



AGENDA TAC
Technical Advisory Committee
GMD Planning & Regulation
Conf. Rm. 609/610
2800 North Horseshoe Dr
HYBRID IN-PERSON &
ZOOM VIRTUAL MEETING
Meeting ID: 894 3871 7079
Password: 434232

Please click [here](#) to be directed to the Zoom website, or you may dial in at 1-646-876-9923.

November 30, 2020
9:30 am

1. **Call to Order**
2. **Roll Call**
3. **Approval of the Agenda**
4. **Approval of October 26, 2020 Meeting Minutes**
5. **Open to Public for Comments on Items Not on the Agenda**
6. **Agency Updates**
 - A. FDOT
 - B. MPO Executive Director
7. **Committee Action**
 - A. Endorse Amendment to FY 2021-2025 Transportation Improvement Program (TIP) and Authorizing Resolution
 - B. Review and Endorse Transit Impact Analysis (TIA)
 - C. Endorse 2045 Long Range Transportation Plan (LRTP)
8. **Reports and Presentations (May Require Committee Action)**
 - A. Review and Comment on Draft Local Roads Safety Plan
9. **Member Comments**
10. **Distribution Items**
 - A. Administrative Modifications to FY2021-2025 Transportation Improvement Program (TIP)
 - B. 2021 Meeting Calendar
11. **Next Meeting Date**

January 25, 2021
Hybrid Remote Meeting, in which physical quorum required, held in GMD Conference Room 609-610
12. **Adjournment**

PLEASE NOTE:

This meeting of the Technical Advisory Committee (TAC) to the Collier Metropolitan Planning Organization (MPO) is open to the public and citizen input is encouraged. Any person wishing to speak on any scheduled item may do so upon recognition of the Chairperson. Any person desiring to have an item placed on the agenda shall make a request in writing with a description and summary of the item, to the MPO Director 14 days prior to the meeting date. Any person who decides to appeal a decision of this Committee will need a record of the proceedings pertaining thereto, and therefore may need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should contact the Collier Metropolitan Planning Organization 72 hours prior to the meeting by calling (239) 252-5814. The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and Related Statutes. Any person or beneficiary who believes that within the MPO's planning process they have been discriminated against because of race, color, religion, sex, age, national origin, disability, or familial status may file a complaint with the Collier MPO Executive Director and Title VI Specialist Ms. Anne McLaughlin (239) 252-5884 or by writing Ms. McLaughlin at 2885 South Horseshoe Dr., Naples, FL 34104.

**TECHNICAL ADVISORY COMMITTEE of the
COLLIER COUNTY METROPOLITAN PLANNING ORGANIZATION
VIRTUAL MEETING
ZOOM MEETING PLATFORM
MEETING MINUTES
October 26, 2020 9:30 a.m.**

1. Call to Order

Ms. Lantz called the meeting to order at 9:30 a.m.

2. Roll Call

Ms. McLaughlin called the roll and confirmed a quorum was present.

TAC Members Present

Lorraine Lantz, Chair, Collier County Transportation Planning (Chair)
Don Scott, Lee County MPO
Tim Brock, Everglades City
Tim Pinter, City of Marco Island (Vice Chair)
Daniel Smith, City of Marco Island
Gregg Strakaluse, City of Naples
Andy Holland, City of Naples
Michelle Arnold, Collier County PTNE
Debra Brueggeman, Collier County Airport Authority
Dan Hall, Collier County Traffic Operations (arrived at 9:49 am)
Ute Vandersluis, City of Naples Airport Authority
Margaret Wuerstle, Southwest Florida Regional Planning Council
Michelle Arnold, County PTNE (arrived after roll call)

TAC Members Absent

Gregg Strakaluse, City of Naples
John Kasten, Collier County School District

MPO Staff

Anne McLaughlin, Executive Director
Brandy Otero, Principal Planner
Karen Intriago, Administrative Assistant
Josephine Medina, Planner

FDOT

n/a

Other Staff Present

Tony Khawaja, CMC Chair, County Traffic Operations
Trinity Scott, County, Transportation Planning
Omar DeLeon, County PTNE
Zachary Karto, County PTNE

Consultants Present

Demian Miller, Tindale Oliver
Tara Jones, Jacobs
Bill Gramer, Jacobs
Javier Ortiz-Velez, Jacobs
Felicia Kirby, Jacobs
Steve Ludwinsky, Jacobs????

Others Present**3. Approval of the Agenda**

Mr. Smith moved to approve the agenda as amended. Mr. Brock seconded. Carried unanimously.

4. Approval of September 28, 2020 Meeting Minutes

Mr. Smith moved to approve the September 28, 2020 meeting minutes. Mr. Scott seconded. Carried unanimously.

5. Public Comments for Items not on the Agenda

None.

6. Agency Updates**A. FDOT**

Ms. McLaughlin explained that Ms. Peters was unable to attend and did not have an update prepared.

B. MPO Executive Director

Ms. McLaughlin – none beyond agenda items.

7. Committee Action

A. Endorse Amendment to FY 2021-2025 Transportation Improvement Program (TIP) and Authorizing Resolution

Ms. McLaughlin – introduced the proposed amendment to add a Bus Replacement for CAT to the TIP at a cost of \$500,000 (FPN 448027-1). topic reading from the Executive Summary in the meeting packet. FDOT requested the amendment after working closely with MPO and County to identify project to spend down SU funds that resulted from federal reconciliation and FDOT Work Program balancing. Project is on MPO Board adopted Transit Project Priority list. The packet includes approval of an authorizing resolution. Public comment period began on October 19, 2020 and ends with the MPO Board meeting on November 13, 2020. No comments received at this time.

Mr. Pinter moved to endorse the Amendment to the 2021-2025 TIP and Authorizing Resolution. Mr. Brock seconded. Passed unanimously.

B. Endorse Collier Area Transit (CAT) Park and Ride Study

Ms. Medina – introduced the topic reading from the Executive Summary in the agenda packet. The previous study was done in 2005. The current study is timed to coincide with the 2045 Long Range Transportation Plan and the CAT Transit Development Plan and will be incorporated by reference into both plans. Park and Ride facilities help address impacts of traffic congestion, provide areas where commuters can park and take public transit, carpool or vanpool into more urban areas. Prioritizes sites and provides implementation strategies. The Public Transit Advisory Committee endorsed the study on October 20th. The MPO will consider endorsing the study at its November 13 meeting, and the Board of County Commissioners will be asked to approve it on December 8, 2020. Introduced consultant team – Jacobs.

Mr. Ortiz-Velez – gave a PPT presentation [file available by submitting request to the MPO office] Study re-evaluated sites identified in 2005 study and 24 additional sites. Developed standardized methodology for locating, evaluating and implementing Park and Ride sites within County. Sites identified and evaluated based on proximity to transit routes, major employment locations, congested roads, regional connectivity, tourist destinations and educational facilities. Reported results of online public surveys and meetings with CRA's, Chamber of Commerce and large employers. Ranking based on number of factors including ease of access and cost. Highest ranked locations described in detail, including: Creekside Area Transfer Station, Immokalee Health Department Transfer Station, and Beach Lots on Vanderbilt Beach Rd and Pine Ridge Rd). Next steps for CAT include promoting existing lots, pursuing partnerships with private organizations, applying for grants and developing new lots.

