



**Public Transit Advisory Committee
Collier Area Transit
Hybrid Meeting
Collier County Museum Lecture Hall
3331 Tamiami Trail East Naples, Florida
September 18th, 2024
1:00 p.m.**

Agenda Packet

- 1) Call to Order
- 2) Roll Call
- 3) Approval of Agenda
- 4) Approval of Minutes
 - a. August 21st Meeting Minutes
- 5) Committee Action
- 6) Reports and Presentations
 - a. Marco Trolley Update
 - b. Major TDP Update
 - c. CAT Technology Update
- 7) Member Comments
- 8) Public Comments
- 9) Next Meeting Date – October 16th, 2024, Collier County Museum Lecture Hall
- 10) Adjournment

Two or more members of the Board of County Commissioners may be present and may participate at the meeting. The subject matter of this meeting may be an item for discussion and action at a future BCC meeting.

Collier Area Transit operates in compliance with Federal Transit Administration, (FTA) program requirements and ensures that transit services are made available and equitably distributed and provides equal access and mobility to any person without regard to race, color, or national origin, disability, gender or age. Title VI of the *Civil Rights Act of 1964*; FTA Circular 4702.1A, "Title VI and Title VI Dependent Guidelines for Federal Transit Administration Recipients.

Anyone who required an auxiliary aid or service for effective communication, or other reasonable accommodations in order to participate in this proceeding, should contact the Collier County Facilities Management Department located at 3335 Tamiami Trail East, Naples, Florida 34112 or 239-252-8380 as soon as possible, but no later than 48 hours before the scheduled event. Such reasonable accommodations will be provided at no cost to the individual.

MINUTES OF THE PUBLIC TRANSIT ADVISORY COMMITTEE
MEETING

NAPLES, FLORIDA

AUGUST 21, 2024

LET IT BE REMEMBERED, the Public Transit Advisory Committee in and for the County of Collier, having conducted business herein, met on this date at 1:00 P.M. in REGULAR SESSION at Collier County Museum Lecture Hall, 3331 Tamiami Trail E, Naples, Florida with the following members present:

Chair: John DiMarco, III
Vice-Chair: Peter Berry (Virtual)
Cliff Donenfeld
Dewey Enderle
Sonja Lee Samek
Benita Staadecker
Open Seat

ALSO PRESENT: Brian Wells, Director, Collier County PTNE
Omar DeLeon, Public Transit Manager, Collier County PTNE (Excused)
Alexander Showalter, Senior Planner, Collier County PTNE (Excused)
Keyla Castro, Operations Specialist, Collier County PTNE
Elena-Ortiz Rosado, Marketing Manager, Collier County PTNE
Liz Soriano, Project Manager, Collier County PTNE
Jacob Stauffer, Transit Planner, MV Transportation
Nolan Begley, Fixed Route Manager, MV Transportation (Virtual)

1. Call to Order

Chair DiMarco called the meeting to order at 1:00 P.M.

2. Roll Call

Roll call was taken, and a quorum of five was established.

Mr. Enderle motioned to allow Vice Chair Berry to participate in the meeting as a virtual participant due to an extraordinary circumstance. Second by Ms. Samek. Carried unanimously 5 - 0.

Vice Chair Berry joined the meeting. A quorum of six was present.

3. Approval of Agenda

Ms. Staadecker moved to approve the Agenda as presented. Second by Ms. Samek. Carried unanimously 6 - 0.

4. Approval of Minutes

Ms. Samek moved to approve the minutes of the June 19, 2024; Public Transit Advisory Committee meetings as presented. Second by Mr. Enderle. Carried unanimously 6 - 0.

5. Committee Action

- a. None

6. Reports and Presentations

Mr. Stauffer reported:

a. Major Transit Development Plan (TDP) Update

Mr. Stauffer reported the TDP process, which identifies recommendations and implementation strategies to achieve the goals and objectives of Collier Area Transit, is a work in progress.

- To receive State Block Grant Funds for system operations, each transit agency must develop a Transit Development Plan (TDP) Major Update every five (5) years.
- The TDP is a ten (10) year plan for transit needs, cost and revenue projections, community transit goals, objectives and policies and serves as an operational guidance document.
- The major update is developed in coordination with the Metropolitan Planning Organizations (MPO) long range transportation plan.
- Collier Area Transit staff has been working with the Consulting Team of Stantec and MPO Staff to update the plan.
- The consultant has produced the Public Involvement Plan, consistent updates to each section of the TDP and identified new peers for comparison of transit systems.
- The deadline to submit all TDP updates to the Florida Department of Transportation (FDOT) for approval is September 1, 2024.

If members of the Committee have any comments or questions regarding updates to the CAT Major TDP they should contact Mr. Showalter.

b. Marco Island Trolley Pilot

Mr. Stauffer presented the Executive Summary “*Marco Island Trolley Pilot*” to update the Committee on status of the proposed Marco Island Trolley route.

He noted:

- Collier Area Transit (CAT), in conjunction with the City of Marco Island, is considering the introduction of a trolley route to the island.
- 1 trolley and 1 thirty-foot bus will be utilized for transportation. Each vehicle has a seating capacity of thirty to forty passengers.
- The three-month pilot program, designed to test the viability of a trolley service on the island to reduce traffic congestion, would commence in January 2025.
- The route spans from the Rose Marina on the north side of the island, to Caxambas Park on the south side of the island, travelling along Collier Boulevard. The vehicles would stop at Veterans Community Park and existing beach access points along the way.
- The service, at no cost to the rider, would run from 9 AM to 9 PM.
- Surveys will be conducted to solicit feedback from the users.
- The pilot program is subject to funding by the City of Marco Island.
- A marketing campaign will be initiated at a later date.

c. Facilities Update

Ms. Soriano provided an update to the Committee on facilities projects and enhancements noting: Collier Area Transit Operations & Maintenance Facility

- The current Radio Road facility, purchased in 2005, has exceeded its useful life.
- In 2020, Collier County received a notice of award from the Federal Transit Administration (FTA) Bus and Bus Facilities Program. Additional funds allocated by the FTA for Emergency Hurricane Relief Funds from Hurricane Irma will be directed to the project.
- The project was released for bid and the Jacobs Engineering Firm was selected to design the facility.
- The Administrative and Maintenance facilities will include operational offices, a drive-through maintenance area for the buses, secure fleet parking, solar panels and air conditioning for the maintenance shop.

CAT Intermodal Transfer Facility - Immokalee

- The bus transfer station will include passenger and transit efficiency enhancements including new bays for the buses to pull off the street; canopy cover for the sheltered transfer of passengers; waiting platform with benches and trash receptacles; vending machines for food or a Food Truck vendor; restroom facilities for passengers and drivers; and ADA improvements.
- The project is under construction and is planned to be completed by late 2024.

7. Member and Staff Comments

Ms. Rosado will email members an invitation to the Marco Island Trolley meeting.

8. Public Comments

None

9. Next Meeting Date

September 18, 2024 - 1:00 P.M.
Collier County Museum Lecture Hall
3331 Tamiami Trail E
Naples, FL. 34104

10. Adjournment

There being no further business for the good of the County, the meeting was adjourned by the chair at 1:34 P.M.

Public Transit Advisory Committee

John DiMarco III, Chair

These minutes approved by the Board/Committee on _____, 2024 as presented _____ or as amended _____.

EXECUTIVE SUMMARY
Reports and Presentations
Item 6a
Marco Island Trolley Pilot

Objective:

To update the Committee on the pilot of the Marco Island Trolley route to be introduced to Marco Island.

Considerations:

Collier Area Transit (CAT) along with the City of Marco Island, are looking to introduce a trolley route to the island, with two busses, circulating every day on a roughly 20 minute frequency.

Following conversations with Marco Island Councilman, Rich Blonna, and many representatives of the business community on Marco, CAT is planning to introduce a 3-month pilot to Marco Island. The goal of this pilot is to test the viability of a trolley service on the island to reduce traffic and parking woes that have been cited as an increasing problem throughout the island.

The trolley service is proposed to begin in January 2025, running from 9 AM – 9 PM. The attached route map shows the proposed route spanning from the Rose Marina on the north side of the island, to Caxambas Park at the south side of the island, travelling along Collier Blvd. The route is planned to stop at Veterans Community Park and existing beach access points along Collier Blvd.

The trolley was approved as a part of the City of Marco budget at the 9/09 hearing in Marco Island. Plenty of opposition was in attendance at the meeting but the council members voted 4-3 in favor of keeping the trolley in the budget. We would like to discuss options to further appease the local community and have general discussion regarding the trolley pilot.

Recommendation:

None

Attachment:

Marco Island Trolley Route Map

Prepared by:  Date: 9/13/24
Alexander Showalter, Planner II

Approved by:  Date: 09/13/2024
Brian Wells, PTNE Division Director



Collier Blvd

Collier Blvd

Bald Eagle Dr

N Barfield Dr

Marco Island

San Marco Rd

Shearwood Dr

Winterberry Dr

San Marco Rd

Maximum
30 MPH in
Channel/Slow
Speed or 20...

EXECUTIVE SUMMARY
Reports and Presentations
Item 6b
Update on Transit Development Plan (TDP) Process

Objective:

To provide an update on the Transit Development Plan (TDP) Process.

Considerations:

To receive State Block Grant Funds for transit system operations, each transit agency must develop a Transit Development Plan (TDP) Major Update every five years. The TDP is a 10-year plan for transit needs, cost and revenue projections, and community transit goals, objectives, and policies. The TDP serves as Collier Area Transit's planning, development, and operational guidance document, and the major update is developed in coordination with the MPO's Long-Range Transportation Plan.

CAT Staff has been working with the Consulting Team of Stantec and MPO Staff to update the plan. The consultant has made steady progress on the update by producing the Public Involvement Plan, consistent updates to each section of the TDP, as well as identifying new peers for comparison of transit systems. CAT and the MPO Staff have been providing comments and feedback on these working documents produced so far and ask the PTAC for any further input.


As MPO and CAT comments have been incorporated into the documents, we would like to provide updates on the progress of the report for discussion and receive any further comments from the committee.


Recommendation:

Review and provide feedback regarding updates to the CAT Major TDP.

Attachments:

1. TDP Stakeholder Interviews Analysis
2. TDP Situational Appraisal – Tech Memo No. 1 Revised
3. TDP Situational Appraisal – Tech Memo No. 2

Prepared by:  Date: 9/13/24
Alexander Showalter, Planner II

Approved by:  Date: 9/13/2024
Brian Wells, PTNE Division Director

Date: August 1, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Stakeholder Interviews 1:1- Interim Analysis

This an early summary of the stakeholder interviews conducted to date. This information will be updated as the remainder of the interviews are conducted.

Stakeholder interviews will begin with a brief introduction and explanation of the work being done on behalf of the Collier MPO and CAT. Interviewer will provide contact information and explain how the responses will be used in the Transit Development Plan. A summary of the interviews is provided to the stakeholder for review prior to being finalized.

The following stakeholders have been identified for personal interviews.

Policy Makers:

- Commissioner Rick LoCastro, District 1 ([August 12, 2024](#))
- Commissioner Chris Hall, District 2 ([declined](#))
- Commissioner Burt Sanders, Vice Chair, District 3 ([July 8, 2024](#))
- Commissioner Dan Kowal, District 4 ([July 2, 2024](#))
- Commissioners William McDaniel, District 5 ([July 10, 2024](#))
- Council Member Linda Penniman, City of Naples ([July 3, 2024](#))
- Councilman Berne Barton, City of Naples ([July 2, 2024](#))
- Council Member Greg Folley, City of Marco Island ([no response](#))
- Council Member Tony Pernas, Everglades City ([August 22, 2024](#))
- Rich Blonna, Marco Island ([July 18, 2024](#))

Community Partners:

- Top private employers (Arthrex), NCH
- School Board, universities and education centers

Interview Questionnaire

Summary

Introduction. Collier Area Transit is updating its Transit Development Plan. This is a state requirement which requires a review of the transit agency's performance and development of goals and objectives. As a stakeholder and policymaker, your participation is greatly appreciated.

During this initial introduction, all the policymakers interviewed were advised of the TDP process underway and how their responses would be used to develop and support recommendations. All respondents were provided a draft of their interview notes for review and edit.

Below is a summary of the responses.

1. How familiar are you with transit overall?

This question prompted respondents on their overall familiarity with transit. Overall, most respondents stated they were very familiar with transit and commented on using transit in other places. Two (2) respondents stated they considered themselves less familiar with transit than other areas and one respondent indicated they were somewhat familiar.

The respondents overwhelmingly indicated they were familiar with transit services.

2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

This question asked if there are any identified issues or topics directly associated with CAT that needed to be addressed. Respondents overwhelmingly focused on transit service including addressing paratransit, connectivity with micromobility, reaching underserved areas and providing passenger amenities. Two respondents noted the need for improved communication.

Respondents overwhelmingly identified issues related to challenges faced by CAT including providing service to underserved areas, operating challenges, along with coordination and communication.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Respondents were asked to rate their awareness specifically related to CAT.

Overall respondents acknowledged they were familiar with various aspects of CAT and transit services provided. Six respondents indicated they had a high level of familiarity with CAT through their roles in government and while serving on the MPO. Two (2) respondents indicated although familiar with CAT, they felt they did not have a significant understanding of CAT operations.

All policymakers interviewed were familiar with CAT operations.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Respondents were asked to identify the primary role of transit in Collier County. The discussion point was meant to capture community fit and identify focus areas.

All respondents agreed all the identified roles were an important part of CAT's mission. Some respondents went on to clarify, stating connecting the workforce with areas of employment opportunity were particularly important for their economic impact.

Respondents agreed CAT's role including a variety of services including connecting workers with jobs, serving the transit dependent, and addressing congestion were important.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Respondents were asked to identify transit priorities and recommendation they would support.

Of respondents asked to identify what improvements should be prioritized, five (5) policymakers responded development of new services to underserved areas should be prioritized. This was followed by improving operational efficiency by adding more service hours. Two (2) respondents prioritized regional connectivity and overall improved connectivity between modes.

Respondents overwhelmingly agreed adding new service to underserved areas was an identified priority.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

This question asked respondents to identify the primary customer base.

Most of the respondents agreed all of CAT's customers, including transit dependent, businesses, and tourist, should be targeted as primary customers, without prioritizing any one group. Two (2) of the respondents stated transit-dependent persons should be prioritized.

Respondents agreed all CAT's customers should be treated as primary customers, refusing to prioritize one group over another.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

This question asked respondents to identify and prioritize funding strategies and user groups which could be called on to finance transit in the future.

All respondents unanimously responded CAT should diversify its funding base, adding new financing strategies, rather than targeting or relying on any one area. This was the only question for which there was a unanimous answer.

All respondents agreed CAT should diversify its funding base by developing new revenue streams. This included revisiting past decisions on advertising revenue.

8. Would service expansion be considered if a municipality funded it?

This question looked to explore how policymakers may feel about some municipalities opting in for more services by funding it through CAT.

A majority of respondents agreed municipalities should be able to pursue funding additional transit service. Respondents cautioned against the unintended consequences of this approach including the challenge of determining cost-sharing, straining the core operations, and creating gaps or disjointed service. Two (2) of the respondents did not feel this was a viable option for every community. All the respondents express support for CAT to explore this funding option further.

All of the respondents agreed, municipalities should be able to work with CAT to secure additional services. All of the respondents also cautioned, this option should be fully vetted to avoid impacts to the overall system.

9. Can you comment on the outlook for transit?

This question sought to understand how policy makers felt about the future of transit.

Three (3) of the respondents stated the outlook for CAT and transit in Collier County was best described as “under pressure.” All of the respondents noted a variety of challenges including access to affordable housing, cost containment, and limited resources for needed expansion. Other policy makers characterized the outlook for transit as cautious, continued growth, transitioning, complicated, and promising.

Policy makers provided an overall positive outlook for transit, tempered by the challenges of limited resources, continued growth in outlying areas, and increasing costs.

Policy makers also made reference to challenges.

Policy makers are too focused on cost-cutting and operating efficiency. CAT should be prepared to provide information that supports a careful business plan.

CAT should continue to develop operational efficiencies that facilitate use of transit by residents and visitors including developing transit hubs, increased use of technology, and improved regional connectivity with Lee County.

Policy makers recommended improved communication to promote transit as an option.

Policy makers stressed the need for connectivity between modes, accommodating the use of micromobility including e-bikes, shared use paths, and bicycle and pedestrian walkways as means of supporting transit, its users, and operational efficiency.

Date: July 8, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Stakeholder Interview – Collier County Commissioner Burt Saunders (Policy Maker)

Commissioner Burt Saunders was interviewed via telephone on July 8, 2024. The interview began with a brief introduction of the Transit Development Plan and the CAT organization. This memo represents a summary of Commissioner Saunders’s comments.

Interview Questionnaire

1. How familiar are you with transit overall?

Commissioner Saunders stated the Board of County Commissioners has had several meetings where CATConnect Paratransit Service was discussed. He noted there had been concerns expressed, especially by persons from blind services who experienced trouble with scheduling and routing. Commissioner Saunders stated staff had acknowledged there were opportunities to improve the delivery of services.

Regarding Fixed Route services, Commissioner Saunders stated there is likely a need to expand services to meet growing areas of demand and growth. He noted there are people trying to access jobs at hotels and other service jobs that require a long commute. He observed most of those jobs are in areas away from where the workforce resides. He added many of those workers will rely on transit because it is significantly less expensive than driving a vehicle to those jobs.

Commissioner Saunders referenced FDOT’s Commuter Services program as another option for connecting workers with jobs. He stated Commuter Services provides vanpools and carpools which could help meet those demands. He felt this area should be further developed as part of the transit system overall. He added the County could support some of those efforts to address congestion, commuter traffic, and connecting workers with jobs.

2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

Commissioner Saunders commented on CAT overall, stating although he was not familiar with the operational aspect of transit, he felt they were operating well. He noted he has received communications from constituents requesting bus shelters at various locations. He expressed concern over the heat and rain which make waiting for transit difficult on riders. Commissioner Saunders added bus shelters were important to CAT operations and more are needed for persons riding transit in Collier.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Commissioner Saunders stated he is not particularly familiar with CAT routes in the County. He stated he relies on staff to manage the program and bring forward policy issues. He added he has not ridden transit in Collier but is sufficiently aware of their operations.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Commissioner Saunders stated CAT has a responsibility to fulfill all those roles including connecting workers with jobs, providing a service for persons without cars, and to address and reduce congestion. He felt all roles should be part of CAT's mission to address transportation needs in the County and it was not necessary to exclude one over another. He stated not one of those roles was more important than another.

Commissioner Saunders stated it was important for CAT to provide various services to relieve congestion, especially during commute times.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Commissioner Saunders stated he recognized CAT had several priorities. He noted more fixed route service reaching areas of new development, and adding more service during periods of heavy demand were important and should be prioritized. He added, operating efficiently and effectively were also transit priorities that should be tracked.

He added that there was recognition that Collier County was very spread out and this could be a challenge to provide more fixed route transit service to outlying areas. He felt the demands and challenges of transit need to consider all those priorities.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

Commissioner Saunders felt all of CAT's customers were important and thought it was not necessary to differentiate between them to provide good services. He stated serving the general public included all of those customers. He noted that the cost of transportation can be very high for some people and should be considered when developing transit services.

He added the benefits of transit extend beyond just the riders. When more people use public transit, it takes vehicles off the road addressing congestion. He noted when connecting people and jobs, both the employers and employees' benefit.

Commissioner Saunders commented on FDOT's Commuter Program as a potential solution for addressing some needs at large employers. He felt some employers such as hotels and service

industry jobs require transit outside regular commute times, noting nights and weekends or very early mornings. He noted these could be better served by vanpools or similar service.

Commissioner Saunders indicated there was an opportunity to tailor transit service to a community's needs. He was hopeful this would reduce the cost of transportation for users.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

Commissioner Saunders did not object to exploring other options for funding transit. He felt there were models around the state that could be explored and studied and developed into options. He stated the State was successfully funding some transit services tied to employers that should be investigated.

8. Would service expansion be considered if a municipality funded it?

Commissioner Saunders stated that while he did not oppose looking into funding participation agreements, he felt this could impact operations. He noted that if some transit was subsidized it could impact the entire system. He stated transit's mission is to replace vehicles on the road and connecting people with jobs and services with reasonable user fees. He stated funding transit was part of funding local government functions.

9. Can you comment on the outlook for transit?

Commissioner Saunders commented that the current environment is focused on cost cutting and not sufficiently on operating efficiently. He stated some elected officials may be looking to eliminate programs that are not self-sustaining. He stated he would not be in favor of reducing transit, but the current climate may not be supportive of service expansion and increases.

He encouraged CAT to align with the business community and their goals.

Date: July 2, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Stakeholder Interview Commissioner Dan Kowal (Policy Maker)

Commissioner Kowal was interviewed on July 2, 2024, via Zoom. The interview began with a brief introduction of the Transit Development Plan and the CAT organization. This memo represents a summary of Commissioner Kowal’s comments.

Interview Questionnaire

1. How familiar are you with transit overall?

Commissioner Kowal stated he had no real experience using the CAT system in the 20+ years of living in Collier County. He noted however, he was familiar with transit and used it often growing up in Pittsburgh. He stated growing up transit was important to him and very valuable especially when he could not drive. He recalled transit being seamless as he traveled between towns, connecting at hubs. He felt it was convenient and a reliable form of transportation.

In Collier however, he felt the operating conditions were too varied, noting how big Collier County was and the mix of rural and urban conditions. He stated people are moving out to rural areas of the County where you are completely car dependent. He noted there are significant gaps where transit may not make sense.

Commissioner Kowal stated there were large swath of populated areas where we need to figure out how to provide resources. He stated CAT needed a targeted plan to get reach people who are very far out, so they do not have to drive everywhere. The County needs to plan for businesses that are relocating to the area to allow them to access more of the workforce. He stated CAT needs to connect centralized service areas and major employers. Commissioner Kowal expressed concern at the number of employers including Arthrex and other new companies that moving to the Ave Maria area with limited transit resources. He stated the economic growth compounded with 2 new towns and 2 more villages with over 9,000 new homes to be built in the area will result in increased demand for all services, including transit. Commissioner Kowal noted this is in addition to the 2 existing industrial parks which continue to grow. He noted, in addition the Great Wolf Lodge, Paradise Sports and a new soccer team franchise, and the numerous new hotels approved and already under construction – all will continue to put pressure on transit to address congestion and connect people, jobs, and places to live.

2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

Commissioner Kowal stated he had no general comments. He felt CAT was well managed.

He noted most recently CATConnect was before the Board. He stated some Lighthouse participants were not happy and had expressed concerns about CATConnect service. He stated some were concerned the routes were inefficient, passing drop off points only to turn around. He stated staff was able to explain the automation that programs trips and address their concerns.

He added that Lighthouse illustrates the future demand of paratransit services. They have approximately between 200 – 300 participants that require disability services and this continues to grow. He explained this creates a need to add more vehicles into service. Commissioner Kowal stated listening to the Lighthouse, he felt more could be done to help the customers understand trip information. He noted the vehicles already have a great deal of technology and he thought it could be used to provide some (audible or visual) queues for passengers to give them trip information while they are onboard.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Commissioner Kowal stated he generally knows where CAT operates, and he sees the CAT vehicles and bus stops. He felt CAT needs to do prepare for the developing transit in high growth areas. He stated the Board recognizes the opportunity transit provides to address growth and supported giving bonus densities for developments near places where transit is.

He noted on Marco Island, a hotel there had partnered with CAT to accommodate their staff that operated late. He stated this was a good example of an employer working with transit. He wanted to encourage staff to continue to work with employers to connect the workforce with employment opportunities. Commissioner Kowal suggested CAT survey large employers in the area to understand where their workforce is coming from use that data to create transit service that meets their needs.

Commissioner Kowal noted tourist should also use transit. He stated the bed tax collected by the Tourist Development Council could support the demand created in service industry jobs. He felt the funding of transit should be shared across industries that create some of the demand. He expressed concern that transit funding relies too heavily on ad valorem taxes. Commissioner Kowal stated there is an opportunity with all the new hotels (including boutique hotels), manufacturing, and industry coming to Collier to be creative in funding transit.

Commissioner Kowal noted that in his law enforcement background, he saw the opportunity to leverage growth to pursue grants. He felt transit could use grants to build relationships with the private sector to fund transit. He added grants could be used strategically to fund early needs and give programs time to fully develop. He stated a business approach to identifying funding opportunities, including grants would be needed to address growth and demand for transit.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Commissioner Kowal stated one of transit's primary role should be connecting people with employment opportunities. He added it was important to also provide transit for life sustaining trips and needed community services. He felt this was an important to maintain the quality of life in Collier County.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Commissioner Kowal stated those all could be priorities. However, he was aware of the need for shared bike paths, sidewalks, and shared-use paths in areas to the east of the County. He stated there are people living near Naples that bicycle to work. He added, CAT needs to understand where the daily travelers are going and support as much of that as possible. He cautioned against trying to serve all areas in Collier County, especially where there is low ridership. He noted, with limited resources you need to address areas where you can serve the highest number of people and have the greatest impact – connecting people with jobs.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

Commissioner Kowal stated he recognized there are people in Collier County who depend on public transit for life sustaining trips. He felt this was an important service. He added service industry jobs rely that rely on transit including school workers, restaurant servers, and housekeepers are important people to serve.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

Commissioner Kowal felt that diversifying how transit is funded was important. He felt connecting the demand, including with large employers, with providing the service needed to be addressed. He stated leveraging grants to offset some initial investment costs was a good business practice. He felt state and federal grants could be leveraged with public-private partnerships if they could be sustained. He felt the continued growth in the County would increase demand for transit, and that needed to be planned for.

8. Would service expansion be considered if a municipality funded it?

He felt that this warranted more discussion because municipalities represented a relatively small segment within county. He contrasted this with most of the Collier County being unincorporated citing Immokalee as an example. He stated Immokalee would benefit from more transit than most of the incorporated cities. He recognized Immokalee does not have a large tax base that could contribute so he questioned how effective that would be. He thought it should be vetted for future

consideration. He felt addressing how larger businesses that are creating demand for transit could contribute could be a better focus.

9. Can you comment on the outlook for transit?

Commissioner Kowal felt the outlook for transit included continued growth in the East and Northeast portions of the County. He felt that with this growth, transit should be preparing to address demand with transit hubs. He stated connecting new growth areas with services was important to addressing congestion.

Date: July 10, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Stakeholder Interview Collier County Commissioner William McDaniel (Policy Maker)

Commissioner William (Bill) McDaniel was interviewed via telephone on July 10, 2024. The interview began with a brief introduction of the Transit Development Plan and the CAT organization. This memo represents a summary of Commissioner McDaniel’s comments.

Interview Questionnaire

1. How familiar are you with transit overall?

Commissioner McDaniel indicated he is not too familiar with CAT operations in any detail. He knows it is an important community service. He noted there has not been a great deal of discussion about transit as in the past.

2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

Commissioner McDaniel stated he understood the constraints of transit operating in Collier County. He noted Collier’s geography and widely disbursed population areas, lower density were challenges for transit. He compared more densely populated areas such as Miami and other large cities where the intensity of development and congestion make transit more viable.

Commissioner McDaniel provided an example, noting a resident who needs to take several buses with long connections when traveling in from Immokalee. He felt this use of transit in this case was cumbersome and difficult for people who rely on public transit. He felt there should be better, more efficient options, especially when considering the expense. He added there is a role for transportation companies such as Uber to meet some of those needs more efficiently.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Commissioner McDaniel stated CAT had good visibility. He noted, no operation is perfect working 100% of the time. He added they were performing as expected.

Commissioner McDaniel stated transit met a need for persons who cannot afford a car or cannot drive for a variety of reasons. He noted, especially for persons with limited mobility, the very elderly, and persons with developmental disabilities, transit is providing an important service.

He added overall as Collier County continues experience continued growth; he expects transit to help reduce the strain on roadways and other transportation infrastructure.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Commissioner McDaniel felt all the above roles represented important considerations. He felt no one role should be prioritized, rather a rational business approach to meeting needs and demands should be developed and pursued. He noted each role has different needs and resources should be directed in an efficient manner.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Commissioner McDaniel noted it was difficult to prioritize one need over another. He stated these likely all represented an area that needed to be considered when budgeting and allocating resources. He noted the operational efficiency of transit including downtime, area covered (land mass), and frequency needs to be discussed.

He noted this question should consider the importance of regional coordination with Lee County. Speaking to church group in Immokalee, he was made aware of the need for additional connecting service between Lehigh Acres and Immokalee. He stated he would like to see an additional route connecting to Lee County where there is significantly more affordable housing. He added both communities would benefit greatly from more transportation options.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

Commissioner McDaniel commented, that just like the previous question, CAT needs to consider all customers in the development of its services. He stated while there are no one-size fits all, transit systems should have options and alternatives that serve demand with the appropriate size vehicle, service, and resources.

Commissioner McDaniel added the state has several programs including vanpools that he felt reflected the need for different options. He stated vanpools worked directly with employers to address their needs and their workforce. He noted this is an example where the service and vehicle met the need of the customer. He commented both the rider and the employer benefited from the service.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

Commissioner McDaniel stated there was no “best” way to pay for transit. He felt transit was increasingly an expensive service that competed for other county needs. He recognized that user fees needed to be a part of providing service.

Commissioner McDaniel recognized there was an economic balance to be maintained. Transit services should be priced to encourage the use of public transit, making it more desirable than driving a single occupancy vehicle that adds to congestions, traffic, and pollution.

He added there was a financial benefit to transit relieving the demand and congestion on roads and potentially delaying costly investments in the construction of more transportation infrastructure.

Commissioner McDaniel stated there should be more discussion on transit financing, options, and the use of incentives to drive ridership. He added he would like to a more discussion surrounding equitable user fees rather than just a flat fee regardless of cost. He noted there did not appear to be any discussion regarding incentives. He stated he would not support a mandate that asked municipalities to contribute to transit funding.

8. Would service expansion be considered if a municipality funded it?

Commissioner McDaniel responded he could envision where a municipality may have a specialized need that they would want to fund. He mentioned how Marco Island as a barrier island could have a need related to the service industry jobs located there and the need to bring workers onto the island. He stressed this would have to be studied and a strong business case presented for it have support.

9. Can you comment on the outlook for transit?

Commissioner McDaniel felt the outlook for transit will focus on transitioning. He felt with the increasing use of artificial intelligence (AI) and connected and automated vehicles (AV), significant changes can be expected. He noted public transit needs to be on the forefront of technology to help build a more responsive and efficient system. He noted there had been some discussion regarding technology and the scheduling software, but he felt it was still developing.

Commissioner McDaniel expressed concern over the cost and expense of providing transit service. He felt there was insufficient information presented for policymakers to consider. He noted other areas discussion cost-benefit ratios that help to justify continued investments and expansion of services. He did not feel he had that information when discussing transit services.

He acknowledged, providing transit in Collier County was challenging with a population distribution that was cumbersome due to the layout of the county. He noted there weren't concentrated areas of high density that needed to be served by transit. Rather, he commented, Collier's population and even growth patterns appear to be disbursed throughout the County.

Commissioner McDaniel expressed frustration at how some studies were presented to the Board of County Commissioners. He referred to a regional fare study that did not concern operational perspective of charging fares. Rather, the study focused on rider sentiment which was biased.

He added, the Board has not seen a study where the cost benefit analysis for transit has been presented. He felt the Board needed to fully understand how the investments in transit were balanced against the services provided in a variety of areas. He noted there were some intrinsic fixed costs which should be balanced against benefits such as reducing congestion and pollution. He stated he has never seen an analysis of that kind.

Commissioner McDaniel added, the idea of employer contributions may be neutral. He noted employers can subsidize transit, but they will equally pay higher wages to attract talent. He stated businesses see this as a cost of doing business in place like Collier County.

Commissioner McDaniel gave an example, noting he did not know what the annual ridership of CAT was. He felt this information provided important context in decision making. He felt business metrics such as the rate of return on transit investments should be part of any recommendation. He felt discussions regarding route changes and timing needed to be considered as business decisions. He noted he could not recall ever having those discussions, adding as technology helps with operational efficiency, there was an opportunity to measure productivity and see improvements.

Overall, Commissioner McDaniel stated he was neither optimistic nor pessimistic about the future of transit. Rather, he stated he wanted to see more information with a stronger business model for evaluating performance.

Date: July 3, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Stakeholder Interview Council Member Linda Penniman, City of Naples (Policy Maker)

Council Member Linda Penniman was interviewed via telephone on July 3, 2024. The interview began with a brief introduction of the Transit Development Plan and the CAT organization. This memo represents a summary of Council Member Penniman’s comments.

Interview Questionnaire

1. How familiar are you with transit overall?

Council Member Penniman started the interview commenting on the evolving role of e-bikes. She wanted to stress that a discussion on e-bikes and their role within the transportation network and particularly within transit should be further explored. She noted that FDOT has a white paper on e-bikes and this information should be shared and discussed at the Collier MPO. She added that e-bikes can be a transportation alternative allowing the workforce to access more jobs, create more flexibility, and connect more people with jobs. She felt there had not been sufficient information and discussion on their emerging role.

Council Member Penniman stated her familiarity with CAT primarily came from her role at the MPO. She felt there had been a great deal of discussion on serving people with handicaps, limited mobility and with no other transportation options. She was somewhat familiar with CAT operations as a whole and she has observed CAT buses in circulation throughout the County. She stated she was familiar with transit, having grown up in an area with public transportation.

2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

Council Member Penniman stated she would like to see e-bikes further vetted and additional information should be provided to policymakers and other decisionmakers. She noted that e-bikes were growing in popularity and provide another transportation option. She added they allow users to travel farther and provide more flexibility and reliability that traditional fixed-route transit that operates on a schedule. She felt it was an excellent option for individual mobility.

Council Member Penniman commented the role of private transportation providers that are providing on-demand services. She felt there was a role for these private providers to supplement

transit service in some areas. She stated these options should be explored and discussed as part of developing plans for transit.

Council Member Penniman stated overall her impression of transit services was heavily influenced by her use of transit growing up. She stated many people who come from areas with robust transit systems and may have a bias when discussing transit in Collier. She stated places with robust transit evolved over many years with concentrated areas of populations to serve. She noted these conditions are very different from transit in the City of Naples and Collier County.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Council Member Penniman stated she is aware of CAT operations. Through her work on the MPO she was part of some discussions regarding transit and paratransit services. She noted that the MPO has been diligent in including transit in discussions and plans as part of a multimodal approach. She commented her work on the MPO was very important and had been reappointed. She felt being part of discussions at the MPO was important to the coordination between the city, the County and the MPO.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Council Member Penniman stated CAT role must include getting people to work every day. She felt connecting people and jobs was critical to CAT's role in the County, as well as to the businesses that need workers.

She commented on her experience working in Immokalee. She noted that people in Immokalee are solving the transportation gap by organizing their own carpools and vanpools. She stated that this has become part of the culture where transportation options are very limited. She felt there should be a way to support these areas with dependable, safe, public transportation. She recognized this would be a significant challenge for CAT, noting the long travel distances, the hours of operations, and other constraints.

She stated providing public transit has its challenges everywhere, not just in Collier. She noted in places where it snows, people wait for buses in very cold conditions. Effective transit must account for all these operating conditions and still be extremely punctual for people to use it and rely on it.

Council Member Penniman expressed a desire to see the appropriate size vehicle in operation. She felt the larger buses were not appropriate for circulating on every route. She noted having appropriate size vehicles, vans, and other smaller vehicles could be shown to be more operationally effective. She was also concerned how empty buses may be perceived as an inefficient use of transit resources.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Council Member Penniman stated transit must be operationally efficient. It must be flexible, responsive, and light. She felt there should be a reasonable business approach to meeting demand. She added transit was an integral part of the whole transportation network in Collier County, adding CAT should foster confidence in the system.

In discussing the financing of transit, Council Member Penniman stated this is an area that needs to further be discussed. She noted that for a rider, a dollar may represent a significant amount of their budget or cost of getting to work. She felt transit has a role in facilitating access to jobs but there is also an opportunity to work with employers who are benefiting from the workforce to connect people and jobs.

Council Member Penniman stated CAT needs to study how transit is monetized in other places.

She noted the City of Naples has very limited land which is very expensive. She added it also has an ongoing demand for service workers and there are good paying jobs in Naples. She noted the high cost of living within the city means workforce and affordable housing are not located nearby. She stated this also applies to other areas of Collier County with over 54,000 vehicles traveling into Collier County on I-75 from Lee County almost daily. She felt there needed to be more coordination with Lee County policymakers.

Council Member Penniman stated there was nexus between available work, affordable/workforce housing, and areas where new jobs are coming. She added that nexus should be studied and addressed in upcoming plans. She felt supporting economic development, job creation, and transportation connections was important to the area.

Council Member Penniman stated CAT needs to identify opportunities and develop plans to capitalize on them. She noted she was part of a discussion at the MPO regarding the use of railroad tracks near Goodlett-Frank Road which could be used to connect trails with roads and transit to improve traffic circulation. She felt the use of e-bikes made this even more viable.

She added, when people are driving, they must focus on operating the vehicle. When people are riding in transit, either on a bus or rail, there is an opportunity to do other things and use that time productively. They can make calls, read, or do other things while someone else drives. She noted the time in a car is wasted.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

Council Member Penniman felt connecting people and work is critical to transit service in Collier. This should be a focus for CAT.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

Council Member Penniman stated CAT needs to better monetized the transit system. She suggested transit approach the Chamber of Commerce and bring them into the discussion. Their

role in the business community will be helpful in connecting economic development activities with transit services that will support them.

She felt that employers like Arthrex are forward thinking and will support transit as part of their business model. She felt employers could support transit as an option.

Council Member Penniman stated she would like to see more information and discussion surrounding the penny-sales tax. She felt it was important to understand how much community support there was for transportation initiatives funded by the penny sales tax. She felt transit could be better supported by these initiatives. She felt people would be supportive of efforts that connect people with jobs and that included supporting transit.

She added, bringing the business community into the finance discussion would be helpful and important to getting them to participate in transit as a solution. She noted, transit cannot be funded by transit users who have limited transportation options and limited financial resources.

Council Member Penniman stated, ideally transit would be readily accessible and connect major activity centers. She added, providing transportation options for people who simply did not want to drive was an important goal. She felt older populations would benefit if there was a transportation option such as transit that meant they did not have to drive everywhere.

8. Would service expansion be considered if a municipality funded it?

Council Member Penniman did not see a problem with municipalities funding transit within their areas. She felt every community has to make decisions that address their constituents needs and concerns. She did note, there needed to be further discussion before CAT elects to pursue this and examine how the service would connect through the County. She felt there needs to be transparency in who is paying for the additional services and how that would work within the transit system.

She stated financing transit is important and should be carefully planned out and defensible. She felt the penny sales tax needs to be discussed as an option for transit.

9. Can you comment on the outlook for transit?

Council Member commented the outlook for transit, stating it was very complex. She noted she was reading “The Great Displacement: Climate Change and the Next American Migration” by Jake Bittle and considering the implication for Naples, Collier County and Southwest Florida. She felt while some growth will continue, but there is a movement of people who are relocating due to storms, the high cost of living, and other factors. She felt this trend should be discussed. She stated the community needed to be prepared for emerging trends.

She felt the need for affordable workforce housing was an important consideration for Collier overall impacting several areas. She added this included transportation and especially CAT as they work to support connecting people and jobs.

She noted she would like to see more cooperation and collaboration between Lee and Collier Counties. She expressed concern at the amount of people commuting into Collier because of

where affordable housing is located. She stated the coordination between Lee and Collier needed to focus on transportation impacts, facilitating connecting jobs and workforce housing as well as the congestion, traffic, and safety in the transportation network including I-75.

She stated she would like to see FDOT's white paper on e-bikes as she sees this as a continuing trend.

She concluded. there is a place for transit in Collier County as part of its transportation network that supports growth economic activity, building and construction. She felt there needs to be continued discussion on how CAT will connect with employment centers. She hoped that the issues she raised would be further discussed and fully vetted.

Date: July 2, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Stakeholder Interview Councilman Berne Barton, City of Naples (Policy Maker)

Councilman Barton was interviewed on July 2, 2024, in person at his offices in Naples, Florida. The interview began with a brief introduction of the Transit Development Plan and the CAT organization. This memo represents a summary of Councilman Barton’s comments.

Interview Questionnaire

1. How familiar are you with transit overall?
2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

Councilman Barton did not have any specific discussion points to raise. He stated his constituents had not raised any concerns regarding CAT service. He was confident if his constituents had experienced any problems with CAT service, they would have made them known to the city.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Overall, he felt CAT was an effective operation. He noted CAT operates within the city with no bus pull offs, but they manage not to significantly impede the flow of traffic, limiting how long they stay pulled over and holding traffic. He stated he see the CAT vehicles in operation and feels there is an appropriate level of service within the city.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Councilman Barton noted he had limited personal experience with CAT, but overall, felt CAT provided a valuable service. He indicated connecting workers who live outside the area with jobs

within the City of Naples was an important objective for CAT. He added CAT provides options for a variety of Collier County residents and having alternatives/options is important.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Councilman Barton stated he had limited information with which to make a recommendation but felt the CAT service area was very large and growing. He noted the County was expanding considerably with growth in the North and Northeast corridors, citing Ave Maria as an example. He felt there was continued growth already approved in these areas, with more expected to come. He noted connecting the workforce that may reside further away from jobs will become increasingly important, especially given the cost of housing within the City of Naples.

Councilman Barton noted there could be some interest in premium services. He stated for example providing express service to the airport (RSW) and other major destinations could serve tourists and visitors. He felt CAT adequately evaluated service needs.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

Councilman Barton stated Collier County is experiencing a major affordable housing challenge. He stated trend continues to move the workforce away from jobs in the city and the County as a whole. He stated the City of Naples' economic needs surround the tourism industry and in the service industry sectors. He added filling these jobs creates traffic and congestion which could be helped with efficient transit service. He felt that the workforce continues to move further away from jobs in Collier County.

He stated although service workers primarily use transit, he felt there was an opportunity to provide transit service that appealed to tourists and visitors.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

Councilman Barton expressed the responsibility to be a good steward of taxpayer's money. He expressed an interest in seeing some of the industries prospering from tourism contribute in some way to supporting transit. He stated part of the solution of funding transit should include those benefiting from the economic activity in Collier including tourism, lodging, airlines, and developers. He noted this should include efforts to provide affordable housing for workers.

8. Would service expansion be considered if a municipality funded it?

Councilman Barton felt municipalities could participate in the funding, noting those are discussions for those policymakers. He did not think this would apply to the City of Naples due to the relatively small size of the city.

9. Can you comment on the outlook for transit?

Councilman Barton felt the outlook for transit needed to consider the rapid growth in the County and the traffic congestion as a top issue. He stated a robust transit system was needed to alleviate commuter traffic, traffic congestion, and to help take vehicles off the road. He felt visitors and tourism to be part of the community and should be considered in any future plans.

He noted that preserving the City of Naples and Collier County's unique qualities including its pristine environment was critical to its continued success and economic competitiveness.

Councilman Barton was positive about embracing technology in general but wanted to see CAT take a business approach to its implementation and use. He stated the adoption of technology, including adoption of electrical vehicles should be fully vetted. The technology should be proven with documented results before CAT makes significant investments.

He added that maintaining a livable community and preserving Collier County's resources were important to its economic property and maintaining the current standard of living. He added it is the reason people continue to move here and we all have a responsibility to continue to safeguard resources, maintain a high standard of living, and make wise investment decisions.

Date: July 18, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Councilman Rich Blonna was interviewed via telephone on July 18, 2024. The interview began with a brief introduction of the Transit Development Plan and the CAT organization. This memo represents a summary of Councilman Blonna's comments.

Interview Questionnaire

1. How familiar are you with transit overall?

Councilman Blonna stated he has been working closely with CAT to bring enhanced transit service to Marco Island during the winter tourist season. He stated he has been looking at the feasibility of trolley service with a loop route to service the most heavily visited areas on Marco Island. He added this work had led to a better understanding of the constraints and challenges of providing transit.

He noted there are significant challenges to cost sharing and operations which have made it difficult.

Overall, he noted while his interactions with CAT have been focused on the trolley service he has a high-level understanding of transit operations in Collier County. He noted he is also involved with Conservation Collier and as a liaison to various committees which keep him very busy.

He added he had recently become aware of the Public Transit Advisory Committee (PTAC).

2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

Councilman Blonna stated his work trying to implement transit on Marco Island is a clear example of how transit solutions are difficult to implement. He stated public funding, and the state and federal grant restrictions offer little opportunity to tailor services to a community's needs, be creative, or partner to fund transit solutions.

Councilman Blonna stated he would like to address the congestion and safety concerns during the peak winter season. He noted 2 trolleys in operation in a loop configuration could allow visitors on Marco Island to travel between the most frequented areas along 4 connected roadways. Ideally visitors could come on to the island and park their car and not move it until they left. He added or better yet, they could take a taxi or Uber and not bring any more cars onto the island.

Initially, he proposed a shared funding model where the business community through advertising revenue could be used along with fares and a discounted rate from CAT to fund a pilot. He stated after speaking with CAT, it was obvious the bureaucracy is inflexible. He added, Marco Island cannot create a separate pool of resources specific to its needs. It is all part of the larger county-wide system.

Councilman Blonna noted CAT staff had been very helpful and he appreciated working closely with them. He stated CAT staff is bound by bureaucracy and the service request for Marco Island is an outlier, making the service a challenge to implement. He noted this was in addition to some

hesitancy with the City Council. He stated there was a clear contrast between public and private initiatives. He added, he was confident the pilot project would work.

Councilman Blonna explained he is a supporter of transit solutions and visited Anna Maria Island to observe the trolley system there. He said it was a great experience and helped him develop some of his approach. He stated they arrived at Anna Maria, stayed in a beach front cottage and took the trolley everywhere without ever moving his car. He added he is still researching how the service was started by Manatee County and then transferred to their Chamber of Commerce. Councilman Blonna said he is interested in learning more, especially the lessons learned from implementing the service.

He concluded, noting there is potential to connect other parts of the county. He pointed to Donna Fiala Eagle Lakes Community Park and the opportunity to connect with bicycle paths. He expressed support for transit connections with bicycles, putting bicycle racks on buses. He stated connecting these modes was important.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Councilman Blonna expressed he had a high level of awareness of CAT. He noted he took part in a free ride day and rode Route 21 to Marco Island. He felt it was important to experience the service firsthand. He stated that riding transit provided a beautiful perspective where you can see over cars into the distance and see the natural areas. It provided a wider view of the natural resources surrounding the area.

He added, there are some misconceptions about who is riding transit and the fear of overcrowding. He stated the positive impact of transit, reducing the number of cars on the roadway, eliminating the need to find parking at popular destinations, and the comfort and ease of riding transit are consistently understated. He stated, there is also an important opportunity for people coming to work in Marco Island. He added, employers and the workforce, visitors and residents can all benefit from transit service on Marco Island.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Councilman Blonna responded transit can have a role in all the options presented with the proposed trolley service. He stated he is focused on Marco Island, but this pilot provides an example of how transit can meet community needs.

He stated Marco Island and the trolley pilot could operate over just a few blocks in a loop, connecting riders with shopping, dining, and even City Hall.

Councilman Blonna commented on the area's demographics which show an aging population which will become depend on transit. He noted right now, this demographic may be hesitant about implementing transit solutions, but trends support developing transit. He added, Marco Island is attracting younger residents and more cosmopolitan people who travel and are familiar with transit, including international visitors. He stated even work patterns are changing, where some workers can choose to work from home and given an option may not want to drive. He added

multiuse development is also changing how much people depend on cars. Councilman Blonna stated he understood transit was not the solution for everything, but he added it needed to be part of the mix of solutions.

He added Marco Island needs to develop different transportation options.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Councilman Blonna agreed all the options listed where areas where CAT needed to develop. He stated mobility on demand was not popular on Marco Island and he stated it may have limited application.

He stated the hotels and condo would likely not use the traditional fixed route bus service or the larger buses, but they would support branded, smaller vehicles that reflected the local character.

Councilman Blonna stated temporary service, which is aimed at tourists and temporary, such as during the winter season, would make sense and help with congestion.

Councilman Blonna was confident the beach trolley will be well supported once it is implemented which is why a pilot project is so important. It will demonstrate how transit can relieve congestion, demand for limited parking, and allow people to get around Marco Island without a vehicle.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

Councilman Blonna agreed all the customers mentioned should be fully explored.

