at 239-252-5850 or Josephine. Medina@colliercountyfl.gov with any questions.

PREVIOUS

NEXT

News Media Contact: Anne McLaughlin

MPO Executive Director

239-252-5814 colliermpo.net



2800 N. Horseshoe Drive, Naples, Florida 34104 • (239) 252-5814 • Fax (239) 252-5815

July 20, 2020

FOR IMMEDIATE RELEASE

NOTICE OF PUBLIC MEETING COLLIER AREA TRANSIT TRANSIT DEVELOPMENT PLAN PUBLIC WORKSHOP COLLIER COUNTY, FLORIDA

Thursday. July 30, 2020 5:30 p.m. to 7:00 p.m

The Public Workshop for the Transit Development Plan (TDP) for Collier Area Transit (CAT) will hold a virtual workshop from **5:30 p.m. to 7:00 p.m.** on *Thursday, July 30th*. Access to the meeting is accessible via your computer, tablet or smartphone. Please click link to register and participate https://register.gotowebinar.com/register/8078226686733223947 or using your phone at **1(415) 655-0060**; Access code: **562-140-330**.

All interested parties are invited to attend, and to learn about proposed transit and mobility improvements and to let us know how you think CAT should grow.

People who would like to offer comments, but are unable to attend the workshop, may do so by submitting written comments to the attention of Zachary Karto, CAT TDP Project Manager, 8300 Radio Road Naples, FL 34104. Written comments will be accepted through Friday, August 14, 2020.

The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and related statutes. Any person or beneficiary who believes that he or she has been discriminated against as part of the MPO planning process because of race, color, religion, sex, age, national origin, disability or familial status may file a complaint with Collier MPO by calling MPO Executive Director, Ms. Anne McLaughlin, or by writing to Ms. McLaughlin at 2885 S. Horseshoe Drive, Naples, Florida 34104.

Any person requiring special accommodations at the upcoming meeting because of a disability or physical impairment as well as anyone with general questions should contact CAT at least at least five

(5) business days prior to the meeting by calling 239-252-5840 or contact the webmaster at webmaster@colliercountyfl.gov.

For more information on the meeting contact Josephine Medina by calling 239-252-5850.

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News Media Contact: Anne McLaughlin

MPO Executive Director

239-252-5814 colliermpo.net



2800 N. Horseshoe Drive, Naples, Florida 34104 • (239) 252-5814 • Fax (239) 252-5815

July 29, 2020

FOR IMMEDIATE RELEASE

NOTICE OF PUBLIC MEETING COLLIER AREA TRANSIT TRANSIT DEVELOPMENT PLAN PUBLIC WORKSHOP COLLIER COUNTY, FLORIDA

Wednesday, August 12, 2020 5:30 p.m. to 7:00 p.m.

A 2nd Virtual Public Workshop for the Transit Development Plan (TDP) for Collier Area Transit (CAT) will be held from **5:30 p.m. to 7:00 p.m.** on *Wednesday, August 12th*. Access to the meeting is accessible via your computer, tablet or smartphone. Please click link to register and participate https://register.gotowebinar.com/register/4341140595842323472 or using your phone at (**562**) **247-8422**; Access code: **529-086-769**.

All interested parties are invited to attend, and to learn about proposed transit and mobility improvements and to let us know how you think CAT should grow.

People who would like to offer comments, but are unable to attend the workshop, may do so by submitting written comments to the attention of Zachary Karto, CAT TDP Project Manager, 8300 Radio Road Naples, FL 34104. Written comments will be accepted through Friday, August 28, 2020.

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Any person requiring special accommodations at the upcoming meeting because of a disability or physical impairment as well as anyone with general questions should contact CAT at least at least five

(5) business days prior to the meeting by calling 239-252-5840 or contact the webmaster at webmaster@colliercountyfl.gov.

For more information on the meeting contact Josephine Medina by calling 239-252-5850.

###

Jessica Mackey

From: MedinaJosephine <Josephine.Medina@colliercountyfl.gov>

Sent: Monday, September 14, 2020 4:37 PM

To: Corris, Susan CartoZachary

Subject: Collier Area Transit (CAT) Transit Development Plan 2021-2030

Attachments: Draft CAT TDP 2021-2030.pdf

Dear Ms. Corris,

Please find attached a copy of the draft FY2021-2030 Transit Development Plan (TDP) Major Update for Collier Area Transit (CAT). The draft FY2021-2030 TDP will go before the Collier County Board of County Commissioners for adoption on **October 13, 2020**.