Mr. Brock – Chamber of Commerce site in Everglades City should be renamed Carnestown. The Chamber of Commerce is no longer located there.

Mr. Brock moved to endorse the CAT Park and Ride Study with the correction that site in Everglades City would be relabeled Carnestown. Mr. Pinter seconded. Passed unanimously

C. Endorse FDOT Vision Zero Safety Targets for Calendar Year 2021

Ms. McLaughlin - gave brief introduction reading from Executive Study in the agenda packet. Safety Targets must be adopted annually. The MPO has chosen in previous years to endorse the FDOT Vision Zero targets despite questioning the feasibility of attaining them. MPO staff recommends endorsing FDOT's targets and supporting FDOT's safety projects within the MPO's jurisdiction. It is then up to FDOT to explain its target setting philosophy to FHWA.

Mr. Brock moved to endorse FDOT's Vision Zero Safety Targets for Calendar Year 2021. Mr. Smith seconded. Passed unanimously.

D. Review and Comment on Draft 2045 Long Range Transportation Plan (LRTP)

Ms. McLaughlin - gave brief introduction reading from Executive Study in the agenda packet. Noted that Jacobs has made revisions to Chapter 1-6 based on comments received to-date and added a new chapter on Implementation and one on References. The chapters have been reformatted in the final form that the entire document will take when formally adopted by the MPO Board in December. Introduced consultant team - Jacobs.

Ms. Jones - gave a PPT presentation [available by requesting from MPO office]. Focused on changes made since committee reviewed draft of Chapters 1-6, pending changes still in process and the schedule for completion. Recent updates include the new Chapter 7 on Implementation; updated Chapter 6 (Cost Feasible Plan) to include congestion management priorities in the Local Road Safety Plan and updated the Transit CFP to include grant funding award to conduct CAT Bus Maintenance building repairs; updates regarding Adaptation of Coastal urban and Natural Ecosystems (ACUNE) study in Chapter 4 (Needs Plan) and new report from FDOT regarding Connected and Automated Vehicles methodology as applies to travel demand model runs conducted for Needs analysis. Pending changes include incorporating language regarding M-CORES, the I-75 Southwest Connect PD&E Study; the USACE Collier County Coastal Storm Risk Management Feasibility Study; the CAT Park and Ride Study, final Transit Development Plan; FHWA and FDOT LRTP Review Checklists and Tribal outreach. In addition, MPO staff has proposed adjusting use of SU Box funds to incorporate safety projects and major planning projects such as LRTP updates in addition to Bike/Ped, congestion management and bridges. BPAC, LCB and CMC are reviewing draft LRTP in addition to CAC and TAC. Will present draft LRTP to Board on November 13th. Final plan adoption on December 11, 2020.

Ms. McLaughlin – seeking comments from the Committee, need to receive any additional comments the week of November 2nd, the earlier the better, but no later than noon on Friday, November 6th in order to report to the MPO Board at their November meeting. Ms. Arnold asked whether Jacobs has any unanswered questions regarding TDP financials. **Ms. Jones** noted Jacobs is still reviewing latest iteration. **Mr. Brock** – questioned what is known about M-CORES recommendations at this time. **Ms. Jones** – not much is known at this point in time.

8. Reports and Presentations (May Require Committee Action)

None.

9. Member Comments

Ms. Lantz – County resubmitting Safe Routes to Schools application that was not funded last year. School name has changed, but location is the same.

10. Distribution Items

None.

11. Next Meeting Date

November 30, 2020 – 9:30 a.m. – 2800 Horseshoe Drive North, Room 609/610. TBD Fully Remote or Hybrid Remote Meeting in which physical quorum required

11. Adjournment

*There being no further comment or business to discuss, **Mr. Brock** moved to adjourn. **Mr. Pinter** seconded. **Ms. Lantz** adjourned the meeting at 10:43 a.m.*

EXECUTIVE SUMMARY
COMMITTEE ACTION
ITEM 7A

Endorse an Amendment to the FY 2021-2025 Transportation Improvement Program (TIP) and an Authorizing Resolution

OBJECTIVE: For the Committee to endorse an amendment to the FY2021-2025 Transportation Improvement Program (TIP) and an authorizing resolution.

CONSIDERATIONS: The Florida Department of Transportation (FDOT) has requested that the Collier MPO amend its FY2021-FY2025 Transportation Improvement Program (TIP) to add a FTA Grant Award to Collier Area Transit for rehabilitation of a bus maintenance building. The amendment is required for the project to receive federal funds which are programmed in FY2021.

FPN 448065-1: \$11,275,000 Collier County Area Transit 5339(B) Bus/Maint. Bldg. The project is on the 2045 Long Range Transportation Plan, which is scheduled for adoption by the MPO Board on December 11, 2020. The project is also identified in the Transit Development Plan (TDP), which was endorsed by the MPO Board on September 11, 2020.

A draft of the authorizing resolution is included as **Attachment 1**; the amendment forms are included as **Attachment 2**; and the FDOT letter requesting the amendments are included as **Attachment 3**.

The MPO is completing the following public involvement steps as required by the MPO's Public Participation Plan for TIP amendments:

- coincides with review of the amendment by the TAC and CAC
- announced on the MPO website
- distributed via e-mail to applicable list-serve(s)

The comment period began on November 19, 2020 and ends with the MPO Board meeting on December 11, 2020.

STAFF RECOMMENDATION: That the Committee endorse the amendment to the FY2021-2025 TIP and the authorizing resolution.

Attachments:

1. MPO Resolution 2020-16
2. FY2021-2025 TIP Amendment Forms
3. FDOT request for Amendment

Prepared By: Anne McLaughlin, MPO Director

MPO RESOLUTION #2020-16
A RESOLUTION OF THE COLLIER METROPOLITAN
PLANNING ORGANIZATION APPROVING AN
AMENDMENT TO THE FY 2020/21- 2024/25
TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

WHEREAS, State and federal statutes, rules and regulations require that each designated Metropolitan Planning Organization develop and adopt a Transportation Improvement Program (“TIP”) and set forth the procedures for doing so; and

WHEREAS, the Collier Metropolitan Planning Organization’s (the “MPO”) TIP may require amending as authorized and required by 23 C.F.R. Part 450 Sections 326, 328, 330, 332 and 334, and by F.S. § 339.175(6), (8) and (13); and

WHEREAS, the Florida Department of Transportation (“FDOT”) has requested that the MPO’s FY 2020/21-2024/25 TIP be amended to add a transit maintenance rehabilitation project, which is identified by Federal Project Number (FPN) 440865-1 as shown in Attachment 1.

WHEREAS, in order to be eligible to receive federal funds, the TIP must be amended to include those projects; and

WHEREAS, the MPO announced the TIP Amendment on its website, distributed it via e-mail to various list-serves, and followed all of the steps of its Public Participation Plan through the expiration of the public comment period, which terminated with the MPO’s meeting on December 11, 2020; and

WHEREAS, the MPO has reviewed the proposed Transportation Improvement Program Amendment for those projects and determined that it is consistent with the MPO’s adopted plans and policies; and

WHEREAS, in accordance with all required State and federal procedures, rules and regulations, including but not limited to the Florida Department of Transportation's MPO Administrative Manual, the TIP Amendment must be accompanied by an endorsement indicating official MPO approval.