He stated visitors have needs very different from the workforce that may be accessing jobs on the island. Marco Island is removed and difficult to access. He noted workforce traveling in from Golden Gate, Immokalee, and other outlying areas can find Marco Island too far. He added professional staff, government workers, fire, and police – he did not see them using public transit based on their profession.

Councilman Blonna was confident CAT was looking at all their customers and trying to make sure to connect the service with the riders. He noted, this was not always possible.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

Councilman Blonna stated the finance side of transit was complicated. He felt that advertising revenue could be increased to reflect market rates. He noted the current rates are substantially lower than they should be. He added fares appeared to be flat across the board, rather than reflecting the service. He stated this was an area that could also be updated to better reflect a market approach. Councilman Blonna suggested improved business relationships with government agencies, businesses, and other groups could help to underwrite some of the costs.

Councilman Blonna stated Marco Island has lowered taxes the past few years resulting in less funding for projects such as the trolley. He stated he would continue to advocate for transit on Marco Island during season.

8. Would service expansion be considered if a municipality funded it?

Councilman Blonna stated Marco Island would likely not fund service expansion without some incentive. He stated there was an opportunity to engage the business community. And while he did not think the business community would agree to outright fund transit service, he felt if they could underwrite the cost through advertising.

He noted sharing costs brings stakeholders together.

9. Can you comment on the outlook for transit?

Councilman Blonna stated the outlook for transit is greatly dependent on who is moving along the 951-Corridor. He felt the growth in the eastern part of Collier County will continue to drive growth and that growth will look for alternatives to just driving.

He added the lack of parking will also impact how people visit and frequent popular destinations. If people find it too difficult to park and there is no transit option, they are likely to go elsewhere.

Councilman Blonna was confident newer residents to Collier County will have an impact on the demand for transit. He stated people will want options to driving and the added benefits of reduced congestion, impacts to the environment, and time savings will make transit more desirable. He stated this would be bolstered by new residents who come from places with lots of transit. He stated as long as the transit service matches the demand and character of the location, he was positive on the outlook for transit.

Date: August 12, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Stakeholder Interview Collier County Commissioner Rick LoCastro (Policy Maker)

Commissioner Rick LoCastro was interviewed in person on August 12, 2024. The interview began with a brief introduction of the Transit Development Plan and the CAT organization. This memo represents a summary of Commissioner LoCastro's comments.

Interview Questionnaire

1. How familiar are you with transit overall?

Commissioner LoCastro stated he was very familiar with transit operations. He previously served as a Senior Commander over several military bases that included transportation services. From that perspective he understood not only logistics and operations, but ongoing maintenance, service and budgetary needs. From the Collier side, when he first became a commissioner, he toured the transit facility on Radio Road to become familiar with county operations. Since then, he has been out to see new vehicles when invited. He noted the Radio Road facility is in his district. He stated he has been following several board items that focused on CAT operations.

He added, transit is an expensive service provided by the County and it often competes with other needs. He stated there is always careful consideration given to transit requests because the Board needs to balance the expenditure with the benefit provided. He referenced connecting people with work and reducing congestion, safety, and increased access.

2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

Commissioner LoCastro stated he was aware of some of the amazing programs CAT has managed although he felt they were not well known or publicized. He recalled a time when CAT hosted a meeting at the JW Marriott to talk to the business community about some of the different services CAT provided. He stated it was important to communicate with the business community and other customers about what services CAT can offer. He added it was also important for CAT to understand the business community's needs, referencing hours of operation as an example. He recalled one business owner stated how bus service hours did not match up with his staffing needs. CAT had responded they could look at making adjustments to the schedule to meet that business owner needs. He stated this was an example of how communication with customers was important and something CAT should be doing regularly.

Commissioner LoCastro noted he has good communication with Trinity Scott, especially related to constituent concerns and complaints.

He felt often the complaints brought to the Board dealt with miscommunication, or the customer was not fully informed about situations. He recalled one complaint where a constituent complained about being told a program was being closed on the day of, with no notice. Commissioner LoCastro recognized CAT cannot do or be everything for everyone, but they must communicate clearly with their customers, especially those that depend on the services they provide. He stated there is a clear expectation changes in programs that affect customers, especially terminating programs must be brought to the Board's attention. Commissioner LoCastro stated ending programs are policy decisions and the Board must consider not just cost-effectiveness but the impact to the community.

Commissioner LoCastro stated he hoped that the bus drivers understand how important their communication with the customer is. He often hears during constituent complaints how riders get information from bus drivers. He wants bus drivers to understand they represent all of Collier County when they are talking to customers and it's not ok to blame anyone for difficult decisions that need to be made. He stated while it may be easy to agree with a customer when they say things are terrible or being negative, he wanted to remind drivers that agreeing with negative comments creates negative sentiments. Customers should be given the opportunity to offer feedback instead.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Commissioner LoCastro stated he is aware of CAT and transit operations generally. He understands the constraints and the balance of capital needs and the accompanying maintenance costs associated with heavy duty vehicles and logistics.

He has been following the transit discussion in Marco Island and their attempts to address congestion on the island with a trolley circulator. He stated he was disappointed he could not dispel wrong information regarding implementing a transit circulator on Marco Island. He stated the misinformation about how the trolley would operate was difficult to dispel. Ultimately, he noted these were community decisions and those resources could be used elsewhere.

He expressed concern over the use and location of bus shelters. He stated there were areas that were in need of bus shelters. Some areas had lots of riders who often stood in the rain with no shelter. Commissioner LoCastro stated he wanted to make sure those areas were identified and prioritized for a shelter. He suggested CAT should look at relocating low-use shelters to those areas of high need. He recognized the cost of shelters had continued to increase and was hopeful CAT was looking at repurposing, recycling, and looking for any means of mitigating those costs. He cautioned; he was not sure how reasonable it was to move shelters but was hopeful CAT would look into it.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Commissioner LoCastro stated all of those are the role of transit. He recognized there is a balance between need and what can be accomplished. He stated CAT needs to carefully assess how effective service is and make those recommendations.

He noted, the Board was supportive of transit overall and was prepared to allocate additional resources to CAT if there was proper justification and it was reasonable request. He noted, CAT cannot operate in a vacuum and the County has a great deal of needs. CAT needs to bring data and information to the Board that demonstrates they are being efficient with resources and leveraging other benefits in the community.

Commissioner LoCastro stated he expected CAT to be proactive and gave referenced new developments. He stated there was an opportunity to anticipate demand with new housing developments and work with other County staff to identify new potential riders. He noted CAT staff should be prepared to work with new developments to potentially connect them with transit.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Commissioner LoCastro started by stating CAT cannot meet every transportation need in Collier County. He stated CAT cannot be expected to be UBER to everyone. He added CAT must prioritize its services by matching service to need. The County is looking at being more efficient and possibly relocating resources across departments. He stated CAT could use additional resources.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

Commissioner LoCastro stated CAT should have a variety of customers and a primary customer did not seem to align with their service goals. He stated CAT should analyze utilization and make decisions based on how effectively they can meet those needs.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

Commissioner LoCastro stated a strong operation looks at all available resources and opportunities. He added this includes revisiting prior decisions. He stated just because a previous Board rejected some strategy, which did not mean that conditions may have changed sufficiently that the Board could reconsider. He used the example of advertising. He knows some bus wraps and outdoor advertising had been rejected but he felt there needed to be a closer look at interior bus advertising. He referenced the model of Disney World. He stated Disney buses are all wrapped and communicate a sense of place, but the interior of the buses advertise restaurants, shows, and other attractions.

Commissioner LoCastro stated the Board has limited ways to address needs. The Board can reallocate resources from other programs or try to raise taxes. He noted both solutions can hurt people and create gaps. This is why he hoped CAT was looking at alternatives and innovative ways of increasing revenue.

Commissioner LoCastro expressed concern about raising user fees. He cautioned about raising fees to the point where it did not make sense for people to take transit. He added CAT wants to increase ridership and there should be care consideration of the impacts before raising fees.

8. Would service expansion be considered if a municipality funded it?

Commissioner LoCastro stated yes, if a municipality would like additional services and was willing to pay for it, it made sense for CAT to provide that service. There were efficiencies that could be captured by CAT providing and connecting transit services.

Commissioner LoCastro referenced the Marco Island trolley. He felt communication needed to be strengthened. He referenced the fear that transit would be bringing more congestion onto Marco Island was raised by citizens.

He felt the benefits of reducing congestion, minimizing traffic crashes, and making visiting Marco more pleasant were not well communicated. He felt there was a similar discussion now.

Commissioner LoCastro noted he had attended a conference at the JW Marriot with the previous director. He stated several businesses, including hotels participated. One business spoke to the use of vanpools and how that was not really promoted. He hoped that these transit services that offer a variety of solutions be more visible and promoted as alternatives.

9. Can you comment on the outlook for transit?

Commissioner LoCastro stated the outlook on transit depended on how effective transit is. He noted transit operations will continue to cost more with increases in fuel, continual operating expenses from wear and tear on vehicles, and the demand for expanding services. CAT will need to demonstrate they are spending money wisely. He recognized adding capital equipment such as a bus comes with paying for fuel, a driver, and maintenance. He added this is often not recognized when a new vehicle is acquired. He noted transit vehicles in particular need ongoing maintenance due to the heavy utilization, stop and go driving, and the miles they drive. Commissioner LoCastro wanted to make sure resources and vehicles are allocated and deployed correctly. Transit needs to demonstrate real efficiency.

He noted public perception of empty vehicles and making sure the correct vehicle is in operation on routes was discussed. He hoped CAT was communicating with its ridership and the community to demonstrate how they are meeting needs. He added this included where shelters are placed.

Commissioner LoCastro noted his concern with the reliance on grants. He stated one-time grants cannot be relied upon as they represent a one-time injection of cash and often do not cover ongoing maintenance costs. He felt these could be problematic for determining costs needed to operate the vehicle. He noted transit is an expensive service to provide and there is every indication to support that it will continue to escalate in costs.

Date: August 22, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Stakeholder Interview Council Member Tony Pernas, City of Everglades (Policy Maker)

Council Member Tony Pernas was interviewed via telephone on August 22, 2024. The interview began with a brief introduction of the Transit Development Plan and the CAT organization. This memo represents a summary of Council Member Penniman’s comments.

Interview Questionnaire

1. How familiar are you with transit overall?

Councilman Pernas stated that serving on the City Council and the Collier MPO has given him the opportunity to become familiar with the challenges and opportunities of transit. He said there is no public transportation in Everglades City, and for smaller communities that is a significant concern.

He noted, for example, that Everglades City has a population of only 352 people. However, during the winter tourist season, the population in Everglades City jumps to over 1,500. He said most of the properties are second homes, with tourism playing a vital economic role. He added that Everglades City has restaurants, museums, historic properties, and a significant ecotourism industry. He stated that Everglades City is the gateway to Everglades National Park and as a result the city has around a million visitors annually.

He added that the challenge is Everglades City is far removed, and the only transportation is by individual car. The nearest grocery store is over 35 miles away, and access to services, jobs, healthcare, and shopping requires quite a bit of travel. He stated he understood that there is challenges to providing transit service to small communities in outlying areas.

He added that there is still a need in his community to provide some type of service, even if it is just a connection to life-sustaining shopping or services several times a week.

2. Do you have any specific discussion points about transit in Collier Area Transit you would like to raise.

Councilman Pernas stated that even small towns should have some transit. For persons with no vehicles, who can't drive, or are too elderly, they should have some way of accessing jobs, medical services, and doctor appointments, food, and other areas. He added he did not think regular bus service would work in these outlying areas the same as in more populated areas, nor would he expect significant transit services.

He stated Everglades City is at a disadvantage when accessing jobs and other resources without some type of public transportation in place.

3. How would you rate your awareness of CAT, are you familiar with how to use transit or where it operates?

Councilman Pernas stated that before serving on the MPO, he had limited understanding of CAT. He noted that since serving on the MPO and chairing the Local Coordinating Board, he has gained a better understanding of CAT and its operations.

He added there is limited information, however, for the general public. He noted that CAT did not have a significant public profile on social media and did not openly advertise their services (routes, schedules) in local newspapers etc. He stated regular users and transit riders may have a better understanding of transit because they communicate directly with drivers and interact with the system. He added that unless you actively seek out information about changes or services provided, you are not likely to know about them.

Councilman Pernas stated CAT services should be promoted.

4. What do you view as the role of transit in Collier? Connect workers with jobs? Primarily for persons without cars? Relief for limited parking, roadway congestion?

Councilman Pernas stated that all of the roles mentioned are essential to public transit. He stated connecting workers with jobs is essential to economic growth.

He noted the list should have also included supporting tourism. He added that if public transit were available visitors can use public transportation to visit Everglades National Park, Everglades City and, Big Cypress National Preserve. He noted public transit has an opportunity to increase visitation and reduce the problems associated with parking access. He added, public transportation can also be utilized for beach access. Tourists do not want to fight traffic on the beach and pay for parking. It would be much better for visitors, businesses, and our facilities if transit just picked people up from their hotels and took them to the places they wanted to visit.

Councilman Pernas noted congestion could also be alleviated by transit, especially where the jobs are not close to where people are living.

5. What would you consider transit priorities? Increase areas served? Increasing service frequency, adding bus shelters, introducing mobility-on-demand, connecting service with sidewalks, bicycles, and multi-use paths?

Councilman Pernas noted those were all important priorities for CAT, and he understood those were options for improving service.

He stated that from his perspective in Everglades City, CAT needed to prioritize underserved areas. He noted that although Immokalee is also far out, but at least they have some service. Residents of

Everglades City, Chokoloskee, Copeland, Jerome and Plantation Island have no transit services, and are at a disadvantage.

Councilman Pernas acknowledged the need for bus shelters and other amenities for transit riders. He added that Florida's environment is hard on people who have to wait for the bus. He stated shelter from the rain, heat, and other elements is just as important as the service.

Councilman Pernas stated a great deal is being done to connect bicycle paths and multimodal transportation corridors, noting this was very encouraging. He hoped transportation would become more of an interconnected, integrated system.

6. Who should transit target as primary customers? Persons without access to a vehicle, community, the environment, businesses, tourism?

Councilman Pernas stated all of the customers mentioned should be targeted for better delivery of services and to understand their needs. He felt, however, CAT should prioritize senior citizens and low-income workers who are disproportionately affected by the lack of transit.

He added in order for CAT to be successful, they need to reach out to people with no other means of transportation.

7. How best do we pay for transit services? User fees? Including improvements through new developments, partnerships with major employers, businesses, institutions, and increased advertising? Is there an opportunity to consider innovative funding strategies to help fund transit?

Councilman Pernas noted all financing options were important. He noted in some cases there may be an opportunity to partner with businesses and private companies. He added there were companies using vanpools, which were a great tool in places like the hotels along the beaches. He noted those workers are not likely to be the highest-salaried workers; therefore, user fees can only cover so much of the cost.

He noted state and federal grants should be leveraged to bring more transit to Collier. There should be better coordination between businesses who need workers and areas of the community that may not be able to access those opportunities.

Councilman Pernas stated he understood transit was expensive. He noted, however, it has the potential to create more economic activity when it connects workers with jobs. You cannot just look at the cost of providing transit. You must also consider how it improves the quality of life for persons and how it connects people with opportunities.

8. Would service expansion be considered if a municipality funded it?

Councilman Pernas noted this would not work for a community like Everglades City with a population of 352 people as it does not have an adequate tax base. For larger municipalities like Marco Island with a much larger tax base it may work.

Councilman Pernas stated he would not discount this way of funding transit service, but it has to recognize this will not work for every community.

9. Can you comment on the outlook for transit?

Councilman Pernas stated the outlook for transit was actually promising in spite of all of the challenges. He stated Collier County cannot continue to widen roads indefinitely. He stated traffic continues to get worse, and the solution is not to continue to build new roads either. Transit can alleviate traffic congestion and should be considered a solution.

He added even when widening roads, transit should be considered. As an example, he stated when widening US 41, there should be transit lanes added.

He was optimistic about light rail. He stated that light rail has already been implemented and ridership is steadily increasing (Orlando to Tampa, Miami to Orlando). Councilman Pernas stated he expected the next 20 years to see more light-rail as Florida becomes better connected and starts addressing congestion.

Situational Appraisal Technical Memo No. 1

Date: August 23, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Situational Appraisal – Technical Memo No. 1 Revised - Action Required

The Situational Appraisal as been updated. Please review.



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1 Baseline Conditions, Demand Estimation & Land Use Development Assessment

The baseline conditions analysis provides a detailed report on the existing and projected future conditions of the service area. The foundation of the transportation development plan will be based on the contextual information presented in this section. The collected data will also be used in the Situational Appraisal to provide the basis for transit improvement considerations.

The following topics were reviewed and analyzed for Collier County in the context of the TDP:

- Study Area
- Population Profile
- Demographic Characteristics
- Transportation Disadvantaged Population
- Labor and Employment Characteristics
- Educational Attainment
- Tourism
- Major Trip Generators
- Major Developments
- Existing and Future Land Use
- Commuter Travel Patterns
- Roadway Conditions

Data collected for select population, demographic, and socioeconomic characteristics are supported by various maps and tables. Primary data sources include the U.S. Census Bureau, specifically from the 2020 Decennial Census and the 5-Year American Community Survey (ACS), Collier County, Florida Commission for the Transportation Disadvantaged, Collier Area Transit, and the Regional Economic Research Institute at Florida Gulf Coast University, supplemented by local and regional agency sources as necessary.



1.1 Study Area

Collier County is in southwest Florida, east of the Gulf of Mexico. The county is bordered on the northwest, northeast, east, south, respectively by Lee, Hendry, Broward, Miami-Dade, and Monroe counties. Collier County has three municipalities: Everglades City, Marco Island, and Naples, the County seat.

In terms of geographical area, Collier County is the largest county in Florida with a land area of approximately 1,996.8 square miles according to the 2020 Decennial Census from the US Census Bureau. A significant portion of the county area is designated as protected lands (more than 1,875 square miles), primarily in the eastern and southern parts of the county.

Figure 1-1 shows the extent of the study area. Due to the size of Collier County, a study area has been produced as outlined by the red boundary, which covers the existing transit network along with the core populated areas of the County and excludes some of the park land. For presentation purposes moving forward in this document, some of the map figures will be zoomed to the study area extent to show greater detail and avoid wasted space.

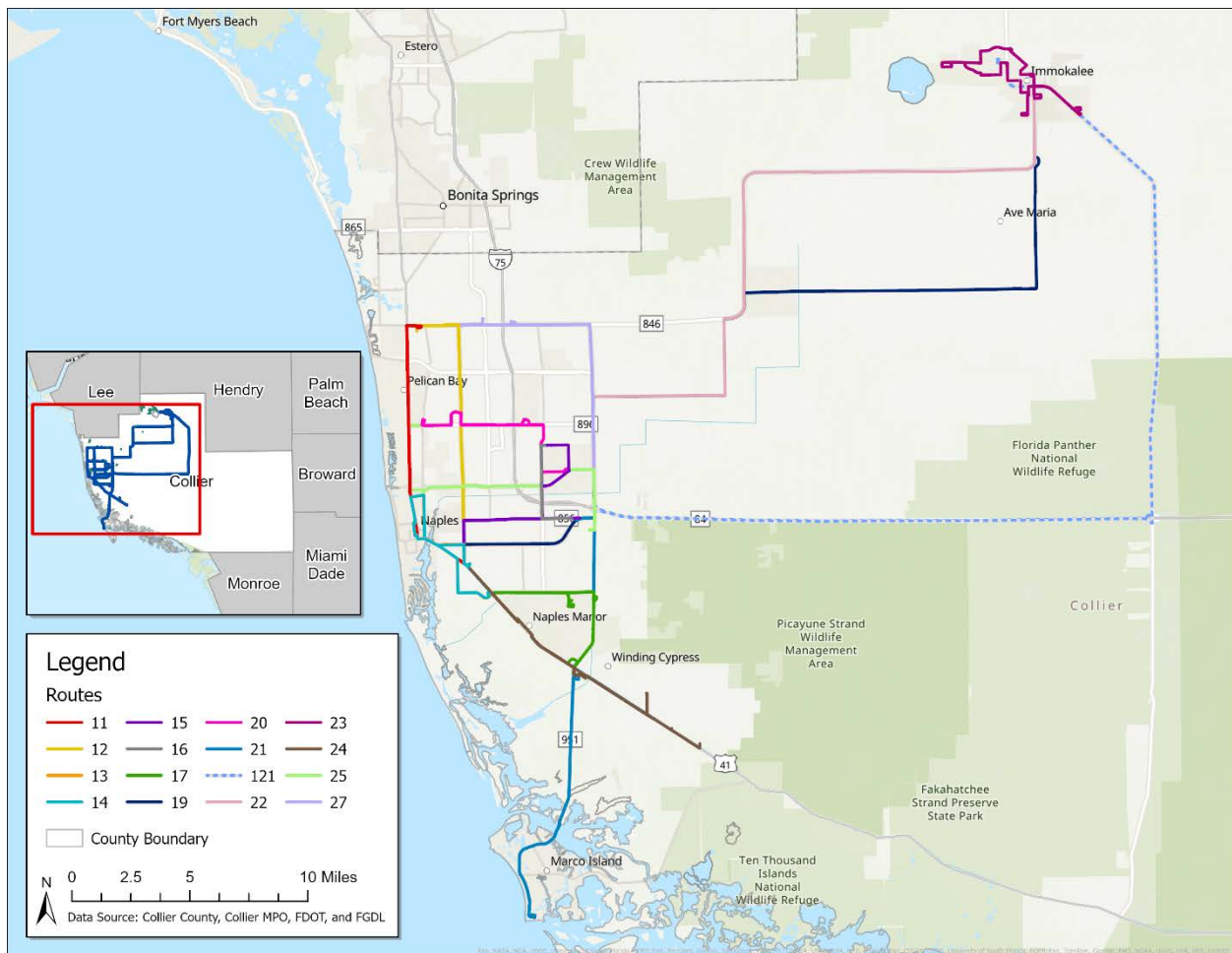


Figure 1-1: Map of Study Area.



1.2 Population Profile

As of the 2020 Decennial Census, Collier County was ranked the 19th most populous county in Florida. As per the US Census Bureau 2020 Decennial Census, the county population accounts for 1.74% of the total state population in 2020 and is estimated to grow to 1.83% by 2050 based on State population projections.

The Collier County population has been steadily increasing over the last few decades, as shown in Figure 1-2 below. Population values were obtained from US Census Bureau decennial censuses and annual population estimates. There was a slight dip in the census population count in 2020 compared to the estimated values for the previous years, likely due to the COVID-19 pandemic. The population projection values were obtained from the Florida Bureau of Economic and Business Research (BEBR) at 5-year intervals until 2050. Collier County's population is projected to continue increasing steadily.

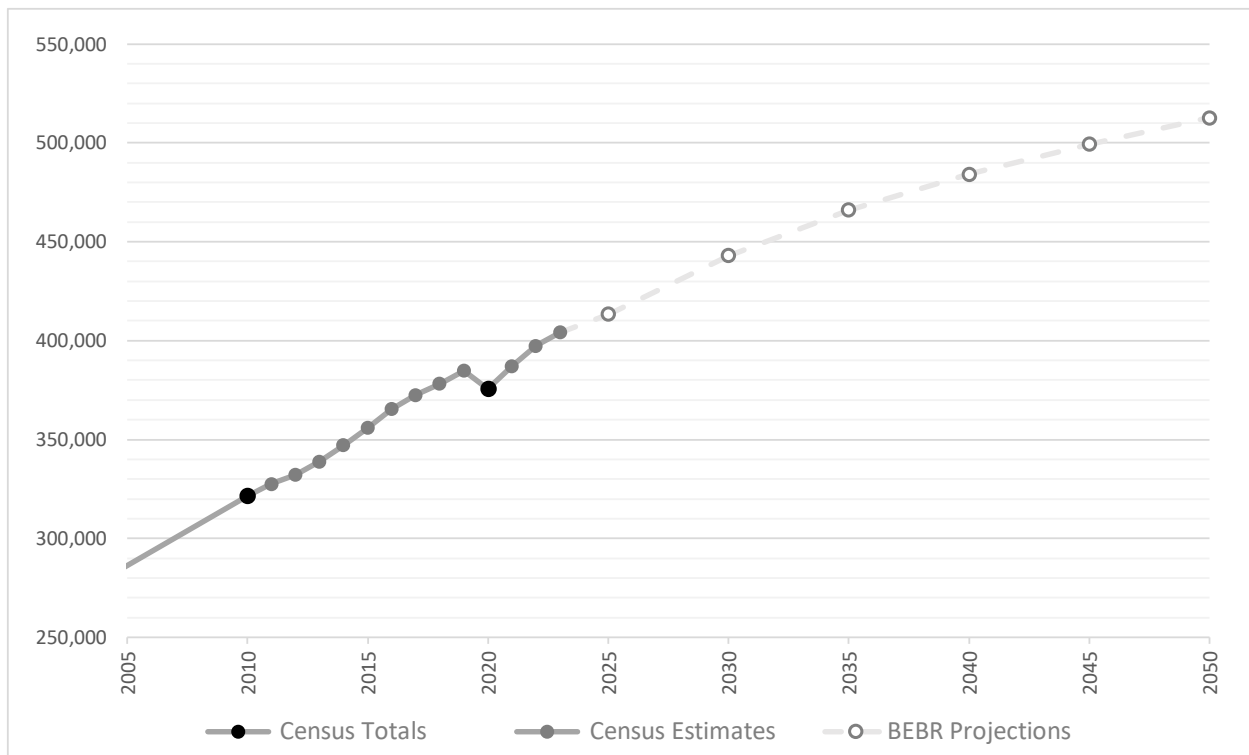


Figure 1-2: Collier population totals, estimates, and projections (Source: US Census Bureau and BEBR).

Collier County's population has been increasing during the past few decades; however, the overall growth rate is expected to slow over the next couple of decades, like state-wide conditions. In general, the county has consistently experienced and will continue to have higher rates of growth compared to that of Florida, as shown in Figure 1-3 below.



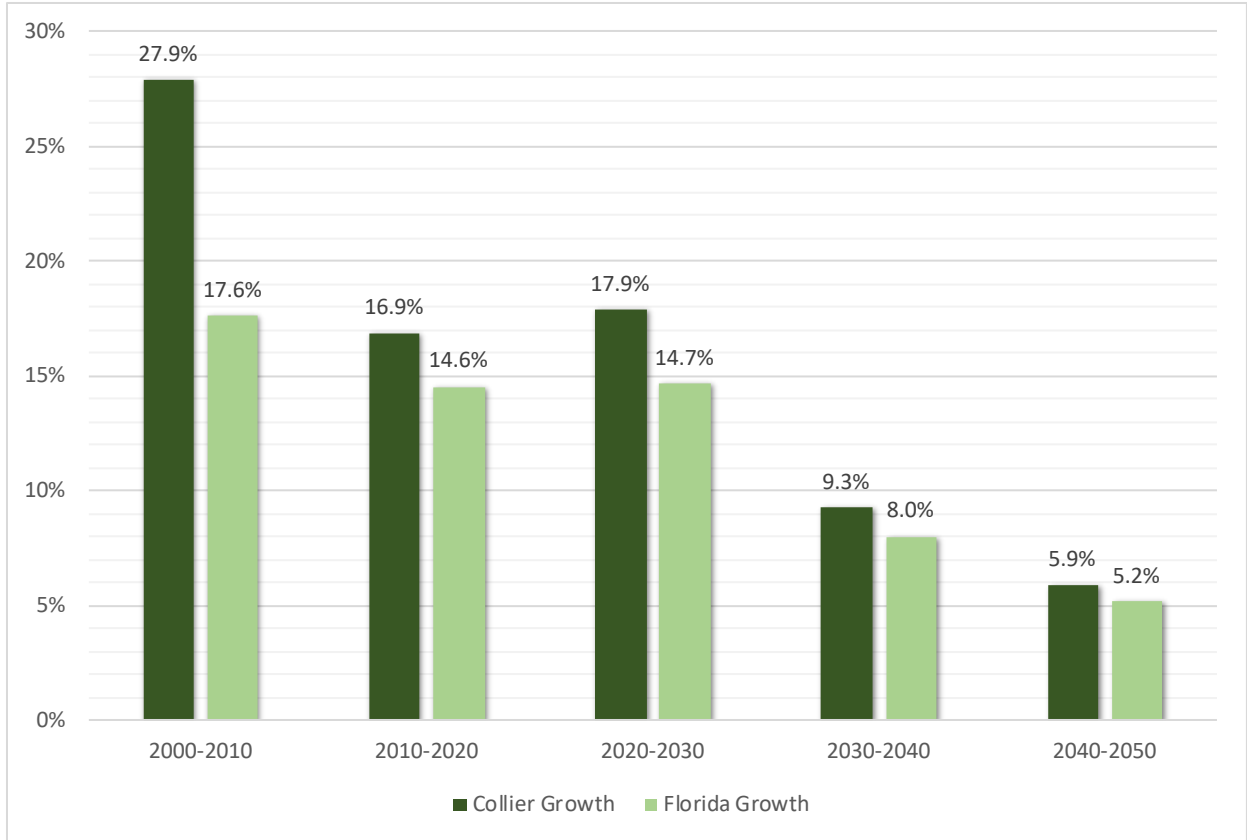


Figure 1-3: Historical and Projected Decennial Population Growth Rates (Source: US Census Bureau).

Collier County typically receives a significant number of tourists and seasonal residents, impacting the travel patterns and increasing traffic congestion during the peak season periods. The County developed annual population projections for the fiscal year and peak season periods to better plan for seasonal demand impact on public services. Figure 1-4 displays these projection values; with annual fiscal year population values reflecting the permanent resident population and peak season population values estimated with a constant adjustment factor.



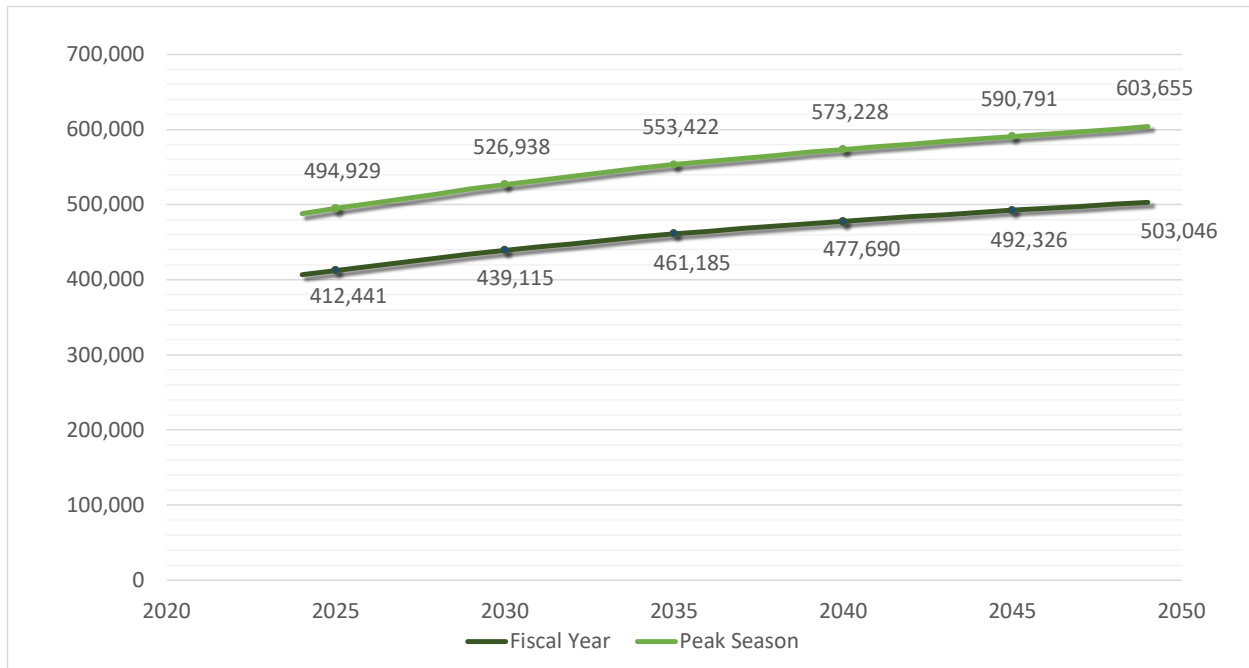


Figure 1-4: Collier County year by year population projections (Source: Collier County Government).

Traffic Analysis Zones (TAZ) were used to analyze statistics and change at a smaller geographic unit. Estimated and projected population, employment, and dwelling density values for 2019 and 2050 were interpolated from 2015 values and 2045 projections. Employment will be discussed in a later section.

Figure 1-5 and Figure 1-6 depict population density at the TAZ level for 2019 and 2050 respectively. The estimated population distribution within Collier County in 2019 is highly concentrated in the central business and residential districts of Immokalee, Ave Maria, Pelican Bay, Golden Gate, and other communities around North and South Naples. Golden Gate especially has a high concentration of population with several red and orange TAZ blocks symbolizing higher population density. The distribution pattern remains very similar for the projected 2050 population densities. The areas with higher population density are all located near, if not along the existing transit network, which means that the current network is doing well in providing service in the more populated areas.



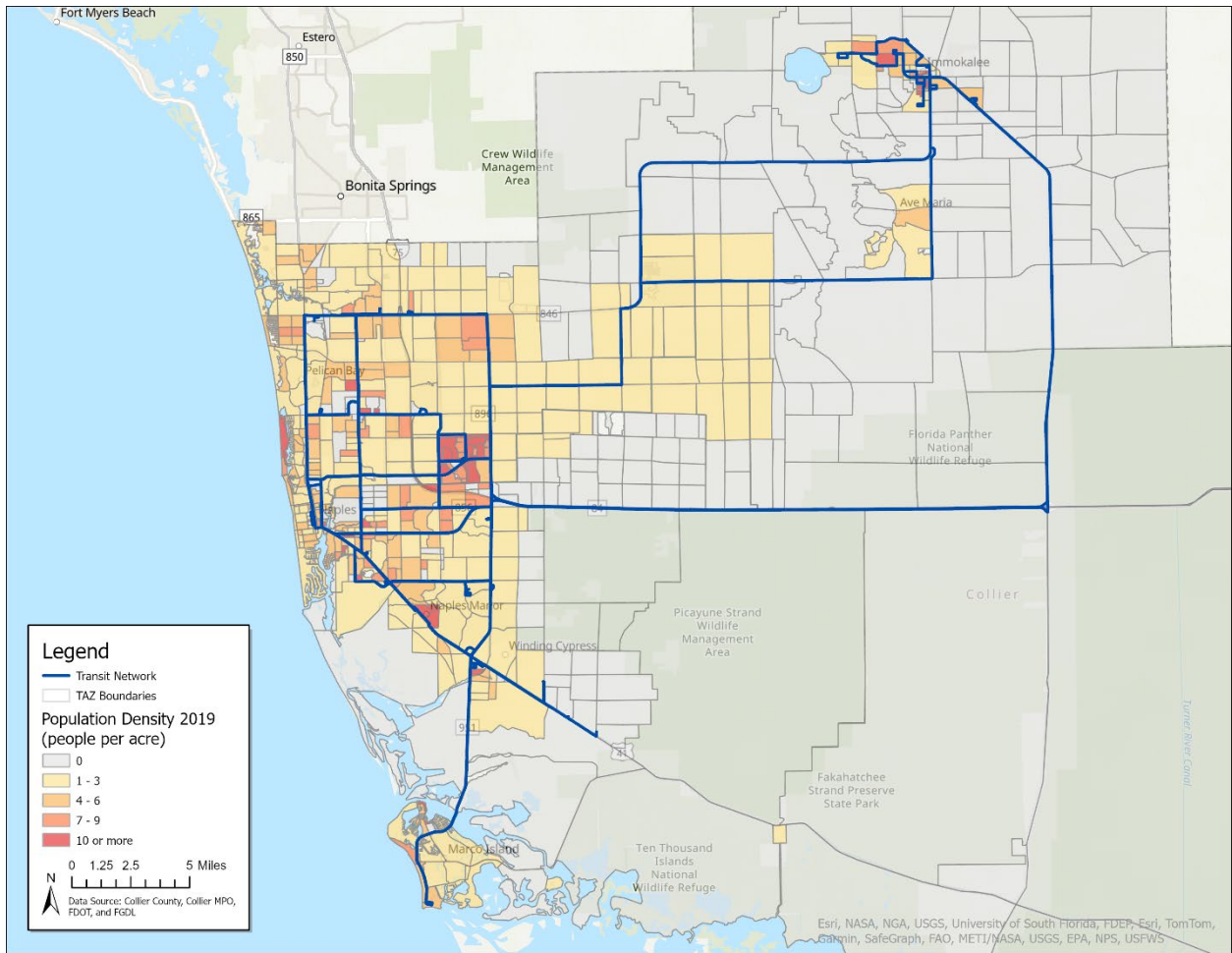


Figure 1-5: Collier County Estimated Population Density by TAZs in 2019.



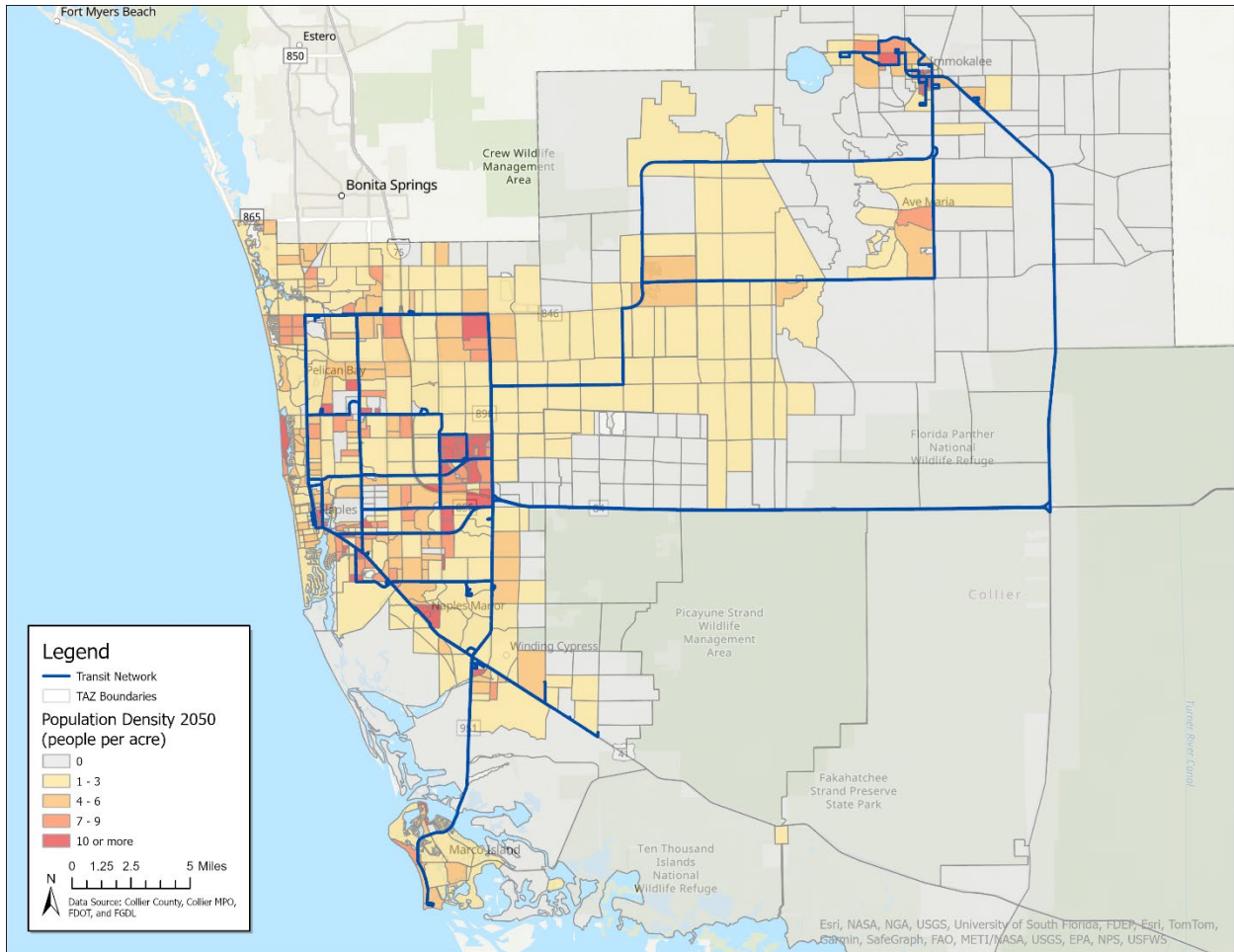


Figure 1-6: Collier County Projected Population Density by TAZs in 2050.

Figure 1-7 shows the population density increase between the 2019 estimates and the 2050 projections. This growth rate map indicates greater increases for the TAZs within and around the urban communities of Immokalee, Ave Maria, Orangetree (west of Ave Maria), and Golden Gate. There are also a few TAZ blocks around North and South Naples with high growth rates, symbolized in red showing higher population density increase. These areas of high growth indicate potential for more transit demand as the population increases. The agricultural areas next to these communities appear to have little to no population growth, specifically outside of Immokalee and in the parks or nature reserves, which is expected as there are limited residential areas and less dwelling units there.



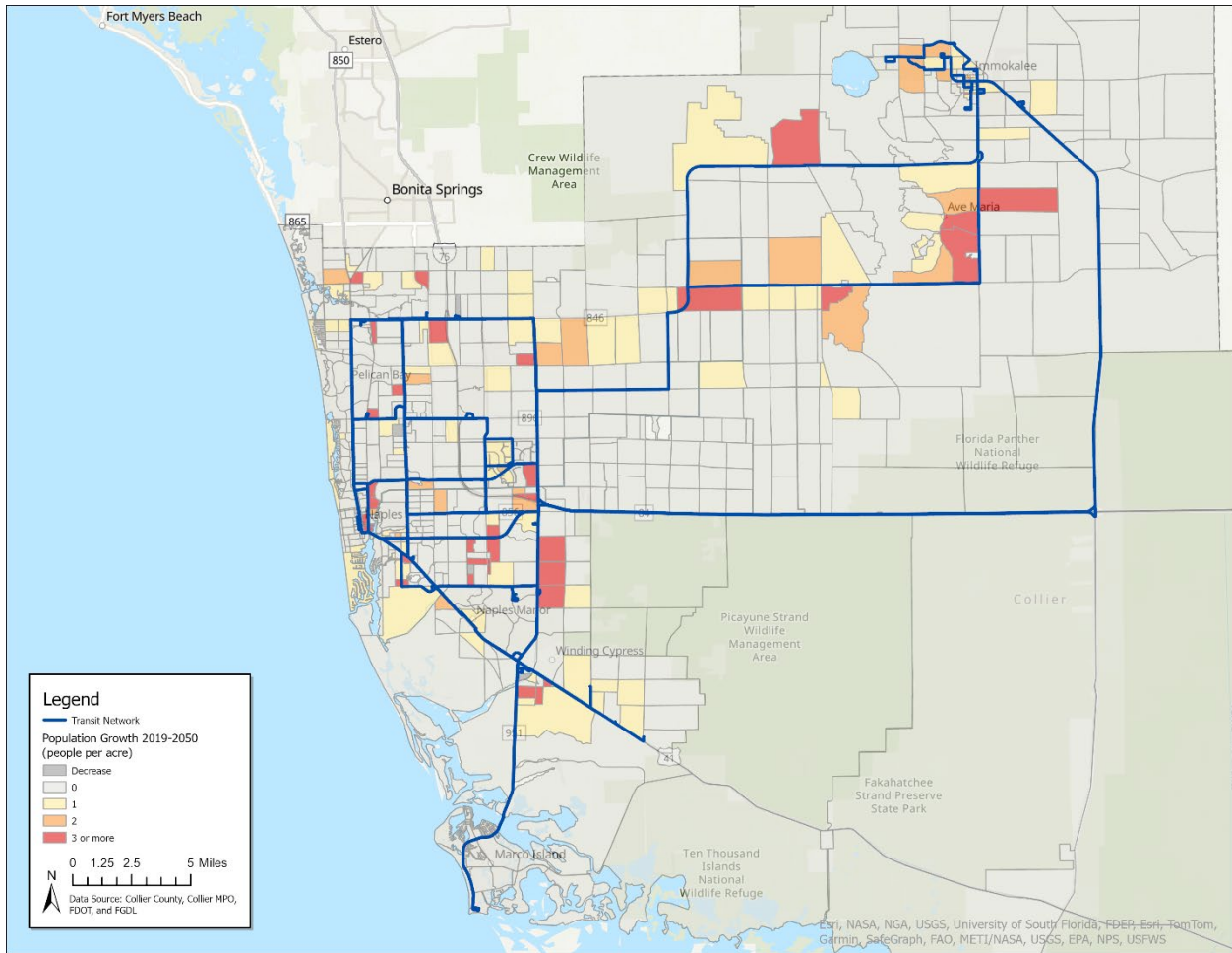


Figure 1-7: Collier County Population Density Growth per TAZ from 2019 to 2050.

Figure 1-8 and Figure 1-9 illustrate the distribution of dwelling units at the TAZ level for 2019 and 2050 respectively. Similar to the population distribution in Collier County, higher numbers of dwelling units are seen in and around Marco Island and Golden Gate, indicating greater resident occupancy and transit demand in these regions. Higher dwelling unit numbers are also observed along the Gulf of Mexico coast along the west end of Collier County, mostly around Pelican Bay. This distribution pattern remains very similar for the 2050 estimated projections. Again, following population density patterns, areas with higher numbers of dwelling units are all located near, if not along, the existing transit network, indicating that the current network is doing well in providing service in the more populous residential areas.



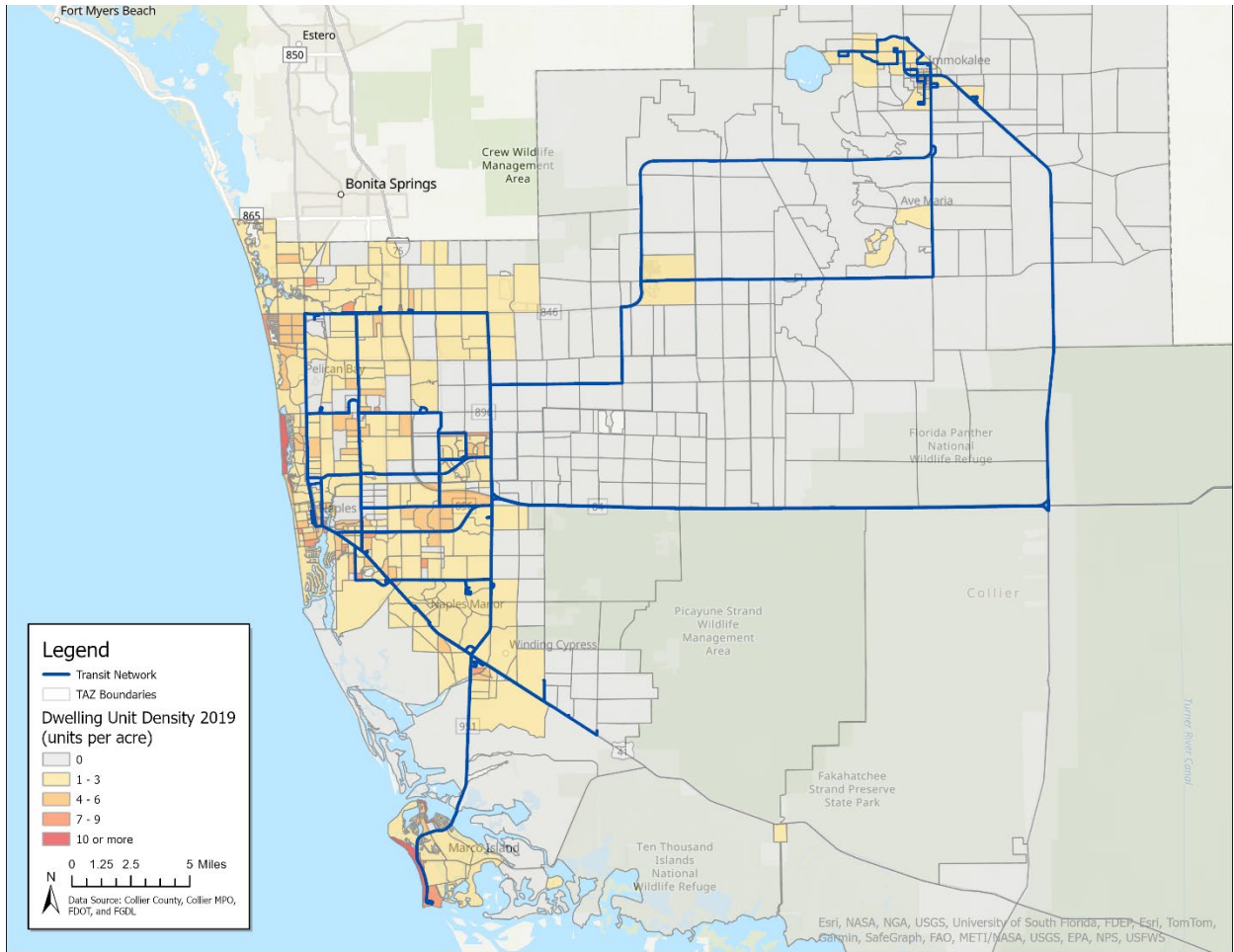


Figure 1-8: Collier County Estimated Dwelling Unit Density per TAZ in 2019.