Please provide any comments on behalf of the workforce agency with regard to this TDP at your earliest convenience, but not later than **October 8, 2020** to ensure sufficient time for review of your input prior to the adoption presentation.

This draft document is being provided to the Southwest Florida Workforce Development Board for review and comment in accordance with Rule Chapter 14-73, FAC, which states "As required by Section 341.052, F.S., comments must be solicited from regional workforce boards established under Chapter 445, F.S. The Department, the regional workforce board, and the MPO shall be advised of all public meetings where the TDP is to be presented or discussed, and shall be given an opportunity to review and comment on the TDP during the development of the mission, goals, objectives, alternatives, and ten-year implementation program."

If you have any questions about this request for comments please feel free to contact me.

Respectfully,

Josephine Medina Senior Planner



Office: 239-252-5850 2885 South Horseshoe Dr.

Naples, FL 34104 www.colliermpo.com

josephine.medina@colliercountyfl.gov



Jessica Mackey

From: Corris, Susan <corris@collierschools.com>
Sent: Wednesday, September 30, 2020 3:52 PM

To: MedinaJosephine

Subject: Draft CAT TDP 2021-2030
Attachments: Draft CAT TDP 2021-2030.pdf

EXTERNAL EMAIL: This email is from an external source. Confirm this is a trusted sender and use extreme caution when opening attachments or clicking links.

Hi Josephine:

I finished reviewing the draft, and you'll see on page 101 and 162 – the same sentence is used to describe the longevity (12 years) of either "motor bus" or "bus vehicle" (see my sticky note). Just a suggestion - make it consistent with both sentences when describing a particular bus.

Everything else looks good.

Please let me know if you have any questions.

Thank you,

Susan Corris, Mentor

Destination Graduation Lely High School ~ <u>corris@collierschools.com</u> (239) 377-2672 or (239) 322-2489





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Appendix D: Farebox Recovery Ratio Report

Current Farebox Recovery Ratio

The farebox recovery ratio for CAT, the public transportation provider for Collier County, was 13.9% percent for all fixed-route services in fiscal year (FY) 2018. This number reflects a 34% decrease over the five-year period from FY 2013 to FY 2018.

Prior Year Fare Studies and Changes

The last CAT's fare change was implemented in 2015 and is listed in Table D-1. As a result, the current full fare on the fixed-route system is \$2.00, and \$1.00 for the reduced fare. The changes implemented in 2015 included establishment of a Summer Paw Pass Program and a Corporate Employee Discount Pass. A fare study was completed FY 2018.

2017 **Approved Change Fare Category Reduced Fare Full Fare Reduced Fare Full Fare** One-way Fare \$1.50 \$0.75 \$2.00 \$1.00 Children aged 5 and Free Free Free Free under Free / 90 min. Free / 90 min. Transfer \$0.75 \$0.35 Day Pass \$4.00 \$2.00 \$3.00 \$1.50 7-day Pass \$15.00 \$7.50 N/A N/A 15-day Pass N/A N/A \$20.00 \$10.00 30-day Pass \$35.00 \$17.50 \$40.00 \$20.00 Marco Express One-way \$2.50 \$1.20 \$3.00 \$1.50 Marco Express 30-Day \$70.00 \$35.00 \$70.00 \$35.00 Pass

Table D-1: Fixed-route Fare Structure Modification

Strategies That Will Affect the Farebox Recovery Ratio

The 2021–2030 Transit Development Plan (TDP) Major Update identifies strategies that will be used to maintain or increase the farebox recovery ratio, including the following:

- Continue planned program to replace the existing, outdated farebox equipment on all
 vehicles so CAT's fare structure can continue to include smartcard technology and
 mobile fare payment to help enhance the fare collection process, minimize cash
 handling, and attract new patrons who may be put off by transit because of the fare
 payment process.
- Monitor key performance measures for individual fixed routes.
- Ensure that transit serves major activity centers, potentially increasing the effectiveness of service.
- Continue to transition Transportation Disadvantaged (TD) and ADA passengers to fixed-route services to increase ridership.
- Increase ridership through enhanced marketing and community relations activities.