THEREFORE, BE IT RESOLVED by the Collier Metropolitan Planning Organization that:

1. The FY 2020/21 - 2024/25 Transportation Improvement Program Amendment set forth in Attachment 1 is hereby adopted.
2. The Collier Metropolitan Planning Organization's Chairman is hereby authorized to execute this Resolution certifying the MPO Board's endorsement of the Amendment to the FY 2020/21 - 2024/25 Transportation Improvement Program for transmittal to FDOT and the Federal Highway Administration.

This Resolution PASSED and duly adopted by the Collier Metropolitan Planning Organization Board after majority vote on this 11th day of December, 2020.

Attest:
PLANNING ORGANIZATION

COLLIER METROPOLITAN

By: _____
Anne McLaughlin
MPO Executive Director

By: _____
Elaine Middelstaedt, Esq.
MPO Chair

Approved as to form and legality:

Scott R. Teach, Deputy County Attorney

**TIP Amendment for Approval by MPO Board on December 11, 2020 for
FY 2020/21 through FY 2024/25 TIP**

FPN	Action	Project Name	Requested by	Fund	Phase	FY	Amount
4480651	FTA Grant Award to Transit Agency for 5339B funding.	Collier County Area Transit 5339(B) Bus/Maint.Bldg.	FDOT	FTA	CAP	2021	\$9,020,000
4480651	FTA Grant Award to Transit Agency for 5339B funding.	Collier County Area Transit 5339(B) Bus/Maint.Bldg.	FDOT	LF	CAP	2021	\$2,255,000
	TOTAL						\$11,275,000

Responsible Agency	TIP Page	LRTP Reference
Collier County	147B	2045 LRTP Transit CFP p.6-21, Table 6-11

COLLIER METROPOLITAN PLANNING ORGANIZATION

Attest: _____

Anne McLaughlin
Collier MPO Executive Director

Date: _____

By: _____

MPO Chair

Printed Name: Elaine Middelstaedt, Esq.

Title: MPO Chair

Date: _____

Approved as to form and legality

Scott R. Teach, Deputy County Attorney

4480651

COLLIER COUNTY AREA TRANSIT 5339(B) Bus/Maint.Bldg.**Project Description:**

Prior Years Cost: N/A
 Future Years Cost: N/A
 Total Project Cost: N/A
 LRTP Ref: 2045 LRTP Table 6-11 P6-21

Work Summary: FTA Grant Award to Transit Agency**Lead Agency:** COLLIER COUNTY**Length:** N/A**TIP Amendment:** 12/11/2020

Phase	Fund	2020/21	2021/22	2022/23	2023/24	2024/25	Total
CAP	FTA	9,020,000					
CAP	LF	2,255,000					
							0
							0
							0
							0
							0
Total		11,275,000	0	0	0	0	11,275,000





Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAUT, P.E.
SECRETARY

September 25, 2020

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

RE: Request for Amendment to the Collier Metropolitan Planning Organization's Fiscal Years 2020/2021 through Fiscal Years 2024/2025 Transportation Improvement Program (TIP)

Dear Ms. McLaughlin:

The letter is a formal request for the Collier Metropolitan Planning Organization (MPO) to approve the following amendment to the FY2020/21 – FY2024/25 Transportation Improvement Plan (TIP) at the November 13, 2020 MPO Board Meeting.

This is a new project and it's required to be added to the MPO's TIP for this current fiscal year. In order to receive federal funds for this project, these changes are required to be amended into the Collier MPO's FY2020/2021 through FY2024/2025 TIP.

FPN Number	Federal Project Description	Phase Group	Amount	Funding Type	Fiscal Year	Comments
448065-1	Collier County Area Transit 5339(B) Bus/Maint. Bldg.	94 Capital	\$ 9,020,000	FTA	2021	This is a <u>new</u> project. Federal Transit Administration (FTA) has awarded funds through their Section 5339(b) program directly to the Transit Agency. These funds were allocated and programmed in SFY21.
448065-1	Collier County Area Transit 5339(B) Bus/Maint. Bldg.	94 Capital	\$ 2,255,000	LF	2021	This is a <u>new</u> project. Federal Transit Administration (FTA) has awarded funds through their Section 5339(b) program directly to the Transit Agency. These funds were allocated and programmed in SFY21.

Ms. Anne McLaughlin
September 25, 2020
Page 2

If you have any questions, please feel free to contact me at (239) 872-5904.

Sincerely,

DocuSigned by:
Victoria Peters
BBDEB55AB69A48A...

9/25/2020 | 10:37 AM EDT

Victoria G Peters
Community Liaison

VGP:vgp

cc: Stacey Blizzard, Federal Highway Administration
John Crocker, Federal Transit Administration
Mark Reichert, Florida Department of Transportation
Samantha Parks, Florida Department of Transportation
Denise Strickland, Florida Department of Transportation
Wayne Gaither, Florida Department of Transportation
Michelle Peronto, Florida Department of Transportation

EXECUTIVE SUMMARY
COMMITTEE ACTION
ITEM 7B

Review and Endorse the Transit Impact Analysis Study

OBJECTIVE: For the Committee to review and endorse the Collier County Transit Impact Analysis Study recommendations.

CONSIDERATIONS: The Collier Metropolitan Planning Organization (MPO), in partnership with Collier County and Collier Area Transit (CAT), initiated this Transit Impact Analysis Study to identify opportunities to mitigate impacts on the transit system from development projects through changes to the County's development review process.

Historically, Collier County's development process has been such that CAT must respond to the impacts of development on transit infrastructure and services, rather than transit being considered early in the planning process. Currently, when a development project is proposed, a traffic impact study is required to analyze roadway impacts. There are also regulations in place to determine if, and to what extent, new sidewalk, bicycle, and pathway infrastructure must be provided as a condition of the development approval process. However, impacts to the transit system as a component of the overall transportation network are not formally considered. In many instances, CAT must accommodate the demand the development project places on the transit system after the fact, often without the financial resources to help mitigate the costs.

To consider how transit can best be integrated into the development review process, a broad range of strategies were identified, evaluated, and reviewed with the Project Advisory Team (comprised of MPO, CAT, and County Transportation and Growth Management staff), then subsequently reviewed with senior county leadership. The results of this study provide the foundation for Collier County to move forward with implementing regulatory and policy language in support of the following outcomes:

- Site access improvements for transit as a condition for development approval, the requirements for which are based on the scale and size of the development project and proximity to existing or planned transit service.
- Update of existing Transportation Demand Management (TDM) strategies allowed within specific areas of the county where traditional concurrency does not apply. This will provide more effective implementation of strategies to increase transit ridership and reduce auto-oriented trips as a requirement to obtain concurrency exemption.

Following presentation to the Public Transit Advisory Committee (PTAC), the study and resulting recommendations will be presented to the Collier MPO Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), and MPO Board. Post-study implementation will then be directed by County Growth Management Department staff.

STAFF RECOMMENDATION: Recommend endorsement of the final study recommendations for post-study County implementation of regulatory and policy changes to 1) provide for developer-funded transit site access requirements; 2) updated Transportation Demand Management strategies.