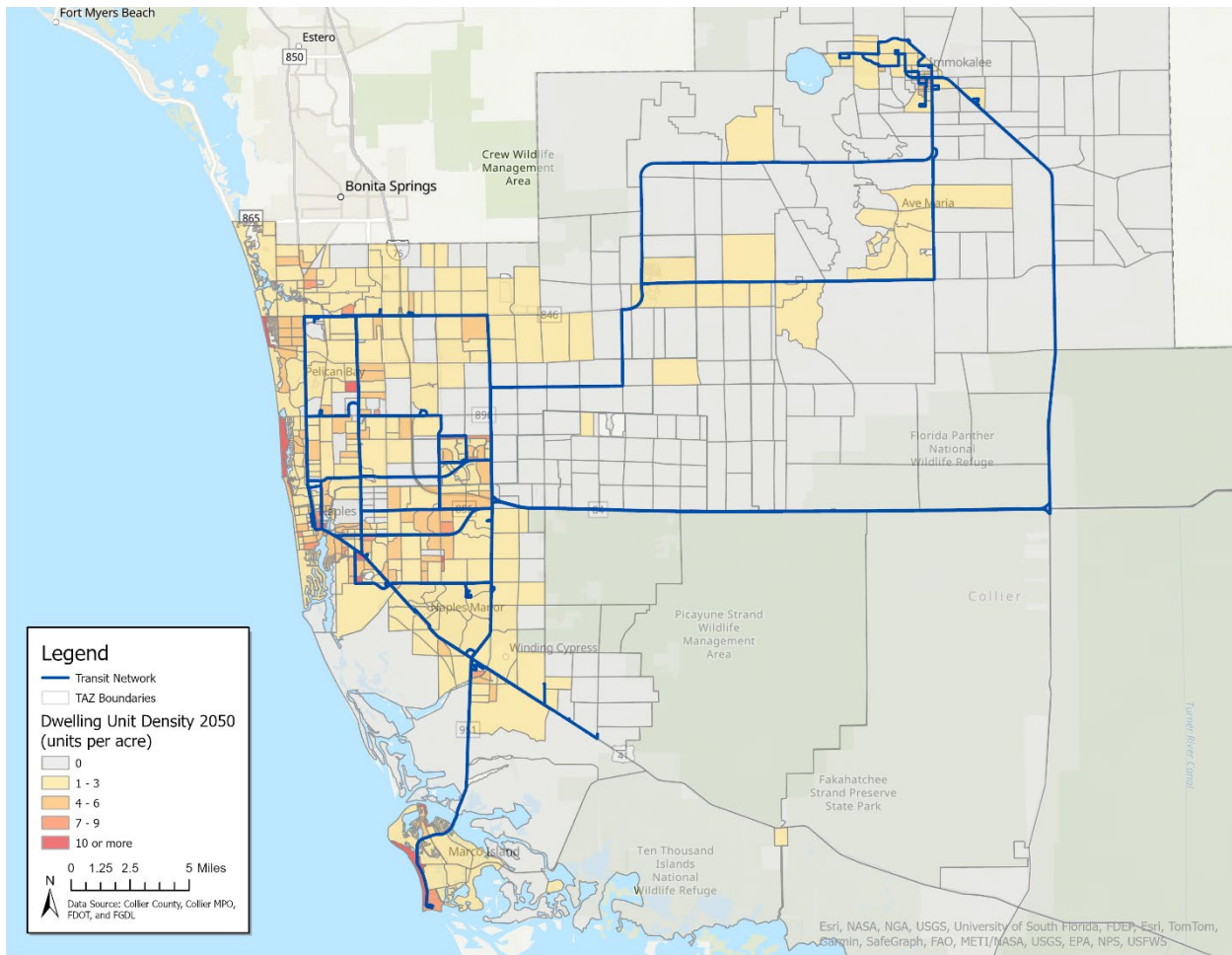


Figure 1-9: Collier County Projected Dwelling Unit Density per TAZ in 2050.

Figure 1-10 shows the increase in dwelling unit density per TAZ between the 2019 estimates and the 2050 projections. This growth change map indicates greater increases in the Ave Maria community and a few small TAZs in North, East, and South Naples. As with population growth, the agricultural areas next to these communities appear to have little to no increase in dwelling units, specifically outside of Immokalee and in the parks or nature reserves, which is expected as there are limited residential areas and less dwelling units there. The increase in dwelling unit density appears to be slower than population density increase, as there are less higher increase blocks (symbolized by red and orange) in the dwelling unit density maps compared to the population density maps.



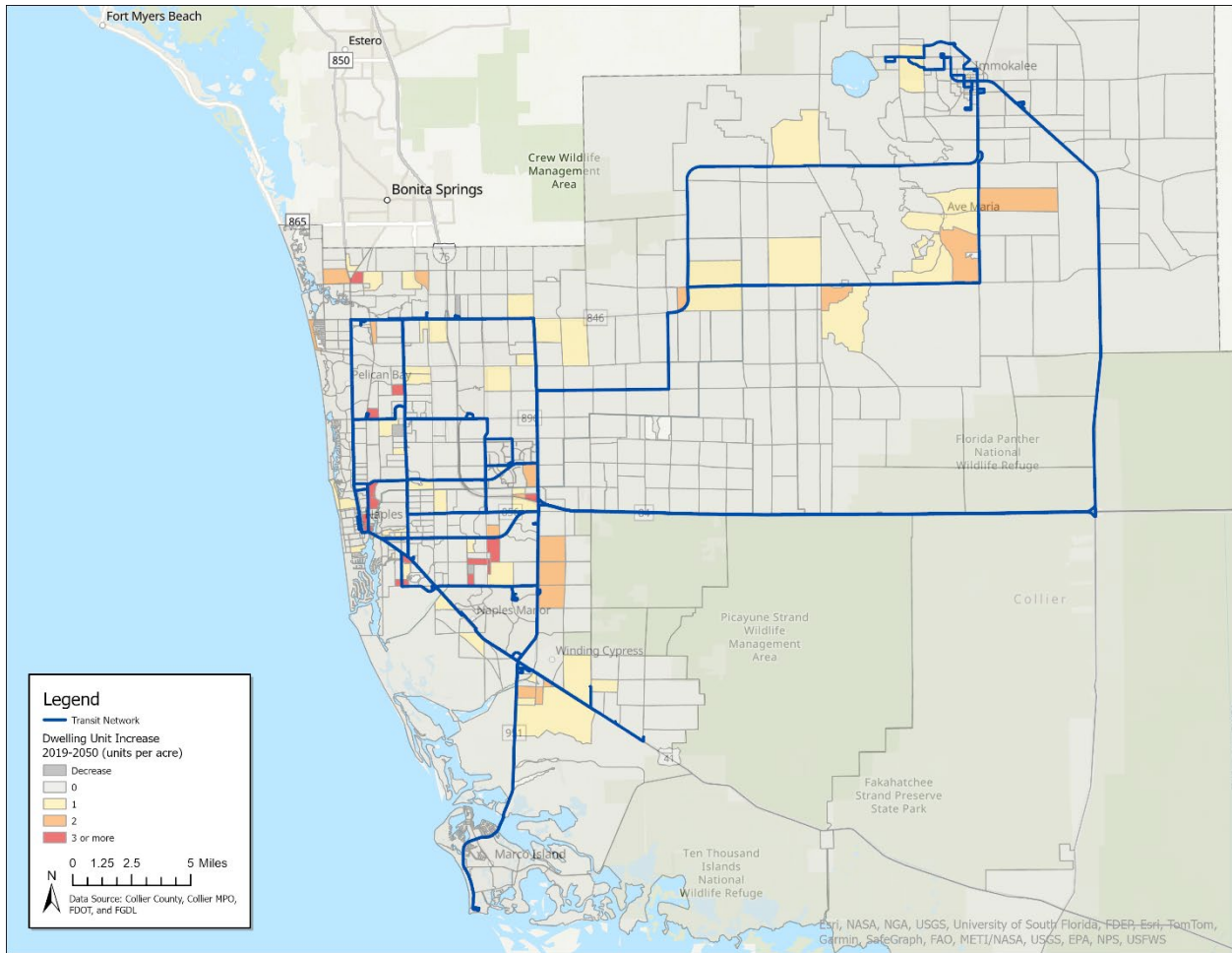


Figure 1-10: Collier County Dwelling Unit Density Increase by TAZ from 2019 to 2050.

1.3 Demographic Characteristics

Demographic characteristics such as age, household income, poverty status and the number of vehicles available in a household are key indicators to helping understand transit propensity. Table 1-1 summarizes these characteristics pulled from data from the United States Census Bureau in the years of 2010, 2018, 2020 and 2022.



Table 1-1: Collier County Demographic Characteristics

Characteristic	2010	2018	2020	2022
Gender				
Male	49.7%	49.3%	49.2%	49.5%
Female	50.3%	50.7%	50.8%	50.5%
Ethnic Origin				
White	85.8%	88.1%	84.5%	73.2%
Black or African American	6.6%	7.0%	6.8%	6.5%
Other	6.4%	3.6%	3.6%	5.6%
Two or more races	1.1%	1.3%	5.2%	14.6%
Hispanic Origin				
Not of Hispanic/Latino origin	74.8%	72.5%	72.0%	71.4%
Hispanic or Latino origin	25.2%	27.5%	28.0%	28.6%
Age				
<15 years	20.0%	18.8%	18.6%	18.2%
15-59 years	62.1%	59.9%	59.1%	59.8%
60+ years	17.9%	21.3%	22.3%	22.0%
Household Income				
Under \$10,000	7.2%	6.3%	5.8%	4.9%
\$10,000-\$49,999	40.9%	35.8%	33.2%	28.9%
\$50,000-\$99,999	30.9%	30.0%	30.0%	28.9%
\$100,000-\$200,000	16.7%	20.9%	22.7%	25.9%
\$200,000 or more	4.2%	7.0%	8.3%	11.4%
Poverty Status				
Above poverty level	86.2%	85.9%	87.2%	87.5%
Below poverty level	13.8%	14.1%	12.8%	12.5%
Vehicle Available in Household				
None	4.3%	4.3%	4.2%	4.3%
One	21.1%	20.6%	20.1%	20.3%
Two	42.5%	41.0%	40.5%	40.3%
Three or more	32.1%	34.1%	35.2%	35.2%

Source: 2010 ACS 5-year estimates, 2018 ACS 5-year estimates, 2020 ACS 5-year estimates, 2022 ACS 5-year estimates

A significant portion of the population owns two or more vehicles, and around a third of the residents in Collier County have an annual income exceeding \$100,000. Combined, these statistics may indicate a lower propensity to use transit among the community. Household income reveals an increasing disparity between the rich and poor, as those earning over \$100,000 have increased from 16.7% to 25.9%, while those earning under \$10,000 have only decreased around 2%. Moreover, the percentage of the population living above the poverty line has only shown a slight increase. In Figure 1-11, changes in income brackets are shown over time.



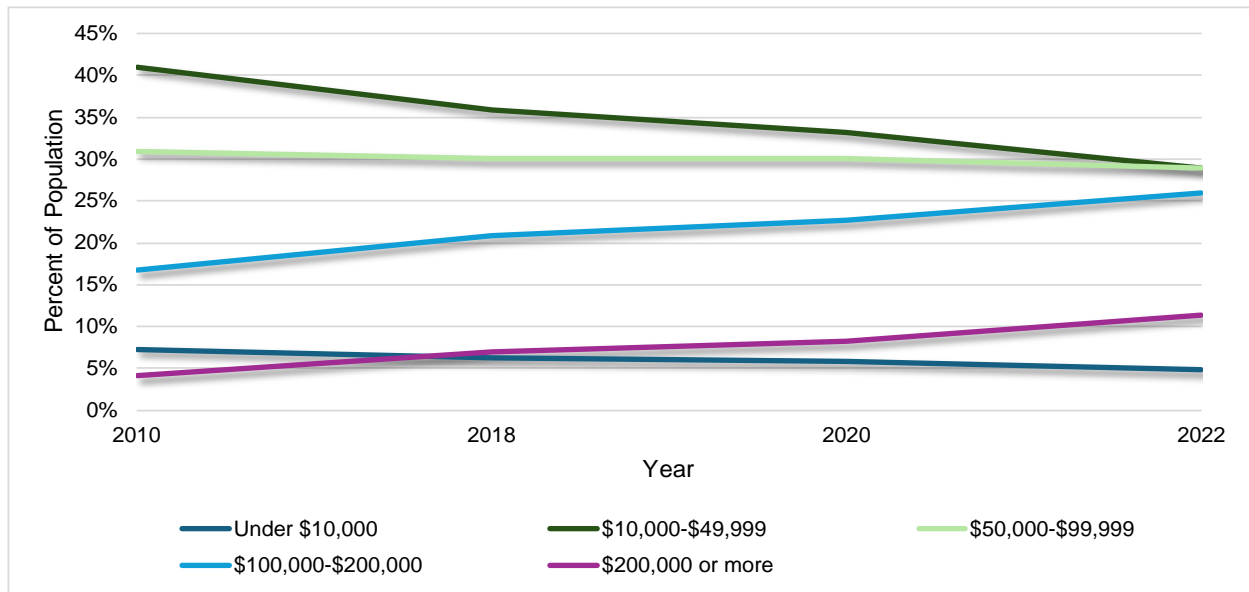


Figure 1-11: Household Income Over Time in Collier County

Source: 2010 ACS 5-year estimates, 2018 ACS 5-year estimates, 2020 ACS 5-year estimates, 2022 ACS 5-year estimates

The percentage of individuals earning less than \$10,000 annually declined from 7.2% in 2010 to 4.9% in 2022, reflecting a 2% decrease. Conversely, those earning \$100,000 or more saw a 10% increase, indicating a faster rate of income growth among higher earners. As incomes rise, fewer individuals may rely solely on public transportation, with increased access to private vehicles or alternative options. The percentage of those earning between \$50,000 and \$99,999 has remained stable, representing a group that may still favor public transit for its convenience and cost-effectiveness, particularly in urban areas where traffic congestion and parking costs are significant. Additionally, the proportion of individuals earning \$200,000 or more grew by 7% between 2010 and 2022.

The age distribution among males and females has remained relatively consistent from 2000 to 2022, with a balanced ratio between genders, each comprising about half of the population. The ethnic majority remains Caucasian. Over time, there has been a slight decrease in the youth population and a corresponding rise in the senior population, underscoring the growing need for accessible services. Notably, the percentage of residents aged 60 and older is on the rise, potentially increasing demand for fixed-route transit and paratransit services. Figure 1-12 illustrates the population distribution by gender and age group, showing Collier's aging population, where older age groups now surpass younger ones.



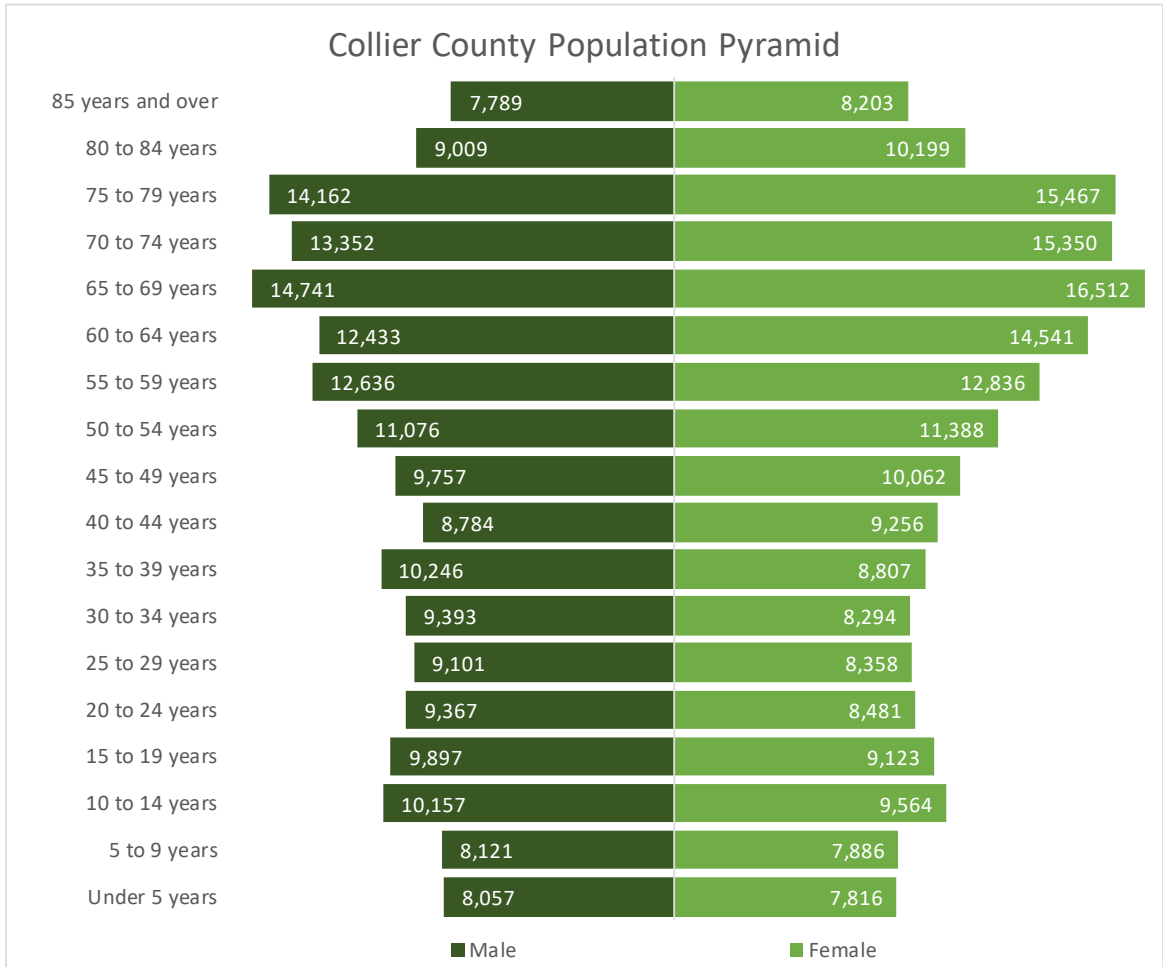


Figure 1-12: Population Age Distribution in Collier County

Since 2010, over 95% of households in Collier County have consistently had access to at least one vehicle, with less than 5% of households lacking a private vehicle. Although this percentage is small, it remains a significant demographic indicator, highlighting areas that may be more dependent on public transit and could potentially benefit from enhanced service. Increasing transit options could also encourage a shift among the majority who currently rely on private vehicles, offering convenient alternatives that promote greater use of public transportation for daily travel.

Figure 1-13 illustrates the distribution of households without vehicles across Collier County at the TAZ level. The existing transit network appears to serve most of these areas effectively, though coverage is limited in regions further east of Immokalee/Ave Maria near the conservation or rural areas. A small number of no-vehicle households are also present in Everglades; however, transit service is absent in much of southern Collier County, leaving this area underserved by the current network.



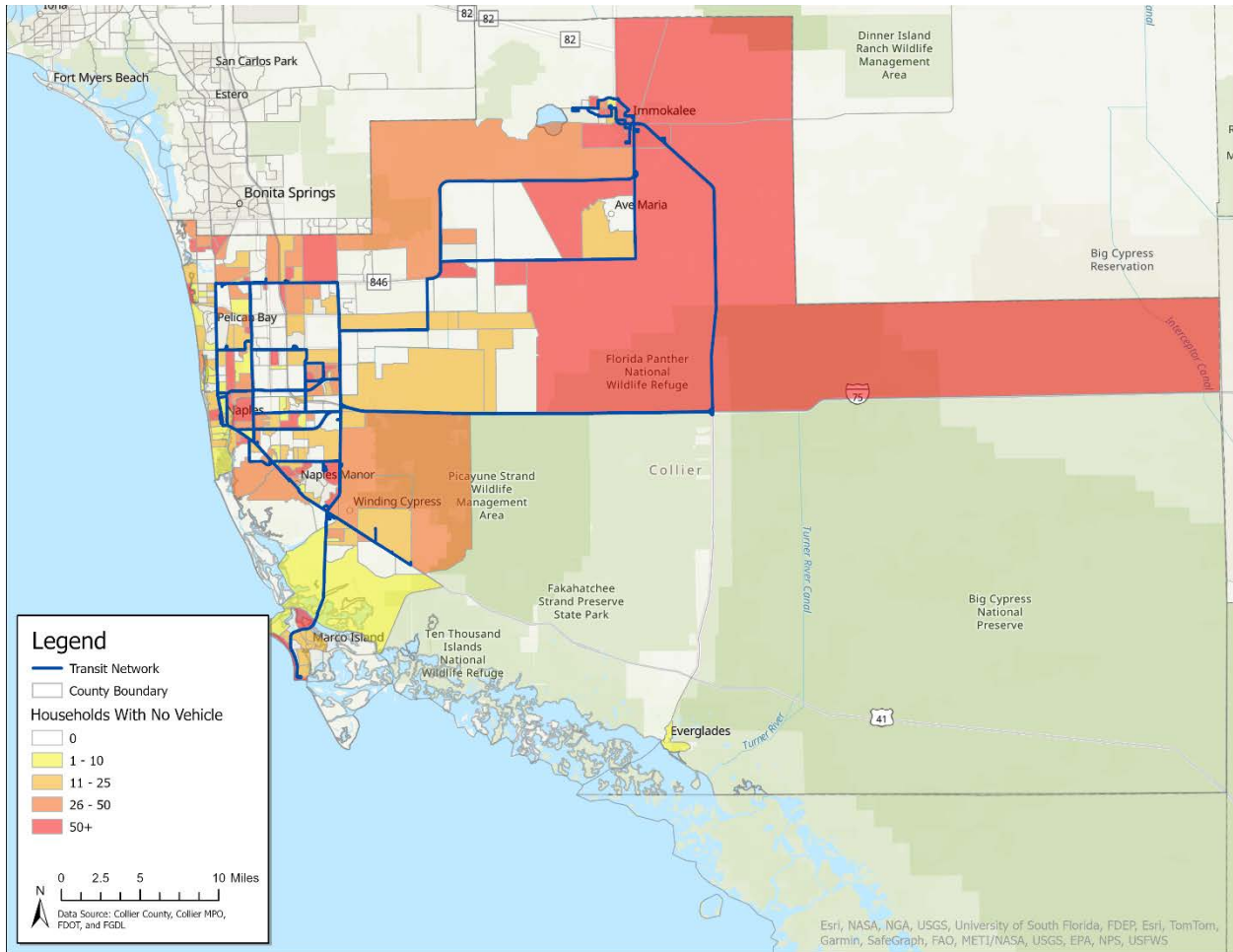


Figure 1-13: Distribution of Households with No Vehicle in Collier County in 2022.

1.4 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 available children 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 life sustaining activities. Table 1-2 shows the total number of TD trips served between 2019 to 2024.

Table 1-2: Collier County transportation disadvantaged trips served.

	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	% Change (2019- 2024)
TD Trips Served	117,585	104,137	113,598	109,044	133,799	156,438	33.0%

Source: Collier County Community Transportation Coordinator's Annual Operating Reports, Fiscal Years 2019-2024.



The number of TD trips served through CAT's brokered system, as the Community Transportation Coordinator (CTC) for Collier County, increased 33% from 117,585 in 2019 to 156,438 in 2024. This demonstrates the increasing desire and need for more paratransit trips in the region. Figure 1-14 shows the number of TD passengers served from 2019 to 2024.

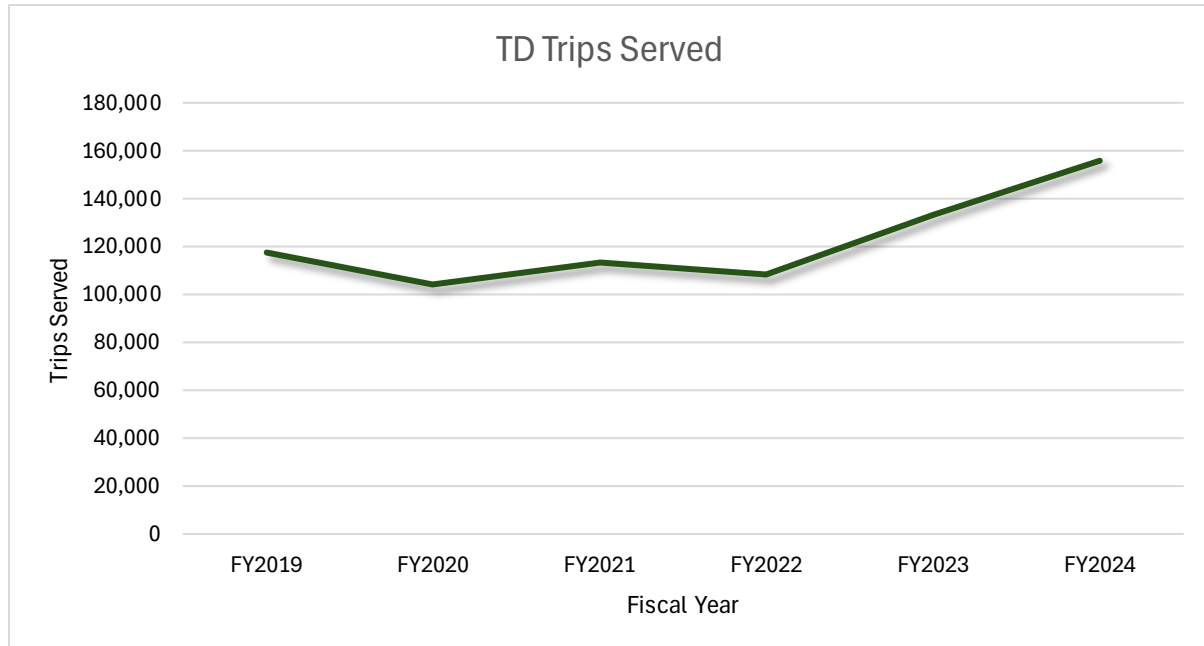


Figure 1-14: Collier County transportation disadvantaged trips, 2019–2023 (Source: Florida Commission for the Transportation Disadvantaged Annual Operations Reports (AOR)).

During this period, the total number of TD passengers followed an overall upward trend, despite occasional dips in ridership in 2020 and 2022, likely caused by the lasting effects of the COVID-19 pandemic. The most notable growth in TD trips occurred between 2022 and 2023, with a 22% increase. As TD ridership continues to expand, it will be essential to ensure adequate services are available to support this community, while also promoting access to fixed-route services, which offer a more cost-effective option for all users. As shown in Figure 1-15 below, TD trips have increased in line with population growth. As per the 2023 TDSP, the potential TD population is 165,309. This is expected to increase year after year.



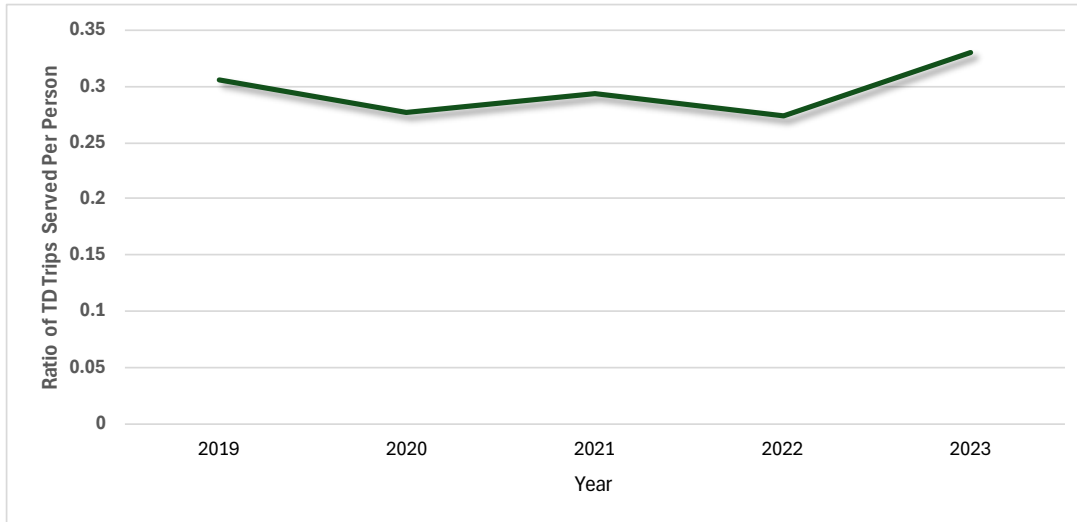


Figure 1-15: Ratio of TD Trips to Total Population.

1.4.1 RECENT IMPROVEMENTS TO PARATRANSIT SERVICES

Several improvements have been implemented to the paratransit services in Collier County as outlined by the CAT Connect Paratransit Service Report. Ecolane, a paratransit software, has been implemented, and Travel Trainings provided by CAT have been ongoing. Additionally, improvements to the phone systems have resulted in a decrease in average queuing time and a reduction in abandoned calls.

1.5 Labor and Employment Characteristics

The employment sector distribution in Collier County not only reflects the economic vitality and job market trends but also serves as a critical indicator of transit dependency and the necessity for inclusive transportation planning. Figure 1-16 and Figure 1-17 show the estimated employment densities at the TAZ level in 2019 and 2050 respectively. As commercial areas and places of employment grow and develop, urban communities such as Pelican Bay, Immokalee, and communities in North, East, and South Naples will experience a higher increase in employment numbers. This is depicted in the employment distribution maps, as the TAZs around these urban communities have higher employment numbers compared to the rest of the County, represented by yellow, orange, and red. These TAZs are mostly located along the existing transit network, which means that the current network is doing well in providing service in the more employment-dense areas.



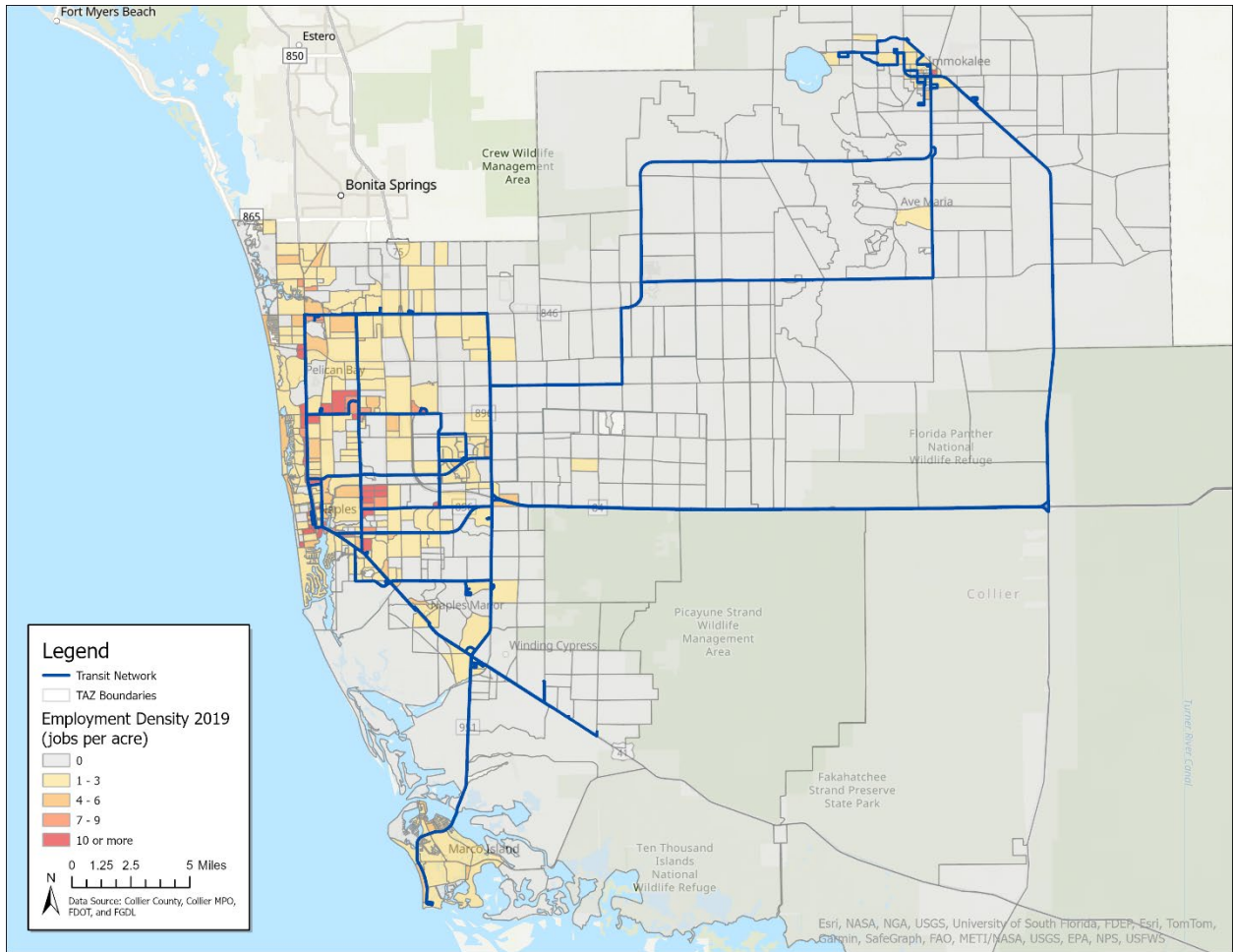


Figure 1-16: Collier County Estimated Employment Density by TAZs in 2019.



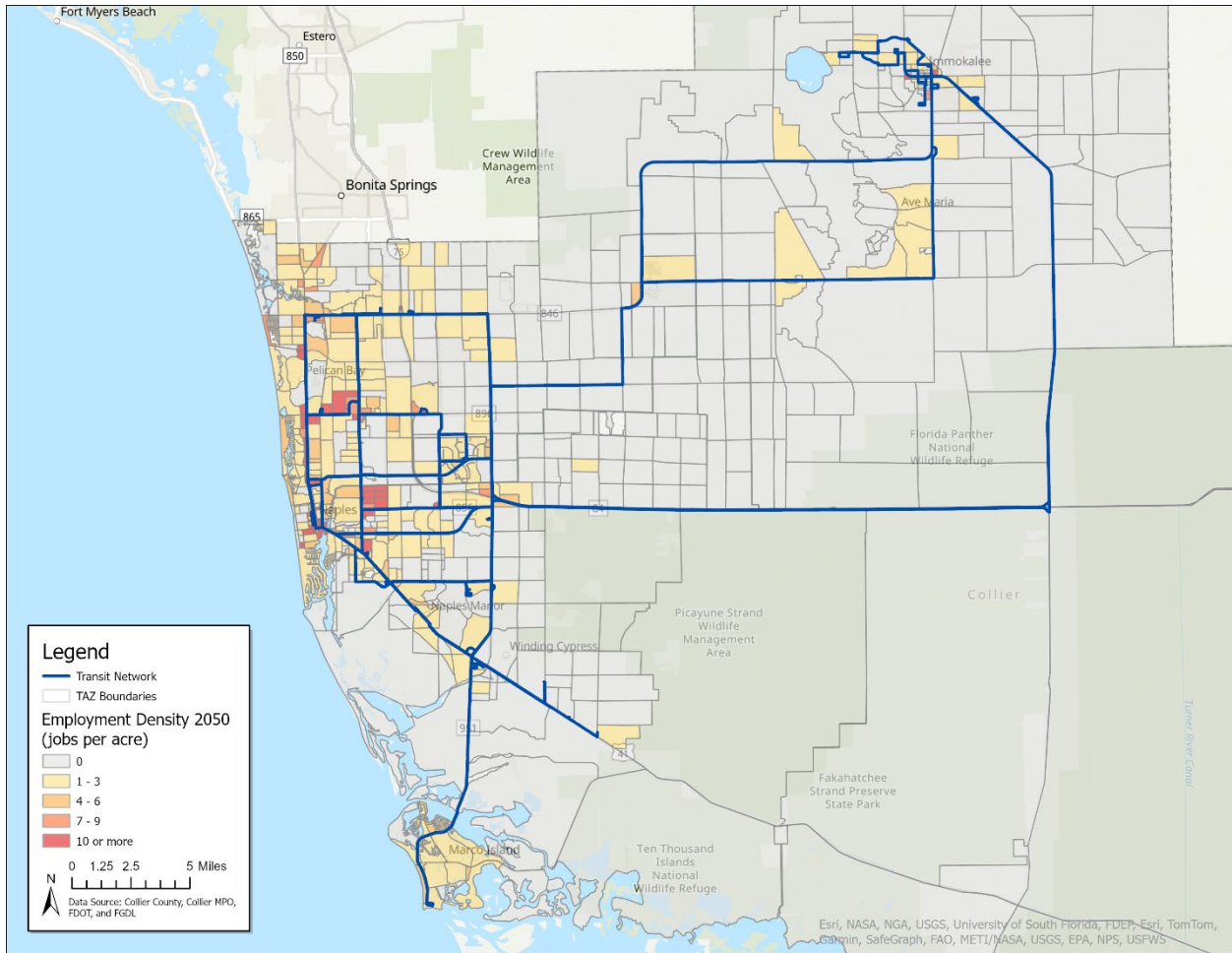


Figure 1-17: Collier County Projected Employment Density by TAZs in 2050.

Figure 1-18 shows the employment density increase between the 2019 estimates and the 2050 projections. The Collier County area does not seem to have a high increase in employment, as most of the TAZ blocks show little to no increase in employment density in the map. There are very few TAZ blocks with higher increases, these are located around the communities of Ave Maria, Golden Gate, and Orangetree (west of Ave Maria), along with a few along the coast. The few small high growth areas for employment are also centered around the urban communities and along the existing transit network. Areas with high increases in employment numbers indicate potential for more transit demand as employment opportunity increases, generating more trips to get to these destination points.



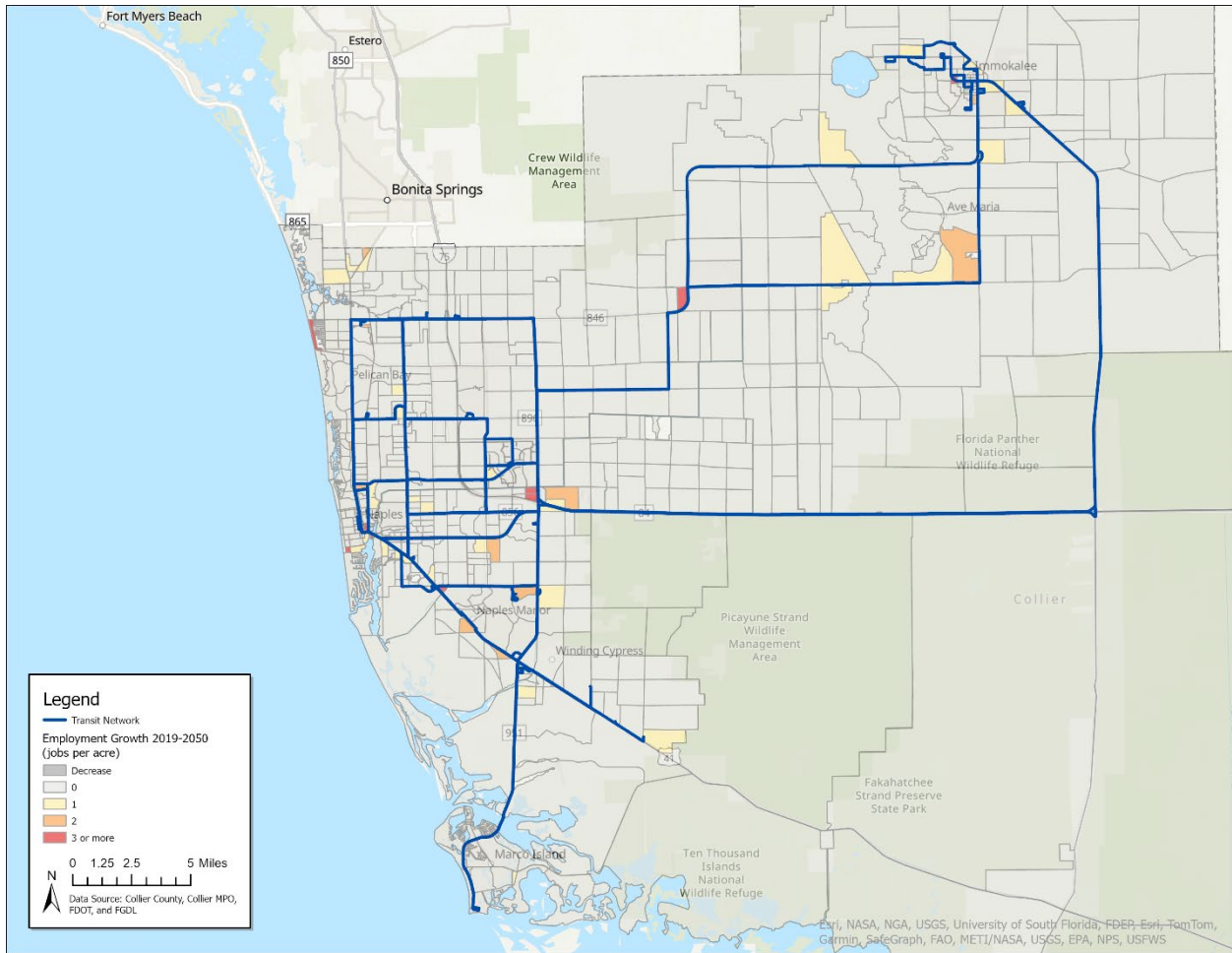


Figure 1-18: Collier County Employment Density Growth by TAZs from 2019 to 2050.

Figure 1-19 illustrates the distribution of employment across various sectors in Collier County in 2010, 2020 and 2022, offering insights into which sectors most influence the mobility requirements of the residents in before, during and after the COVID-19 pandemic.



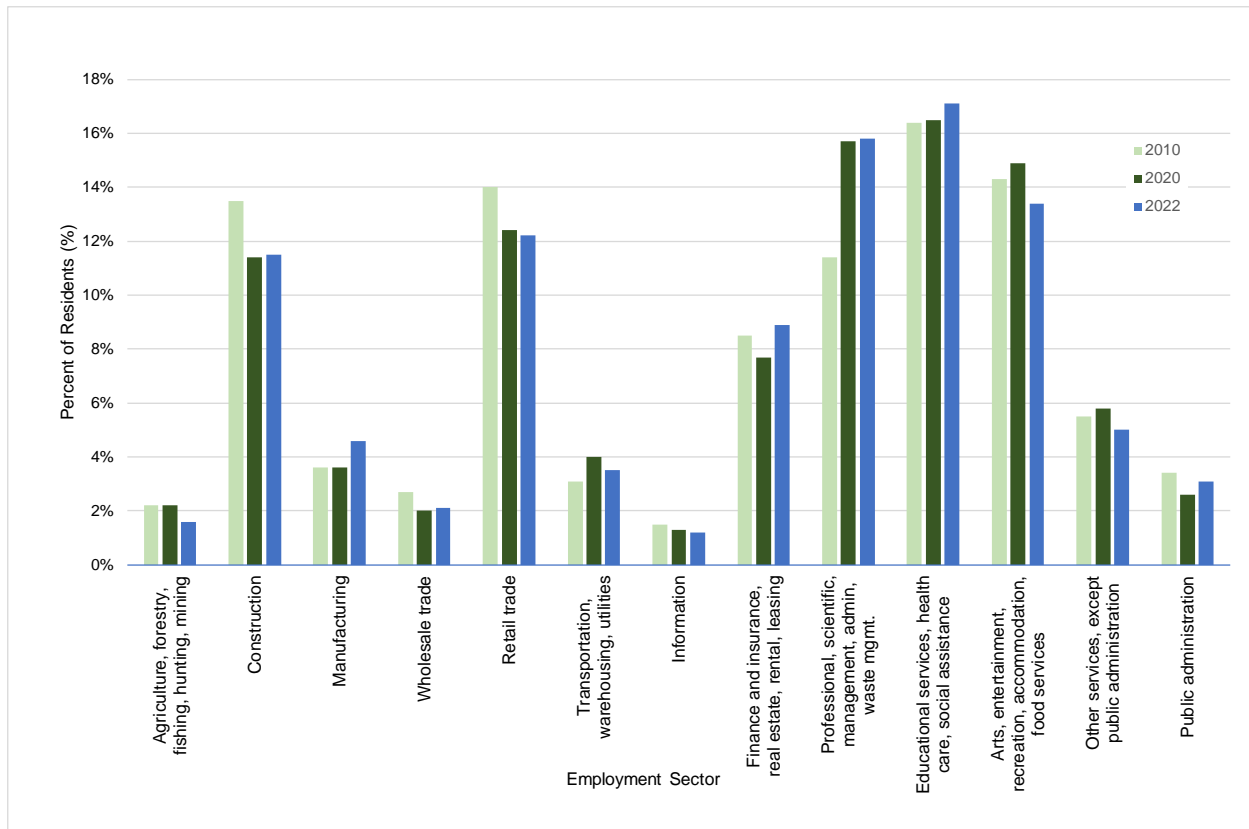


Figure 1-19: Collier County Labor Force Distribution by Service Area, 2010, 2020, and 2022.

Source: 2010 ACS 5-year estimates, 2020 ACS 5-year estimates 2022 ACS 5-year estimates.

As seen from Figure 1-19, the largest employment sectors in Collier County from 2010 to 2022 were the educational services, health care and social assistance sectors at around 16-17% of the workforce. Following closely are professional, scientific, management, administrative, waste management services and the arts, entertainment, recreation, accommodation, and food services sectors, each accounting for approximately 11-15% of the workforce. From Figure 1-11, a greater percent of the population earns more than \$50,000. Thus, over time, more residents in Collier County can afford personal transportation, which may reduce their reliance on public transit. This observation also presents itself in *Table 1-1*; most of Collier's households own two or more cars. In contrast, sectors such as agriculture, forestry, fishing, hunting, mining, and transportation and warehousing, and utilities have experienced a downturn in their share of the workforce from 2010 to 2022. These types of jobs tend to have less employees working from home, leading to a lower reliance on personal vehicles or transit options in the County. Overall, the figure highlights the need for targeted transit solutions that cater to the unique needs of each employment sector, ensuring equitable access to mobility for all residents, regardless of income level.

Lee County is the primary location for Collier County residents working outside their home county. According to commuting patterns data are derived from the Census Bureau's LED LODES dataset, the highest number of net inbound commuters to Collier County in 2023 were from Lee County totaling to 7881 net inbound commuters. This highlights the extent to which the labor markets of the two counties are interconnected.



Figure 1-20 shows the unemployment rates in years ranging from 2010-2022 based on ACS 5-year estimates.