- Provide local employers with incentives for transit use.
- Evaluate the fare structure every three years.
- Monitor opportunities to secure additional funding to improve frequencies on existing routes and attract new riders.
- Add additional buses and combine bi-directional routes to improve frequencies and improve the customer experience and attract new riders.
- Minimize costs required to operate and administer transportation services.
- Conduct on-board surveys every five years to gather information on how to make services more convenient and useful to patrons.
- Complete ongoing preventative maintenance activities and replace fareboxes as needed to ensure the fare collection equipment is performing at optimum capacity.

Appendix E: Recommended Monitoring Program

Recommended Monitoring Program

Once the recommended transit services are implemented, the following fixed- route and Mobility-on-Demand (MOD) performance indicators and measures should be monitored by CAT on a quarterly basis as part of the recommended performance monitoring program:

- Passenger Trips Annual number of passenger boardings on the transit vehicles.
- **Revenue Miles** Number of annual miles of vehicle operation while in active service (available to pick up revenue passengers).
- **Revenue Hours** Total hours of operation by revenue service in active revenue service.
- **Passenger Trips per Revenue Mile** –Ratio of passenger trips to revenue miles of service. This is the key indicator of service effectiveness that is influenced by the levels of demand and the supply of service provided.
- Passenger Trips per Revenue Hour Ratio of passenger trips to revenue hours of operation.

As fixed-route-type services typically take up to three years to become established and productive, the performance data up to that point should be reviewed and interpreted cautiously. Although adjustments/modifications may occur, outright discontinuations based on performance monitoring data alone are discouraged.

Evaluation Methodology and Process

This process is based on two measures, trips per mile and trips per hour, which are weighted equally to derive an overall route score. A route's score for a particular measure is based on a comparison of the measure as a percentage of the system average for that particular measure. These individual measure scores are added together and divided by 2 to get a final aggregate score. This final composite performance score is an indication of a route's performance for all three measures when compared to the system average for those measures. A higher score represents better overall performance when compared to other routes.

The noted comparative performance evaluation can be beneficial, but care should be taken when using the final scores and rankings, because these figures are comparing routes to one another and may not reflect the specific goals established for a particular route (i.e., geographic coverage vs. ridership performance). The process is particularly useful, however, in highlighting those routes that may have performance-related issues. These routes can then be singled out for closer observation in future years to determine specific changes that may help mitigate any performance issues.

Once a route score is determined, routes can be ranked to show the highest performing and lowest performing routes. The rankings are a useful proxy for determining the comparative performance of any route, as well as highlighting changes in performance over time. To track the performance variation over time, three performance levels have been developed:

- **Level I Good (≥ 75%)** Transit routes in this category are performing efficiently compared with the average level of all the agency's routes.
- **Level II Monitor (30–74%)** Routes in this category exhibit varying levels of performance problems and need more detailed analysis (e.g., ridechecks, on-board surveys, increased marketing efforts, etc.) to aid in identifying specific changes that can be made to help improve the route's performance.
- Level III Route Modification or Discontinuation (≤ 29%) Routes in this category exhibit
 poor performance and low efficiency. Recommendations for these routes may include
 truncation of the route, reduction in the route's number of revenue hours, or discontinuation
 of the route.

Figure E-1 illustrates the three evaluation levels and notes the recommended thresholds for each level.

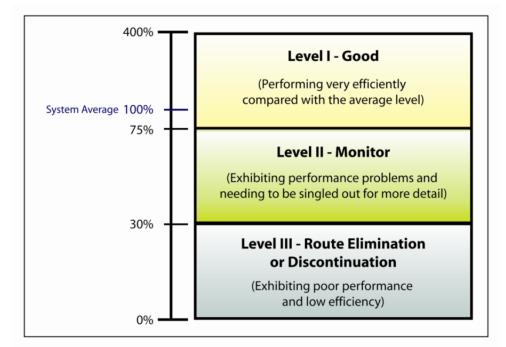


Figure E-1: Route Performance Evaluation Levels