Prepared By: Brandy Otero, Principal Planner

Attachment:

1. Transit Impact Analysis Final Report
2. Transit impact Analysis Presentation

Collier County Transit Impact Analysis Final Report

October 2020

Prepared for



In partnership with



Prepared by



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Section 1 Introduction

Since formally launching fixed-route bus service nearly 20 years ago, Collier Area Transit's (CAT) fixed-route network has gradually become a more significant component of the multimodal transportation system in Collier County. Today CAT operates 19 bus routes and partners with Lee County Transit (LeeTran) to provide the LinC express route between the two counties. CAT has provided an average of nearly 1 million annual trips over the last five years. However, as transit service has grown, so has the demand on existing revenue sources to support the current system and its potential future growth.

Historically, Collier County's development process has been such that CAT must respond to the impacts of development rather than transit being considered early in the planning process. Currently when a new or redevelopment project is proposed, a traffic impact study is required to analyze the impacts on the roadway network. Impacts to the transit system as a component of the overall transportation network are not formally considered. Without consideration for transit as an alternative mode during the development approval process, CAT must accommodate the demand the development project places on the transit system after the fact without the necessary resources. For a change in this process to occur, it is necessary to understand the demand development places on the community's transit network and how best consideration for transit can be integrated into the process. There are also Land Development Code regulations and supporting Growth Management Plan policies pertaining to specific areas of the county where traditional concurrency does not apply and opportunities exist to make policy changes to better align the development review and transit planning processes in these urbanized areas.

This need has led to the Collier Metropolitan Planning Organization (MPO), in partnership with Collier County and CAT, to conduct this Transit Impact Analysis Study. The purpose of this study is to identify and evaluate opportunities for supporting and advancing transit revenue and development review solutions in Collier County.

Following an assessment of the potential solutions, the outcome of this study provide recommendations for regulatory and policy changes to Collier County's development review procedures and Growth Management Plan to facilitate early consideration for development's impacts to the transit system. To accomplish the above, this study includes the following sections in addition to this introduction:

- **Section 2 Background Conditions** provides context for the current environment in which CAT operates.
- **Section 3 Peer System Review** documents the findings of a peer system review that compares CAT's operating and financial characteristics compare to other peer transit systems.

- **Section 4 Development Review Process** documents the current aspects of the County’s development review process.
- **Section 5 Initial Strategies for Evaluation** discusses potential regulatory or policy changes that Collier County could pursue to enhance consideration for transit in the development review process.
- **Section 6 Final Recommendations & Implementation Support** outlines the strategies from this study selected for potential implementation by Collier County.

Section 2 Background Conditions

Collier County's Public Transit & Neighborhood Enhancement Division (PTNE) administers CAT, which provides a fixed-route network comprising 19 routes and the LinC express route in partnership with LeeTran. CAT's existing fixed-route network is shown in Map 1-1.

While this study focuses on consideration for fixed-route services and related capital infrastructure in the development review process, it should be noted that CAT provides other non-fixed route services. This includes paratransit service under the Collier Area Paratransit (CAP) program that includes complementary Americans with Disabilities Act (ADA) service and transportation disadvantaged (TD) services. Medicaid transportation services are provided through a network of transportation providers overseen by MTM, Inc., the County's Medicaid transportation services broker. Collier County also serves as the Community Transportation Coordinator (CTC) under Chapter 427 of the Florida Statutes. As the CTC, the PTNE Division administers the coordination of countywide transportation services for transportation disadvantaged (TD) individuals.

Demographic Profile

Collier County is in southwest Florida along the Gulf of Mexico. There are three municipalities within Collier County: Everglades City, Marco Island, and Naples, which is the County seat. In 2019, Collier County was ranked the 16th most populous county in Florida, with 1.8% of the state's total population. This percentage is anticipated to grow to 2.1% by 2045 based on state population projections.¹ The majority (90%) of the County's population resides in unincorporated areas of the county.

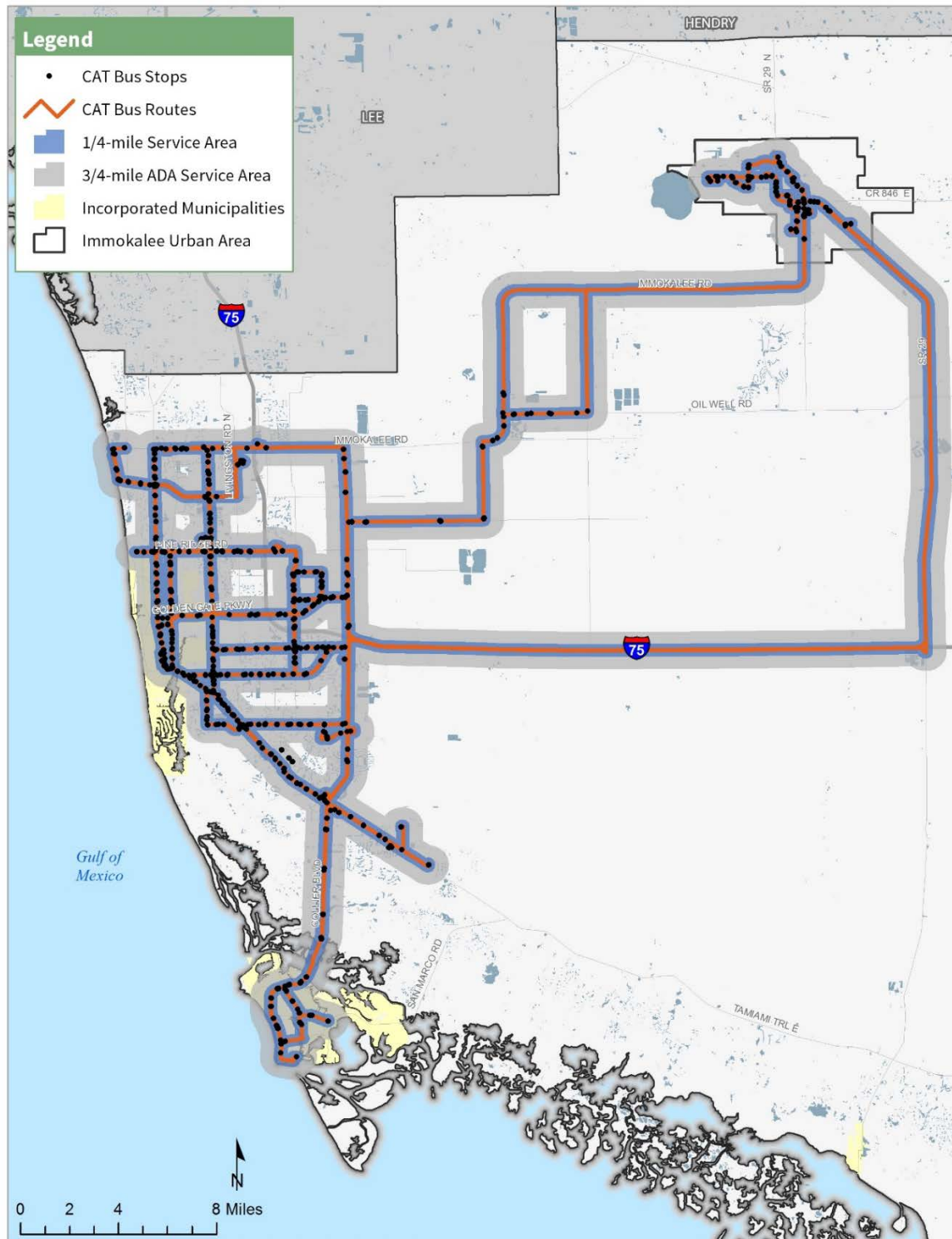
Collier County is the largest county in Florida geographically at approximately 1,998 square miles.² However, a significant portion (more than 1.2 million acres) primarily in the eastern and southern areas of the county is designated as protected lands.