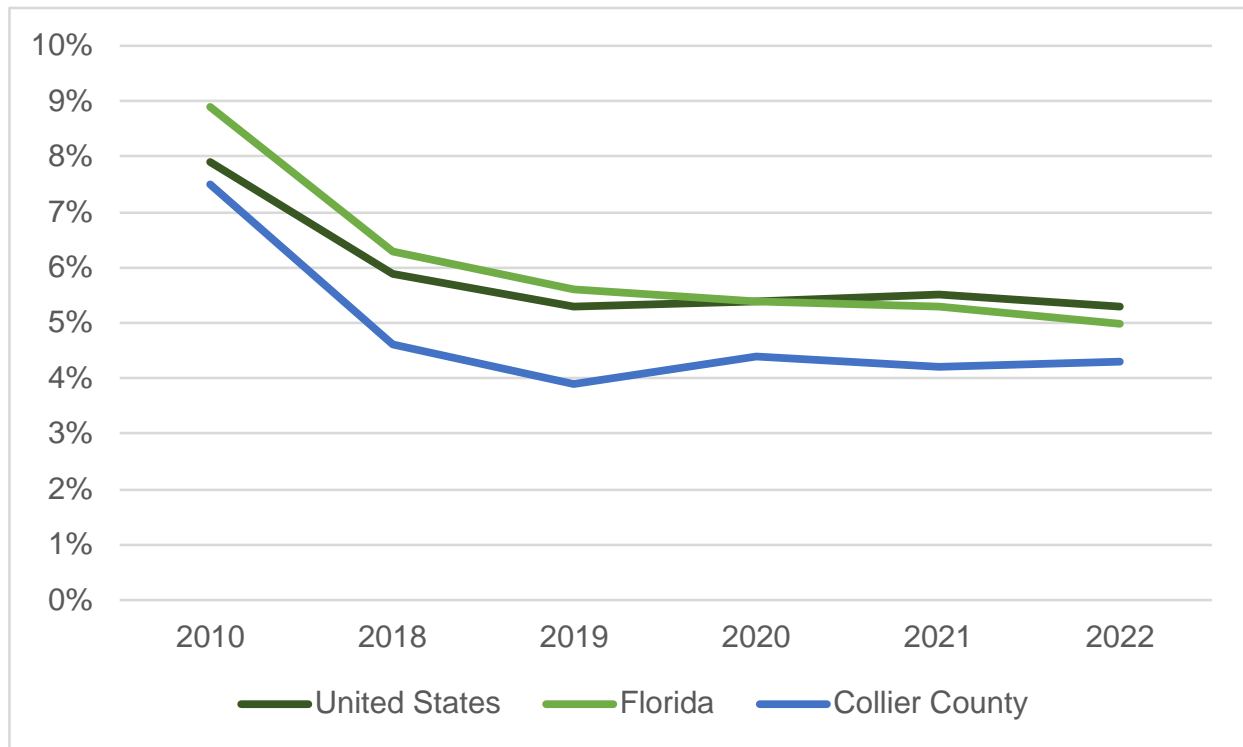


Figure 1-20: National, State and County Unemployment

In 2010, Collier County experienced higher unemployment rates. However, since then, there has been a consistent decline year by year. Collier County's unemployment rates consistently outperformed both national and state-wide averages. Even during the pandemic, when many regions faced economic challenges, Collier County maintained lower unemployment rates. Lower unemployment rates can correlate with economic recovery, as more people are employed of all income ranges engage in various activities. This increased economic activity can lead to higher public transportation usage.

1.6 Educational Attainment

Levels of educational attainment in the county can correlate with earnings potential and job security. This influences mobility need. Figure 1-21 shows the educational attainment of residents ages 25 years and older in Collier County.



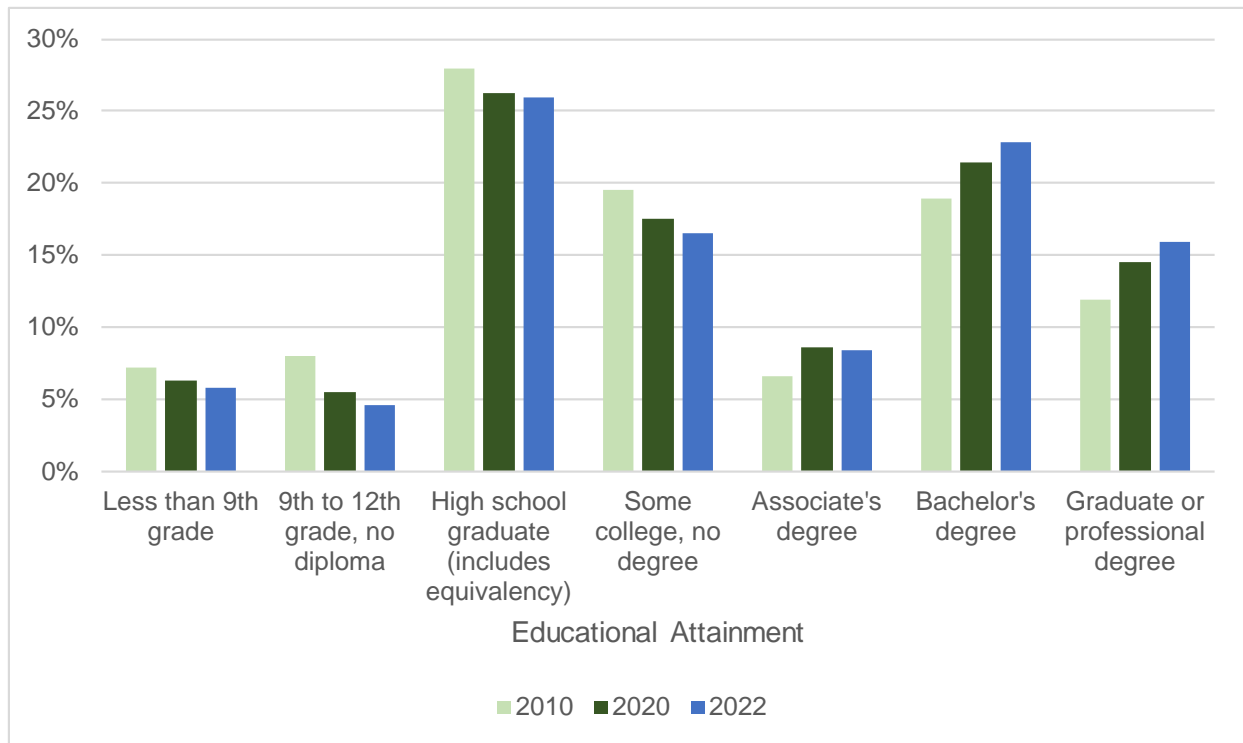


Figure 1-21: Educational Attainment in Collier County.

As seen from the Figure 1-21 above, more residents have obtained a bachelor's degree over time from 2010-2022. Despite this, while those obtaining bachelor's and graduate degrees are increasing in the County, approximately 30% of the population does not have a college degree which indicates around a third of the population with potentially lower potential earnings and an increased likelihood of requiring transit service.

1.7 Tourism

Tourism plays a vital role in shaping transportation needs and services within Collier County. Tourists arrive in Collier County year-round, but the peak season spans in the winter from October to April. There are two distinct groups of visitors: seasonal residents who live in Naples for more than 4 months (typically October - April) and those visiting the area as tourists. The Tourist Development Council (TDC) makes a distinction between these groups, as seasonal residents tend to own properties while vacationing visitors do not.

In most tourist destinations, tourists often rely on public transit, especially those accustomed to using it in their home communities and therefore tourists, combined with seasonal visitors and residents contribute to an overall increased transportation demand. According to the Collier County Tourist Development Council and Gulfshore Business, in 2023, through October, Collier County welcomed 2.3 million visitors, generating an economic impact of \$3.01 billion (Roesler, 2023). This substantial economic impact underscores the importance of efficient transportation services.

Collier County boasts pristine beaches, attracting sun-seekers and water enthusiasts. Tourists may use various services such as the Breeze Beach Shuttles, bike routes, and bicycle rentals as first mile/last mile access to transit hubs. However, it's worth noting that tourism numbers have shown some fluctuations. For instance, in March 2023, Collier County experienced a 20% year-over-year decline in visitors compared to



March 2022. These fluctuations in visitor numbers can impact transportation needs and usage patterns throughout the year.

Figure 1-22 and *Figure 1-23* show key tourist destinations by mapping major points of interests in Collier County in relation to transit line locations in the region. Attractive destinations include airports, beaches, museums, boating areas, and parks. While a grand majority of points of interest lie around the Naples region, there could be more extensive access to the beaches in Marco Island.

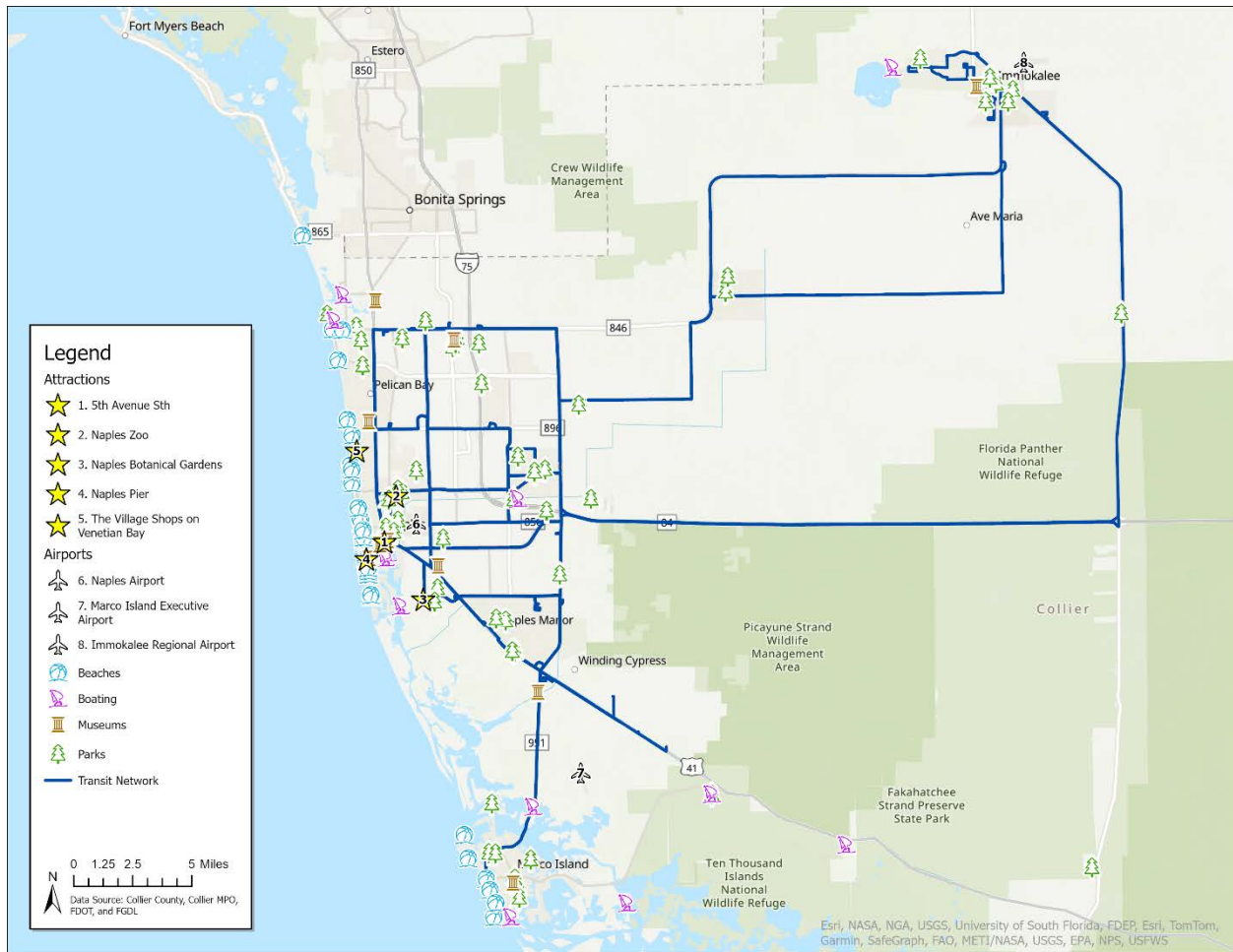


Figure 1-22: Transit Access to Point of Interest Destinations in Collier County.



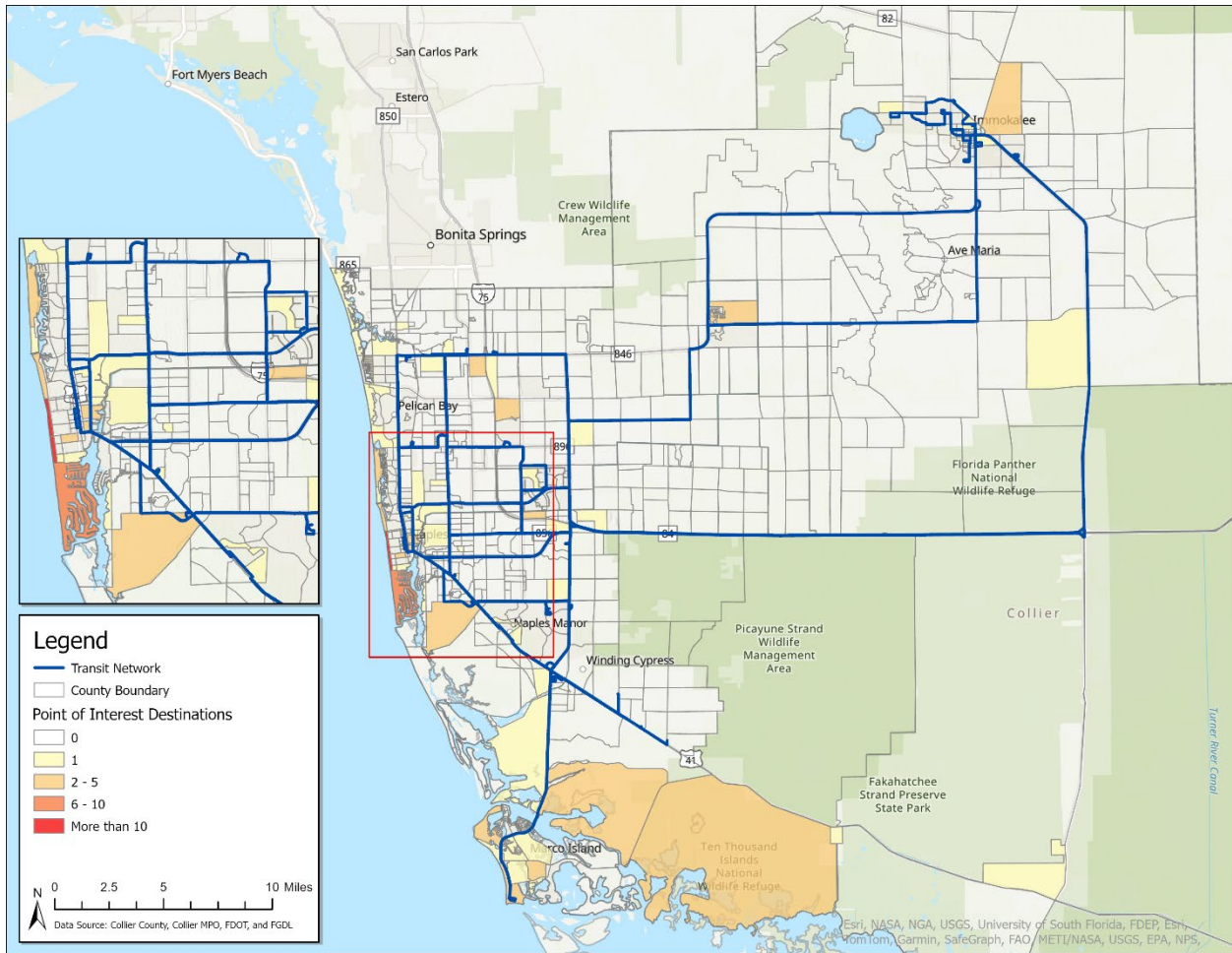


Figure 1-23: Density Map of Point of Interest Destinations by TAZ.

More recently, a study in June 2024 by Florida Gulf Coast University on Regional Economic Indicators (Southwest Florida Economic Outlook, Regional Economic Research Institute, FGCU, 2024) found that seasonally adjusted real tourist tax revenues for coastal counties were up 14% in March 2024 compared to March 2023. In addition, airport passenger activity also increased 12% from April 2023 to April 2024. This suggests that tourists are increasingly visiting Florida's coastal areas, like Collier, and spending more money, which likely reduces their propensity to use transit.

1.8 Major Trip Generators

Understanding the major trip generators within the county can help determine where to provide the most transit service. Table 1-3 displays the top employers in Collier County by the number of employees. The largest employers operate in the educational, government, and healthcare industries. Arthrex, Publix Supermarket, and Gargiulo are the three largest private sector employers in the county. On the other hand, some of Gargiulo's locations are in rural or industrial areas, lacking public transit access. The nearest stop to the location at Oil Well Road is one of Route 19's stops 2.72 miles away. Further, the closest bus stop to the Gargiulo packing house location in Immokalee is a Route 22 stop 1.63 miles away. Due to all Publix locations being near commercial centers, most, if not all, locations are accessible by transit. Similarly, most, if not all, public-school and local government buildings in the county are surrounded by residential or commercial hubs areas that have access to public transit stops. As development expands to accommodate



more housing and commercial demand (see Section 3.8), it will be necessary for CAT to consider expanding their public transit services.

Table 1-3: Top Employers in Collier County in 2023.

Employer	Number of Employees
Collier County Public Schools	5810
Collier County Local Government	5045
Arthrex	3983
NCH Healthcare System	3288
Publix Super Market	2935
Gargiulo	2082
Pacific Tomato Growers	872
Walmart	807
Marriott International, Inc.	669
Moorings Park	657
Downing-frye Realty Inc.	605
McDonald's	545
Vi at Bentley Village	494
Asg	447
David Lawrence Center	423
Philharmonic Center For The Arts	412
Naples Lake Country Club	402
Walgreens	389
Ave Maria School of Law	372
Heartland Health Care Center Ft Myers	372
Aa Stucco & Drywall Inc.	350
Home Depot	350
Seminole Casino Hotel Immokalee	350
CVS Pharmacy	349
Twineagles Pro Shop	333

Source: Regional Economic Research Institute at Florida Gulf Coast University (2023).

Figure 1-24 and Figure 1-25 show the distribution of top employer locations in Collier County and their distribution relative to existing transit lines. While most places of employment are accessible to transit, there exist many points of interest north of Pelican Bay and North or Immokalee which are further from a transit line. An extension of transit lines along Route 29 and 41 towards Everglades City would be important as well and increase commercial zones in that area.



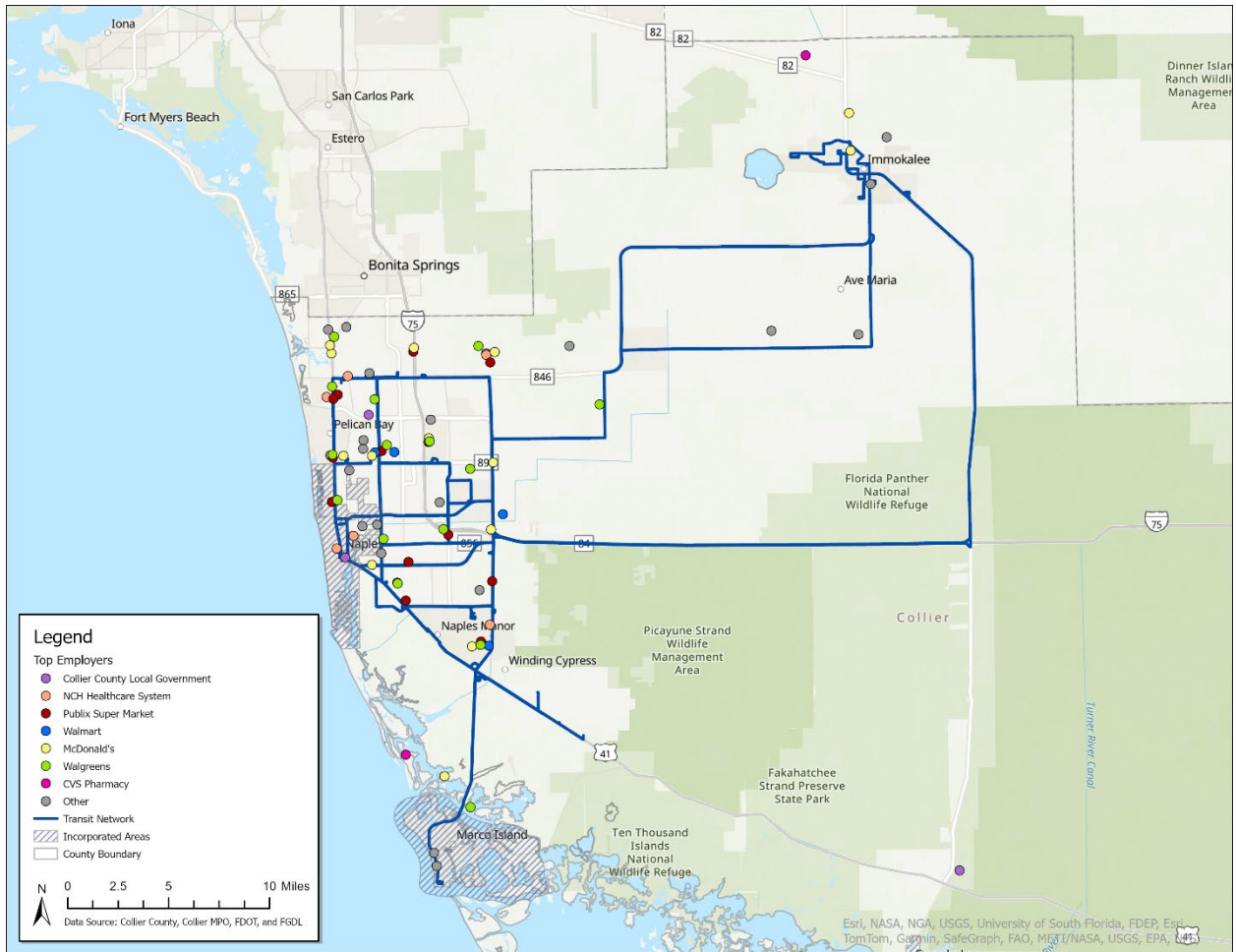


Figure 1-24: Transit Access to Top Employers in Collier County in 2023.



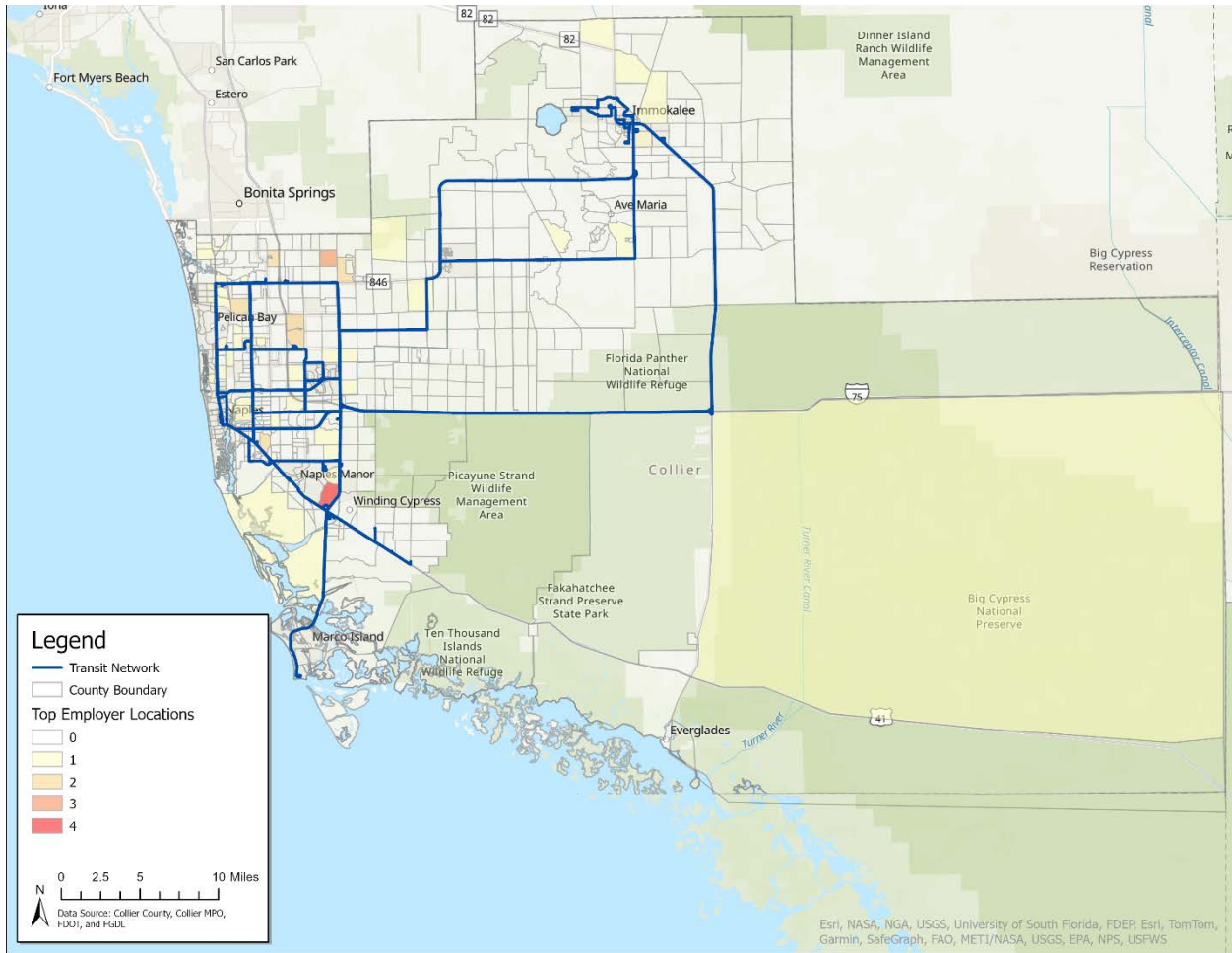


Figure 1-25: Density Map of Top Employer Locations by TAZ.

1.9 Major Developments

Table 1-4 shows the top 10 planned unit developments (PUDs) by acreage. Transit lines running adjacent to each proposed development are also outlined.

Table 1-4: Top Ten Planned Unit Developments in Collier County by Area.

Planned Unit Development	Acres	Transit
Town of Ave Maria SRA	5928	Routes 19/22/23
Marco Shores/Fiddler's Creek	4215	Routes 21/24/121
Lely Resort	2880	Routes 17/21/24/121
Heritage Bay	2562	Route 27
Sabal Bay	2518	Routes 13/14/24
Hacienda Lakes	2264	Routes 17/21/121
Pelican Marsh	2191	Routes 11/12/27
Orange Tree	2131	Routes 19/22
Pelican Bay	2114	Routes 11/25/29
Winding Cypress	1960	Routes 12/17/21/24/121

Source: Collier County GIS Hub.



Most of the proposed developments have transit services running adjacent to them. However, it's crucial to note that a significant portion of these developments are gated communities, which presents unique challenges for public transit access. Gated communities, which are prevalent in Collier County, often have restricted entry points and private roads that can limit direct access for public transit vehicles. Since most of these developments seek to expand residential areas, it will be important to ensure either an expansion of existing transit routes or the addition of new transit lines to serve these areas effectively. This may require innovative solutions to overcome the access limitations posed by gated communities.

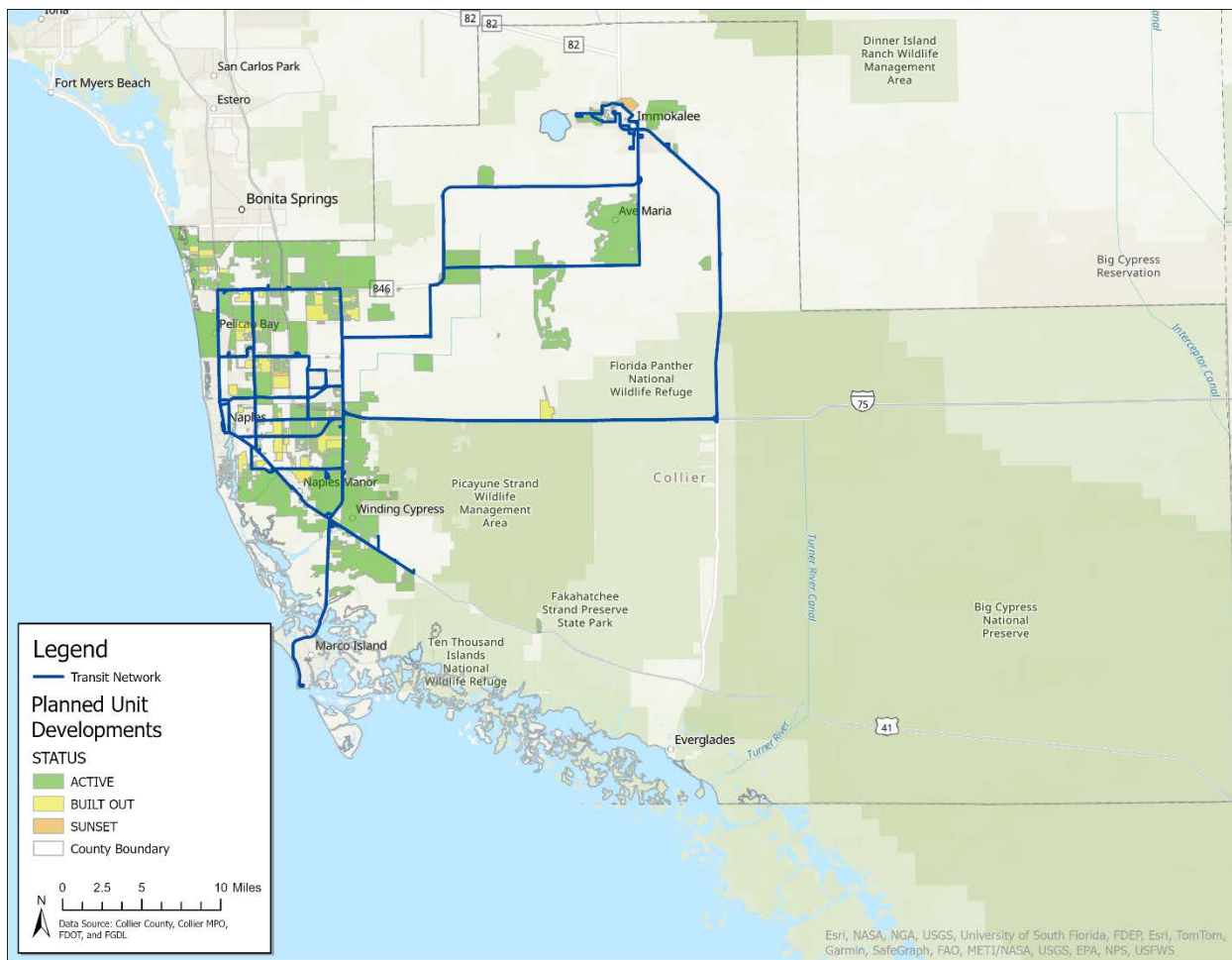


Figure 1-26: Status of Planned Unit Developments in Collier County.

Figure 1-26 shows the Developments of Regional Impact (DRIs) in Collier County as of May 3, 2024. These developments are noted for potential impacts to existing and future travel demand. The table shows which routes currently serve these developments in the existing CAT transit network as of May 3, 2024.

1.10 Existing and Future Land Use

With a fairly large land area, much of Collier County consists of agricultural land or park space. A significant portion of Collier County’s land area is currently zoned for agriculture or open space (more than 90% all together; 38% and 54% respectively). About 5% of the land area is zoned for planned unit development (PUD), allowing for a significant amount of new or upcoming developments that would impact transit use and demand. The Naples and Marco Island are both zoned as incorporated areas. The land use varies



more in Immokalee and the urban communities surrounding Naples, including Palm River, Golden Gate, Fiddler's Creek and surrounding planned communities, and so on. Excluding agriculture, open space, PUD, and incorporated area zoning, these areas consist of 76% residential, 12% commercial, 9% industrial, and 3% civic and institutional zoned land.

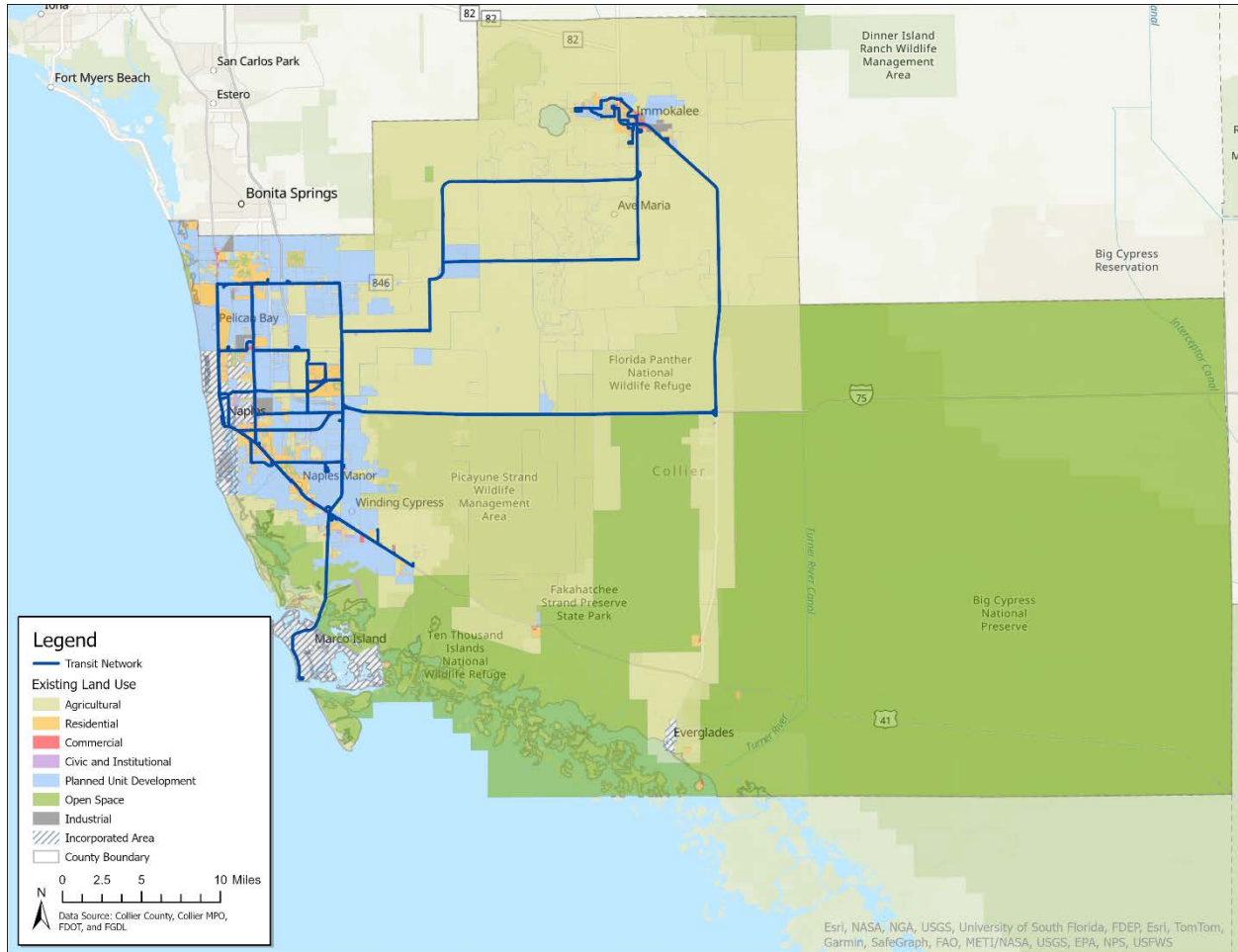


Figure 1-27: Existing Land Use Zoning Areas in Collier County.

As the County grows and develops, land use areas are redesignated consequently to accommodate for development needs and purposes. In the County's future land use designations, open space or conservation designation areas are expanding, specifically in the Big Cypress National Preserve as it now includes the Florida Panther National Wildlife Refuge where it was previously zoned as agricultural land. A notable amount of agricultural land has been rezoned as rural or estates designation, which is defined as low density residential development with limited agricultural activities. The PUD areas are zoned as urban residential land. The future land use designation also adds a new category of mixed-use activity in replacement of commercial and civic and institutional zoning.

A more detailed breakdown of future land use designations shows that conservation continues to occupy the largest portion (59%) of the County's acreage. It is still followed by agricultural/rural uses at 18%, but at a significantly smaller percentage compared to existing agricultural area. Estate designation and residential uses each constitute another 7% of the land. Noteworthy is the presence of sending and



receiving areas, comprising of 3% and 2% of the land respectively, which serve as mechanisms to steer development away from environmentally sensitive regions towards designated growth areas.

Although the predominant land use remains focused on conservation and agriculture, mixed-use zoning holds immense potential for fostering transit-oriented development. Transit planning should prioritize serving receiving areas, ensuring that transit infrastructure supports the anticipated influx of development in these zones. Meanwhile, transit routes passing through sending areas should aim to minimize ecological impact and focus on connecting these areas to transit hubs and receiving districts.

Residential areas present opportunities for creating walkable, mixed-income neighborhoods that are well-connected to transit services. Transit-oriented design principles should be integrated into the planning and development of these areas, emphasizing pedestrian-friendly streetscapes, mixed-use zoning, and access to public transportation. Additionally, transit routes serving these neighborhoods should offer frequent and reliable service, catering to the diverse needs of residents across different income levels and demographics.

Figure 1-28 and Table 1-5 depict future land use designation in Collier County as of 2024. The figure shows more generalized categories of land use. The table includes more detail including finer subcategories of land designations along with percentage breakdowns for each designation, sorted by acreage.

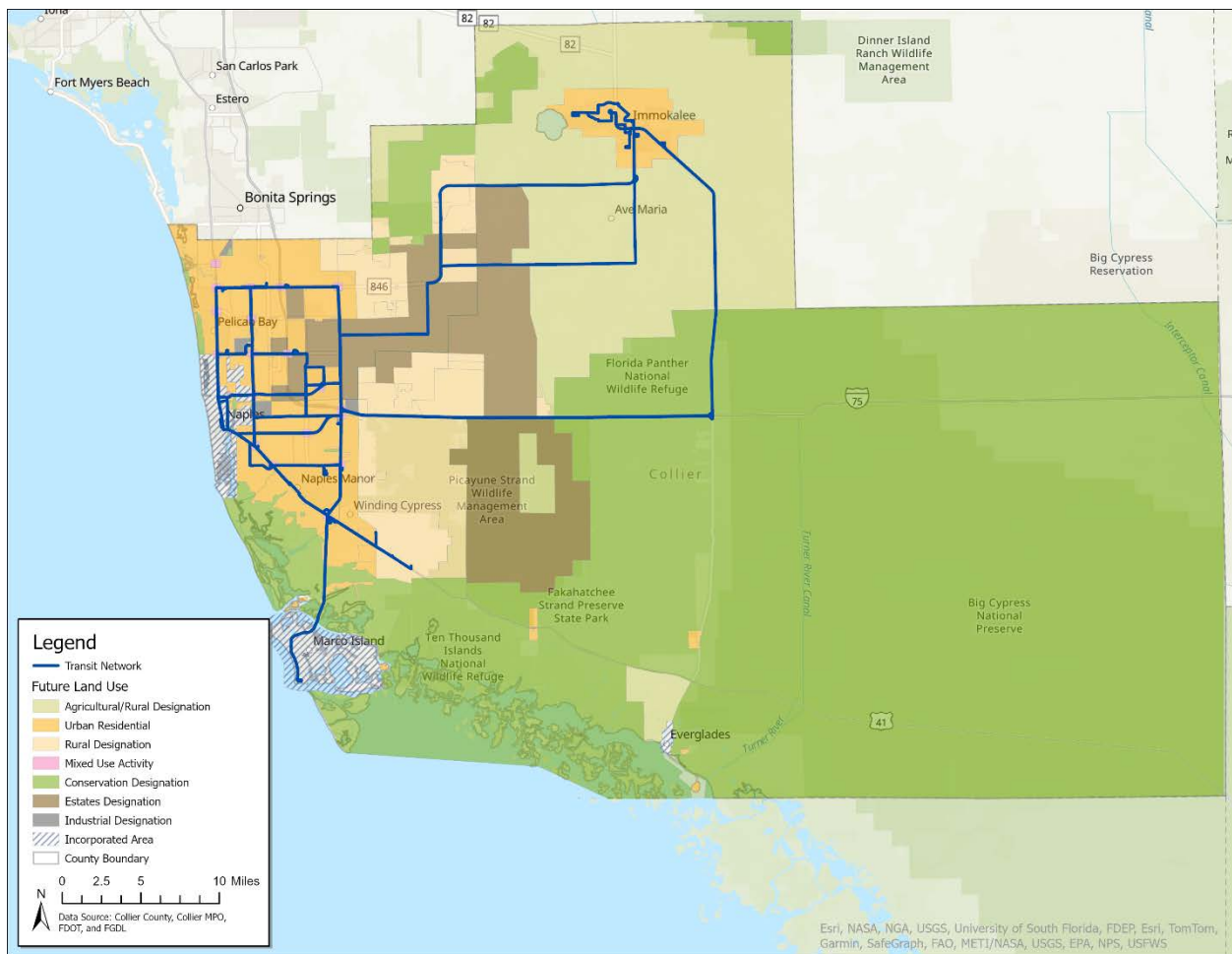


Figure 1-28: Future Land Use Designation in Collier County as of 2024.



Table 1-5: Future Land Use in Collier County.

Future Land Use	Acres	% of Area
Conservation	856,551	59%
Agricultural/Rural	257,645	18%
Estates Designation	101,302	7%
Residential Uses	95,936	7%
RF-Sending	44,843	3%
Incorporated Area	25,941	2%
RF-Receiving	22,672	2%
Urban Coastal Fringe Subdistrict	11,775	1%
RF-Neutral	8,836	1%
Mixed Use	3,079	<1%
Rural Settlement Area District	2,824	<1%
Immokalee Road Rural Village Overlay	2,778	<1%
Industrial District/Rural Industrial District	1,839	<1%
US 41 East Overlay	1,526	<1%
Bayshore/Gateway Triangel Redevelopment	1,190	<1%
Interchange Activity Center Subdistrict	454	<1%
Commercial	249	<1%
Livingston Rd/Veterans Memorial Blvd E Resi Subdistrict	36	<1%
Carman Drive Subdistrict	15	<1%
Orange Blossom/Airport Crossroads Comm'l Subdistrict	10	<1%
Corkscrew Island Neighborhood Coml Subdistrict	9	<1%
Ivy Medical Center Subdistrict	4	<1%
Total	1,440,427	100%

Source: Collier County GIS Hub.

1.11 Commuter Travel Patterns

Understanding mode choices of commuters is essential to understanding the frequency and need of transit options in Collier County. In Table 1-6, journey-to-work characteristics and commuter flow patterns were compiled based on Census data for residents 16 years or older.



Table 1-6: Journey-to-Work Characteristics.

Characteristic	2010	2020	2022
Place of Work			
Worked inside county	89.5%	89.3%	89.3%
Worked outside county	8.1%	8.4%	8.3%
Mode to Work			
Drive alone	75.3%	74.0%	74.0%
Carpool	12.3%	12.0%	10.9%
Public transit	1.6%	1.1%	0.5%
Walk	1.2%	1.1%	0.7%
Work at home	6.1%	9.4%	11.7%
Taxicab, motorcycle, or other means	2.5%	1.7%	1.7%
Travel Time to Work			
<10 minutes	11.6%	10.6%	10.0%
10-19 minutes	33.1%	29.7%	29.1%
20-29 minutes	24.2%	24.7%	24.9%
30-44 minutes	18.9%	22.2%	22.8%
45+ minutes	12.2%	12.8%	13.2%
Departure Time to Work			
6:00-8:59 AM	67.8%	65.9%	64.8%
Other times	32.2%	34.1%	35.2%

Source: 2010 5-year estimates, 2018 5-year estimates, 2022 5-year estimates.

As shown in Table 1-6, more people work inside the county. As time passes, less people use public transit or walk and more work at home. A consistent percentage of people drive alone (74-75%). Travel times to work remain consistent, although longer commute times are steadily increasing. Finally, a consistent number of residents (around 65-67%) leave for work between 6AM-8:59AM.

1.12 Roadway Conditions

2 Transit Performance

This section evaluates transit services in Collier County, including an overview of current services, trend analysis, and peer comparison. It examines existing transit operations, infrastructure, and other key providers. Additionally, it reviews performance trends over the past five years and compares CAT service with peers using standard criteria.



2.1 Existing Transit Services

2.1.1 FIXED ROUTE SERVICES

As of 2024, Collier Area Transit (CAT) operates 16 existing fixed bus routes services that operate throughout Collier County. CAT's service area largely consists of the urbanized part of Collier County, including the City of Naples and the City of Marco Island. Unincorporated rural communities in the County that receive transit service include Ave Maria and Immokalee. Service is provided 7 days a week, all year round except for 6 holidays. Daily service typically begins between 5:30 AM and 6:00 AM and ends later in the evening between 7:30 PM and 8:00 PM for most routes. No services are provided on major holidays, including on Thanksgiving Day, Christmas Day, New Year's Day, Memorial Day, Independence Day, and Labor Day. In 2023, the service's annual ridership was 729,767. CAT's services also include Route 600, also known as the LinC Lee-Collier which connects transit lines in Leaside County and Collier County. Route 600 is interlined with LeeTran's Route 240 and connects to LeeTran's Route 140. *Table 2-1* shows the existing transit lines in Collier County as of 2024.

Table 2-1: Existing Fixed-Route Services in Collier County.

Count	Route	Services
1	11	US 41 to Creekside Commerce Park
2	12	Airport to Creekside Commerce Park
3	13	NCH & Coastland Center Mall
4	14	Bayshore to Coastland Center Mall
5	15	Golden Gate City (Santa Barbara)
6	16	Golden Gate City (Santa Barbara)
7	17	Rattlesnake to FSW
8	19	Golden Gate Estates & Immokalee
9	20	Pine Ridge Road
10	21	Marco Island Circulator
11	121	Express Immokalee to Marco Island
12	22	Immokalee Circulator
13	23	Immokalee Circulator
14	24	US 41 East to Charlee Estates
15	25	Golden Gate Parkway & Goodlette - Frank
16	27	Immokalee Road

Source: CAT Website.

In addition to fixed-route services, CAT operates the Paradise Beach Trolley. This service runs every Friday, Saturday, and Sunday from mid-February to the end of April. It shuttles passengers from the Conner Park Parking Lot on Bluebill Avenue to Delnor-Wiggins Pass State Park and Vanderbilt Beach, operating from 8 am to 3 pm and from 4:30 pm to 7 pm. Figure 2-1 shows a map with the current transit routes in Collier County as of 2024.