Collier County's beaches, tropical climate, and rich geographic and biological diversity make it one of the premier tourism and retirement destinations within the US.

¹ University of Florida, Bureau of Economic and Business Research (BEBR), *Projections of Florida Population by County, 2020–2045, with Estimates for 2018*.

² US Census Bureau, Census of Population and Housing. Land area is based on current information in the TIGER database, calculated for use with Census 2010.

Map 2-1: Existing CAT System

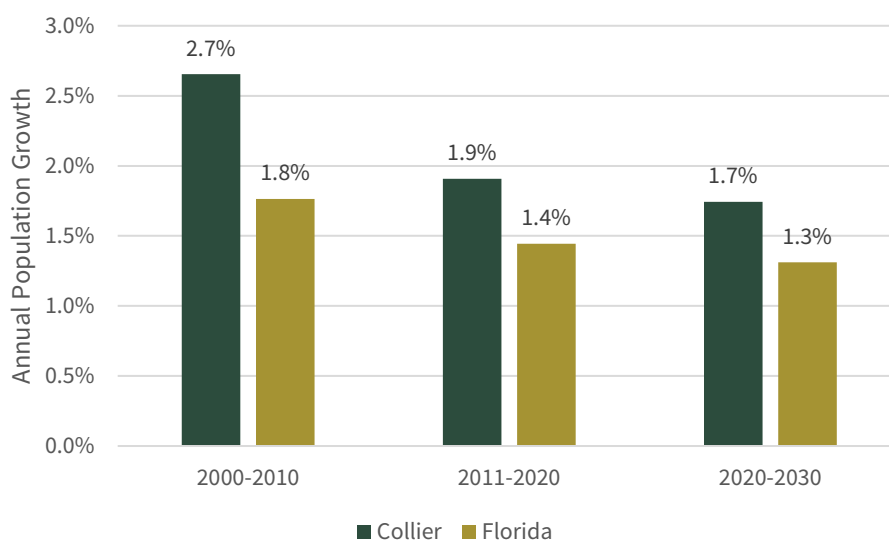


Source: Collier Area Transit

Population Estimates and Growth Projections

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

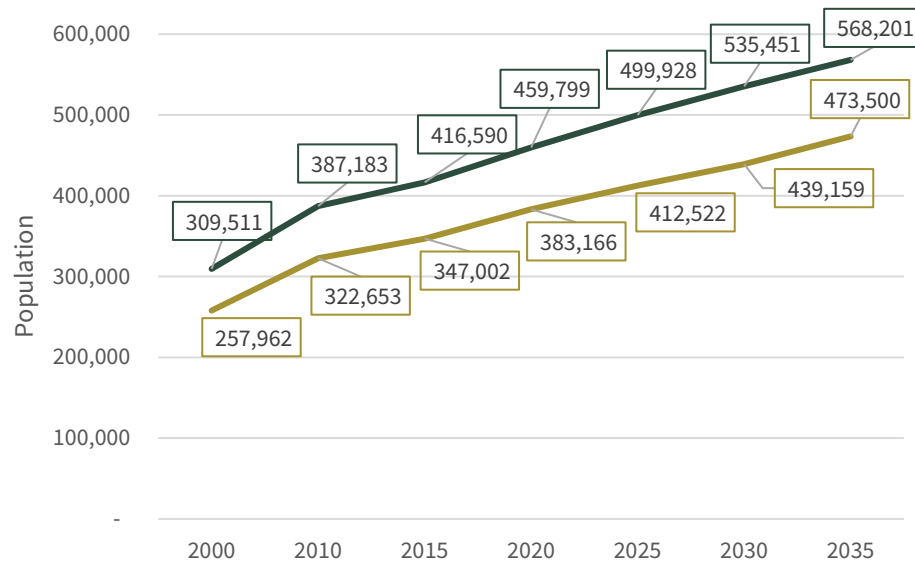
Figure 2-1: Historical and Projected Annual Growth Rate Trends (2000–2030)



Source: Projections of Florida Population by County, 2020–2045, with Estimates for 2018

Every year Collier County experiences a significant increase in demand by tourists and seasonal residents. This greatly increases traffic congestion, particularly in the urbanized area and near the beaches. To better plan for the impact of this demand on public facilities, the County develops annual peak seasonal population estimates and projections. Figure 2-2 compares the historical and projected permanent and peak seasonal population figures countywide. Since the county's peak seasonal population is projected using a constant adjustment factor, the annual growth rates for the county's peak seasonal population mirror those of its resident population.

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



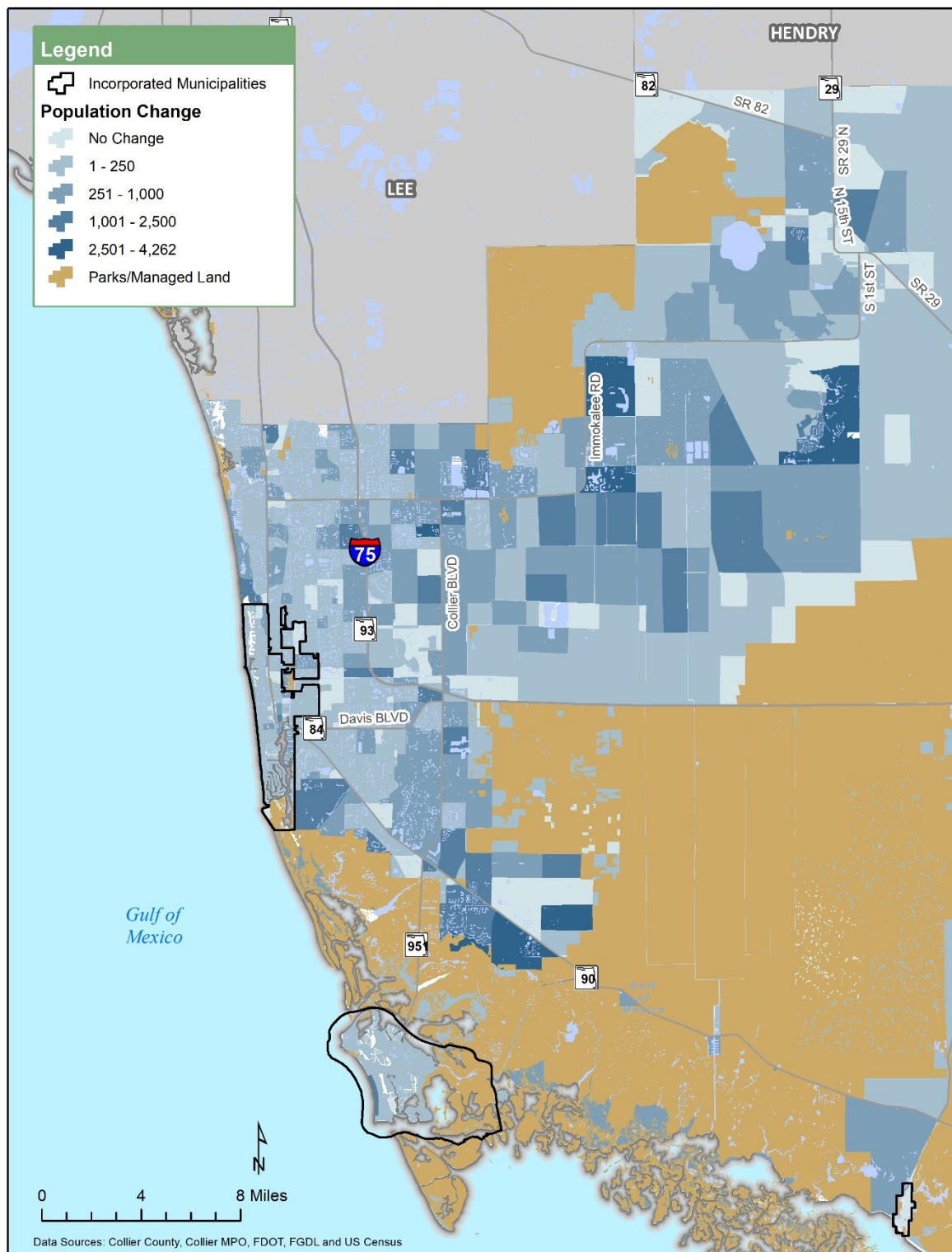
Source: Collier County Growth Management Division, Comprehensive Planning Section, Population and Demographics (2018 Population Estimates & Projections)

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

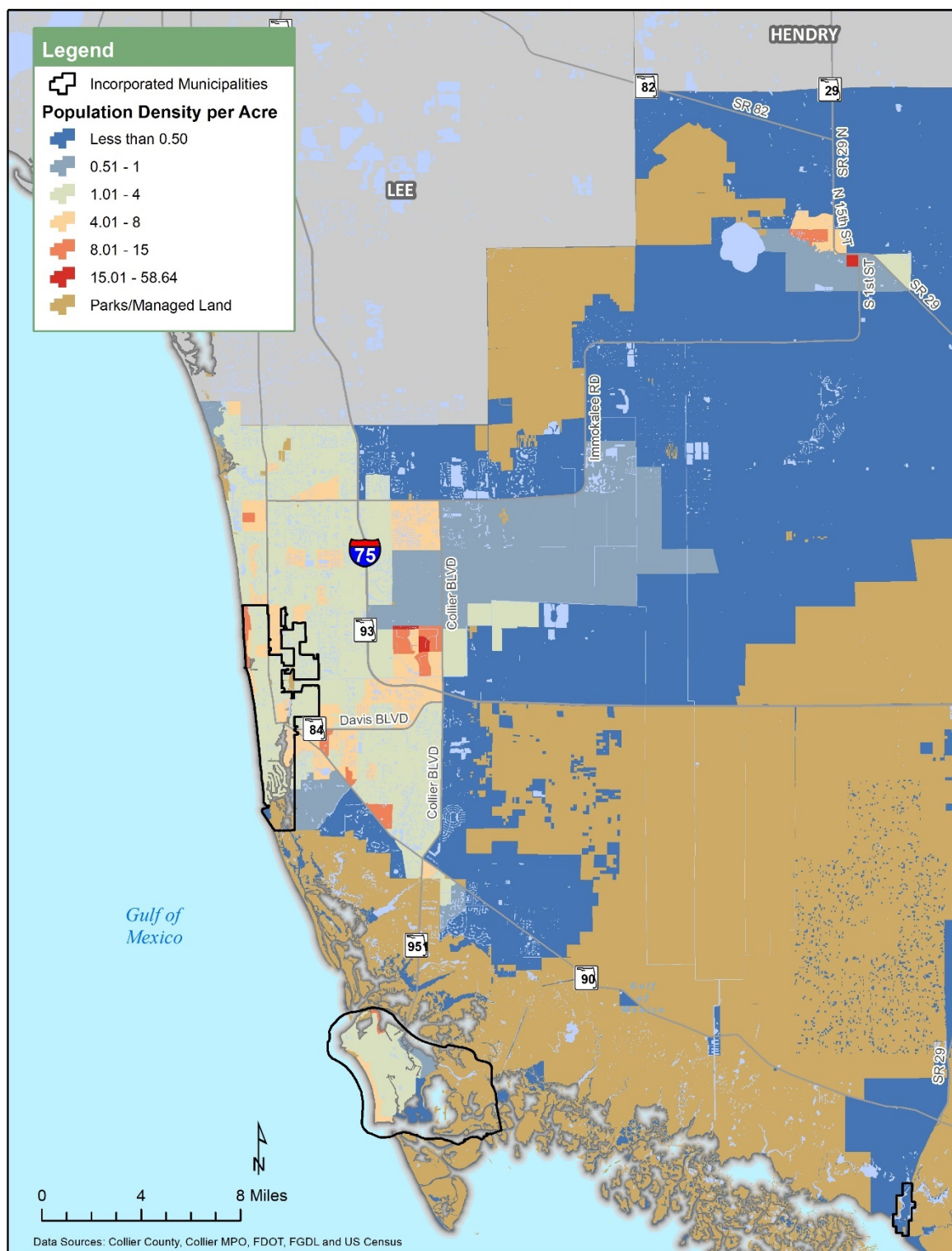
To analyze population growth at a smaller geographic sub-unit, population projections by Traffic Analysis Zone (TAZ) are used. Map 2-2 illustrates the projected growth in population between 2015 and 2040 by TAZ based on socioeconomic data prepared for the Collier MPO's 2040 Long Range Transportation Plan (LRTP). Currently, the majority (approximately 77%) of the county's population lies west of CR 951 (Collier Boulevard) in what is the more urbanized coastal area. In addition to growth within the urbanized area primarily due to redevelopment, future growth is projected growth centers around Orangetree, Ave Maria, east/southeast of Naples, and to some degree in Immokalee. Slightly more growth in these areas is expected through 2040.

In planning for future transportation needs, it is important to look not only at absolute population growth, but also at the projected change in population densities. Maps 2-3 and 2-4 illustrate the existing (2015) and projected (2040) population densities developed for the Collier MPO's 2040 LRTP, the most current data available. In 2015, higher population densities are concentrated west of CR 951 and in Immokalee. Given the existing densities and low inventory of available land west of CR 951, it is anticipated that this growth eastward will continue in the future. The 2040 population density projections illustrated in this map show similar findings.