ALL COLLIER AREA TRANSIT ROUTES

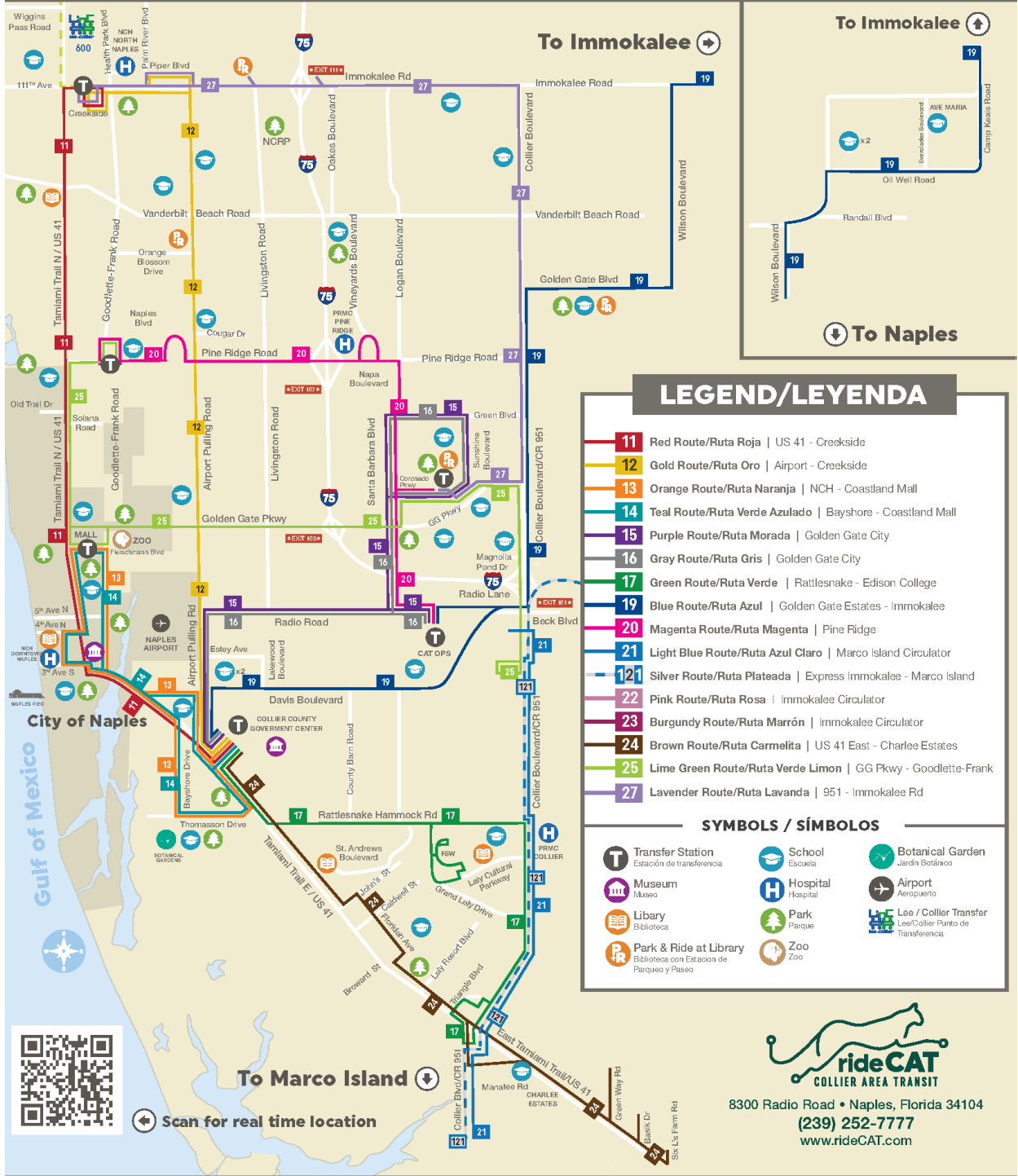


Figure 2-1: Existing CAT Services



There are currently four park-and-ride locations around Collier county. They are free to park in and operate from 5 A.M. to 9 P.M. on all days of the week, however, overnight parking is prohibited. Table 2-2 below lists the four park-and-ride locations along with the address of the lot, the number of parking spots provided, the nearest bus stop number, and connecting bus routes. Figure 2-2 depicts a map of the park-and-ride locations along with the CAT transit system.

Table 2-2: Park-and-ride locations and connections.

Name	Address	# of Parking Spots	Nearest Stop	Connecting Routes
Livingston Park and Ride	Livingston Rd/Immokalee Rd	20	682	27
Park and Ride at Orange Blossom Library	2385 Orange Blossom Dr	5	101	12
Park and Ride at Golden Gate Public Library	2432 Lucerne Rd	5	564	15, 16, 20, 25, 27
Park and Ride at Estates Library	1266 Golden Gate Blvd W	5	278	19

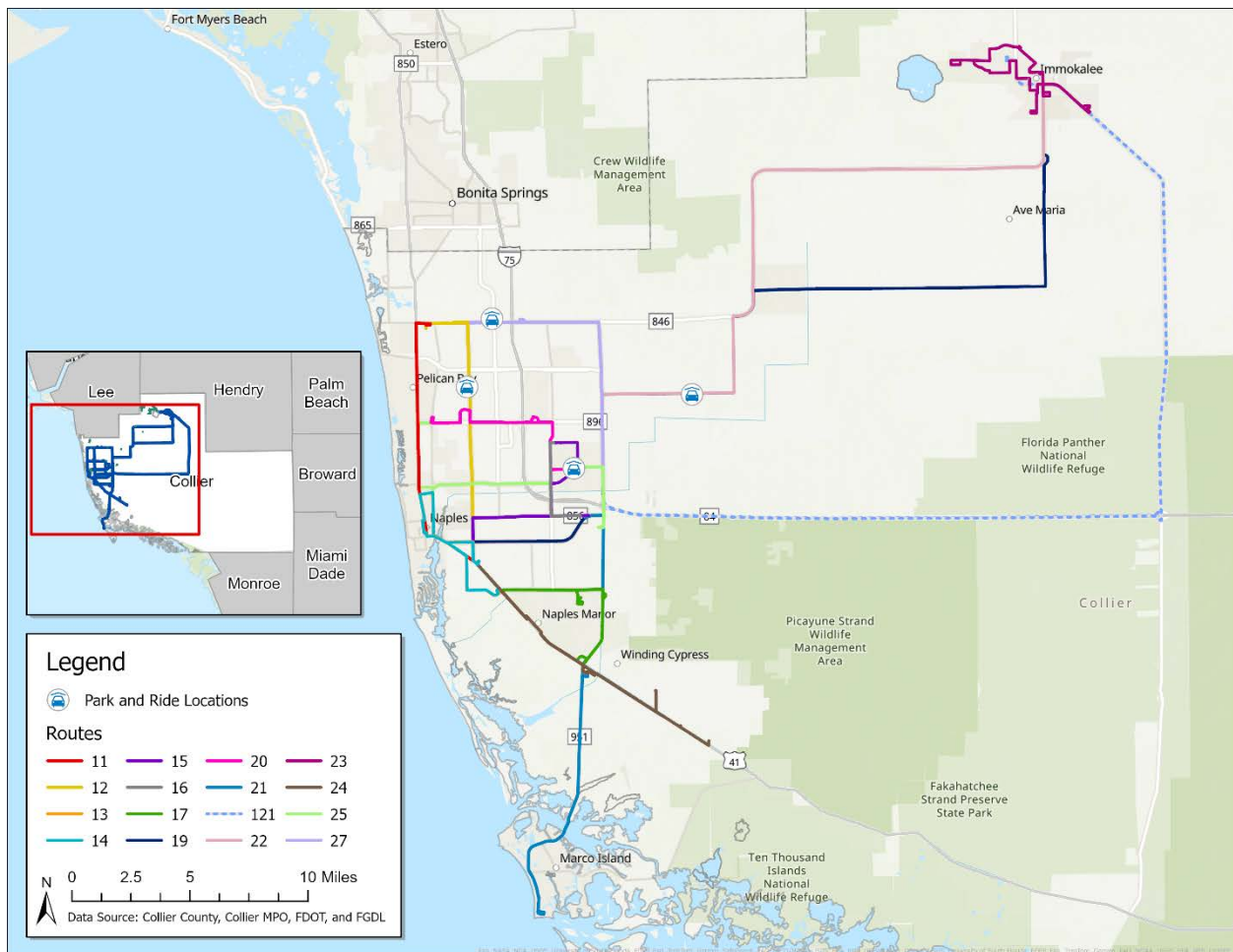


Figure 2-2: Map of park-and-ride locations in Collier County with the CAT transit system.



2.1.2 PARATRANSIT SERVICES

Collier County also provides paratransit (shared ride, door-to-door) services through the CATConnect program with funding from the Florida Department of Transportation, Agency for Persons with Disabilities and Florida Commission for the Transportation Disadvantaged (TD). Those who qualify for CATConnect are primarily those under the Americans with Disabilities Act (ADA) as well as those who qualify as TD individuals. TD individuals are counted as those who because of a mental or physical disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to healthcare, employment, education, shopping, social activities, or other life-sustaining activities.



The CATConnect paratransit service is administered by Collier County Public Transit & Neighborhood Enhancement (PTNE) Division and provides shared, door to door transportation service for medical appointments, work, school and select other trips depending on the funding program requirements.

In the June 2024 CATConnect Paratransit Service Report, it was found that paratransit ridership was on an increasing trend, with a significant increase from 2022 to 2023 of 35.8%, see Figure 2-3. Collier County overall has 7% fewer vehicles than peer systems but higher passengers per trip compared to peer agencies.

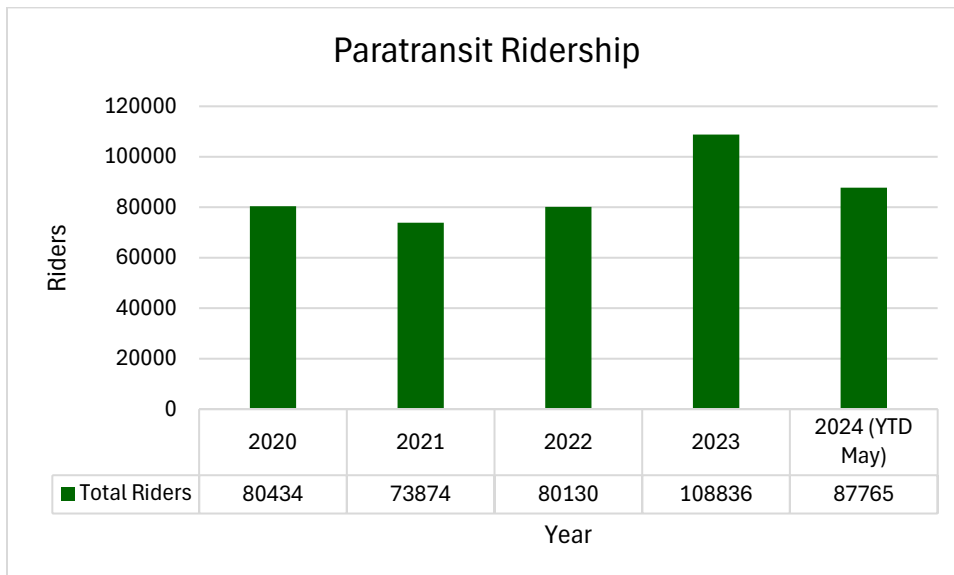


Figure 2-3: Paratransit Ridership



2.1.3 TECHNOLOGY SOLUTIONS

Collier County has several existing technology solutions and goals that will help the County prosper in the next 10 years.

2.1.3.1 IT Infrastructure and Management

Collier Area Transit (CAT) has a dedicated IT department responsible for managing both the physical and digital infrastructure of its transit services. This includes software development, maintenance, and ensuring data privacy and security.

2.1.3.2 Transit Development Plan and Mobility Initiatives

The 10-year Transit Development Plan identifies mobility-on-demand services as a top priority. In line with this, CAT upgraded to Ecolane scheduling software in July 2021, replacing RouteMatch for paratransit services. This upgrade streamlined scheduling, dispatching, and real-time updates, significantly improving efficiency and service reliability.

2.1.3.3 Passenger Convenience and Mobile App Integration

In March 2022, CAT launched the CATconnect Mobile App. The app allows passengers to schedule, monitor, and manage trips seamlessly. Integrated with the CATCash fare system, it provides an account-based payment option that eliminates the need for cash transactions. The app also offers trip details and past journey records for user convenience.

Collier County also offers the Collier 311 App, which connects users to a variety of government services and information, including construction updates, waste services, and service requests.

2.1.3.4 Exploring Sustainable Transportation

In response to evolving demands, CAT is exploring the introduction of electric shuttles as a greener alternative to traditional buses. Additionally, CAT is considering ride-share-style services in specific areas to improve flexibility and accessibility.

2.1.3.5 Infrastructure Enhancements and Data Integration

Collier County's express lanes present an opportunity for conversion into BRT routes. The County's Transportation Management Services Department is key in planning and enhancing this infrastructure, working alongside the dedicated planning team to drive technological innovation.

CAT also maintains both static and real-time General Transit Feed Specification (GTFS) data, feeding into the Transit App service. Ongoing upgrades to CAD/AVL systems, Mobile Data Terminals (MDTs), Automatic Voice Annunciation (AVA) systems, and Automated Passenger Counters (APCs) are part of CAT's commitment to providing accurate data and seamless passenger experiences. These systems are integrated with the Mobile Ticketing Platform, powered by Masabi, and aligned with ITxPT standards to ensure a unified, efficient transit experience.



2.1.4 FARE STRUCTURE

As of 2024, CAT uses TripSpark fareboxes on all their transit vehicles which accept cash, reloadable smartcards, and paper transfer tickets. Mobile tickets for CAT buses can also be purchased on the RideCAT mobile application or Transit App. In the future, they will be working with LECIP fareboxes.

The fare structure as of 2024 is presented in Table 2-3.

Table 2-3: Fare Structure in Collier County (2024)

Fare Category	Fare	Reduced Fare
One-Way	\$2.00	\$1.00
Children 5 years of age and younger	Free	Free
Marco Express	\$3.00	\$1.50
Transfers – up to 90 minutes	Free	Free
Day Passes	\$3.00	\$1.50
Smart Card Pass		
15-Day Pass	\$20.00	\$10.00
30-Day Pass	\$40.00	\$20.00
Marco Express 30-Day Pass	\$70.00	\$35.00
Discounted Pass		
Summer Paw Pass (Valid June 1 – August 31 for students. Price includes Smart Card)	\$30.00	
30-Day Corporate/Perk Pass (300+ Employees)	\$29.75	
Smart Card Media Fees		
Smart Card	\$2.00	
Registration	\$3.00	
Replacement with Registration	\$1.00	

Source: rideCAT website; Collier County

The Reduced Fares are for members of Medicare, Disabled Community, those 65 years and older, children 17 and under, high school and college students and active / retired military personnel. ID is required. This fare would also apply to the subcontracted transportation provider with the Florida Commission for the Transportation Disadvantaged that provides transportation services under the non-emergency transportation Medicaid Contract for Collier County. Discount Passes are for persons eligible under the identified programs.

2.1.5 TRANSIT FACILITIES

There are currently two passenger transfer stations and five passenger transfer points provided on the CAT system. The first transfer station located at the Mobi Transfer Station also known as the Radio Road Transfer Station which is located at 8300 Radio Road in Naples as shown in **Error! Reference source not found..** This building is also a facility for the CAT Connect Paratransit program. At this facility, bus operations and bus transfers occur.





Figure 2-4: CAT Radio Road Transit Facility (Source: Google Street View)

The second passenger transfer station operated by CAT is the Government Center Transfer Station located at 3355 Tamiami Trail in East Naples, as shown in Figure 2-5 below, which accommodates pedestrians, cyclists, and "kiss-and-ride" passengers that are briefly either picked up or dropped off. This location provides in-person customer service, schedules, and pass sales, and is served by routes 11-17, 19, 22, and 24. Although parking is free, it is not an official park-and-ride site. The facility includes a busway with a turn-around, six sawtooth bus berths, a passenger platform with benches and trash receptacles, restrooms, snack machines, an air-conditioned lobby, and a customer service area with an informational kiosk.



Figure 2-5: Intermodal Transfer Station (Source: Google Street View)

Collier County plans to build a third transfer facility in the Immokalee Community on a vacant parcel owned by the county, with the plans currently underway and scheduled for completion in the fall of 2024. The



proposed site, approximately 1.7 acres in size, is currently a grass field adjacent to a green wooded area. It features an asphalt/concrete driveway providing access to the Health Department and a maintenance shed. The bus transfer station will enhance passenger and transit efficiency with new bus bays, canopy-covered shelters for passengers, a waiting platform with benches and trash receptacles, vending machines or options for food trucks, restroom facilities for passengers and drivers, and ADA improvements. Currently, passengers transferring at this location use a shelter located in a parking lot shared by visitors to the Health Department, County Library, and the David Lawrence Center.

Other transfer point locations within Collier County include Walmart Plaza; Pine Ridge and Goodlette-Frank Rd (Magnolia Square Plaza); Coastland Center; Creekside (Immokalee Road); and the Health Department in Immokalee. CAT also 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, the 2020 Park and Ride Study identified and prioritized sites for potential park and ride facilities. These facilities are designed to provide areas where commuters can park and access public transit, carpools, or vanpools, helping to address traffic congestion and parking constraints. The locations of these areas include Creekside, the Government Campus, Coastland Center Mall, Freedom Square, Physicians regional, the Golf Course near VA Hospital, Immokalee Health Department, Beach Lot at Pine Ridge Road, and Radio Road Transfer.

2.1.6 VEHICLE INVENTORY

Table 2-4 below provides a summary of the 74-vehicle fleet at CAT, with a breakdown by make and model and some key statistics. These 74 vehicles include those used for fixed-route public transit services, paratransit services and support vehicles. The fixed route fleet increased by 17% from 2013 when there were 29 vehicles, compared to 34 currently. It is understood that even with this fleet size expansion, CAT still currently struggles to provide the services required, which is likely due to the large service area that the agency serves.

The age of the fleet generally can be considered quite near end of life, with the average expected date of retirement only 2 years away in 2026 with many already being beyond their expected retirement age.

Table 2-4: CAT Vehicle Inventory 2024

Make	Model	Vehicle Type	Number of vehicles	Average Miles/Yr	Average Cost	Average % Federal funding	Average Expected Date of Retirement
CHEVROLET			5	42,893	\$105,141	80%	2021
	Glaval	D	5	42,893	\$105,141	80%	2021
FORD			33	47,160	\$77,985	81%	2026
	Challenger	D	15	51,191	\$79,663	75%	2025
	Escape	F	1	6,543	\$23,170	100%	2031
	F-150 XL	G	1	28,897	\$21,888	100%	2029
	F-150 XLT	G	1	22,859	\$26,200	92%	2028
	Glaval	D	4	58,034	\$83,093	80%	2023
	Impulse	D	6	66,666	\$82,161	80%	2026



	Taurus SEL	F	1	6,080	\$26,667	73%	2029
	Transit	F	2	24,053	\$22,874	100%	2030
	Villager 7.3L V8	C	2	21,902	\$204,781	100%	2032
FREIGHTLINER			1	25,265	\$138,632	90%	2028
	Legacy	C	1	25,265	\$138,632	90%	2028
GILLIG			31	63,453	\$433,013	98%	2028
	G27B102N4	A	10	69,016	\$393,761	98%	2026
	G27D102N4	A	3	84,276	\$410,091	98%	2026
	G27E102H2	A	4	24,542	\$476,193	100%	2035
	G27E102N2	A	12	68,768	\$440,861	96%	2031
	G30B102N4	A	2	50,336	\$530,207	100%	2022
VPG			4	18,749	\$50,173	80%	2020
	MV1	F	4	18,749	\$50,173	80%	2020
Total System			74	51,866	\$227,864	88%	2026

(Source: Collier Area Transit Vehicle Inventory Report-1st Half February 2024)

2.1.7 SAFETY

There isn't much discussion of the safety and security in any of these documents. It's a required expenditure under the FTA grants. Annually 5307 grants must commit 1% of their federal allocation to safety and security improvements.

2.2 Other Transportation Service Providers

Although the LinC bus route provides commuter service between the Collier and Lee counties by connecting riders to local bus service in both counties, there is a lack of regional public transportation that provides intercity commuter service. Services offered by private intercity bus companies, including Greyhound, RedCoach, and FlixBus, help to bridge the gaps in terms of regional connectivity to destinations further afield. These private transportation services can both complement and/or compete with public transportation services.

The private bus companies in Collier as listed above provide transportation services with connections to major cities in Florida. They typically provide direct service to Fort Myers, Sarasota, Tampa, Fort Lauderdale, Miami, and so on, as well as further cities such as Orlando and Tallahassee. The station stop for all Greyhound, RedCoach, and Flixbus services is located at 8845 Davis Boulevard. It is accessible by CAT route 19 as shown in Figure 2-6.



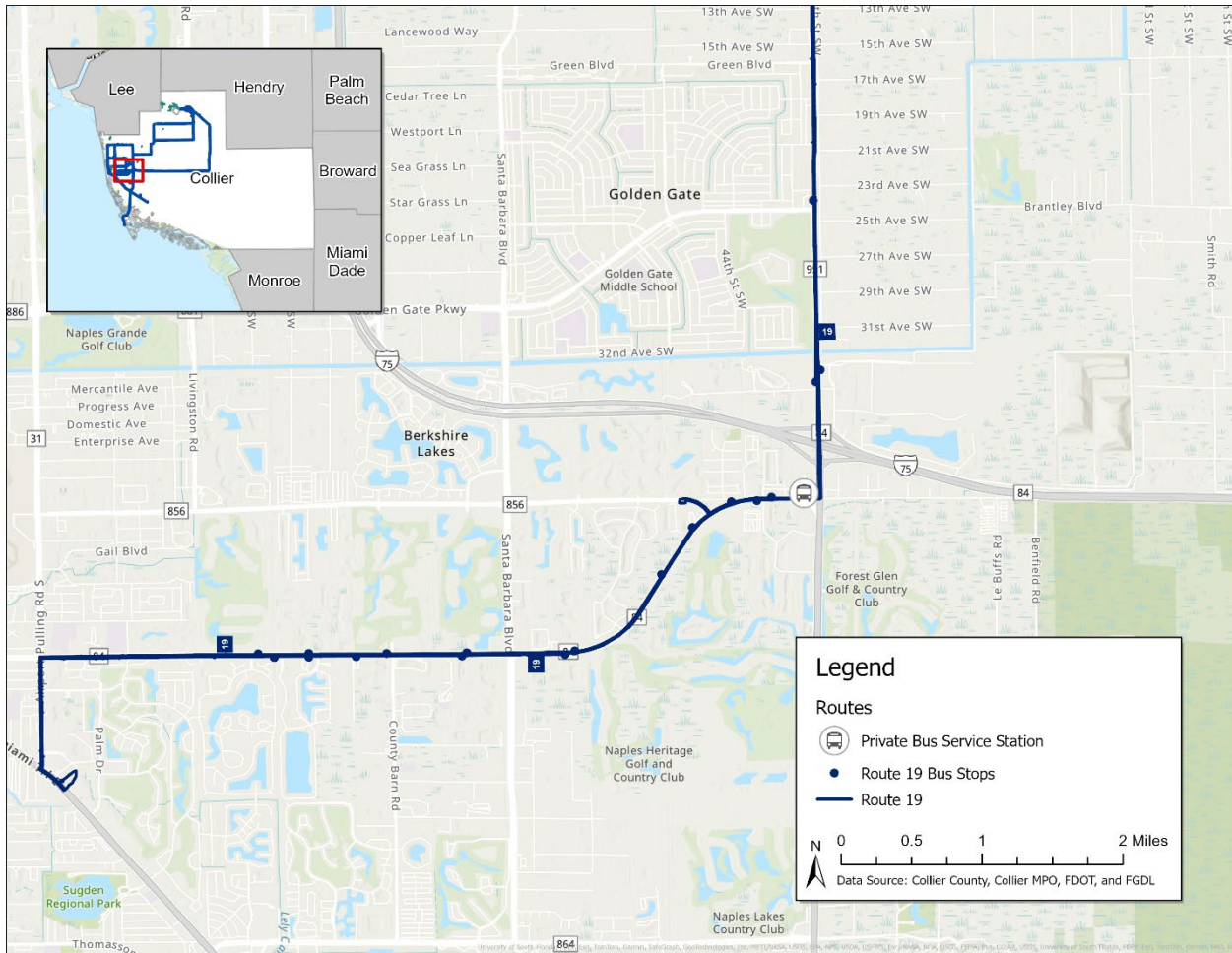


Figure 2-6: Station location for private bus service and Park and Ride locations along transit network.

2.3 Comprehensive Operations Analysis 2021 - Recap

The purpose of a Comprehensive Operations Analysis (COA) is to review the transit network and assess how best the agency can improve services and efficiency, particularly in relation to day-to-day operations. This assists with increasing value for the agency and ensuring that the transit system is as effective and efficiency as possible in the shorter term. Generally, the COA is thought of as feeding into the TDP where the TDP sets the longer-term strategic goals and identifies the needs help the transit system grow, evolve and improve overtime.

The COA conducted in 2021 analyses the fine details of the transit operations, assessing elements such as service enhancements and optimization. This can include repurposing routes, moving service from less productive areas and routes, and enhancing well performing routes.

The key takeaways in relation to route optimization from the extensive analysis undertaken in the COA that have been implemented to date are summarized below. The recommendations that were implemented were the ones that were deemed to be cost neutral:

- Elimination of Route 12B – low productivity and requires additional bus.



- Route 17 and 18 which followed similar alignments were consolidated into the current Route 17.
- Re-alignment of Route 19 - Maintain service on Collier Boulevard and Immokalee Road with select trips to Ave Maria via Oil Well Road.
- Route 21 alignment changes – maintaining service on Collier Boulevard between Marco Island and Walmart but removing service on San Marco Road. Additionally consolidated with Route 28.
- Route 25 alignment changes – A low ridership route moved to travel on US41 between Pine Ridge Road and Golden Gate Parkway. Removing service on Collier Boulevard and Goodlette Frank Road.
- Removal of Route 28 – consolidating Route 28 with Route 19.
- Route consolidation of 20 and 26. Routes 20 and 26 were the two lowest performing routes in terms of trips per revenue hour. By combining, all day service can be provided at 90minute frequency.

2.4 Transit Usage

2.4.1 ROUTE RIDERSHIP BY MONTH

Trends for the FY2020-FY2023 years are assessed in this section. Only routes active in 2024 are displayed in the graphs below. Ridership per month from the most recent full financial year is presented below in Figure 2-7 below.

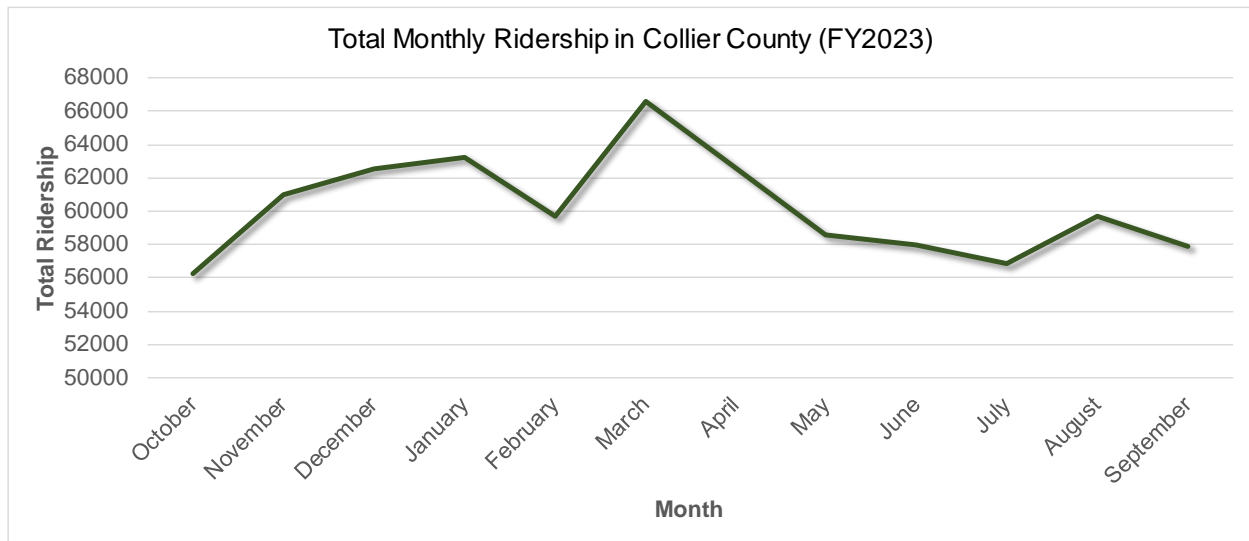


Figure 2-7: Total Monthly Ridership in Collier County during FY2023

As seen from the graph above, total ridership peaks in the holiday season (December-January) and March. Ridership then dips starting in May as the peak tourist and visitor season declines. This trend could indicate that more tourists are populating the buses during the peak seasons.

Figure 2-8 displays the total ridership for each route throughout the 2023 fiscal year.



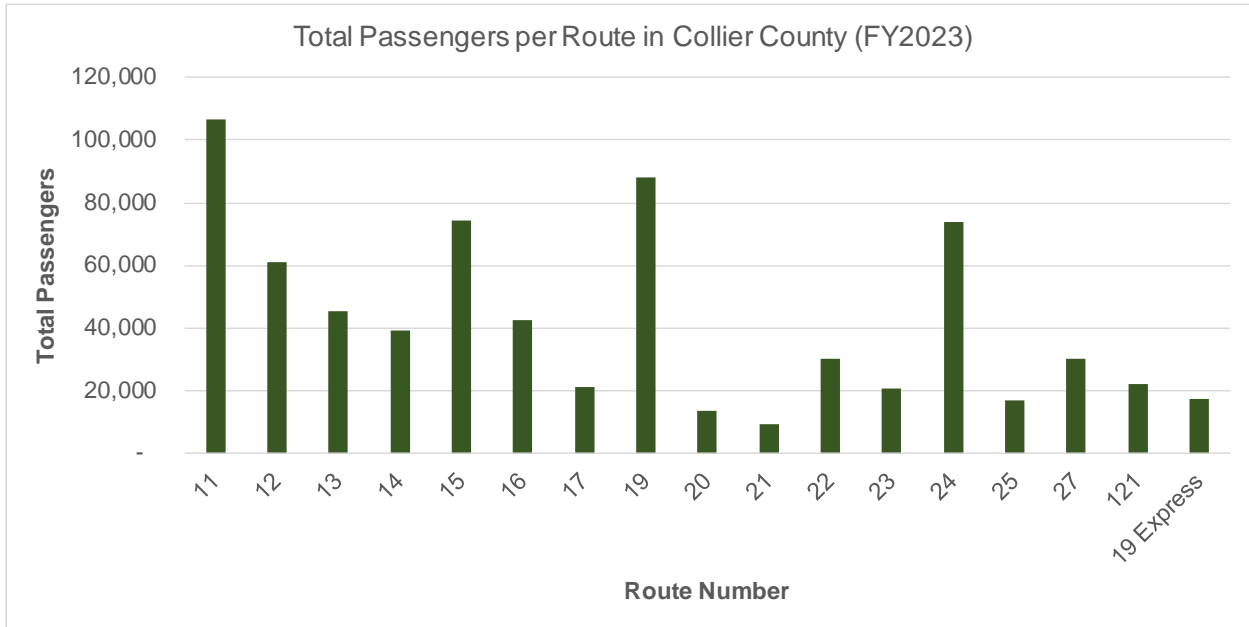


Figure 2-8: Total Passengers per Route in Collier County during FY2023

When examining the total number of passengers per route, Routes 11, 19, and 24 are the three most well-used routes. This is logical, as Route 11 passes through the Central Business District (CBD) in Naples, Route 19 is the only route connecting Immokalee and the downtown, and Route 24 serves the Collier County Government Center (although noted that other Routes do also serve the government center as well). In contrast, Routes 20, 21, and 25 are the least used routes, presenting opportunities to reroute or merge them to better accommodate demand.

Figure 2-9 below shows a graph of the passengers per revenue hour in Collier County.

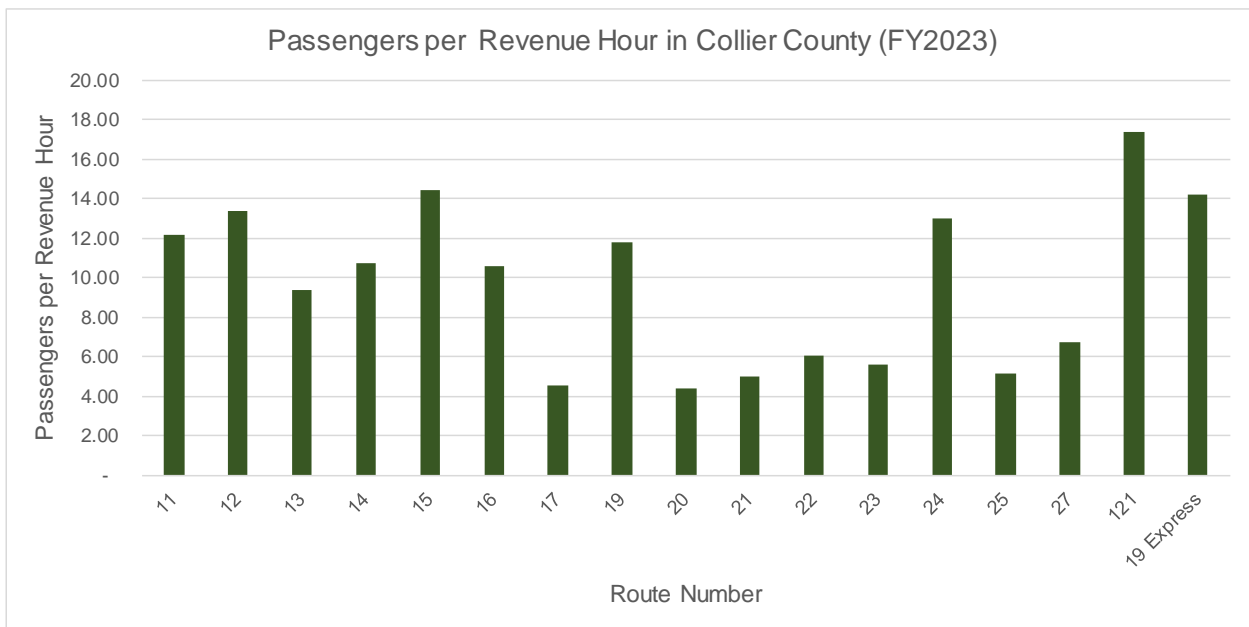


Figure 2-9: Passengers per Revenue Hour in Collier County during FY2023



Routes 121, Route 19 Express and Route 15 have the highest number of passengers per revenue hour, indicating that these routes may serve areas with higher transit dependency or demand and have schedules and frequencies of these routes likely align well with passenger needs. Routes 17, 20 and 21 have the lowest passengers per revenue hour. CAT might consider reallocating resources from low-performing routes to high-performing ones or to support the high-performing routes with increased frequency or extended hours. There may be opportunities to adjust the low-performing routes to better serve potential riders or connect to more popular destinations.

In Figure 2-10 below, ridership was averaged by season to determine seasonal variations for each route.

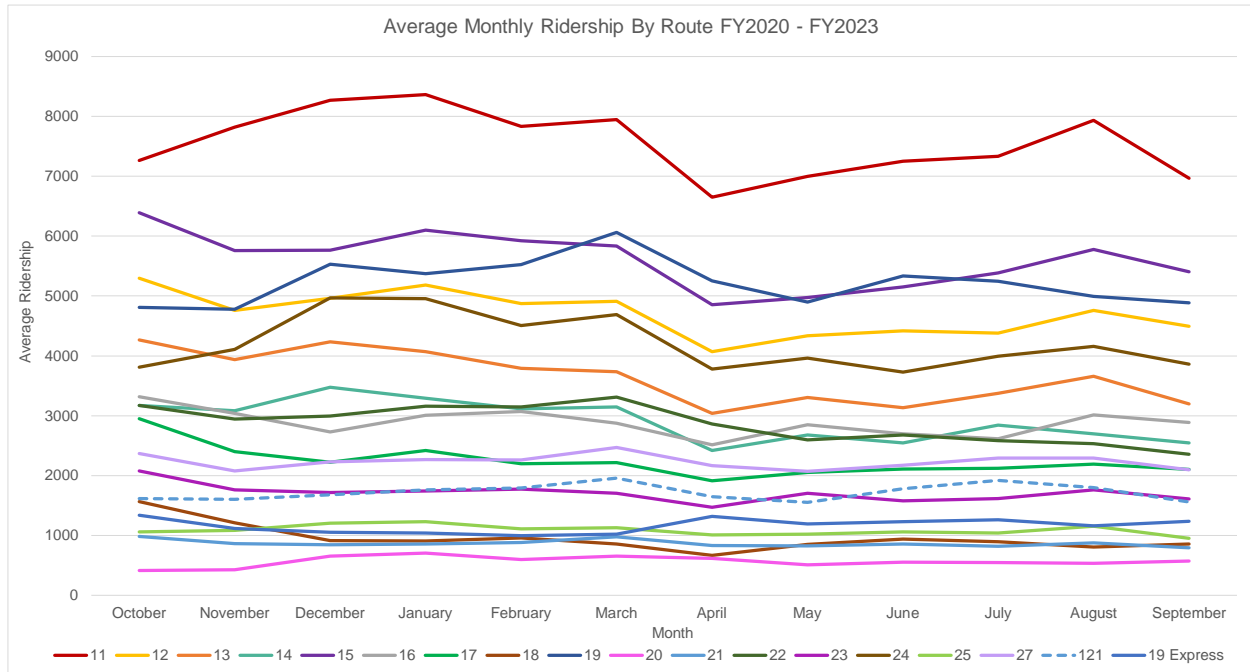


Figure 2-10: Seasonal Variation of Average Monthly Ridership

Other than Route 29, which is the beach shuttle with ridership only during the winter, most routes do not show significant seasonal variation. Route 29 also has lower ridership compared to other routes. Despite winter being a peak tourist season, the lack of significant ridership fluctuations suggests that tourists and seasonal residents may not be heavily utilizing the public transit system. This could be due to several factors like higher spending power of tourists visiting a wealthy area like Collier County. While ridership in the winter tends to be slightly higher than in the later months, promoting transit use among visitors and residents requires improvements to the accessibility and visibility of transit information. For instance, offering a transit pass could incentivize visitors to use the public transportation system, this pass could provide discounts for group travel and even cover multi-modal options if possible.

Figure 2-11 and Figure 2-12 highlight the routes with the highest ridership and riders per revenue hour, focusing on those within or near the core of the city, such as Naples or the Naples Airport. Notably, routes 11, 12, 15, 19, 24, and 121 were selected for this analysis for these reasons.



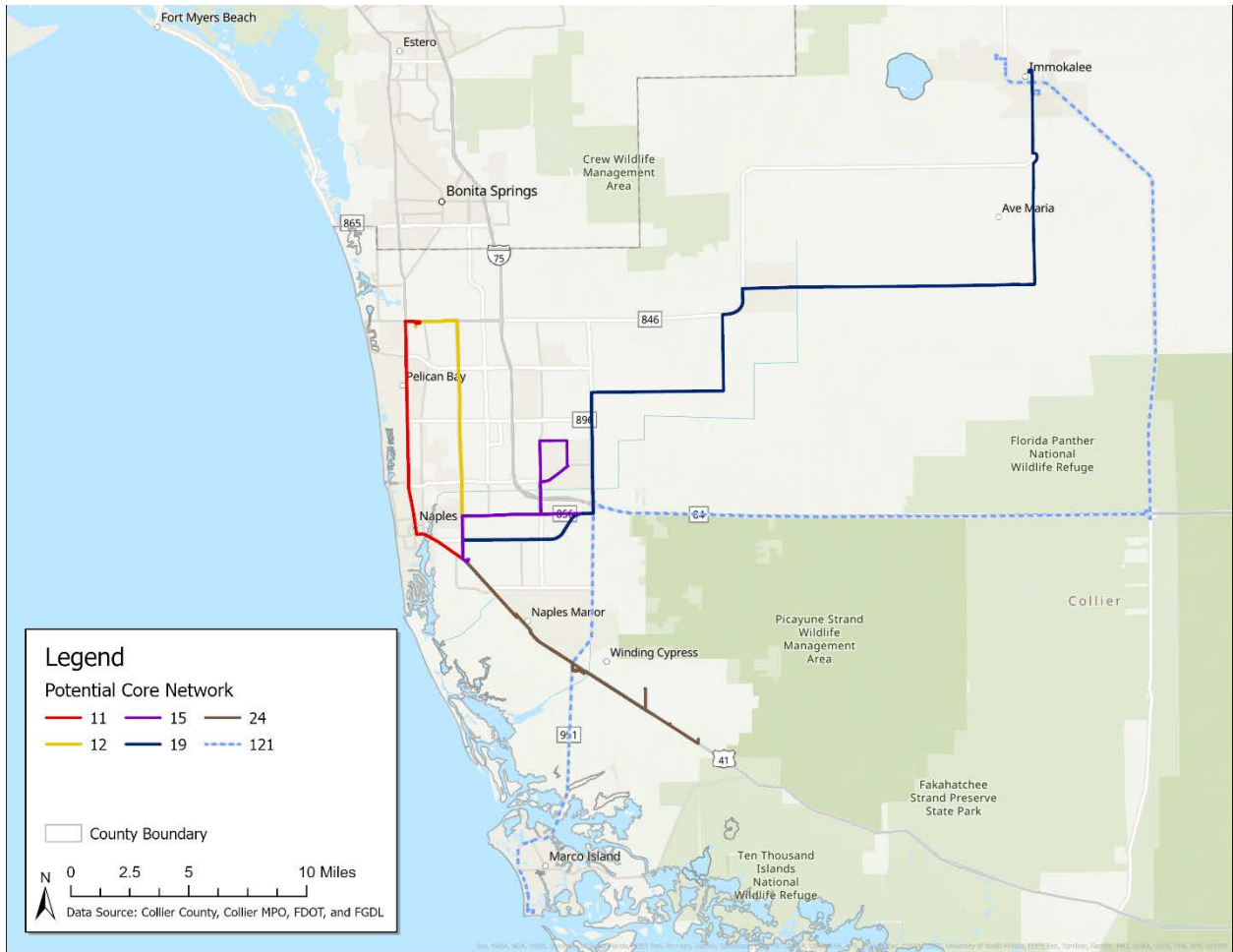


Figure 2-11: Top Ridership Routes in Collier County in FY2023



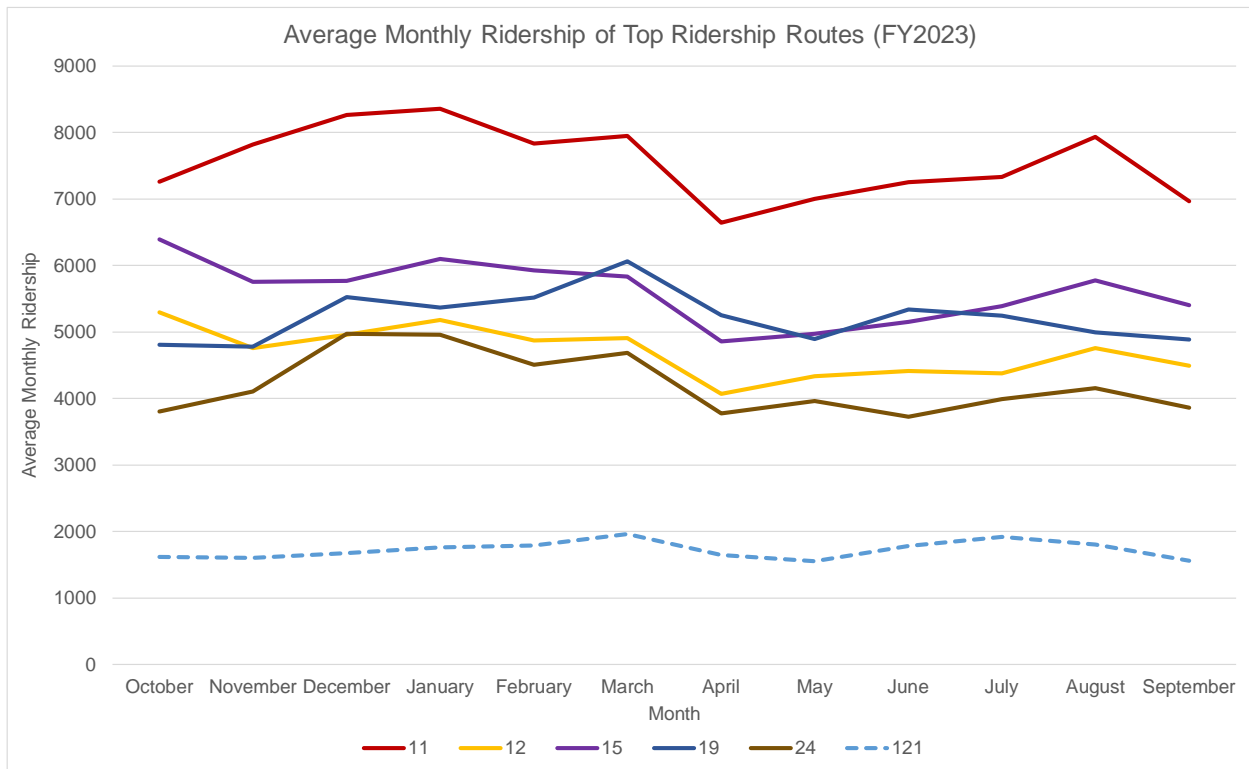


Figure 2-12: Average Monthly Ridership of Top Ridership Routes in Collier County in FY2023

The ridership pattern for these potentially “core” routes is highest between October to February, during the winter season. Ridership dips in April at the end of the peak tourist season. The ridership pattern suggests that tourists and seasonal residents may be contributing to increased usage of these core routes during the peak winter season. This aligns with the general tourism patterns in Collier County.

2.4.2 FAREBOX RECOVERY

For 2022 financial year, the overall farebox recovery ratio for the CAT system is 8%, derived from the ratio between the total fare revenue and total operating cost values from NTD data. This represents a 20% decrease (2 percentage points) from FY2018 farebox recovery ratio of 10%.

2.4.2.1 Recent Fare Studies and Changes for Upcoming Years

Following the fare study completed in 2018, the current fare structure for CAT is still in line with the approved changes from that study which are shown in Table 2-5 below.



Table 2-5: Fare Structure in Collier County (2024)

Fare Category	Fare	Reduced Fare
One-Way	\$2.00	\$1.00
Children 5 years of age and younger	Free	Free
Marco Express	\$3.00	\$1.50
Transfers – up to 90 minutes	Free	Free
Day Passes	\$3.00	\$1.50
Smart Card Pass		
15-Day Pass	\$20.00	\$10.00
30-Day Pass	\$40.00	\$20.00
Marco Express 30-Day Pass	\$70.00	\$35.00
Discounted Pass		
Summer Paw Pass (Valid June 1 – August 31 for students. Price includes Smart Card)	\$30.00	
30-Day Corporate/Perk Pass (300+ Employees)	\$29.75	
Smart Card Media Fees		
Smart Card	\$2.00	
Registration	\$3.00	
Replacement with Registration	\$1.00	

Source: rideCAT website; Collier County

In March 2024, CAT conducted a regional service and fare study with the aim of evaluating how best to serve the regional transit demands in conjunction with LeeTran (Lee County Transit) which included an evaluation of the most appropriate fare structure to deploy. This fare policy analysis evaluated the benefits and drawbacks of having a joint fare structure with LeeTran or having a separate structure.

The culmination of this review concluded that it would be better to maintain a separate fare structure for the regional services. This means each agency charges their own fares and keeps the revenues on their own vehicles as this provides the most cost-effective solution at this time as there is only one regional service with only 1 additional service proposed.

2.4.2.2 Strategies to Improve the Farebox Recovery

There are a number of different strategies that can be used to increase the farebox recovery ratio in order to make the transit system more cost effective. These include:

- Increasing ridership:
 - Prioritizing higher ridership of routes, by making sure they serve areas of high demand and as well as major activity centers to increase the number of riders and therefore the revenue being generated.
 - Increasing the accessibility of the fixed route transit network to encourage and enable TD and ADA passengers to be able to use the fixed route system
 - Attract new riders through increasing frequency of services and increased marketing and communications of the benefit of transit. Note that when increasing services, it would be important to secure additional funding from other potential sources so as not to increase the cost for CAT.



- Opportunities exist around partnering with local business and institutions to provide transit benefits (in the form of discounts or deals) to employees and students to further increase the likelihood of ridership.
- Engage with the community to understand how best transit can serve them, and what would make them use transit more to increase ridership.
- Introduce ancillary services or additional services on and around transit (both on-board and at major stops or interchanges) such as free Wi-Fi. This can take the form of mobility hubs to increase transit usage and increase integration with other more sustainable modes.
- Reducing operational costs:
 - Increasing efficiency of service delivery which can be done by optimizing routes and scheduling making use of latest scheduling technology available.
 - Investment in technology can help to improve fare collection and reduce fare evasion.
 - Utilizing more fuel efficient or energy saving vehicles that cost less to operate and run.
- Adjusting fares:
 - There could be opportunities to integrate fares among different modes and other agencies.
 - Introducing a form variable pricing based on time of day or demand to optimize revenue.

2.5 Trend and Peer Comparison Analysis

This section provides trend analyses for key performance, effectiveness, and efficiency measures for the CAT system for the past 5 years. In addition, comparisons to peer agencies have been provided to show how the CAT system performs against similar systems.

This evaluation was conducted using data directly obtained from the National Transit Database (NTD) across a number of different variables for transit performance. These system performance measures are recommended by the FDOT TDP Handbook for general performance, efficiency, and effectiveness, as listed and categorized in the table below.