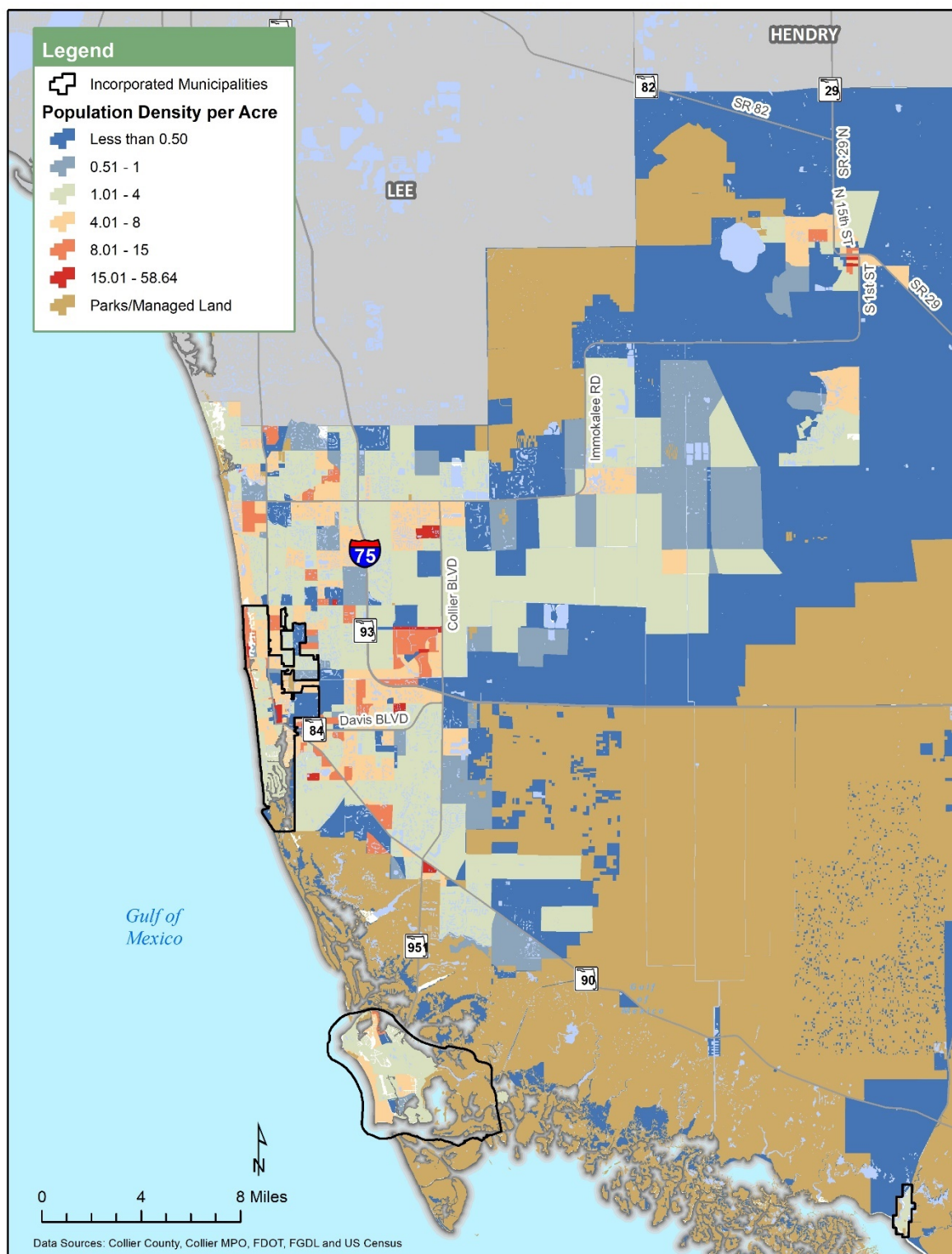
Map 2-2: Projected Population Change (2015–2040)



Map 2-3: Population Density (2015)



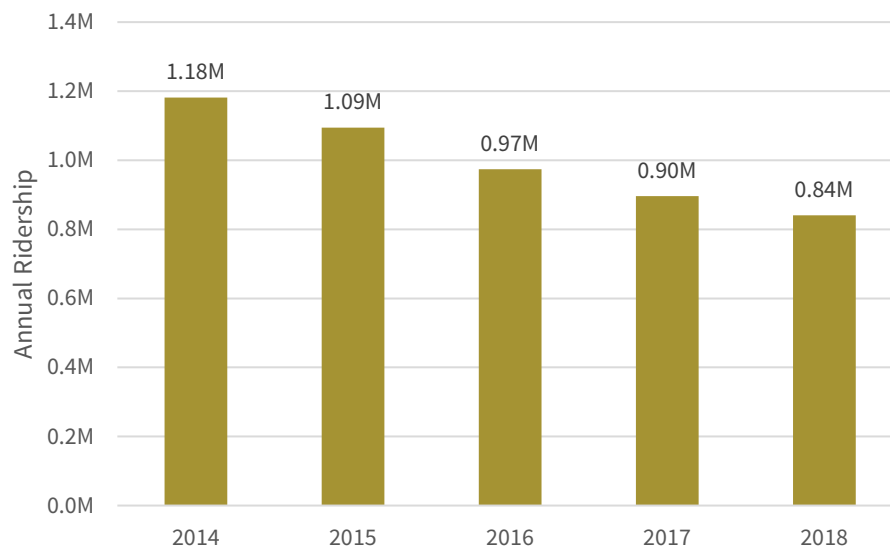
Map 2-4: Population Density (2040)



CAT System Overview

Figure 2-3 provides the trend in annual ridership for CAT's fixed-route service over the last five years. During this time, ridership has decreased following a peak of 1.3 million riders in 2013. This trend mirrors that of transit agencies around Florida and the US. Ridership declines in recent years are primarily attributed to a better economy following the Great Recession and the growing popularity of ride-sharing services.

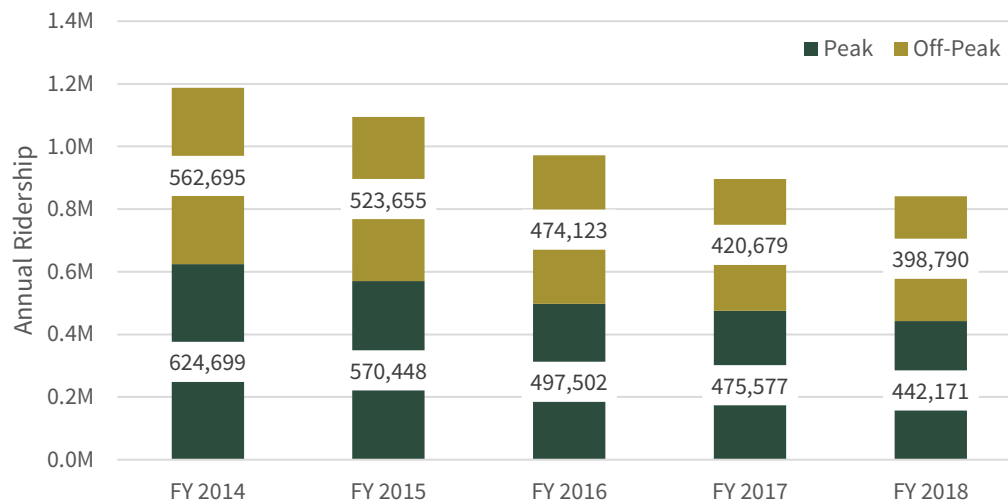
Figure 2-3: Annual Fixed-Route Ridership Trends



Source: National Transit Database (NTD) data extracted from the Florida Transit Information System (FTIS) for 2014-2017; CAT for 2018 ridership

Given that Collier County's significant peak population consists of visitors and seasonal residents during October through March, the fixed-route ridership also was examined during peak versus non-peak months. As shown in Figure 2-4, the peak ridership over the last five years averages 10% higher than the non-peak ridership.