Table 2-6: System Performance Review Measures

Performance Measures	Effectiveness Measures	Efficiency Measures
Unlinked Passenger Trips	Unlinked Passenger Trips per Capita	Operating Expense per Capita
Passenger Miles Travelled	Passenger Miles Travelled per Capita	Operating Expense per Unlinked Passenger Trip
Vehicle Revenue Miles	Vehicle Revenue Miles per Capita	Operating Expense per Passenger Miles Travelled
Vehicle Revenue Hours	Unlinked Passenger Trips per Vehicle Revenue Mile	Operating Expense per Vehicle Revenue Miles



Vehicles Operating/Available at Maximum Service	Unlinked Passenger Trips per Vehicle Revenue Hour	Operating Expense per Vehicle Revenue Hours
Operating Expense		Vehicle Revenue Miles per Vehicle
Fare Revenue		Farebox Recovery Ratio
		Average Fare

2.5.1 PEER SELECTION

The peer selection process followed the methodology provided by the Transit Cooperative research Program (TCRP) Report 141: A Methodology for Performance Measurement and Peer Comparison in the Public Transportation Industry and recommended by the FDOT TDP Handbook (2022).

The guidance recommends a minimum of 4 agencies and for the purposes of this TDP, 10 agencies have been selected as the final peer group. It is crucial to select a suitable group of peer agencies to ensure that credible comparisons can be made to provide insight and trigger action, as opposed to poorly chosen peers which can produce irrelevant results.

For the purpose of performance measuring, an initial group of 16 peers was formed to be compared to CAT. For this TDP update, all previous agencies that were included in the prior TDP update were included as well as additional agencies that were deemed to be similar in nature to CAT. This initial list of peer agencies consisted of:

Table 2-7: Transit System Peer Review Selection

Transit System	Location	Peer Description
The M (Montgomery Area Transit)	City of Montgomery, AL	From Previous TDP
TTA (Tri-State Transit Authority)	Huntington, WV	From Previous TDP
The Wave Transit System	City of Mobile, AL	From Previous TDP
ART (Asheville Redefines Transit)	City of Asheville, NC	From Previous TDP
GCT (Gwinnett County Transit)	Lawrenceville, GA	From Previous TDP
PCPT (Pasco County Public Transportation)	New Port Richey, FL	From Previous TDP
The Wave (Cape Fear Public Transportation Authority)	Wilmington, NC	From Previous TDP
Breeze Transit (Sarasota County Area Transit)	Sarasota, FL	Newly Added
LeeTran (Lee County Transit)	Fort Myers, FL	Newly Added
Bayway (Bay County Transportation)	Pensacola, FL	Newly Added
GoLine (Indian River County)	Vero Beach, FL	Newly Added
Citrus Connection (Lakeland Area Mass Transit District)	Lakeland, FL	Newly Added
CARTA (Charleston Area Regional Transportation Authority)	North Charleston, SC	Newly Added
ECAT (Escambia County Area Transit Authority)	Pensacola, FL	Newly Added
CCRTA (Cape Cod Regional Transit Authority)	Hyannis, MA	Newly Added

The selection of potential peers was conducted using the peer selection methodology outlined in the FDOT TDP Handbook, employing validated 2022 National Transit Database (NTD) data and the Florida Transit



Information System (FTIS). Additional potential peers that were selected consisted of transit agencies from the previous TDP and agencies located in the southeastern United States, specifically those with coastal characteristics in their geographic profiles.

From the newly identified transit agencies, Breeze Transit (Sarasota, FL), LeeTran (Fort Myers, FL), Bayway (Pensacola, FL), GoLine (Vero Beach, FL), and Citrus Connection (Lakeland, FL) were chosen because they are situated within Florida, either in coastal counties or counties near Collier County. Additionally, CARTA (North Charleston, SC), ECAT (Pensacola, FL), and CCRTA (Hyannis, MA) were selected based on their recommendation as top peers to CAT according to the FTIS Urban iNTD tool. It is worth noting that ART was also recommended but was already included in the previous TDP peer group.

NTD data for this initial set of peer agencies was then obtained and analyzed to determine similarity to CAT and suitability to be used as a peer. Likeness scores were calculated for 14 different indicators including 8 operating characteristics and 6 exogenous variables. A secondary screening was also performed with additional indicators to rule out any anomalies within the initial peer group. A detailed account of the selection methodology can be found in Appendix A.

Based on the results from the initial likeness score comparison and the secondary screening, a final set of 10 agencies were selected, as listed in Table 2-8 below. The table also includes the likeness score for each agency and the reasons that the agency was selected to be in the final peer group.

Table 2-8: Average of Likeness Score Sums by Peer Group

Peer Agency	Likeness Score	Reasoning for Top 10 Selection
Breeze Transit (Sarasota County Area Transit), Sarasota, FL	6.98	Likeness score and location of the peer is desirable.
LeeTran (Lee County Transit), Fort Myers, FL	7.80	Likeness score from the primary review was substantially lower and location of the peer is desirable.
Bayway (Bay County Transportation), Pensacola, FL	6.03	Likeness score and location of the peer is desirable.
ECAT (Escambia County Area Transit Authority), Pensacola, FL	6.05	Likeness score
CCRTA (Cape Cod Regional Transit Authority), Hyannis, MA	6.30	Likeness score
CARTA (Charleston Area Regional Transportation Authority), North Charleston, SC	6.06	Likeness score
Citrus Connection (Lakeland Area Mass Transit District), Lakeland, FL	5.68	Likeness score and location of the peer is desirable.
The Wave (Cape Fear Public Transportation Authority), Wilmington, NC	5.49	Likeness score
The Wave Transit System, City of Mobile, AL	6.81	Likeness score
PCPT (Pasco County Public Transportation), New Port Richey, FL	6.35	Likeness score

It is acknowledged as part of the methodology that peers will not be exactly like one another in all categories and the approved methodology is built to allow for that and allow for similarity in only a few other categories.

For full details on stage 2 of the screening refer to Appendix A for the full Peer Selection methodology.



2.5.2 NORMALIZING DATA

To accurately portray cost data, all monetary values were normalized to reflect the effects of inflation and differences in labor costs between geographical regions. It is important to consider for labor costs differences as it allows for conclusions to be drawn with more certainty that the cost differences between agencies are due to internal agency efficiency variances rather than external cost variation. Labor costs are also typically the largest component of an agency's operating costs. It is relevant to take inflation rates into account to see whether an agency's costs are changing faster or slower than inflation when conducting trend analyses.

To adjust for differences in labor costs between counties, average labor wage rates were used to recalculate cost data. Annual average weekly wages for 2022 were obtained from the US Bureau of Labor Statistics' Quarterly Census of Employment and Wages. All occupation types were included in the average calculation as agencies have no control over general labor environments in the county, which the cost data is being adjusted for, as opposed to the industry-specific labor rates that the agencies have some control over. Including all occupations also allows for an agency to analyze how much of its labor is spent in comparison to the county's average wages, as well as to adjust its costs to reflect changes in the county's overall cost of living. The peer agencies' cost data was adjusted for labor cost differences by multiplying the raw cost data from NTD by the ratio between Collier's average labor cost over the peer agency county's average labor cost.

To adjust for inflation in trend analyses, consumer price indices (CPI) were used to recalculate cost data. As the selected peers are located in different states around the United States, national CPIs were used. CPI values for the years of 2018 to 2022 were obtained from the US Bureau of Labor Statistics' CPI Inflation Calculator to adjust cost data for inflation across these years. This was done by multiplying the raw cost data from NTD by a ratio between the initial year's (2018) CPI over the analysis year's CPI.

2.5.3 PERFORMANCE MEASURES

Data for select system characteristics were taken from NTD to assess the general operating performance of the CAT system and its chosen peers. All of the performance indicators are based on exact data values from the NTD database, reflect total values for all modes.

2.5.3.1 Unlinked Passenger Trips

Unlinked passenger trips (UPT) refers to the number of people riding only one public transit vehicle from origin to destination, counting a new trip each time a vehicle is boarded no matter how many transfers are made. UPT data represents the market demand for service, and a higher number of passenger trips is considered a positive metric. UPT numbers for CAT decreased by almost 30% from 0.95 million trips in 2018 to 0.65 million in 2021, but increased to 0.75 million in 2022. The growth in trips from 2021 to 2022 suggests service improvements have started to take effect as ridership has returned following the COVID pandemic. Due to three peers with much higher UPT values, CAT falls below the average UPT (shown with the orange line in the peer comparison chart below) of the peer group. Excluding these top three peers, Collier has one of the higher UPT values amongst the remaining peers.



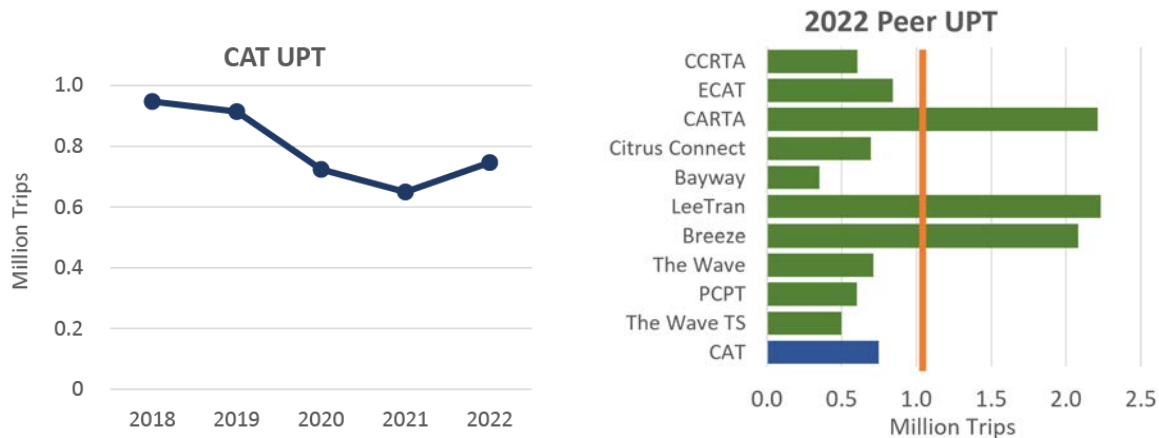


Figure 2-13: 5-year trend (left) and 2022 peer comparison (right) charts for unlinked passenger trips.

2.5.3.2 Passenger Miles Travelled

Passenger miles travelled (PMT) denotes the total distance travelled by all passengers using the service. As with UPT, higher PMT is also a positive metric. PMT numbers for CAT follow the same trend as the UPT numbers, decreasing about 30% from 7.4 million miles in 2018 to 5.3 million in 2021, but increasing to 6.1 million in 2022. This is directly reflective of passenger trips which is to be expected. Similar to UPT, the same three agencies with much higher PMT values are influencing the average value to be higher. CAT PMT is just below the average value and is also one of the higher values excluding these top three agencies.

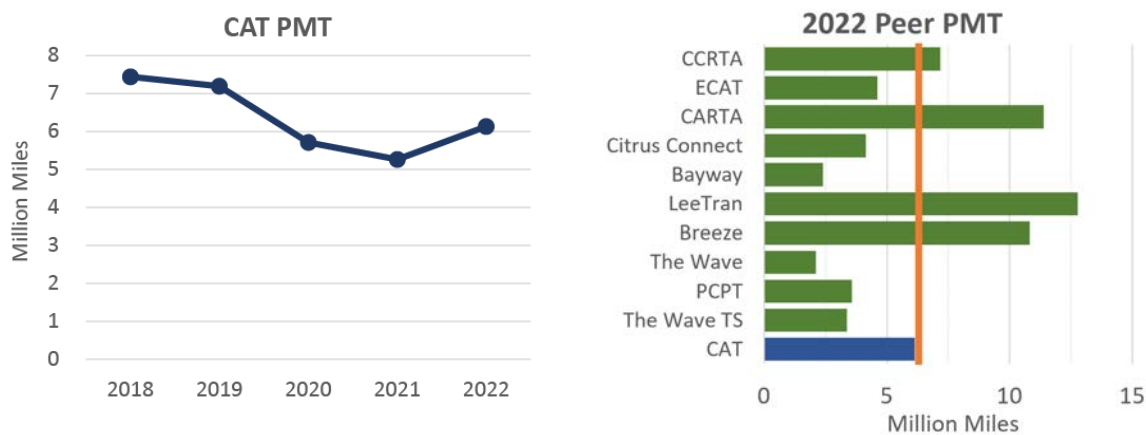


Figure 2-14: 5-year trend (left) and 2022 peer comparison (right) charts for passenger miles travelled.

2.5.3.3 Vehicle Revenue Miles

Vehicle revenue miles (VRM) detail the total distance travelled where the transit service was operating in revenue service, which excludes deadhead travel, training operations, and charter services. VRM as a metric itself is not indicative of positive or negative performance and should be analyzed in relation to productivity and cost-effectiveness measures. The slightly decreasing trend in CAT vehicle revenue miles suggests that services are being withdrawn, and with the lack of riders and passenger miles in 2020 and 2021 but a relatively stable amount of service being provided suggest that a major cost recovery issue would have occurred that is likely still impacting the agency. CAT VRM is just below the peer average, however, VRM itself is not indicative of performance. The larger transit agencies such as LeeTran and Sarasota Breeze most likely run more service or longer routes that result in greater VRM.



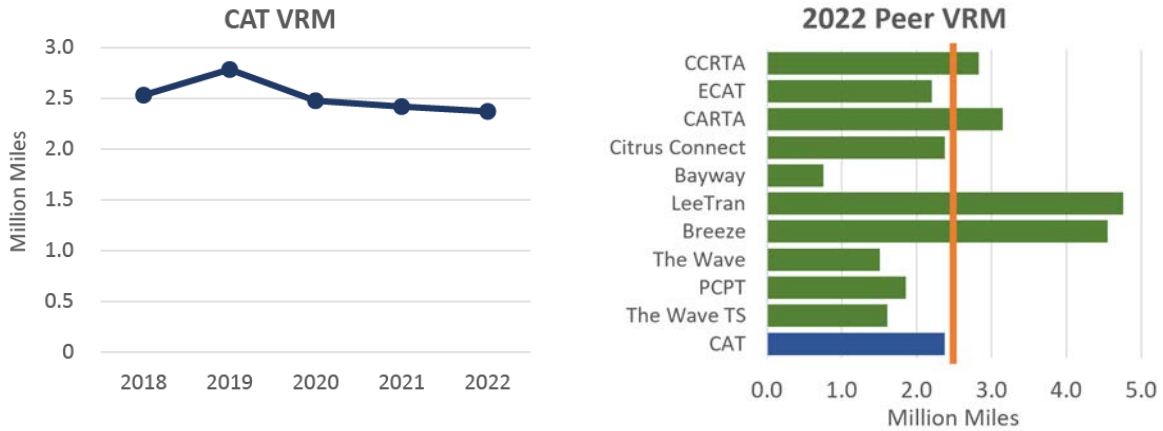


Figure 2-15: 5-year trend (left) and 2022 peer comparison (right) charts for vehicle revenue miles.

2.5.3.4 Vehicle Revenue Hours

Vehicle revenue hours (VRH) represent the total travel time that transit vehicles have operated during revenue service. Like with VRM, VRH as a metric itself is not indicative of positive or negative performance and should be analyzed in relation to productivity and cost-effectiveness measures. Given that CAT VRH values have gone up slightly from 2021 to 2022 compared to decreasing VRM, this would suggest that routes that serve longer distances and cover more miles, possibly towards more rural areas have been restricted and instead shorter routes with more service has replaced it. CAT VRH is below the peer average, but again VRH itself is not indicative of performance. The larger transit agencies such as LeeTran and Sarasota Breeze most likely run more service or for longer times which results in greater VRH.

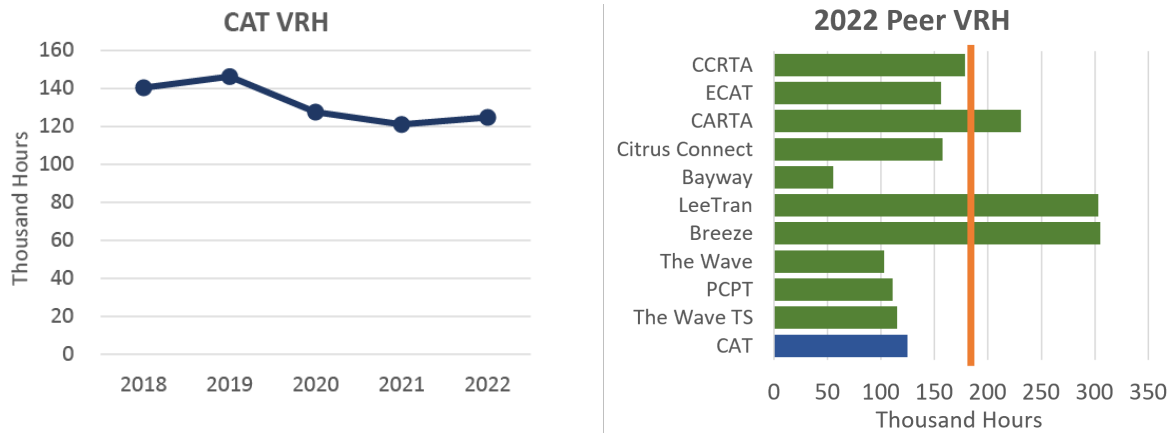


Figure 2-16: 5-year trend (left) and 2022 peer comparison (right) charts for vehicle revenue hours.



2.5.3.5 Vehicles Operating/Available at Maximum Service

Vehicles operating or available at maximum service counts the number of vehicles that are required for (VOMS) or are available to (VAMS) the transit agency to operate at peak full service. VOMS is important for assessing fleet size, directly relating to the network structure and availability of service. VOMS/VAMS numbers can impact the number of routes and frequency of service offered by the transit agency. VOMS helps to determine the required vehicle demand during maximum service versus the vehicles available. VAMS increased from 2020 to 2021 during the pandemic, when less service was required and VOMS was lower. This likely resulted in the decrease in VAMS from 2021 to 2022, however, VOMS has since increased, which would suggest that CAT are operating very close to the line in terms of not having enough vehicles to provide service. Both CAT VOMS and VAMS values are below the peer average, but this is not indicative of performance as agencies will require different numbers of vehicles due to varying service.

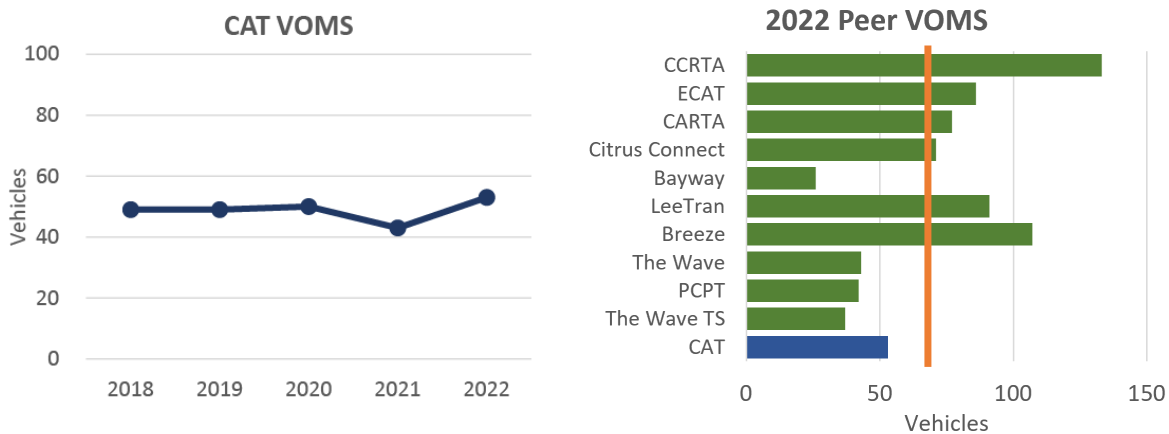


Figure 2-17: 5-year trend (left) and 2022 peer comparison (right) for vehicles operating at maximum service.

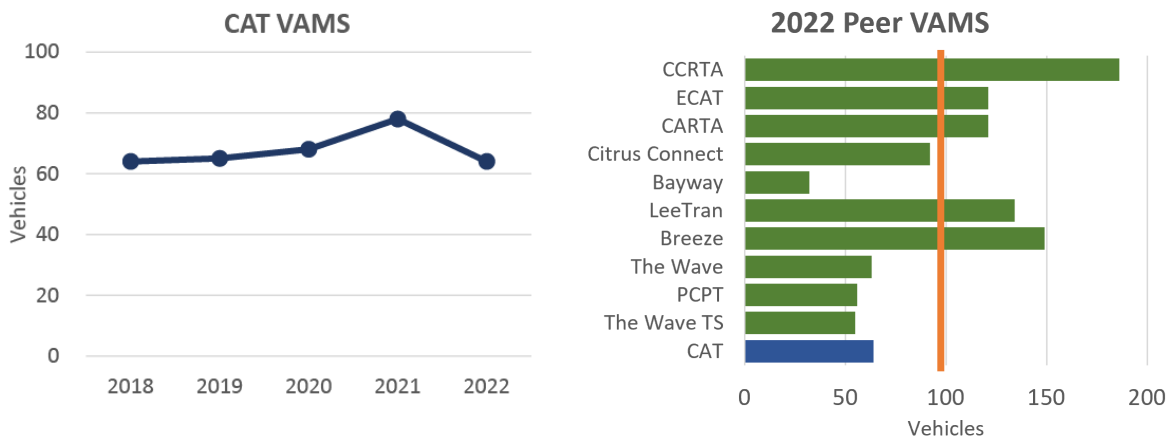


Figure 2-18: 5-year trend (left) and 2022 peer comparison (right) for vehicles available at maximum service.

2.5.3.6 Operating Expense

Total operating expense considers all costs associated with operating the transit service, including operational, maintenance, and administrative costs. The NTD data values for operating expense were recalculated for the peer comparison chart to account for differences in labor costs across different geographical regions. The CAT trend chart includes a secondary data series reflecting the cost data in



2018-dollar values, depicting the impacts of inflation over the years. CAT operating expenses have shown a general increase in trends since 2018 which is to be expected as service gets more expensive to deliver. However, the increase in operating expenses don't appear as drastic between 2021 to 2022 in 2018-dollars, indicating the increase in cost is mostly due to the impact of inflation. Operating expense should be analyzed in relation to fare revenue and farebox recovery rates to determine how much of the cost of the service is being recuperated. CAT operating expenses are below the peer average, indicating that the transit system does not cost as much to operate compared to the other larger agencies.

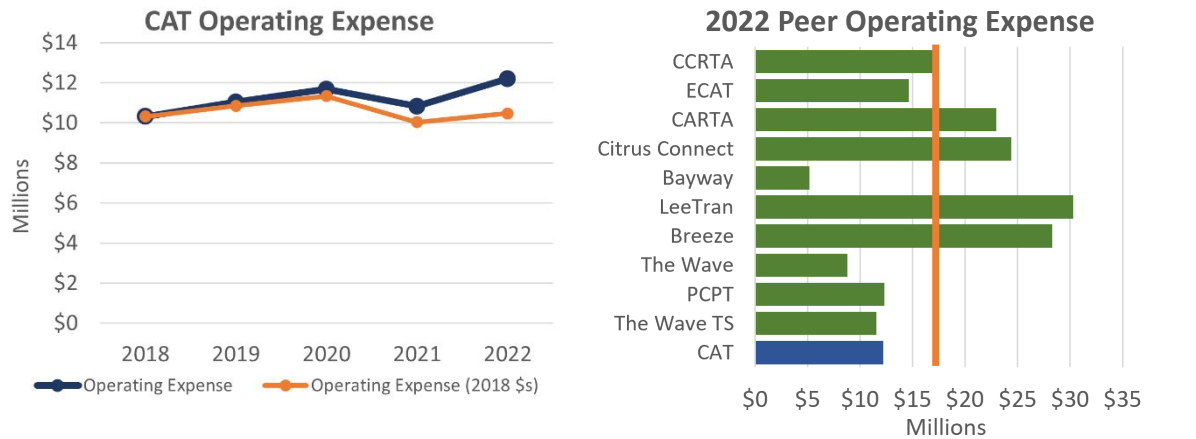


Figure 2-19: 5-year trend (left) and 2022 peer comparison (right) charts for operating expense.

2.5.3.7 Fare Revenue

Fare revenue is the total amount of revenue generated from fare-paying transit service users. Again, the CAT trend chart includes a secondary data series reflecting the revenue data in 2018-dollar values, depicting the impacts of inflation over the years. Post-pandemic, CAT fare revenue has been steadily increasing which would be in line with passenger trips also increasing. As with operating expense, fare revenue is most useful when analyzed in relation to operating expense and farebox recovery rates. CAT fare revenue is below the peer average, indicating that CAT receives less revenue from rider fares compared to other agencies, especially CARTA with a significantly higher fare revenue value.

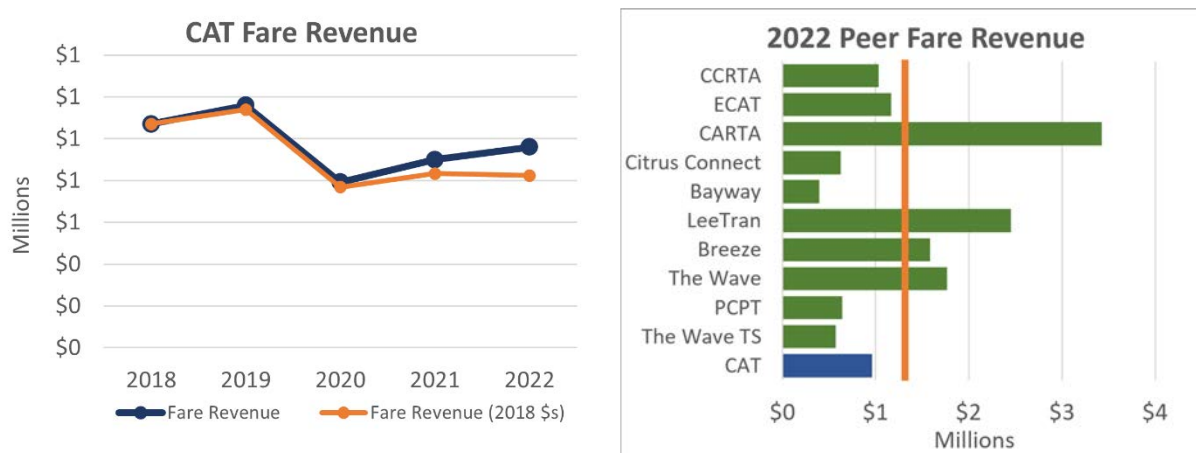


Figure 2-20: 5-year trend (left) and 2022 peer comparison (right) charts for fare revenue.



2.5.4 EFFECTIVENESS MEASURES

Service effectiveness is represented by performance characteristics in relation to the population, as the selected indicators demonstrate to what extent service-related goals are being achieved. This includes service supply, service consumption, and quality of service. Effectiveness measure values are obtained or derived from NTD data and reflect total values for all modes.

2.5.4.1 Unlinked Passenger Trips/Passenger Miles Travelled per Capita

UPT per capita is calculated by dividing UPT by the service area population, measuring transit usage within the service area. Similarly, PMT per capita is derived from dividing PMT by the service area population. Higher values represent a greater utilization of service. CAT UPT and PMT per Capita values have been decreasing over the years, with a steeper decrease towards 2020, likely due to people taking transit less during the pandemic. There was a small increase from 2021 to 2022 as ridership began to improve back towards pre-pandemic levels. CAT UPT per capita is below the peer average and PMT per capita just slightly below, demonstrating that service utilization is less effective compared to other agencies, especially CARTA with a significantly higher values.

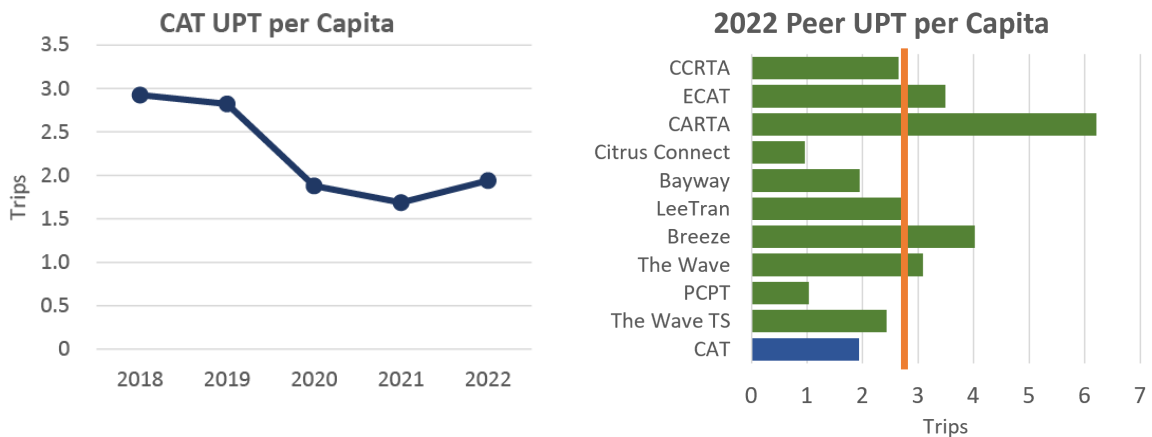


Figure 2-21: 5-year trend (left) and 2022 peer comparison (right) for unlinked passenger trips per capita.

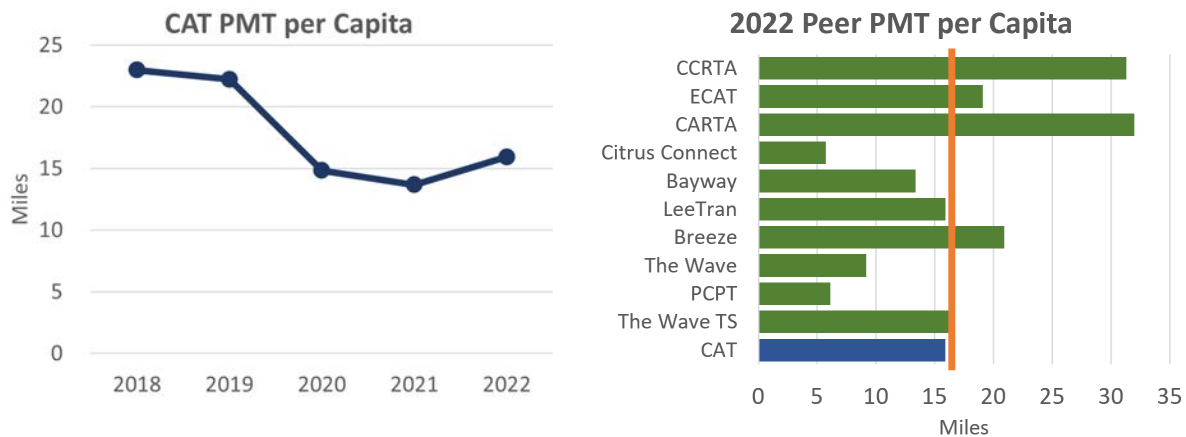


Figure 2-22: 5-year trend (left) and 2022 peer comparison (right) for passenger miles travelled per capita.



2.5.4.2 Vehicle Revenue Miles per Capita

VRM per capita is calculated from the dividing VRM by the service area population, measuring the supply of service provided based on the population of the service area. There was a significant decrease in VRM per capita from 2019 to 2020, likely due to reduced service as a result of the pandemic. Values stayed relatively steady after 2020, but still slightly decreasing. The 2022 CAT value is just below the peer average.

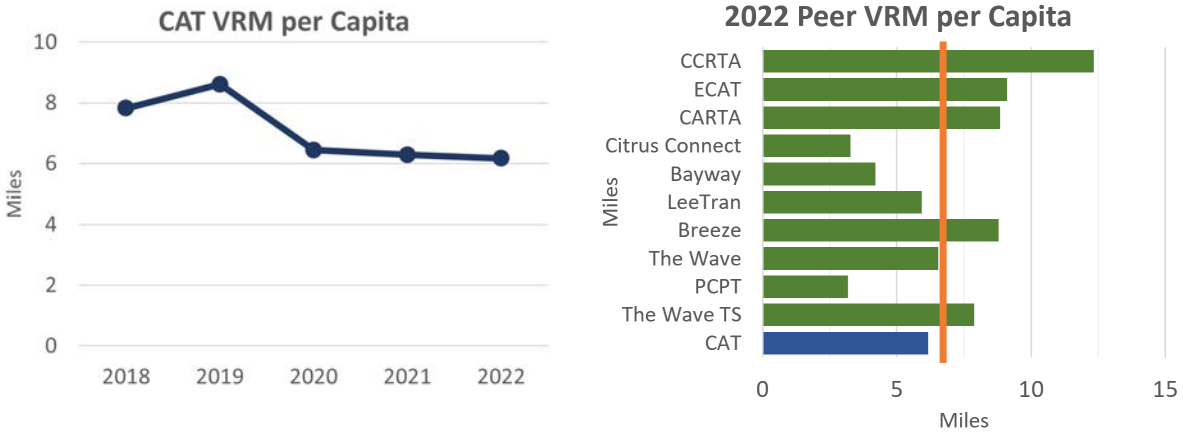


Figure 2-23: 5-year trend (left) and 2022 peer comparison (right) for vehicle revenue miles per capita.

2.5.4.3 Unlinked Passenger Trips per Vehicle Revenue Mile/Vehicle Revenue Hour

Dividing UPT by VRM or VRH can serve as other indicators for productivity and service consumption, measuring the utilization rates per unit of provided service. Higher values are desirable as it reflects that there is greater utilization of service. CAT UPT per VRM values stayed consistent for four years after a decrease from 2018 to 2019, while UPT per VRH values decreased over the years and only increased from 2021 to 2022. CAT UPT per VRM is below average and UPT per VRH is average amongst the peers.

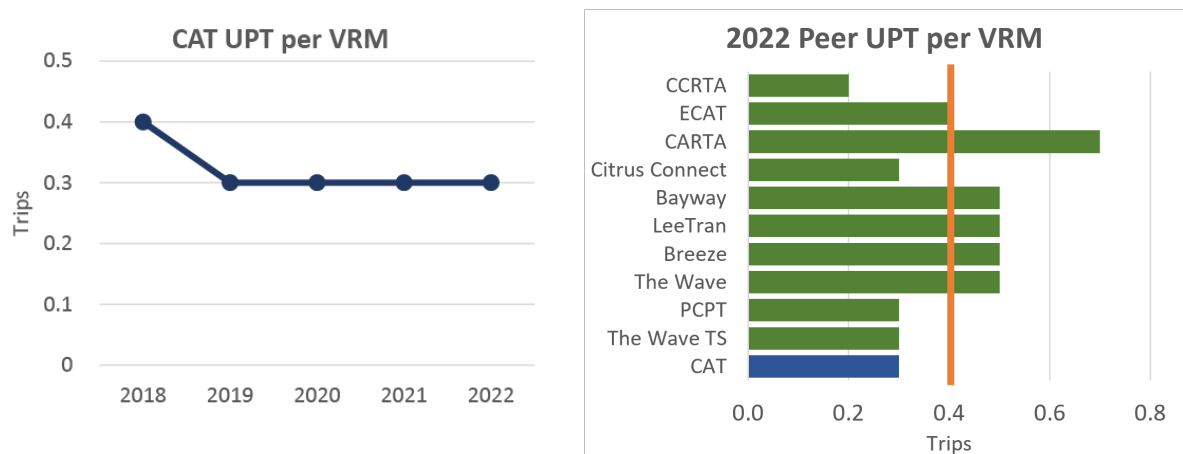


Figure 2-24: 5-year trend (left) and 2022 peer comparison (right) for unlinked trips per vehicle revenue mile.



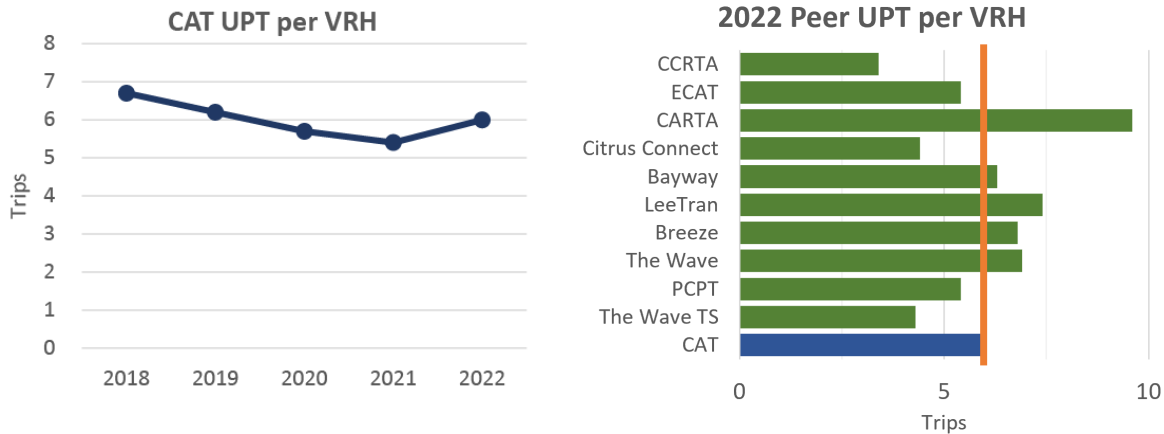


Figure 2-25: 5-year trend (left) and 2022 peer comparison (right) for unlinked trips per vehicle revenue hour.

2.5.5 EFFICIENCY MEASURES

Service efficiency revolves mostly around operating expenses and a few other indicators, in essence, how much it costs to provide and run the service. Most of the efficiency measures are derived from ratios between two performance measures, and again reflect total values for all modes. The data values for all measures involving operating expense were recalculated for the peer comparison charts to account for differences in labor costs across different geographical regions. The trend charts include secondary data series reflecting the cost data in 2018-dollar values, depicting the impacts of inflation over the years.

2.5.5.1 Operating Expense per Capita

Operating expense per capita reflects the total investment spent on provided transit services in relation to the service area population. The metric itself reflects greater investment in transit with higher values, however, there are many additional underlying considerations including productivity, demand, and utilization. Operating expense per capita decreased from 2019 to 2021, possibly due to lowered costs from less service during the pandemic, then increased in 2022. CAT's operating expense per capita value is below the peer average, indicating that it spends less per capita to operate compared to other agencies.

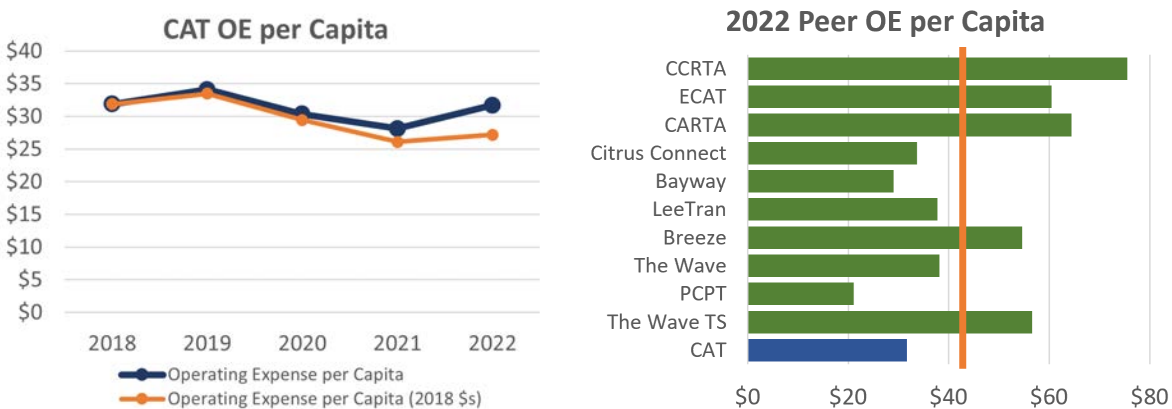


Figure 2-26: 5-year trend (left) and 2022 peer comparison (right) charts for operating expense per capita.



2.5.5.2 Operating Expense per Unlinked Passenger Trip/Passenger Mile Travelled

Operating expense per UPT/PMT indicate the average cost to provide service for each unlinked trip or passenger mile, showcasing the market demand for the service and how service is delivered. The lower these values, the better, as it is ideal to minimize cost per trip/mile. The trends for operating expense per UPT/PMT are identical; increasing up to 2021 and slightly decreased in 2022. The increase from 2020 to 2021 was mostly due to inflation as the trends decreased from 2020 to 2022 in 2018-dollar values. The operating expense per UPT/PMT values for CAT are below the peer averages, meaning that it costs less to operate per trip/mile compared to other agencies.

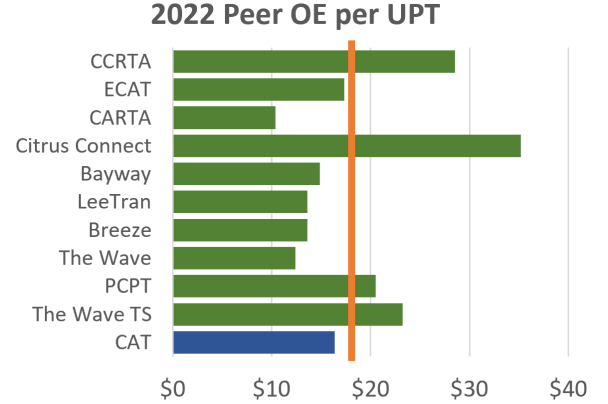
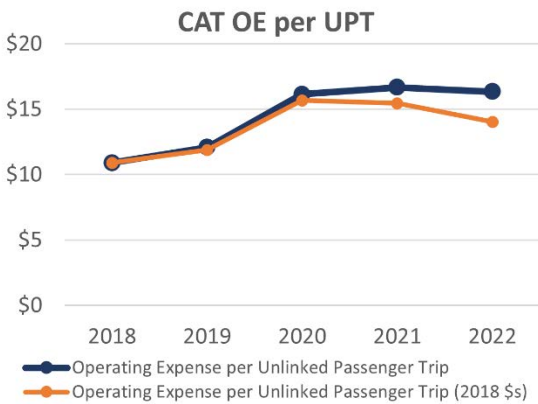


Figure 2-27: 5-year trend (left) and 2022 peer comparison (right) for operating expense per unlinked trip.

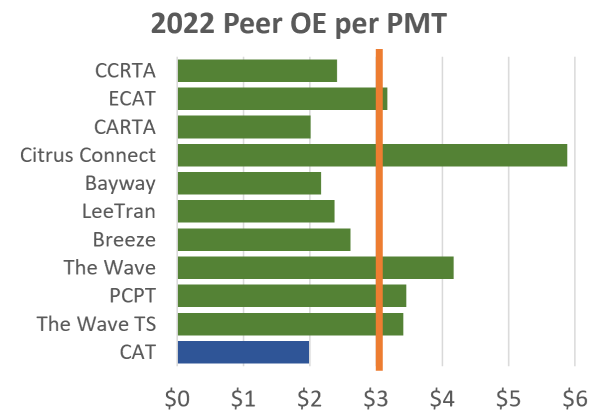
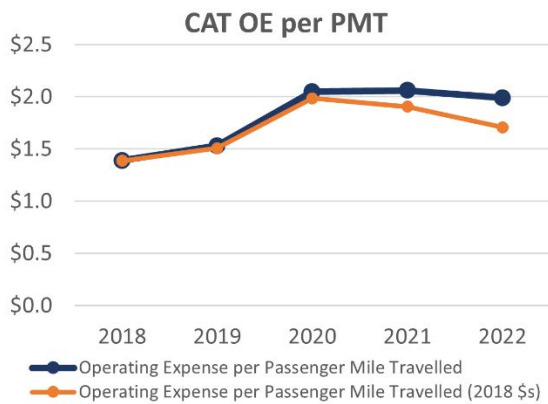


Figure 2-28: 5-year trend (left) and 2022 peer comparison (right) for operating expense per passenger mile.

2.5.5.3 Operating Expense per Vehicle Revenue Mile/Vehicle Revenue Hour

Operating expense per VRM/VRH are average cost calculations for every service mile or hour, evaluating the efficiency of transit service delivery. Lower values are ideal as to minimize the cost per mile/hour. CAT operating expense and vehicle revenue miles have been consistently increasing, except for a slight decrease from 2020 to 2021. Apart from Citrus Connect, the operating expense per VRM/VRH values are fairly close together across the different agencies. CAT's values are below the peer averages, demonstrating that it costs less to operate per mile/hour compared to other agencies.



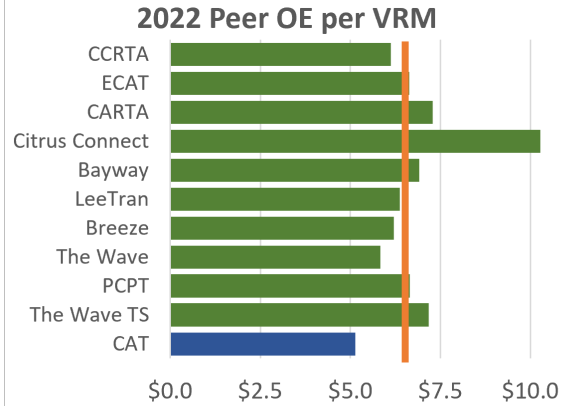
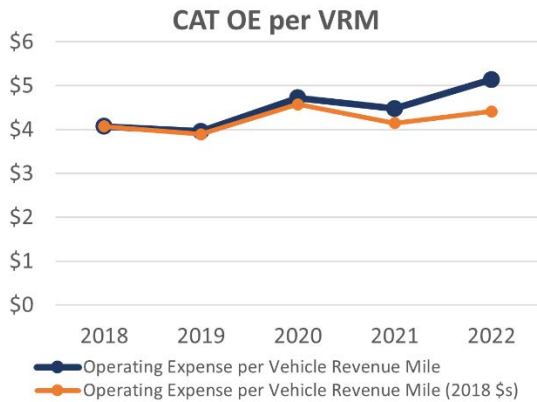


Figure 2-29: 5-year trend (left) and 2022 peer comparison (right) for operating expense per revenue mile.

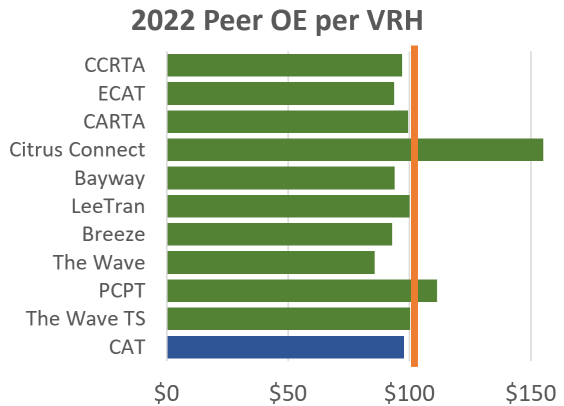
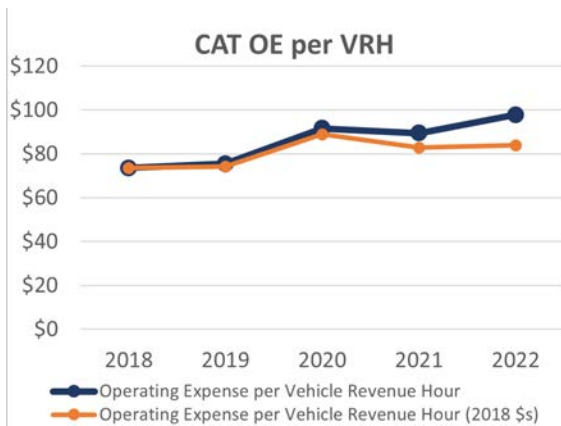


Figure 2-30: 5-year trend (left) and 2022 peer comparison (right) for operating expense per revenue hour.

2.5.5.4 Vehicle Revenue Miles per Vehicle

VRM per vehicle is the average service provided by each vehicle in operation during maximum service, derived from dividing VRM by VOMS. It is an indication of vehicle utilization, but there are other contextual considerations to be made including fleet size and age. VRM per vehicle values decreased from 2019 to 2021, likely due to lowered vehicle utilization during the pandemic. CAT has the highest VRM per vehicle value compared to the other peer agencies, indicating high vehicle utilization.



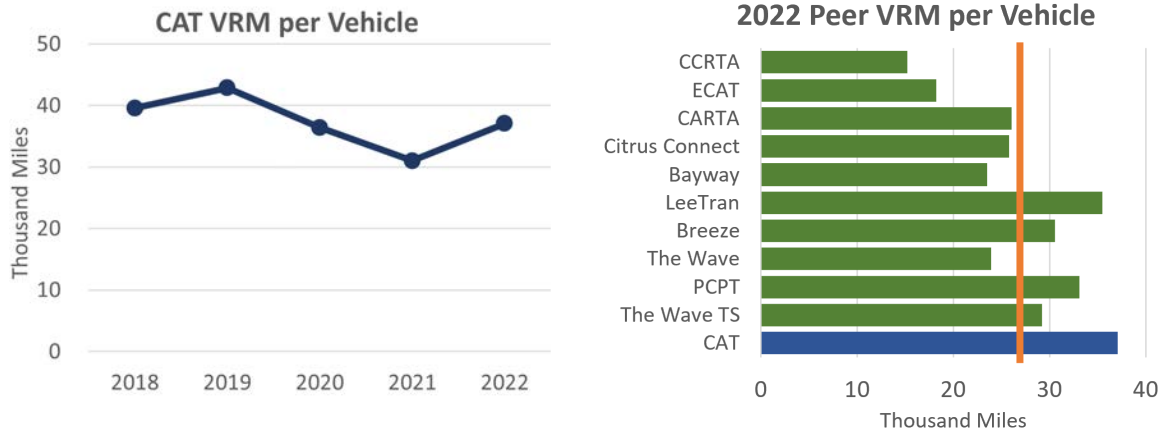


Figure 2-31: 5-year trend (left) and 2022 peer comparison (right) charts for vehicle revenue mile per vehicle.

2.5.5.5 Farebox Recovery Ratio

Farebox recovery ratio is the percentage of the total operating expenses that are funded by total fare revenue from service users, equating fare revenue over operating costs. Higher farebox recovery is desired as that means a greater percentage of the operating costs are covered by passengers compared to other funding sources. The farebox recovery ratio of approximately 8% in 2022 demonstrates a low level of recovery and therefore indicating that the transit network is heavily reliant on other funding sources. However, CAT is performing below but near the peer mean which suggests that it is performing at an average level in comparison to other agencies, many of whom are performing worse.

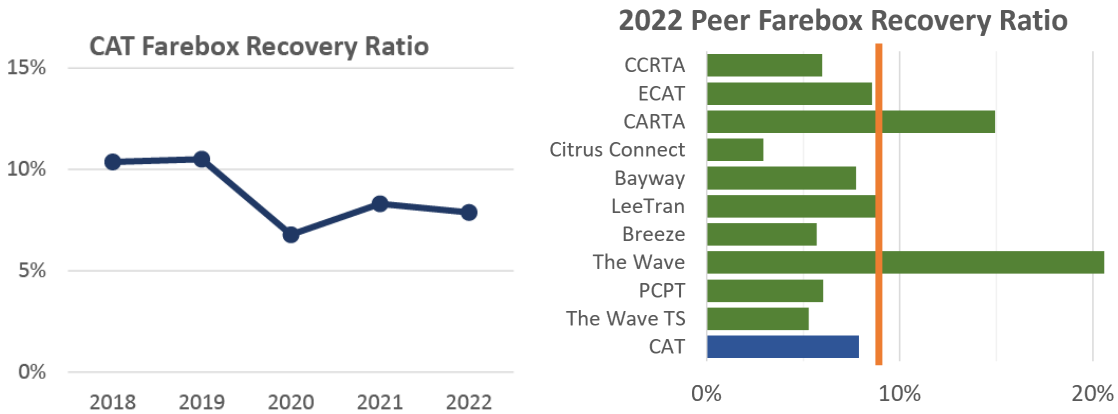


Figure 2-32: 5-year trend (left) and 2022 peer comparison (right) charts for farebox recovery ratio.

2.5.5.6 Average Fare

Average fare is the average amount paid per passenger per trip and is calculated by dividing fare revenue by UPT. The metric itself is not necessarily indicative of performance but is a good comparison to other transit systems in terms of fare cost. CAT's average fare value is right at the peer average, showing that the fares implemented by CAT are comparable to the other agencies, other than The Wave, which has a much higher average fare.



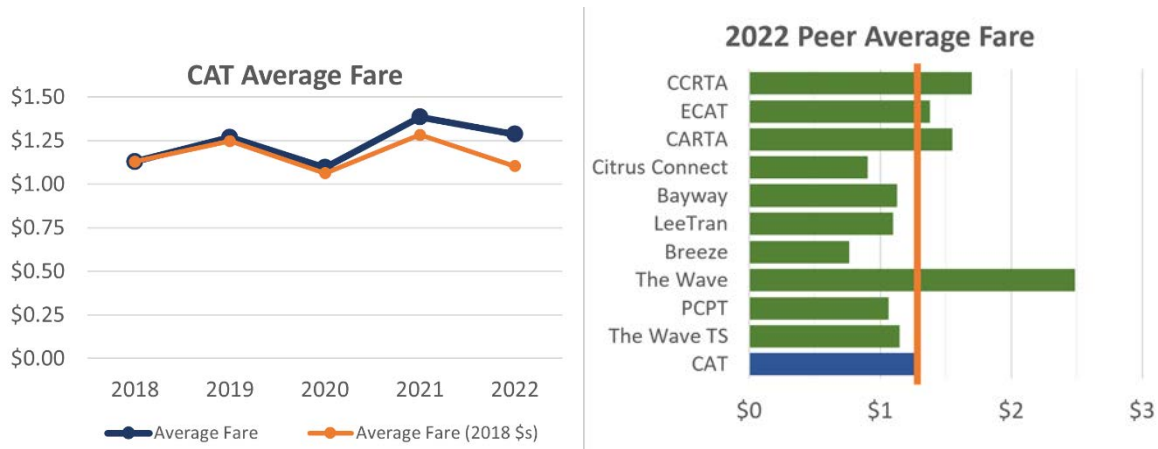


Figure 2-33: 5-year trend (left) and 2022 peer comparison (right) charts for average fare.

2.5.6 KEY FINDINGS

Over the past five years, a clear trend has emerged across most performance measures. From 2018 to 2021, values declined, with the most significant drop occurring between 2019 and 2020, likely due to the onset of the COVID-19 pandemic, which severely impacted the CAT transit system. By 2022, performance measures began to recover, possibly reflecting adaptations by the transit systems to pandemic-related challenges and a gradual return of riders. Rising costs and inflation since the pandemic have likely driven up operating expenses, affecting service delivery. Despite the removal of the last loop for Routes 11, 12, 13, 14, and 17, as per the FY2024 update of the TDP, ridership increased during the peak season between FY23 and FY24.

Overall, the indicators for CAT are mostly below the peer averages. This has different meanings and implications for the various measures. For the general performance measures, it indicates that CAT provides less service and there may be less transit demand compared to other agencies. The charts showed that CAT values were actually quite close to most of the other agencies in the peer group aside from CARTA, LeeTran, and Sarasota Breeze, which are larger transit agencies that serve a larger population size. For the effectiveness measures, CAT values falling lower than the peer average demonstrates that the transit system may not be as effective as other agencies, as the utilization of service is lower. On the other hand, lower than average values for the efficiency measures indicates that CAT is doing better than the peer agencies, as it costs less for CAT to operate per capita, trip, mile, or hour.

In general, the analysis of CAT trends over the years and comparing CAT to other peer agencies helps to identify how CAT is performing in its operations. Seeing how other agencies perform can assist with identifying where CAT can improve its existing system.



3 On-Board Surveys

CAT conducts surveys frequently with a target of every two years to evaluate the existing system and provided service, as well as soliciting suggestions and feedback. Surveys are conducted to better understand the needs and concerns of current users, welcoming CAT riders to provide feedback on how they think service can be improved.

Two recent surveys were developed and conducted to gather information on how the existing system is perceived and what services are in demand. These are the CAT Sticker Survey conducted in November 2022 and the Baseline CAT Survey. The CAT Sticker Survey explores how riders use CAT service and the RideCAT mobile app. The Baseline CAT Survey delves more into the demand of services in addition to service satisfaction. This survey seems to have a lot more responses compared to the previous survey.

The results from these surveys provide a better understanding of the attitudes, habits, and preferences of riders as survey responders indicate their common trip routes and purposes. This helps to show the gaps in the existing transit service and potential for service improvements based on demand.

3.1 Survey Characteristics

The surveys consisted of questions regarding passenger socio-demographics, travel behaviour and characteristics, and rider satisfaction. The gathered information included:

- Socio-demographics:
 - Age
 - Gender
 - Education Attainment
- Travel behaviour and characteristics:
 - Commonly taken bus routes
 - Trip purpose for transit trips
 - Length of time using CAT services
 - Method for receiving service alerts
 - RideCAT mobile app usage
- Rider satisfaction:
 - How well various services meet transportation needs
 - Ease of usage for various services
 - Service improvement importance rankings
 - Cleanliness of transportation infrastructure
 - Overall experience ratings
 - Satisfaction of service



3.2 Passenger Demographic Information

The CAT Sticker Survey asked riders for demographic information including age, gender, and highest level of education attained. From the results, it appears that most of the survey respondents were young adults aged between 21-30, most likely university students. There were a few more male respondents than female respondents. The results can be seen in the following graphs below.

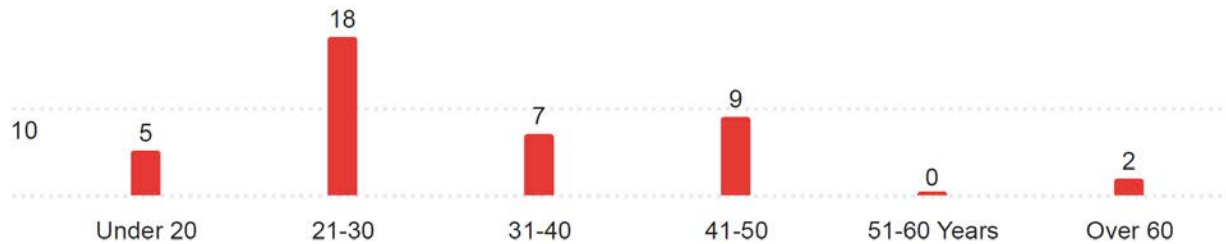


Figure 3-1: Distribution of respondent gender from CAT Sticker Survey responses.



Figure 3-2: Distribution of respondent age from CAT Sticker Survey responses.

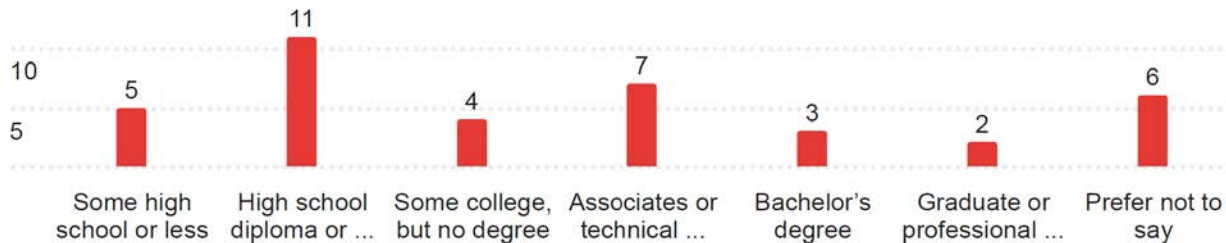


Figure 3-3: Distribution of respondent educational attainment from CAT Sticker Survey responses.

3.3 Passenger Travel Behavior and Characteristics

Survey responders were asked which routes they most commonly ride. The Responders were asked which routes they usually ride, and the results are shown in the graph below. The top routes are the 11, 12, and 19.



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3 On-Board Surveys

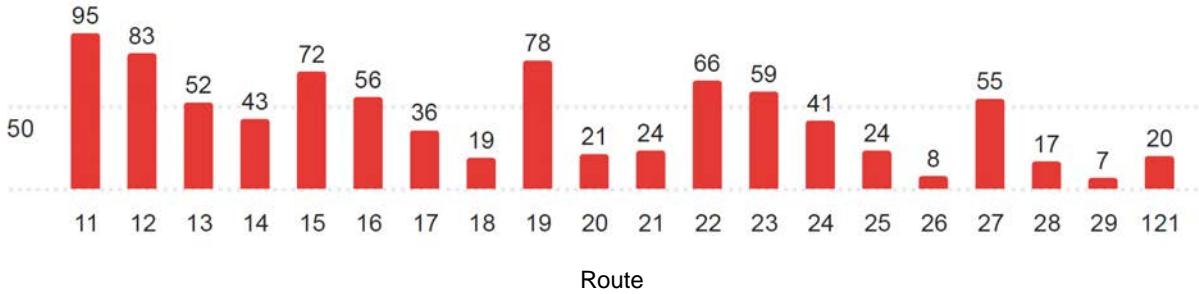


Figure 3-4: Distribution of most taken routes from Baseline CAT survey responses.

Additionally, responders were asked to indicate which destinations they take transit to get to. The top trip purpose for transit trips was to go to work, followed by shopping, and the remaining trip purposes had a fairly even distribution of responses.

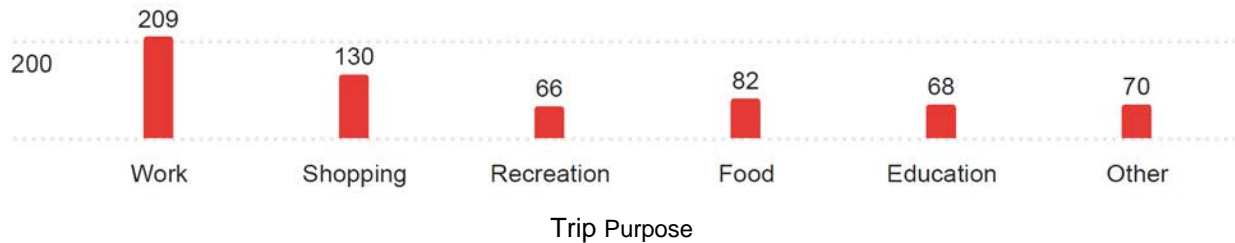


Figure 3-5: Distribution of trip destinations from Baseline CAT Survey responses.

Other survey questions include how long the rider has been a user of CAT and how they receive CAT service alerts. Majority of the survey responders indicated that they have only taken CAT for a year or less (20 responses), many others who were likely tourists were riding CAT for the first time (10 responses), a few had been riding with CAT for over 5 years (7 responses), and very few between 1 to 5 years (5 responses in total). Majority find out about CAT service alerts through the website at rideCAT.com (28 responses), some through rideCAT social media (10 responses), and . These results are shown in the graphs in Figure 3-6 and Figure 3-7 below.



Figure 3-6: Distribution of amount of time riding with CAT from CAT Sticker Survey responses.



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3 On-Board Surveys



Figure 3-7: Distribution of method for receiving service alerts from CAT Sticker Survey responses.

The survey also includes a few questions about the RideCAT mobile app such as if riders are aware of the app, if they use it, or what prevents them from using it. Majority of the responders said that they are aware of the app and use it (38 and 31 respectively), however, 9 were not aware of the app and 17 did not use it. The answers to why the respondents do not use the app include that they did not know about it, do not know how to use it, or just have no need for it.

3.4 Passenger Satisfaction

Survey responders were asked to rate how well different aspects of the service met their transportation needs, overall ease of use for various services, cleanliness of the different transit infrastructure, the service they received, and their overall experience with CAT.

The responses to this question varied between the CAT Sticker Survey and the Baseline CAT Survey. The graph for the CAT Sticker Survey results shows a positive skew where majority were very satisfied and very few were very dissatisfied, as seen in Figure 3-8 below. The graph for the Baseline CAT Survey results in Figure 3-9 shows that most riders just feel neutral about CAT service, many are satisfied with their experience, and an almost equal amount of people are very dissatisfied or very satisfied.

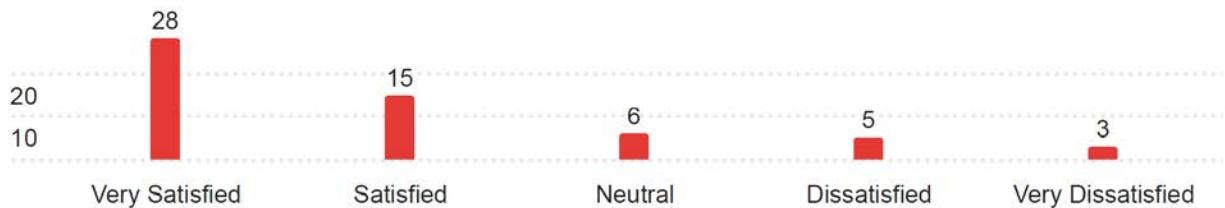


Figure 3-8: Distribution of satisfaction level with CAT service from CAT Sticker Survey responses.

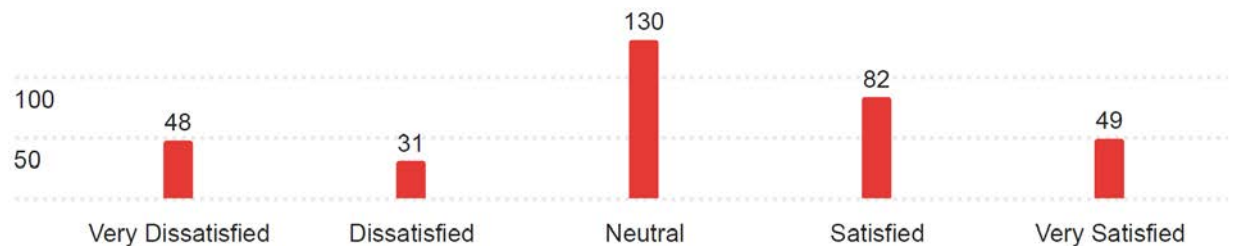


Figure 3-9: Distribution of satisfaction level with CAT service from Baseline CAT Survey responses.

Both surveys also asked how likely the rider would be to recommend CAT services to a friend or colleague. The responses for both surveys followed a similar trend where majority said they would recommend CAT. The results from both surveys are shown in Figure 3-10 and Figure 3-11 below.



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3 On-Board Surveys

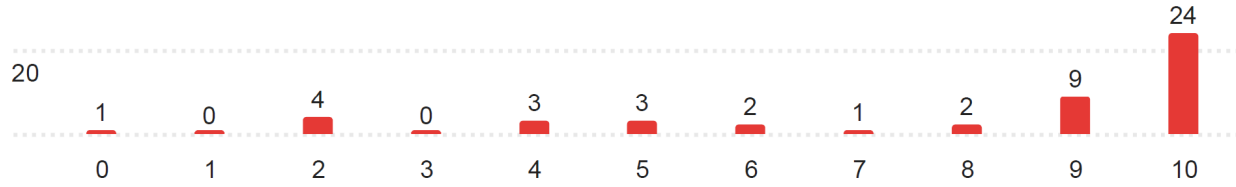


Figure 3-10: Distribution of likeliness to recommend CAT from CAT Sticker Survey responses.

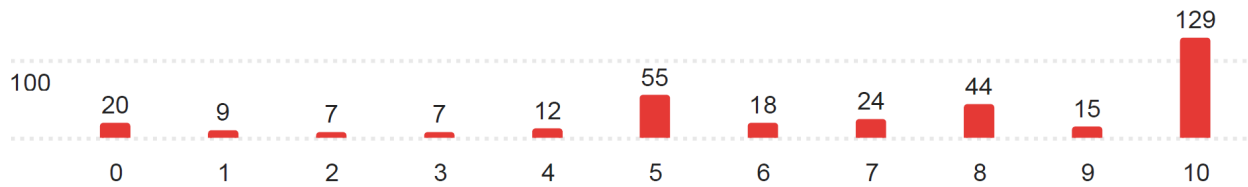


Figure 3-11: Distribution of likeliness to recommend CAT from Baseline CAT Survey responses.



DIVIDER NAME



Appendix A – Peer Selection Methodology

Situational Appraisal – Peer Selection Methodology Technical Memo No. 1

Date: July 1, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Situational Appraisal – Technical Memo No. 1

Introduction

The following memorandum is an update to the original peer selection undertaken in 2020 as part of the previous TDP. Updating and re-analyzing past selected agencies as well as being open to adding new agencies are important during the process of selecting relevant and useful peers for comparison, as this allows Collier Area Transit (CAT) to continually improve and compare itself with relevant peers. It is also important that the chosen peers reflect areas and agencies that can be thought of as aspirational to help CAT identify a path forward for improvement. As a result of this process, nine new peers have been selected for consideration.

The peer selection process followed the methodology provided by the Transit Cooperative Research Program (TCRP) Report 141: A Methodology for Performance Measurement and Peer Comparison in the Public Transportation Industry and recommended by the FDOT TDP Handbook (2022). Peer comparisons use selected performance indicators, effectiveness measures, and efficiency measures 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.

Best practice typically dictates that a peer group is comprised of eight to ten peers, for the purposes of this TDP, 16 agencies have been selected for the first level assessment. It is crucial to make sure that the right peer agencies are selected to provide credible comparisons that can provide insight and trigger action, compared to badly chosen peers which can produce irrelevant results.

Initial Peer Group

An initial peer group of agencies similar to CAT was formed, and likeness scores were calculated to determine their similarity and appropriateness. For this TDP update, all agencies included in the previous TDP report were retained, along with additional agencies deemed similar to CAT. This initial peer list consisted of 16 transit agencies as shown in the following table:



Table 3-1: Transit System Peer Review Selection

Transit System	Location	Peer Description
The M (Montgomery Area Transit)	City of Montgomery, AL	From Previous TDP
TTA (Tri-State Transit Authority)	Huntington, WV	From Previous TDP
The Wave Transit System	City of Mobile, AL	From Previous TDP
ART (Asheville Redefines Transit)	City of Asheville, NC	From Previous TDP
GCT (Gwinnett County Transit)	Lawrenceville, GA	From Previous TDP
PCPT (Pasco County Public Transportation)	New Port Richey, FL	From Previous TDP
The Wave (Cape Fear Public Transportation Authority)	Wilmington, NC	From Previous TDP
Breeze Transit (Sarasota County Area Transit)	Sarasota, FL	Newly Added
LeeTran (Lee County Transit)	Fort Myers, FL	Newly Added
Bayway (Bay County Transportation)	Pensacola, FL	Newly Added
GoLine (Indian River County)	Vero Beach, FL	Newly Added
Citrus Connection (Lakeland Area Mass Transit District)	Lakeland, FL	Newly Added
CARTA (Charleston Area Regional Transportation Authority)	North Charleston, SC	Newly Added
ECAT (Escambia County Area Transit Authority)	Pensacola, FL	Newly Added
CCRTA (Cape Cod Regional Transit Authority)	Hyannis, MA	Newly Added
GTA (Greensboro Transit Authority)	Greensboro, NC	Newly Added

The selection of potential peers was conducted using the peer selection methodology outlined in the FDOT TDP Handbook, employing validated 2022 National Transit Database (NTD) data and the Florida Transit Information System (FTIS). The pool of potential peers consisted of transit agencies located in the southeastern United States, specifically those with coastal characteristics in their geographic profiles.

From the newly identified transit agencies, Breeze Transit (Sarasota, FL), LeeTran (Fort Myers, FL), Bayway (Pensacola, FL), GoLine (Vero Beach, FL), and Citrus Connection (Lakeland, FL) were chosen because they are situated within Florida, either in coastal counties or counties near Collier County. Additionally, CARTA (North Charleston, SC), ECAT (Pensacola, FL), and CCRTA (Hyannis, MA) were selected based on their recommendation as top peers to CAT according to the FTIS Urban iNTD tool. It is worth noting that ART was also recommended but was already included in the previous TDP peer group.

Overview of Methodology

The methodology for selecting the final peer group adheres to the guidelines outlined in the TCRP report. This process involves comparing data values for CAT and potential peer agencies using various indicators to calculate likeness scores for each indicator between CAT and each potential peer agency. The first stage was the primary review, which involved initially selecting indicators and scoring their likeness to CAT, then a comparison was made from the new peers against the previous TDP peers to determine whether the new peer group had a similar likeness and provided a good comparison overall to CAT. A secondary review was initiated to provide further insight to the primary likeness score where 2 new indicators were used. Results were then drawn utilizing the likeness score from the primary review, referencing the secondary review and weighing the location and demographic of the locations to determine the results. This comprehensive approach ensures a robust and well-rounded peer selection process. The methodology recognizes that peers will not be identical in all categories, accommodating variations and allowing for similarity in only a few key categories.



The methodology outlined in the TCRP report identifies 14 indicators for selecting peer agencies, primarily based on demographic characteristics and other exogenous variables, as utilized in the FTIS tool. While adhering to the TCRP guidance for peer selection, our approach slightly diverges in the factors used to assess potential peers. Rather than focusing primarily on exogenous variables, we prioritized various transit system performance measures as the primary criteria for peer selection. These performance indicators were considered more relevant for comparing peers, particularly in the context of enhancing transit system effectiveness. Nonetheless, demographic variables were still integrated into the peer selection process, although greater emphasis was placed on transit performance indicators.

As such, the potential peer agencies were analyzed based on the following 14 indicators: 8 operating characteristics and 6 exogenous variables.

- Operating Characteristic Indicators
 - Vehicles Operated in Maximum Service
 - Annual Passenger Miles Traveled
 - Annual Vehicle Revenue Miles
 - Annual Vehicle Revenue Hours
 - Number of Revenue Vehicles
 - Total Revenue Miles Operated
 - Total Operating Expense
 - Percent Service Demand Response
- Exogenous Variables
 - Service Area Population
 - Service Area Density
 - Service Area
 - Population Density
 - Urban Area Population
 - Population Growth Rate

The selection of these indicators for primary transit peer analysis ensures a comprehensive and robust assessment of both operational performance and contextual factors. Key operational characteristics such as vehicles operated in maximum service, annual passenger miles traveled, and total operating expenses provide critical insights into efficiency, capacity, and financial health within transit operations. Metrics like percent service demand response and annual vehicle revenue hours are essential for evaluating service quality and responsiveness to demand.

Given the growing emphasis on operational efficiency and the increasing adoption of demand response services, the percentage of service demand response serves as a particularly noteworthy indicator. It helps gauge where agencies stand in this evolving process, acknowledging disparities between agencies at different stages of implementing demand-responsive solutions.

Including exogenous variables such as service area population, density, and population growth rate contributes to a comprehensive understanding of the demographic and geographic contexts influencing these transit systems. This holistic approach ensures a well-rounded comparison, capturing both internal performance metrics and external factors that impact transit operations.

To create a chart that scores each category comparing CAT to other transit systems, a likeness score for each factor was calculated. This likeness score is a representation of the difference between two data



values. Data values that are identical between the peer agency and CAT result in a score of 0 (which is very rare and highly unlikely), while a score of 1 represents a percentage difference of 100%, indicating that the value for one agency is twice the amount of the other. In essence, the larger the difference between the values of the agencies, the higher the score, and vice versa. Peer agencies that have larger differences in values should be avoided and are undesirable due to greater dissimilarity between factors, but could still potentially be used with caution after screening for potential prominent differences that could deem them an unsuitable peer.

The likeness score is determined by calculating the percentage differences between the values for CAT and the peer agency, using the following formula:

$$\text{Likeness Score} = \frac{|F_{\text{cat}} - F_{\text{peer}}|}{\max(F_{\text{cat}}, F_{\text{peer}})}$$

Where:

- F_{cat} = the target agency's value for a given factor,
- F_{peer} = the peer agency's value for the same factor, and
- $\max(F_{\text{cat}}, F_{\text{peer}})$ = the maximum of the two values being compared.

As per the scoring guidance provided in the TCRP Report, the likeness scores are rated as such:

- **0.00 – 0.50: Good score;** none or small difference percentages, ideal matches to use
- **0.51 – 0.75: Satisfactory score;** smaller difference percentages, decent matches to use
- **0.76 – 0.99: Mediocre score;** larger difference percentages, could be used but check for anomalies
- **More than 1: Poor score;** large differences percentages, poor match, avoid using if possible

The 2022 data values for each of the 14 indicators and 17 transit agencies including CAT can be found in the data tables attached at the end of the memo, along with the corresponding likeness scores calculated for each indicator and agency. The likeness scores are highlighted according to the score breakdown as previously described, in that the good scores are in green, satisfactory scores are in yellow, decent scores that require more investigation are in orange, and poor scores are in red. This breakdown helps to easily identify which peers are more similar to CAT in which aspects.

Normalizing Cost Data

To accurately reflect cost values, cost data was normalized to reflect the impacts of differences in labor costs between geographical regions. It is important to consider labor cost differences as it allows for conclusions to be drawn with more certainty that the cost differences between agencies are due to internal agency efficiency variances rather than external cost variation. Labor costs are also typically the largest component of an agency's operating costs.

To adjust for differences in labor costs between counties, average labor wage rates were used to recalculate cost data. Annual average weekly wages for 2022 were obtained from the US Bureau of Labor Statistics Quarterly Census of Employment and Wages. All occupation types were included in the average calculation as agencies have no control over general labor environments in the county, which the cost data is being adjusted for, as opposed to the industry-specific labor rates that the agencies have some control



over. Including all occupations also allows for an agency to analyze how much of its labor is spent in comparison to the county’s average wages, as well as to adjust its costs to reflect changes in the county’s overall cost of living. The peer agencies’ cost data was adjusted for labor cost differences by multiplying the labor cost portion of the agencies’ operational expense values from NTD by the ratio between Collier’s average labor cost over the peer agency county’s average labor cost.

Comparison of Results with Previous TDP

As multiple transit systems were analyzed, calculations were performed to assess differences between the previous peer group from the 2020 TDP and the newly added peer agencies. For each potential peer, the sums of the exogenous variables and operating characteristics were calculated separately to identify which peers were most similar to CAT for each of the categories of indicators. An average score was then computed for easier comparison between the peer group from the previous TDP and the new potential peers using the following formula:

$$\text{Total Likeness Score} = \frac{\sum_{i=1}^n \text{Factor Likeness Score}_i}{n}$$

Where:

- **Total Likeness Score** = the average score representing overall similarity.
- **Factor Likeness Score $_i$** = the likeness score for the i -th factor.
- **n** = the total number of factors.

The results indicated that the newly added peers had a higher average score in operational characteristics compared to the previous TDP peer group. While this suggests that the new peers are less similar to Collier County overall in terms of operational characteristics, it is still a valuable comparison. Focusing on operational characteristics is crucial as they directly impact service delivery and customer satisfaction. Additionally, the new peer group includes 9 peers compared to the 7 in the previous group, which can slightly elevate the average score due to the larger sample size.

Moreover, many of the new peers possess coastal features, which is a significant consideration for Collier County. These similarities in geographic characteristics can provide more relevant insights and best practices tailored to coastal areas. Exogenous factors such as demographics, which are major considerations for the new peer agencies, and operational characteristics such as service delivery modes and vehicle utilization are also critical. Coastal and geographic locations are necessary to consider due to their unique environmental and operational challenges. The exogenous variables for the new peer agencies are relatively low, with an average score of 2.89, indicating closer data values to that of Collier County for these external factors. This is beneficial as it ensures that the newly added peers reflect similar contextual influences, further supporting their relevance. Therefore, despite the higher scores in operational characteristics, the new peer agencies remain a relevant and useful selection for the TDP update.

Table 3-2: Average of Likeness Score Sums by Peer Group

Peer Group	Average for Operating Characteristics	Average for Exogenous Variables	Average for All Indicating Factors
Previous TDP Peers	2.45	3.67	6.99
New Peers Considered	2.87	2.89	5.75



Stage 2 Secondary Screening

A secondary screening of the potential peer group is recommended to fully account for all potential factors and allow for the most comparable peers to be chosen. Two new variables were introduced to the 16 peers: service area type and fare revenue. These secondary factors provide a more nuanced and comprehensive evaluation of transit performance, ensuring that peers are truly comparable in all relevant aspects to CAT.

Service area type significantly impacts performance and influences demand patterns and requirements. Of the eight service area types based on the FDOT TDP Handbook, six were characterized for the 16 peers and are as follows:

- Type 2: Agency provides service to multiple urban areas (may also include non-urban areas) and is the primary service provider within at least one urban area's central city.
- Type 3: Only agency operating within an urban area and has no non-urban service.
- Type 4: Agency is the primary service provider in the urban area's central city, where other agencies also provide service to portions of the urban area. Urban areas with multiple central cities (e.g., Tampa–St. Petersburg) may have more than one type 4 agency.
- Type 5: Agency provides service into an urban area's central city, but its primary service area does not include a central city.
- Type 6: Agency provides service within an urban area but does not provide service to a central city.
- Type 7: Only agency operating within an urban area and also providing non-urban service.

Fare revenue values were evaluated to determine revenue generation, service affordability and accessibility, and subsidy requirements. Comparing agencies with similar fare revenue structures highlights effective fare policies and strategies, ensuring that transit services remain financially sustainable and accessible to the public.

By incorporating service area type and fare revenue as secondary screening factors, the analysis ensures a fair and comprehensive comparison with the primary agency, CAT. This approach helps compare the primary review of the operational characteristic and exogenous variables and identify truly comparable peers and provides a deeper understanding of the factors influencing transit performance, ultimately supporting more informed decision-making for CAT.

Final Peer Group Selection

An initial set of 16 potential peer agencies was identified for CAT (see Table 1-1). From this group, poor comparing peers were filtered out based on the overall likeness scores from the primary review, supplemented by additional likeness scores from the secondary review. In essence, peers with many high scoring factors or higher overall likeness scores were removed as it meant they have less similarity to CAT. 11 peers with the lowest scores in the primary review were selected as the CAT peer group. As shown in the likeness score tables attached at the end of the memo, the potential peers all do fairly well as the majority of the individual factors score well (below 0.5). The exogenous factors appear to compare more poorly in contrast to the operating factors, as there are more satisfactory and mediocre scores. There are very few poor-scoring factory-agency pairs; ART and GTA with poor scores for the percent service demand



response factor, and The M and The Wave Transit System have poor scores for the population growth rate factor. As such, these agencies were removed from the final peer group.

The last data table attached at the end of the memo shows averages and sums of the likeness scores grouped by operational, exogenous, and all factors, as well as by peer group. The likeness scores in each column are formatted in order from the lowest and best scores to the highest and worst scores in a green to red color scale. This table depicts which agencies score better across all factors. Most of the peer agencies from the previous TDP scored poorly for exogenous and all factors. The M, TTA, and ART consistently had poor scores across all groups, and were removed from consideration for the final peer group, along with GCT and PCPT.

The secondary review, which accounted for service area type and fare revenue, was necessary but less significant than operational characteristics, from the primary review, in this TDP. Consequently, if the secondary review led to a substantial increase in the peer likeness score, it was disregarded. This decision was based on the fact that only two indicators were used in the secondary review, making them less critical compared to the primary review.

Subsequently, upon conducting the secondary review, one peer agency was found to have incomplete NTD data. The 2022 NTD data for GoLine was missing the fare revenue information, which is one of the two indicators used in the secondary review. As such, this agency was also eliminated from the final peer group.

The following table lists the final 10 selected peers, their likeness score, and their selection reasoning.

Table 3-3: Average of Likeness Score Sums by Peer Group.

Peer Agency	Likeness Score	Reasoning for Top 10 Selection
Breeze Transit (Sarasota County Area Transit), Sarasota, FL	6.98	Likeness score and location of the peer is desirable.
LeeTran (Lee County Transit), Fort Myers, FL	7.80	Likeness score from the primary review was substantially lower and location of the peer is desirable.
Bayway (Bay County Transportation), Pensacola, FL	6.03	Likeness score and location of the peer is desirable.
ECAT (Escambia County Area Transit Authority), Pensacola, FL	6.05	Likeness score
CCRTA (Cape Cod Regional Transit Authority), Hyannis, MA	6.30	Likeness score
CARTA (Charleston Area Regional Transportation Authority), North Charleston, SC	6.06	Likeness score
Citrus Connection (Lakeland Area Mass Transit District), Lakeland, FL	5.68	Likeness score and location of the peer is desirable.
The Wave (Cape Fear Public Transportation Authority), Wilmington, NC	5.49	Likeness score
The Wave Transit System, City of Mobile, AL	6.81	Likeness score
PCPT (Pasco County Public Transportation), New Port Richey, FL	6.35	Likeness score

It is important to note that three of the selected peers were peers from the previous TDP: The Wave Transit System, PCPT, and The Wave, while the remaining peers are new.



Characteristics of Peer Systems

The following are brief descriptions of the transit agencies in the final new peer group for comparative purposes. The peer and trend analysis were conducted with this set of peers. The data values in the agency profiles were all obtained from NTD 2022 data. The total operating cost values included in these agency profiles are the original cost values from NTD and are not adjusted for labor cost differences. The recalculated operating costs used for likeness scoring can be found in Appendix A. The service type information in the profiles was gathered from each transit agency's respective website.

Baseline Transit Agency: CAT (Collier Area Transit), Naples, FL

Services provided: Fixed-route bus and paratransit services

Service area population (2022): 384,902 people

Service area population density (2022): 172 persons per square mile

Annual revenue hours (2022): 124,701 hours

Annual ridership (2022): 746,338 unlinked trips

Operating costs (2022): \$12,194,270

Fleet (2022): 53 vehicles at maximum service



Peer Transit Agency: Breeze Transit (Sarasota County Area Transit), Sarasota, FL

Services provided: Fixed-route bus, trolley, on-demand rideshare, and paratransit services

Service area population (2022): 517,423 people

Service area population density (2022): 848 persons per square mile

Annual revenue hours (2022): 304,917 hours

Annual ridership (2022): 2,080,349 unlinked trips

Operating costs (2022): \$27,790,551

Fleet (2022): 107 vehicles at maximum service



Peer Transit Agency: LeeTran (Lee County Transit), Fort Myers, FL

Services provided: Fixed-route bus, trolley, ADA paratransit, and transportation disadvantaged services, as well as an employer vanpool program

Service area population (2022): 802,178 people

Service area population density (2022): 978 persons per square mile

Annual revenue hours (2022): 303,204 hours

Annual ridership (2022): 2,231,974 unlinked trips

Operating costs (2022): \$28,031,267

Fleet (2022): 91 vehicles at maximum service



Peer Transit Agency: Bayway (Bay County Transportation), Pensacola, FL

Services provided: Fixed-route bus, rideshare, and on-demand services

Service area population (2022): 179,168 people

Service area population density (2022): 236 persons per square mile

Annual revenue hours (2022): 55,418 hours

Annual ridership (2022): 349,281 unlinked trips

Operating costs (2022): \$5,098,436

Fleet (2022): 26 vehicles at maximum service



Peer Transit Agency: ECAT (Escambia County Area Transit Authority), Pensacola, FL

Services provided: Fixed-route bus, seasonal trolley, and ADA paratransit services

Service area population (2022): 241,661 people

Service area population density (2022): 1,280 persons per square mile

Annual revenue hours (2022): 156,107 hours

Annual ridership (2022): 842,731 unlinked trips

Operating costs (2022): \$13,589,817

Fleet (2022): 86 vehicles at maximum service



Peer Transit Agency: CCRTA (Cape Cod Regional Transit Authority), Hyannis, MA

Services provided: Fixed-route bus, on-demand, ride-hail, seasonal train, reservable medical transportation, and ADA paratransit services

Service area population (2022): 228,996 people

Service area population density (2022): 582 persons per square mile

Annual revenue hours (2022): 178,475 hours

Annual ridership (2022): 605,951 unlinked trips

Operating costs (2022): \$17,215,743

Fleet (2022): 133 vehicles at maximum service



Peer Transit Agency: CARTA (Charleston Area Regional Transportation Authority), North Charleston, SC

Services provided: Fixed-route bus, fixed-route shuttle, seasonal shuttle, on-demand, and ADA paratransit services

Service area population (2022): 356,082 people

Service area population density (2022): 2,580 persons per square mile

Annual revenue hours (2022): 230,727 hours

Annual ridership (2022): 2,212,089 unlinked trips

Operating costs (2022): \$22,952,085

Fleet (2022): 77 vehicles at maximum service



Peer Transit Agency: Citrus Connection (Lakeland Area Mass Transit District), Lakeland, FL

Services provided: Fixed-route bus, ADA paratransit, and transportation disadvantaged Medicare transportation services

Service area population (2022): 724,777 people

Service area population density (2022): 9,413 persons per square mile

Annual revenue hours (2022): 157,376 hours

Annual ridership (2022): 693,018 unlinked trips

Operating costs (2022): \$21,434,610

Fleet (2022): 71 vehicles at maximum service



Peer Transit Agency: The Wave (Cape Fear Public Transportation Authority), Wilmington, NC

Services provided: Fixed-route bus service and mobility assistance program

Service area population (2022): 230,310 people

Service area population density (2022): 1,152 persons per square mile

Annual revenue hours (2022): 102,655 hours

Annual ridership (2022): 710,993 unlinked trips

Operating costs (2022): \$8,592,522

Fleet (2022): 43 vehicles at maximum service



Peer Transit Agency: The Wave Transit System, City of Mobile, AL

Services provided: Fixed-route bus service and mobility assistance program

Service area population (2022): 203,900 people

Service area population density (2022): 1,488 persons per square mile

Annual revenue hours (2022): 114,952 hours

Annual ridership (2022): 495,899 unlinked trips

Operating costs (2022): \$10,804,979

Fleet (2022): 37 vehicles at maximum service



Peer Transit Agency: PCPT (Pasco County Public Transportation), New Port Richey, FL

Services provided: Fixed-route bus and ADA paratransit services

Service area population (2022): 584,067 people

Service area population density (2022): 782 persons per square mile

Annual revenue hours (2022): 110,773 hours

Annual ridership (2022): 601,717 unlinked trips

Operating costs (2022): \$10,599,068

Fleet (2022): 42 vehicles at maximum service



Primary Review Data Values for All Factors and Potential Peers

Indicating Factor Values for Operating Characteristics										
Agency Name	Location	Peer Group	Vehicles Operated in Maximum Service	Annual Passenger Miles Traveled	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Number of Revenue Vehicles	Total Revenue Miles Operated	Total Operating Expenses	Percent Service Demand Response
CAT (Collier Area Transit)	Naples, FL	Target	53	6,128,249	2,371,843	124,701	73	\$ 2,371,843	\$ 12,194,270	58%
The M (Montgomery Area Transit)	City of Montgomery, AL	Previous TDP	25	1,567,963	1,382,282	86,390	28	\$ 1,382,282	\$ 9,987,208	24%
TTA (Tri-State Transit Authority)	Huntington, WV	Previous TDP	33	3,874,462	1,183,447	70,293	55	\$ 1,183,447	\$ 6,625,367	30%
The Wave Transit System	City of Mobile, AL	Previous TDP	37	3,380,866	1,605,194	114,952	55	\$ 1,605,194	\$ 10,804,979	46%
ART (Asheville Redefines Transit)	City of Asheville, NC	Previous TDP	19	4,039,338	1,287,477	100,062	33	\$ 1,287,477	\$ 10,550,615	0%
GCT (Gwinnett County Transit)	Lawrencevill, GA	Previous TDP	54	10,719,532	2,388,912	134,989	92	\$ 2,388,912	\$ 22,947,660	9%
PCPT (Pasco County Public Transportation)	New Port Richey, FL	Previous TDP	42	3,564,565	1,852,338	110,773	63	\$ 1,852,338	\$ 10,599,068	40%
The Wave (Cape Fear Public Transportation Authority)	Wilmington, NC	Previous TDP	43	2,108,293	1,505,790	102,655	65	\$ 1,505,790	\$ 8,592,522	44%
Sarasota Breeze (Sarasota County Area Transit)	Sarasota, FL	New	107	10,819,212	4,551,933	304,917	150	\$ 4,551,933	\$ 27,790,551	69%
LeeTran (Lee County Transit)	Fort Myers, FL	New	91	12,768,415	4,756,395	303,204	141	\$ 4,756,395	\$ 28,031,267	51%
Bayway (Bay County Transportation)	Pensacola, FL	New	26	2,396,995	752,218	55,418	40	\$ 2,202,931	\$ 13,589,817	48%
GoLine (Indian River County)	Vero Beach, FL	New	27	5,765,570	1,210,921	71,197	37	\$ 1,210,921	\$ 5,402,008	48%
Citrus Connection (Lakeland Area Mass Transit District)	Lakeland, FL	New	71	4,147,701	2,372,575	157,376	94	\$ 2,372,575	\$ 21,434,610	42%
CARTA (Charleston Area Regional Transportation Authority)	North Charleston, SC	New	77	11,394,692	3,152,002	230,727	134	\$ 3,152,002	\$ 22,952,085	26%
ECAT (Escambia County Area Transit Authority)	Pensacola, FL	New	86	4,610,071	2,202,931	156,107	90	\$ 2,202,931	\$ 13,589,817	48%
CCRTA (Cape Cod Regional Transit Authority)	Hyannis, MA	New	133	7,170,207	2,826,345	178,475	192	\$ 2,826,345	\$ 17,215,743	59%
GTA (Greensboro Transit Authority)	City of Greensboro, NC	New	76	9,159,005	3,695,161	257,346	104	\$ 3,695,161	\$ 27,555,354	0%



Indicating Factor Values for Exogenous Variables

Agency Name	Location	Peer Group	Service Area	Urban Area Population	Population Density ²	Population Growth Rate ²	Service area population	Service area density
CAT (Collier Area Transit)	Naples, FL	Target	2,025	449,527	1,850	5.60%	348,902	172
The M (Montgomery Area Transit)	City of Montgomery, AL	Previous TDP	135	251,158	1,731	-1.25%	205,764	1,524
TTA (Tri-State Transit Authority)	Huntington, WV	Previous TDP	92	202,754	1,573	1.30%	144,339	1,569
The Wave Transit System	City of Mobile, AL	Previous TDP	137	320,855	1,453	-0.33%	203,900	1,488
ART (Asheville Redefines Transit)	City of Asheville, NC	Previous TDP	45	294,013	1,183	2.88%	93,350	2,074
GCT (Gwinnett County Transit)	Lawrenceville, GA	Previous TDP	143	5,180,179	2,029	1.57%	702,116	4,910
PCPT (Pasco County Public Transportation)	New Port Richey, FL	Previous TDP	747	2,861,173	2,953	2.81%	584,067	782
The Wave (Cape Fear Public Transportation Authority)	Wilmington, NC	Previous TDP	200	268,625	1,888	5.21%	230,310	1,152
Sarasota Breeze (Sarasota County Area Transit)	Sarasota, FL	New	610	825,572	2,042	5.97%	517,423	848
LeeTran (Lee County Transit)	Fort Myers, FL	New	820	654,405	1,972	9.21%	802,178	978
Bayway (Bay County Transportation)	Pensacola, FL	New	758	398,813	1,519	2.21%	179,168	236
GoLine (Indian River County)	Vero Beach, FL	New	217	186,637	1,759	7.01%	163,662	754
Citrus Connection (Lakeland Area Mass Transit District)	Lakeland, FL	New	77	280,346	1,921	0.87%	724,777	9,413
CARTA (Charleston Area Regional Transportation Authority)	North Charleston, SC	New	138	706,884	2,085	3.23%	356,082	2,580
ECAT (Escambia County Area Transit Authority)	Pensacola, FL	New	189	398,813	1,519	2.21%	241,661	1,280
CCRTA (Cape Cod Regional Transit Authority)	Hyannis, MA	New	394	313,064	917	3.23%	228,996	582
GTA (Greensboro Transit Authority)	City of Greensboro, NC	New	136	338,928	2,050	2.42%	297,878	2,190



Primary Review Likeness Scores for All Factors and Potential Peers

Likeness Score for Operating Characteristics												
Agency Name	Location	Peer Group	Vehicles Operated in Maximum Service	Annual Passenger Miles Traveled	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Number of Revenue Vehicles	Total Revenue Miles Operated	Total Operating Expenses	Percent Service Demand Response	Average Operational Likeness Score	Total Operational Likeness Score
CAT (Collier Area Transit)	Naples, FL	Target	0	0	0	0	0	0	0	0	0	0
The M (Montgomery Area Transit)	City of Montgomery, AL	Previous TDP	0.53	0.74	0.42	0.86	0.62	0.42	0.11	0.59	0.53	2.59
TTA (Tri-State Transit Authority)	Huntington, WV	Previous TDP	0.38	0.37	0.50	0.82	0.25	0.50	0.37	0.48	0.46	2.93
The Wave Transit System	City of Mobile, AL	Previous TDP	0.30	0.45	0.32	0.89	0.25	0.32	0.05	0.21	0.35	2.04
ART (Asheville Redefines Transit)	City of Asheville, NC	Previous TDP	0.64	0.34	0.46	0.88	0.55	0.46	0.13	1.00	0.56	3.47
GCT (Gwinnett County Transit)	Lawrencevill, GA	Previous TDP	0.02	0.43	0.01	0.91	0.21	0.01	0.47	0.85	0.36	2.44
PCPT (Pasco County Public Transportation)	New Port Richey, FL	Previous TDP	0.21	0.42	0.22	0.89	0.14	0.22	0.01	0.31	0.30	1.78
The Wave (Cape Fear Public Transportation Authority)	Wilmington, NC	Previous TDP	0.19	0.66	0.37	0.88	0.11	0.37	0.28	0.24	0.39	1.87
Sarasota Breeze (Sarasota County Area Transit)	Sarasota, FL	New	0.50	0.43	0.48	0.59	0.51	0.48	0.57	0.16	0.47	3.72
LeeTran (Lee County Transit)	Fort Myers, FL	New	0.42	0.52	0.50	0.59	0.48	0.50	0.60	0.12	0.47	3.73
Bayway (Bay County Transportation)	Pensacola, FL	New	0.51	0.61	0.68	0.56	0.45	0.07	0.11	0.17	0.39	3.16
GoLine (Indian River County)	Vero Beach, FL	New	0.49	0.06	0.49	0.43	0.49	0.49	0.56	0.17	0.40	3.18
Citrus Connection (Lakeland Area Mass Transit District)	Lakeland, FL	New	0.25	0.32	0.00	0.21	0.22	0.00	0.50	0.28	0.22	1.78
CARTA (Charleston Area Regional Transportation Authority)	North Charleston, SC	New	0.31	0.46	0.25	0.46	0.46	0.25	0.47	0.55	0.40	3.21
ECAT (Escambia County Area Transit Authority)	Pensacola, FL	New	0.38	0.25	0.07	0.20	0.19	0.07	0.17	0.17	0.19	1.50
CCRTA (Cape Cod Regional Transit Authority)	Hyannis, MA	New	0.60	0.15	0.16	0.30	0.62	0.16	0.30	0.02	0.29	2.30
GTA (Greensboro Transit Authority)	City of Greensboro, NC	New	0.30	0.33	0.36	0.52	0.30	0.36	0.06	1.00	0.40	3.22



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Appendix A – Peer Selection Methodology

Likeness Score for Exogenous Variables										
Agency Name	Location	Peer Group	Service Area	Urban Area Population	Population Density ²	Population Growth Rate ²	Service area population	Service area density	Average Exogenous Likeness Score	Total Exogenous Likeness Score
CAT (Collier Area Transit)	Naples, FL	Target	0	0	0	0	0	0	0	0
The M (Montgomery Area Transit)	City of Montgomery, AL	Previous TDP	0.93	0.44	0.06	1.22	0.41	0.89	0.66	3.96
TTA (Tri-State Transit Authority)	Huntington, WV	Previous TDP	0.95	0.55	0.15	0.77	0.59	0.89	0.65	3.90
The Wave Transit System	City of Mobile, AL	Previous TDP	0.93	0.29	0.21	1.06	0.42	0.88	0.63	3.79
ART (Asheville Redefines Transit)	City of Asheville, NC	Previous TDP	0.98	0.35	0.36	0.49	0.73	0.92	0.64	3.82
GCT (Gwinnett County Transit)	Lawrencevill, GA	Previous TDP	0.93	0.91	0.09	0.72	0.50	0.96	0.69	4.12
PCPT (Pasco County Public Transportation)	New Port Richey, FL	Previous TDP	0.63	0.84	0.37	0.50	0.40	0.78	0.59	3.53
The Wave (Cape Fear Public Transportation Authority)	Wilmington, NC	Previous TDP	0.90	0.40	0.02	0.07	0.34	0.85	0.43	2.58
Sarasota Breeze (Sarasota County Area Transit)	Sarasota, FL	New	0.70	0.46	0.09	0.06	0.33	0.80	0.41	2.43
LeeTran (Lee County Transit)	Fort Myers, FL	New	0.60	0.31	0.06	0.39	0.56	0.82	0.46	2.75
Bayway (Bay County Transportation)	Pensacola, FL	New	0.63	0.11	0.18	0.61	0.49	0.27	0.38	2.28
GoLine (Indian River County)	Vero Beach, FL	New	0.89	0.58	0.05	0.21	0.53	0.77	0.51	3.04
Citrus Connection (Lakeland Area Mass Transit District)	Lakeland, FL	New	0.96	0.38	0.04	0.85	0.52	0.98	0.62	3.72
CARTA (Charleston Area Regional Transportation Authority)	North Charleston, SC	New	0.93	0.36	0.11	0.42	0.02	0.93	0.46	2.79
ECAT (Escambia County Area Transit Authority)	Pensacola, FL	New	0.91	0.11	0.18	0.61	0.31	0.87	0.50	2.98
CCRTA (Cape Cod Regional Transit Authority)	Hyannis, MA	New	0.81	0.30	0.50	0.42	0.34	0.70	0.51	3.09
GTA (Greensboro Transit Authority)	City of Greensboro, NC	New	0.93	0.25	0.10	0.57	0.15	0.92	0.48	2.91



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Appendix A – Peer Selection Methodology

Agency Name	Location	Peer Group	Average Operational Likeness Score	Sum of Operational Likeness Scores	Average of Operational Sum by Peer Group	Average Exogenous Likeness Score	Sum of Exogenous Likeness Scores	Average of Exogenous Sum by Peer Group	Average Likeness Score for All Factors	Total Sum of Likeness Score for All Factors	Average of Total Sum by Peer Group
CAT (Collier Area Transit)	Naples, FL	Target	0	0	0	0	0	0	0	0	0
The M (Montgomery Area Transit)	City of Montgomery, AL	Previous TDP	0.53	2.59	2.45	0.66	3.96	3.67	0.59	8.24	7.04
TTA (Tri-State Transit Authority)	Huntington, WV	Previous TDP	0.46	2.93		0.65	3.90		0.54	7.57	
The Wave Transit System	City of Mobile, AL	Previous TDP	0.35	2.04		0.63	3.79		0.47	6.59	
ART (Asheville Redefines Transit)	City of Asheville, NC	Previous TDP	0.56	3.47		0.64	3.82		0.59	8.27	
GCT (Gwinnett County Transit)	Lawrencevill, GA	Previous TDP	0.36	2.44		0.69	4.12		0.50	7.01	
PCPT (Pasco County Public Transportation)	New Port Richey, FL	Previous TDP	0.30	1.78		0.59	3.53		0.42	5.94	
The Wave (Cape Fear Public Transportation Authority)	Wilmington, NC	Previous TDP	0.39	1.87		0.43	2.58		0.40	5.67	
Sarasota Breeze (Sarasota County Area Transit)	Sarasota, FL	New	0.47	3.72	2.87	0.41	2.43	2.89	0.44	6.16	5.75
LeeTran (Lee County Transit)	Fort Myers, FL	New	0.47	3.73		0.46	2.75		0.46	6.48	
Bayway (Bay County Transportation)	Pensacola, FL	New	0.39	3.16		0.38	2.28		0.39	5.44	
GoLine (Indian River County)	Vero Beach, FL	New	0.40	3.18		0.51	3.04		0.44	6.22	
Citrus Connection (Lakeland Area Mass Transit District)	Lakeland, FL	New	0.22	1.78		0.62	3.72		0.39	5.51	
CARTA (Charleston Area Regional Transportation Authority)	North Charleston, SC	New	0.40	3.21		0.46	2.79		0.43	5.99	
ECAT (Escambia County Area Transit Authority)	Pensacola, FL	New	0.19	1.50		0.50	2.98		0.32	4.48	
CCRTA (Cape Cod Regional Transit Authority)	Hyannis, MA	New	0.29	2.30		0.51	3.09		0.38	5.39	
GTA (Greensboro Transit Authority)	City of Greensboro, NC	New	0.40	3.22		0.48	2.91		0.44	6.13	



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Appendix A – Peer Selection Methodology

A.1 Heading 2

A.1.1 HEADING 3



**Alternative Analysis
Technical Memo No. 2**

Date: August 1, 2024

Reference: Contract 18-7432 MP Professional Services Library – Metropolitan Planning
Transit Development Plan (TDP) Major Update
Purchase Order/Work Order No. 4500229353
Project No. 33804.6.2.3

Document: Alternative Analysis – Technical Memo No. 2 - Action Required

Your review of the attached Alternative Analysis is requested.

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1 Transit Demand Analysis

A key part of the CAT TDP is comparing the current transit service with the two main rider markets: the discretionary market and the traditional market. The discretionary market is analyzed using a Density Threshold Assessment (DTA), while the traditional market is evaluated through a Transit Propensity Score. Ridership projections are calculated using T-BEST. These tools help determine whether the existing transit routes effectively serve areas with characteristics supportive of transit. This section explains how these tools identify service gaps, which will guide future adjustments or new services.

1.1 Discretionary Market Assessment

The discretionary market pertains to potential passengers residing in densely populated regions within the service area who may opt for transit as a commuting or transportation option but have other alternatives available to fulfill their mobility requirements. While discretionary markets may not be representative of the typical CAT rider, it is crucial to pinpoint areas with higher population density that could attract other markets like choice riders. Following this section is a demand evaluation of the traditional transit market. The DTA carried out for CAT used industry-standard benchmarks to identify regions in the CAT service area that exhibit transit-friendly levels of residential and employee density. Three density thresholds were set to evaluate whether an area has enough population or employment density to support fixed-route transit services. The analysis categorizes areas into three levels of transit investment: Minimum, High, or Very High, based on their ability to sustain different levels of service.

- **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 1-1: Transit Service Density Thresholds

Level of Transit Investment	Dwelling Unit Density Threshold	Employment Density Threshold
Minimum Investment	4.5-5 Dwelling units/ acre	4 employees/acre
High Investment	6-7 Dwelling units/ acre	5-6 employers/acre
Very High investment	>8 Dwelling units/ acres	>7 Employees/acre

Map 1-1 visualizes the results of the 2026 DTA analysis, indicating that the employment-based discretionary transit market is concentrated in areas throughout the CAT service area. Major concentrations of employment-related transit investments are found both east and west of Naples Airport,

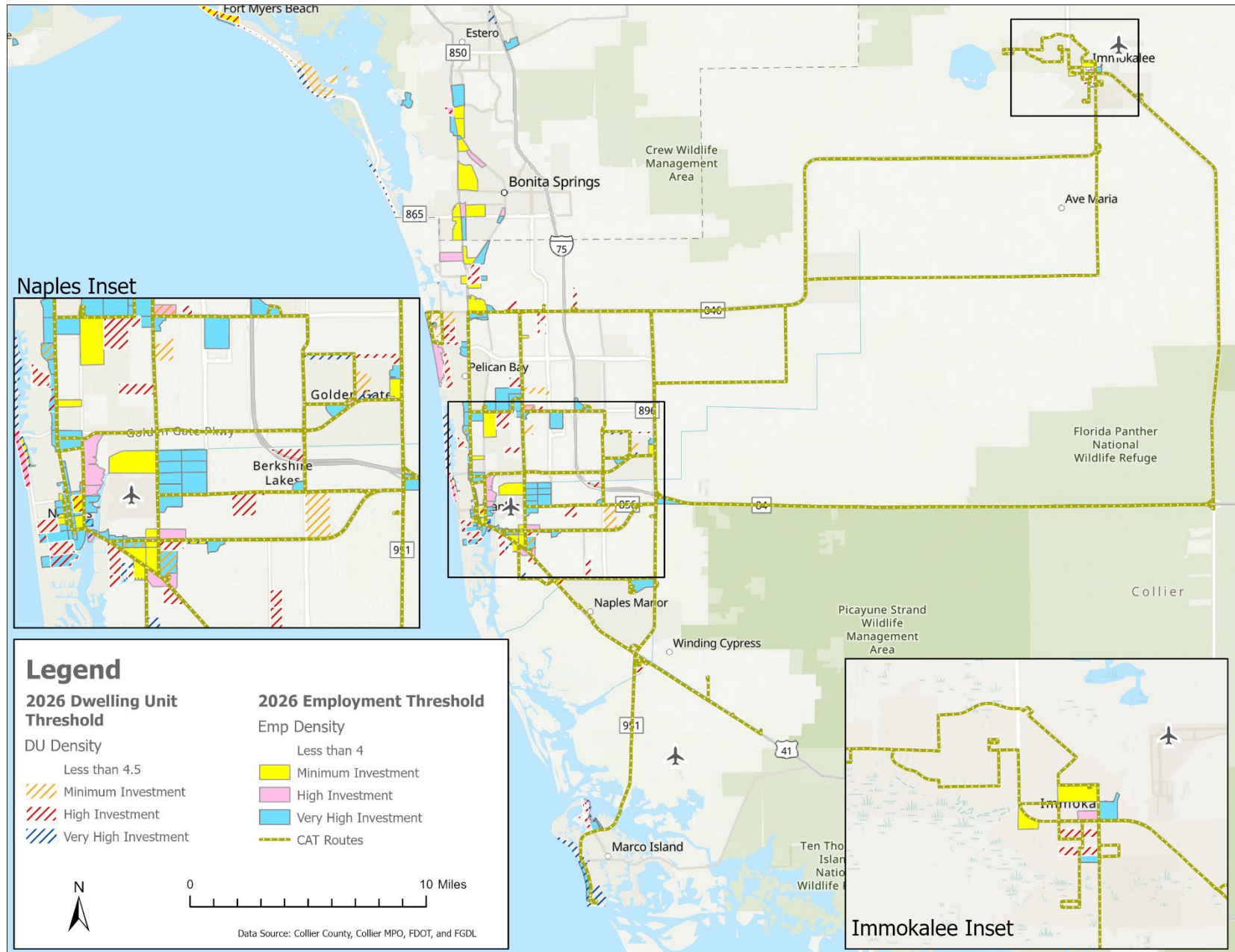


as well as around Pine Ridge Road and US 41. Other areas of “High” to “Very High” employment-related transit investments are located along Tamiami Trail.

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, north of Pine Ridge Road, south of Pine Ridge Road, along US 41, around Immokalee Road west of Logan Boulevard, and in Immokalee west of 846.

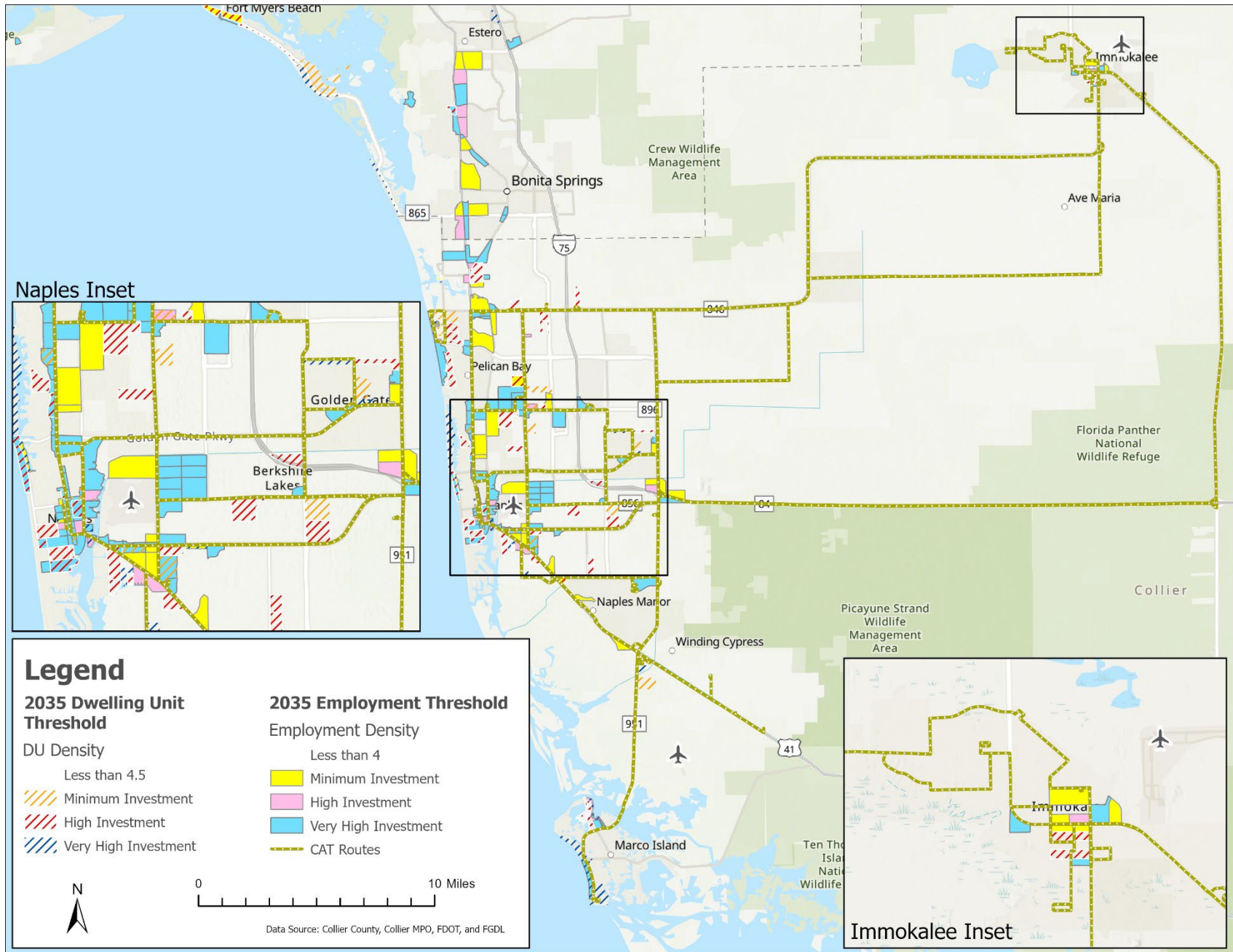
Map 1-2 displays the results of the 2035 DTA, which closely resemble the 2026 discretionary transit markets but with projected growth in specific areas. Notable growth is expected along the Naples coast, in Immokalee, south of the US 41 and Collier Boulevard intersection, and in areas adjacent to those already meeting the minimum transit investment threshold. Areas with a "High" to "Very High" employment-based discretionary transit market are concentrated near the airport, along Davis Boulevard, Pine Ridge Road, Goodlette-Frank Road, US 41 in Bonita Springs and Naples, the coastal areas of North Naples and Marco Island, around SR 29 in Immokalee, and near Collier Boulevard and I-75.





Map 1-1: 2026 Density Threshold Assessment





Map 1-2: 2036 Density Threshold Assessment



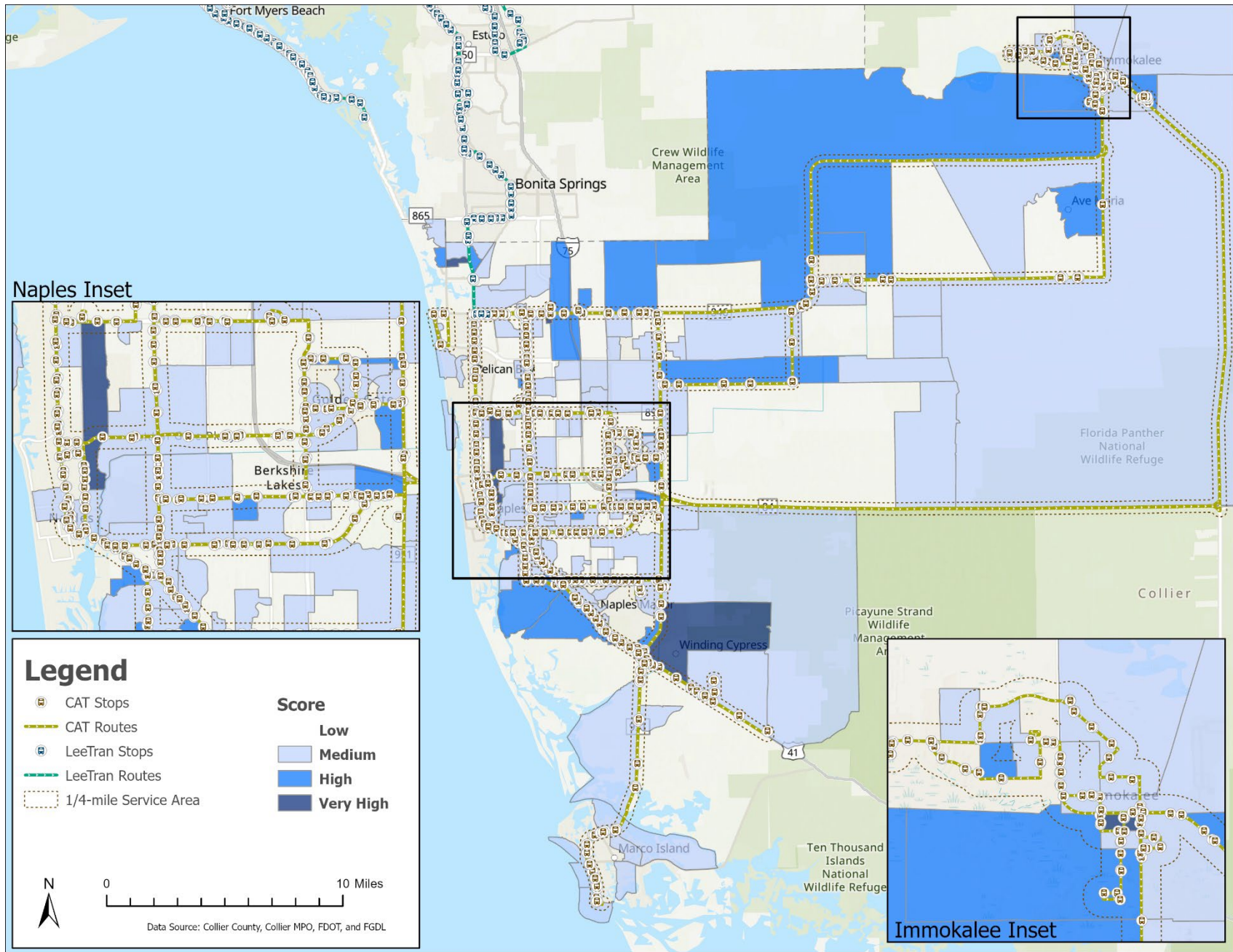
1.2 Traditional Market Assessment

For the traditional market assessment, four demographics were used to measure transit usage propensity: young teenagers, elderly, poverty, and households with no vehicles. These 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 propensity to use transit. **Map 1-3** illustrates this analysis, showing areas with varying market potential. The existing transit network is added to show how well CAT is covering these areas.

The CAT service area includes Census Block Groups with significant transit-dependent populations. Areas north-west of Naples airport, east of Collier Boulevard near US 41 and near Lee County show “High” and “Very High” transit propensity 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” transit propensity scores, with data indicating high concentrations of zero-vehicle households, older adults, youths, and younger adult populations.

It's important to recognize that some low-density suburban and rural areas, especially around Immokalee, may be classified as having "High" or "Very High" transit propensity. However, this does not necessarily indicate a strong need for traditional fixed-route service. These areas might be better served by on-demand transit options instead.





Map 1-3: Transit Propensity Score



1.3 Potential Future Transit Demand using T-Best

Forecasting transit demand is a critical aspect of transportation planning and Rule 14-73.001, F.A.C., specifically states that an FDOT-approved transit demand estimation technique/software must be used to estimate the current and potential 10-year transit demand. The projections were prepared using T-BEST (Transit Boardings Estimation and Simulation Tool) Version 4.8, the FDOT-approved ridership estimation software for the following scenarios:

- “2026 – No Improvements” – projects ridership demand to 2026 with the current transit system
- “2035 – No Improvements” – projects ridership demand to 2035 with the current transit system

T-BEST is a transit analysis and ridership-forecasting model capable of estimating travel demand at the route level. The program was developed to offer accurate forecasts of transit ridership in the near and mid-term, aligning with the requirements of transit operational planning and TDP development. When generating model outputs, T-BEST also takes into account transit network connectivity, service frequency, distance between stops, and time of day.

The following section discusses the inputs, assumptions, scenario details, and summarizes the ridership forecasts.

1.3.1 MODEL INPUTS/ ASSUMPTIONS AND LIMITATIONS

T-BEST uses a combination of demographic information and transit network data for its modeling inputs. The assumptions and inputs used in developing the regionally significant routes in T-BEST are outlined below. The regional model is based on the T-BEST Land Use Model structure (T-BEST Land Use Model 2023), which is backed by parcel-level data sourced from the Florida Department of Revenue (DOR) statewide tax database. It is important to highlight that the model does not interact with roadway network conditions. As a result, ridership predictions will not reflect changes in roadway traffic conditions, speeds, or roadway connectivity.

1.3.1.1 Transit Network

- The transit route network was designed to reflect 2024 conditions, the model's validation year. CAT staff created the base transit system using General Transit Feed Specification (GTFS) data, which included: 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.



1.3.1.2 Socioeconomic Data

The socioeconomic data used as the base input for the T-BEST model were derived from District 1 Regional Planning Model version 2 (D1RPM v2) and ACS 5-Year Estimates. Using the data inputs listed above, the model captures market demand (population, demographics, employment, and land use characteristics) within ¼-mile radius of each transit stop.

T-BEST uses a socioeconomic data growth function to project population and employment data. Using 2045 socioeconomic forecasts from the D1RPM v2, 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.

1.3.1.3 T-BEST Model Limitations

It should be emphasized that while T-BEST offers ridership projections at the route and bus stop levels, its primary value lies in comparisons of route productivity. The output from T-BEST should not be seen as exact predictions of ridership numbers. Instead, it should be used to compare and assess different routes to guide decisions about actual service implementation. Always apply solid planning judgment and experience when interpreting T-BEST results.

1.3.2 POTENTIAL FUTURE TRANSIT DEMAND RESULTS

The T-BEST model was validated using the inputs, assumptions, and ridership data at the route level from February 2024. Building upon this validation model, ridership forecasts for the TDP Major Update's planning start year of 2026 and the horizon year of 2035 were established. These annual ridership forecasts indicate the anticipated level of service usage, assuming no modifications are made to any of the fixed-route services, in accordance with F.A.C. Rule 14-73.001. **Table 1-2** presents the projected demand in terms of the number of annual riders by route for the years 2026 and 2035, along with the ridership growth rates for the period from 2026 to 2035, as derived from the T-BEST model.



Table 1-2: Potential Demand and Growth Rates with No Improvements, 2026–2035

Route	2026 Average Annual Ridership	2035 Average Annual Ridership	2026–2035 Absolute Change	2026–2035 Average Growth Rate
11	133,083	149,106	16,023	12.04%
12	71,636	78,108	6,472	9.03%
13	53,944	60,451	6,507	12.06%
14	45,155	50,810	5,655	12.52%
15	87,628	95,448	7,820	8.92%
16	50,935	55,304	4,369	8.58%
17	28,256	31,430	3,174	11.23%
19	112,352	126,605	14,253	12.69%
20	23,402	25,700	2,298	9.82%
21	13,261	15,289	2,028	15.29%
22	35,986	40,281	4,295	11.94%
23	27,832	31,491	3,659	13.15%
24	97,743	109,635	11,892	12.17%
25	22,957	25,820	2,863	12.47%
27	39,467	45,354	5,887	14.92%
29	25,696	29,195	3,499	13.62%
121	26,731	32,181	5,450	20.39%
Totals	896,064	1,002,208	106,144	11.85%

1.3.3 POTENTIAL TRANSIT DEMAND ANALYSIS

Based on the T-BEST model results shown in Table 1-2, demand for transit will experience a moderate increase for all routes over time, particularly for routes 21, 23, 27, 29 and 121. According to the projections, overall average annual ridership is expected to increase by 11.85% by 2035, 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, 19, and 24.

In order to boost Collier County's transit market share, it is essential to strategically implement a combination of service efficiency and expansion in areas experiencing growth. The service enhancements outlined in this plan, along with other transit planning initiatives and the input received from the public, will collectively result in improved transit services for the area.

1.4 Gap Analysis Overview

The gap analysis is an evaluation process that compares existing service coverage to potential need using the traditional market assessment analysis results. It aims to identify geographical gaps in public transit where transit needs are high but service is insufficient.

The gap analysis involves a visual overlay comparison of the “High” and “Very High” transit propensity Census block groups from the traditional market assessment and a ¼-mile buffer of existing transit network along with stops. Any of the “High” and “Very High” areas that aren’t covered by the buffer are

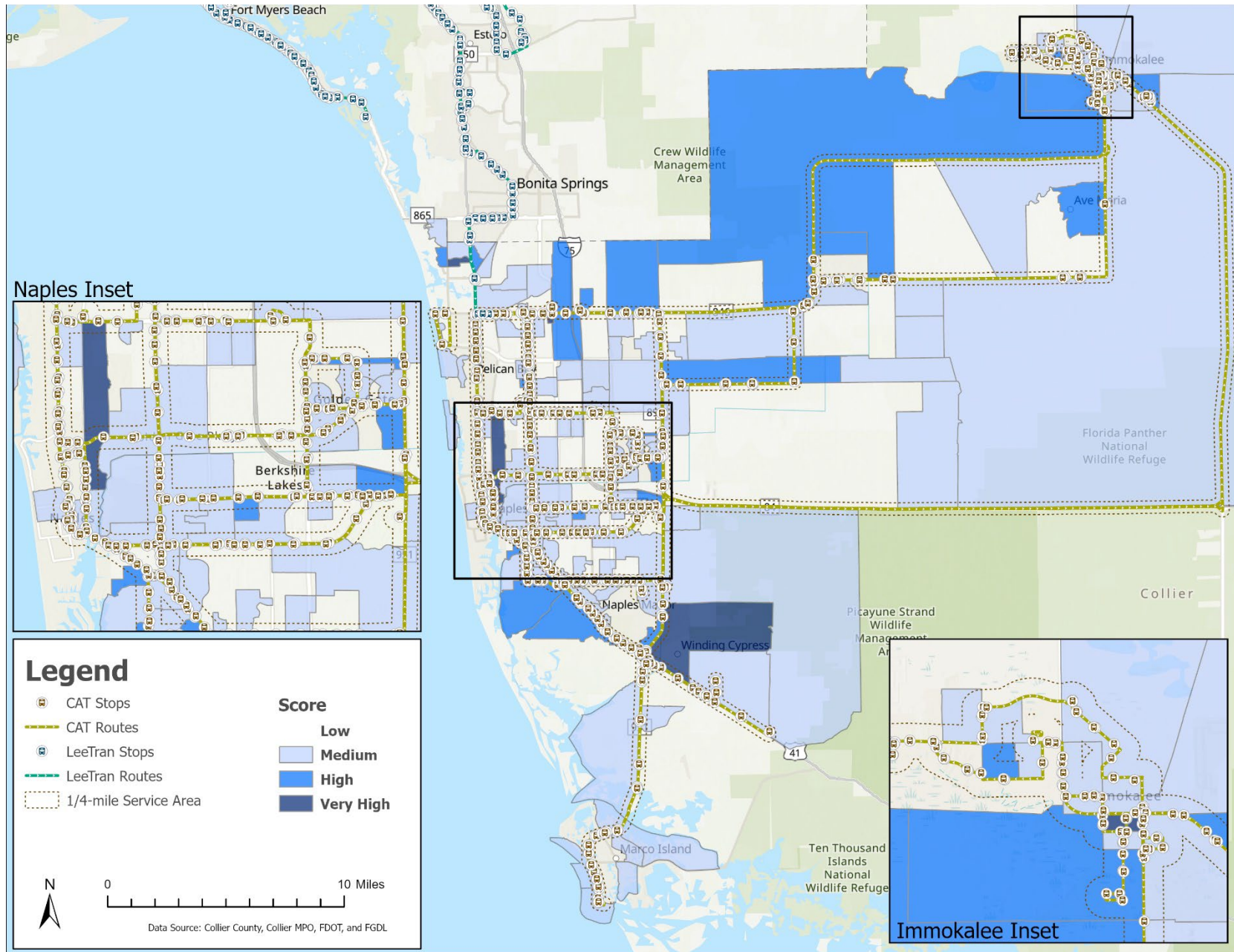


considered to be potential gaps in transit service. After these potential gaps are determined, more detailed analysis is performed. Some of these census block groups are large and unevenly proportioned, so an assessment is performed using aerial photography to verify if the gap has land uses and density to support transit service.

As shown in **Map 1-4**, 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.

Following the completion of the gap analysis, service planning was implemented to formulate strategies aimed at addressing the identified service deficiencies, particularly in regions with elevated transit propensity scores. CAT has various alternatives for addressing specific service gaps, which may involve alterations to current routes, such as modifying route alignments, adjusting service spans, increasing service frequencies, and employing MOD strategies.





Map 1-4: Gap Analysis



2 Alternative 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 were developed without considering funding constraints.

The identified service improvements were prioritized using an evaluation process that considers input from the community and technical analyses that identified transit gaps. The resulting prioritized list of improvements will be used to develop the 10-year implementation and financial plans.

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.

2.1 Development of Alternatives

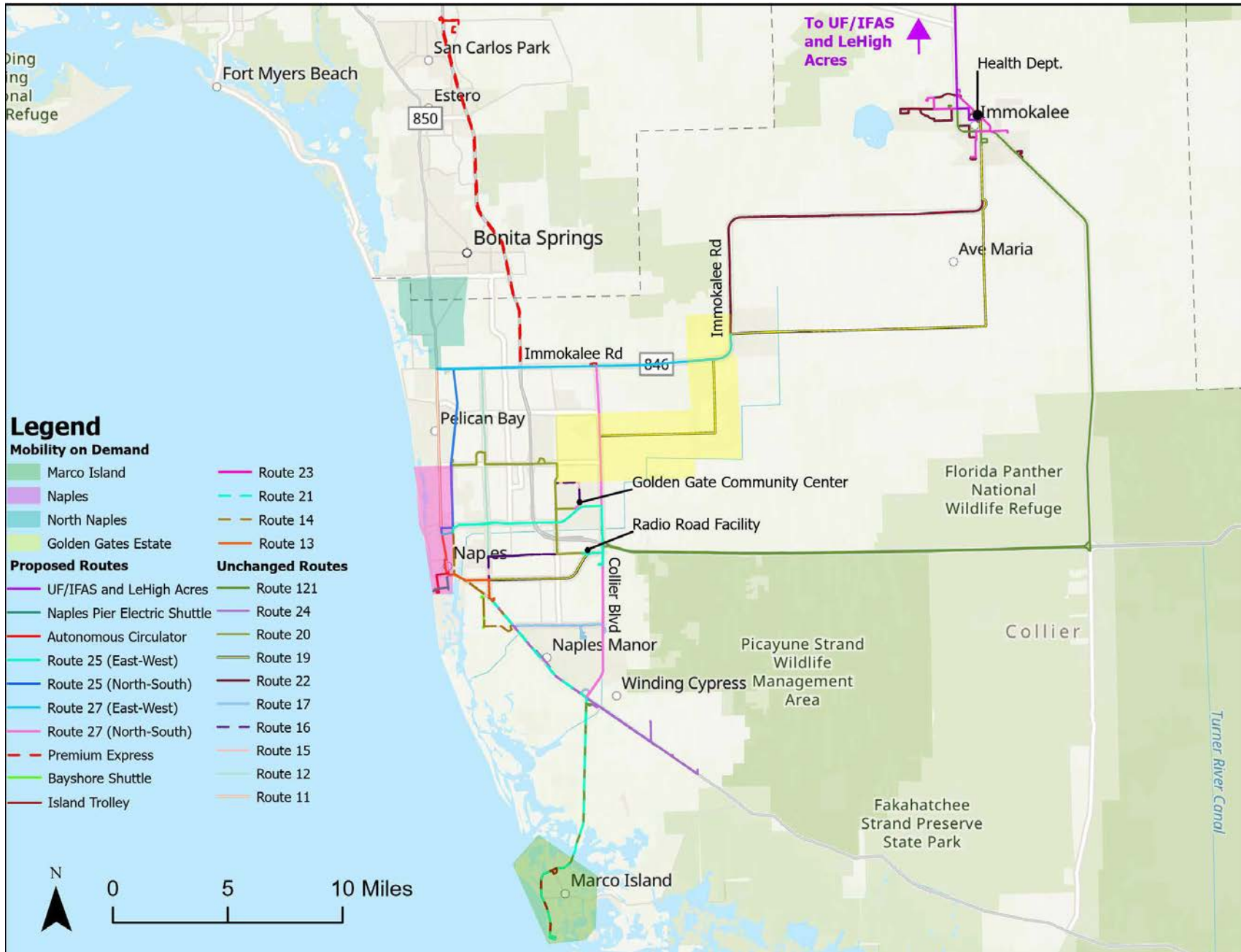
The transit alternatives proposed for CAT 2026-2035 TDP aim to enhance current CAT services and extend transit coverage to previously unserved areas. These alternatives are designed to address the community's transit requirements and have been formulated using data collected through public outreach, the transit demand assessment presented herein, and the Situational Appraisal (Tech Memo #1 of this TDP update effort).

The identified alternatives have been categorized into three distinct groups based on these methodologies:

- Service Improvements
- Capital/Infrastructure
- Policy/Other

Specific improvements identified in each category are summarized in the following section and provides additional detail regarding the development and envisioned service of the alternatives. **Map 2-1** shows the proposed network.





Map 2-1: Proposed Transit Network



2.2 Service improvements

Enhancements to service encompass improvements to current routes concerning network design, frequency, extended operational hours, and/or the addition of service days. This category further includes the expansion of services, which involves the introduction of new routes or modes.

2.2.1 IMPROVEMENTS TO EXISTING ROUTES

There is a significant need to extend service hours and increase the frequencies of current bus routes. The necessary improvements and enhanced efficiencies for the existing fixed-route network are as follows:

2.2.1.1 Frequency Improvements

The following headways are proposed to improve service efficiency:

- Route 13: Reduce headway from 60 minutes to 40 minutes (includes realignment)
- Route 15: Reduce headway from 90 minutes to 45 minutes
- Route 16: Reduce headway from 90 minutes to 45 minutes
- Route 14: Reduce headway from 60 minutes to 30 minutes
- Route 11: Reduce headway from 90 minutes to 45 minutes
- Route 12: Reduce headway from 90 minutes to 45 minutes
- Route 23: Reduce headway from 60 minutes to 40 minutes (includes realignment)
- Route 121: Add one additional trip in the AM and one in the PM

2.2.1.2 Span Improvements (Later Service)

Based on results from the on-board survey, there is a clear priority for adding later service. It is proposed to extend service hours for the following routes: 11, 13, 14, 17, 19, and 24. The recommendation is to extend service until 10:00 PM, contingent upon available funding and service demand.

2.2.1.3 Realign Routes

To enhance service efficiency, reduce network redundancy, improve travel times, and simplify route information, 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. The proposed changes include:



- **Realign Routes 13 and 14** – Currently operating as a one-way pair, Routes 13 and 14 will be restructured into two bidirectional routes. This change will simplify the routes for riders and improve frequency on the 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.
- **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. It 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.
- **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.
- **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, simplify navigation for riders, and to better accommodate employment growth along Collier Boulevard and Immokalee Boulevard, it is proposed that the routes be split where they change directions and extend them to provide better connectivity to key 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.

2.2.2 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.



- **New 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 require 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 to finalize the alignment and endpoint of this route, as well as to assess demand and associated 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 coordinate with merchants and representatives with the City of Naples to determine the final route alignment for the Shuttle.



2.2.3 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 a 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 (mobility on demand) service operates as a point-to-point system, responding to customer requests either immediately 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 extension of the existing 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) with a third party. However, contracting may limit potential for CAT to leverage MOD to supplement or address TD/ADA demand from CAT Connect to MOD.

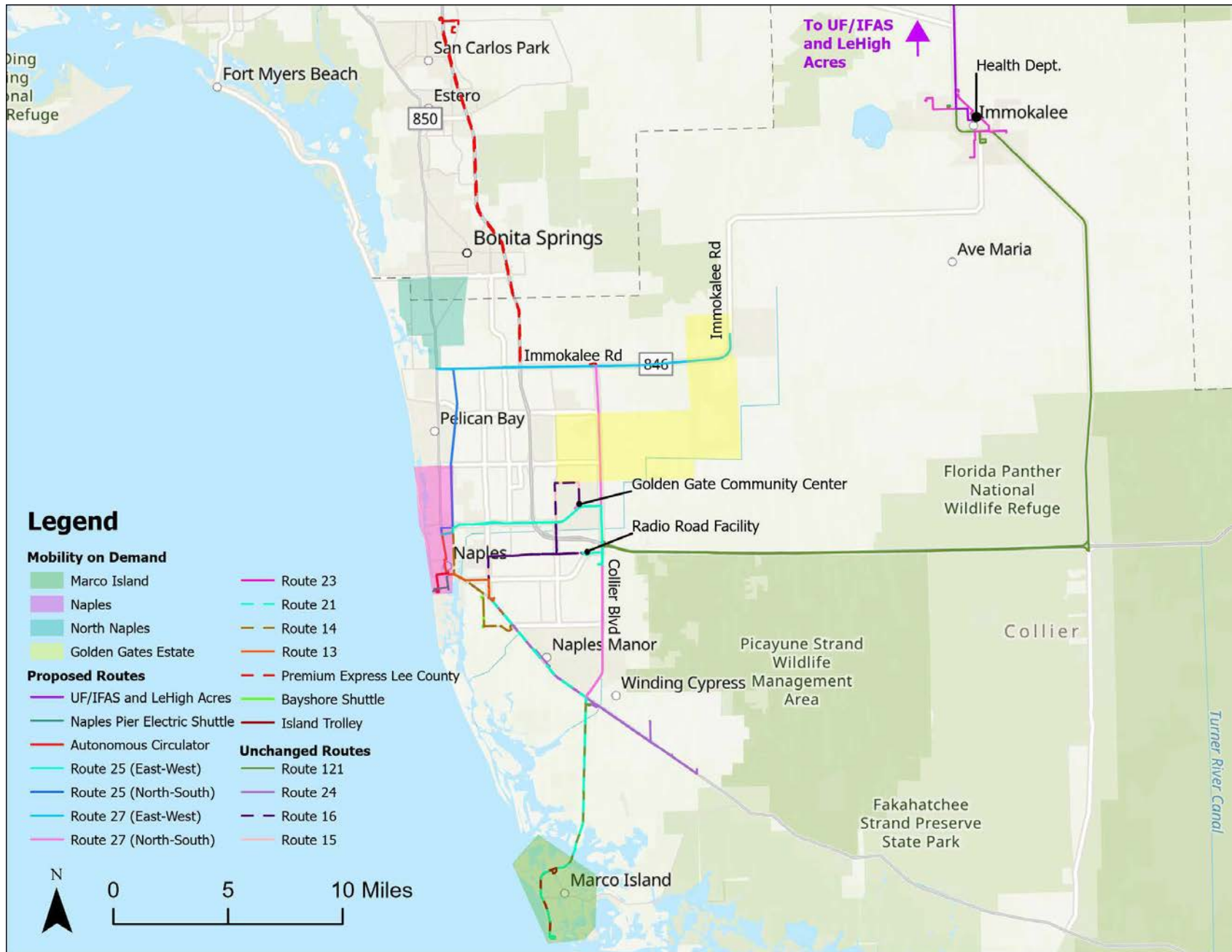
The following potential MOD zones were identified:

- **Golden Gate Estates** – This 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**– This zone would cover the northeast quadrant of Collier County. 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 the beach from Broad Avenue to Pine Ridge Road as far east as Goodlette-Frank Road.
- **Marco Island**– 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.



The MOD zones are illustrated in **Map 2-2**. 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 2-2: MOD Zones



2.2.4 OTHER IMPROVEMENTS

Other improvements include:

- I-75 Managed Lanes Express Study
- Santa Barbara Corridor Service Study
- Immokalee Road Transfer Hub Study
- Branding for Beach Buses
- Park and Ride Lots

2.3 Evaluation of Alternatives

The remainder of this section summarizes the evaluation process for the 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.

2.3.1 ALTERNATIVES EVALUATION METHODOLOGY

To effectively prioritize and schedule these service enhancements, it was essential to assess the advantages of each improvement in relation to the others. Through an evaluation of alternatives, CAT can more effectively prioritize initiatives and distribute funding by employing an objective prioritization methodology. The subsequent part of this section outlines and clarifies the evaluation criteria utilized to prioritize the service enhancements. The three evaluation categories are as follows:

- Public Outreach
- Transit Markets
- Productivity and Efficiency

Table 2-2 shows these evaluation categories and the corresponding criteria, the measure of effectiveness, and the assigned weighting for each. A description of each criteria follows.



Table 2-1: 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 Markets	Traditional Market	Percent serving poverty	15%	30%
	Proximity to Employment Market	Percent of countywide employment market served	15%	
Productivity and Efficiency	Productivity	Trips per hour (T-BEST-generated trips and revenue hours of service)	15%	30%
	Cost Efficiency	Cost per trip (including new trips)	15%	
Total			100%	100%

2.3.1.1 Public Outreach

Public outreach spans the entire development of the TDP. As a critical component of the TDP, it is used to support the development of key components of the plan including providing direction on the development of alternatives and supporting recommendations. Early in the development of the TDP a plan for engaging the public was developed and approved by partners at FDOT. The Public Involvement Plan outlined various strategies for engaging the public and identified how the engagement would guide development of the plan.

Outreach under the public participation plan has 3 main goals: to educate, to solicit and obtain feedback, and to integrate the feedback into the report to develop recommendations.. Of these goals, the integration of feedback into the recommendations is the most technical and influential. Public outreach enables stakeholders to comment on various aspects of the plan and prioritize recommendations. These recommendations result in weighted values that along with other measures, provide a solid foundation and guidance for developing and prioritizing transit alternatives.

2.3.1.2 Transit Markets

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

- **Traditional Market** – Certain demographic groups with a history of relying on public transportation, such as those living below the federal poverty line, are more likely to use or depend on transit for their travel requirements. For the alternatives analysis, the percent serving poverty was calculated as the percent of poverty serviced by each route using ArcGIS and 2023 5-Year ACS data.
- **Proximity to Employment Market** – The total number of private jobs countywide served by each potential service option, determined from information produced using ArcGIS and interpolated 2026 socio-economic data from the D1RPM v2 model.



2.3.1.3 Productivity and Efficiency

Productivity is typically assessed based on ridership levels. Transit agencies utilize service efficiency as a metric to evaluate the effectiveness of their current resources. Both measures are essential for the agency's success, and services that demonstrate strong performance in productivity and efficiency should be prioritized accordingly. This assessment relies on projected figures for ridership, revenue hours, and operating costs for each specific alternative.

- **Ridership productivity** is measured in terms of annual passenger trips per revenue hour of service. To provide for an equal comparison between alternatives, passenger trips and revenue hours of service were generated using output from T-BEST 2035 ridership projection data.
- **Cost efficiency** is evaluated for each alternative using the standard transit industry efficiency measure of operating cost per passenger trip. Operating costs used are calculated using operating cost per trip based on CAT performance data and T-BEST 2035 ridership projection data.

The remainder of this section provides a summary of the criteria and measures used in each tier, along with the scoring thresholds for evaluating alternatives.

2.3.1.4 Alternative Scoring Thresholds

Each criterion has been given a specific weight. By assigning weights to the criteria, it becomes possible to assess the relative significance of each criterion within the group to which it applies. A score was calculated using a chosen measure of effectiveness or the informed judgment of the analyst. Potential scores were then allocated based on how the given transit alternative compares to others in relation to a specific criterion. A higher score indicates a higher ranking for the alternative being assessed in terms of the criterion under consideration. The computation-based criteria thresholds were established by calculating the average of the complete data set and then adding or subtracting one standard deviation from the average. **Table 2-3** shows the thresholds and scoring for each criterion.



Table 2-2: Alternatives Evaluation Scoring Thresholds

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

Each alternative will be evaluated using the process summarized above. From this process, each alternative will receive a score. The alternatives will then be separated by improvement type (i.e., route network/new service, frequency improvements and span improvements), and ranked based on their respective score.

Note that improvements like MOD, Naples Pier Electric Shuttle, and the Autonomous Circulator will not be included in the technical analysis due to the limitations in the ridership estimation model. The New Island Trolley will also not be included since it is already funded.



EXECUTIVE SUMMARY
Reports & Presentations
Item 6c
Technology Improvements

Objective:

To update the committee on technology enhancements, ongoing and completed, for Collier Area Transit.

Considerations:

Collier Area Transit IT Manager, Mark Talaga, will be providing the committee an update on completed, in progress, and upcoming technology enhancement projects.

Recommendation:

None.

Attachment:

None.

Prepared by:  **Date:** 9/13/24
Alexander Showalter, Planner II

Approved by:  **Date:** 09/13/2024
Brian Wells, PTNE Division Director