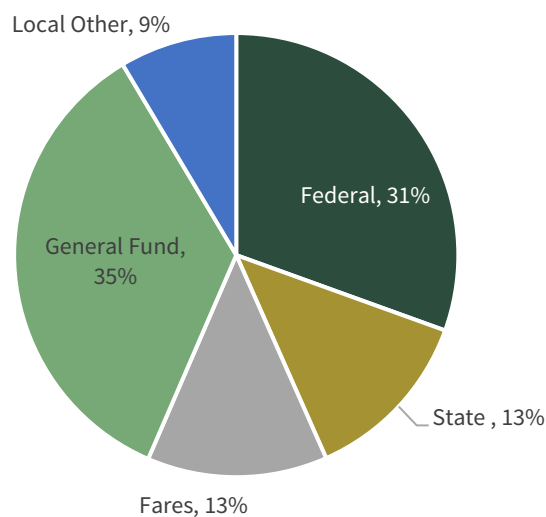
Figure 2-4: Fixed-Route Ridership for Peak and Non-Peak Months



Source: Collier Area Transit

Figure 2-5 illustrates the distribution of CAT’s FY 2020 operating budget by funding source for fixed-route services. Of the \$7.3 million operating budget, the portion funded with County general funds (nearly \$2.6 million) equates to an annual investment of approximately \$7 per permanent resident.

Figure 2-5: CAT FY 2020 Fixed-Route Operating Budget

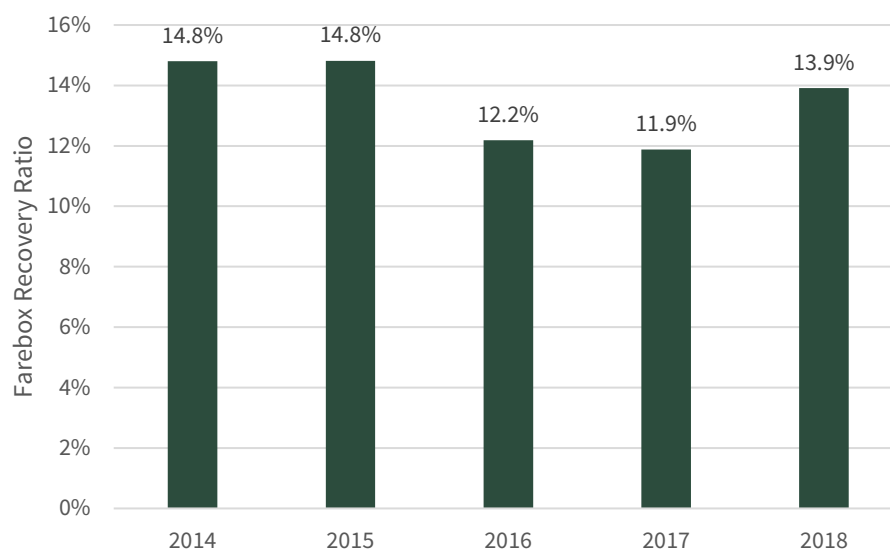


Source: Collier County FY 2020 Budget

Over the last five years, despite the decline in ridership, CAT’s operating costs have increased. This has produced a decrease in fare revenue and in the percentage of operating costs that fare revenue covers (farebox recovery ratio). As shown in Figure 2-6, the farebox recovery ratio decreased from

14.8% in 2014 to 11.9% in 2017; however, by 2018 increased to 13.9%. This is, in-part, due to an increase in the fixed-route fares the County implemented on October 1, 2018.

Figure 2-6: Fixed-Route Farebox Recovery Ratio



Source: National Transit Database (FYs 2014–2017), Collier Area Transit (FY 2018)

Section 3 Peer System Review

To understand how CAT’s operating and financial characteristics compare to other peer systems, an analysis of trends in service and financial characteristics between CAT and other systems for the last 10 years was completed, based on the latest data available at the time this analysis was completed in 2019. The peer systems selected are transit systems in Florida with similar service areas and service levels that have a coastal boundary and include:

- Escambia County Area Transit (ECAT)
- LeeTran (Lee County)
- Manatee County Area Transit (MCAT)
- Sarasota County Area Transit (SCAT)
- Space Coast Area Transit (Brevard County)

Table 3-1 illustrates the peer system sizes in terms of the number of routes and route miles compared to CAT. As shown, CAT falls within the range of the peer systems but is lower than the peer average of 22 routes. CAT also falls within the range of the number of route miles compared to the peer systems and is near the peer average of 455 route miles.

Table 3-1: Peer System Characteristics

System	Location	# of Routes	Route Miles (2017)
CAT	Collier County	19	443
ECAT	Escambia County	24	417
LeeTran	Lee County	23	542
MCAT	Manatee County	16	306
SCAT (Sarasota)	Sarasota County	29	652
SCAT (Space Coast)	Brevard County	20	356

Source: Agency websites for number of routes, 2017 NTD data for route miles

The variables analyzed for the peer analysis in the remainder of this section cover the following three categories:

- Service area
- Service characteristics
- Financial characteristics

Service Area

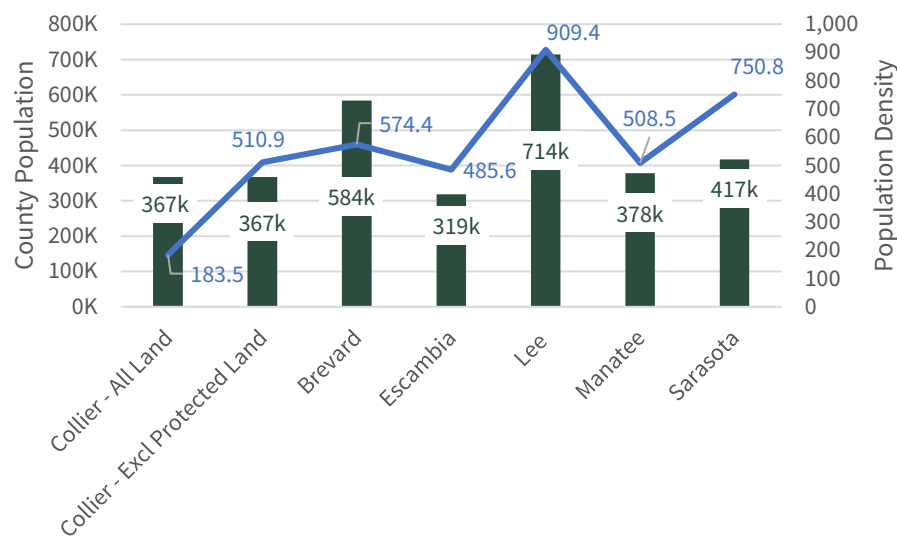
Within the service area category, the variables analyzed for this peer review include:

- 2018 countywide population
- 2018 population density
- 2018 taxable value per capita

Population and Population Density

Collier County is on the lower end of the range in terms of total population and has the largest total land area; therefore, Collier County has significantly lower population density than the counties in which its peers operate (Figure 3-1). However, as previously noted there is a significant portion of land in the county that is protected and undevelopable. When removing these lands from consideration, Collier County's population density is more in line with its peers at 510 persons per acre.

Figure 3-1: County Population and Population Density (2018)

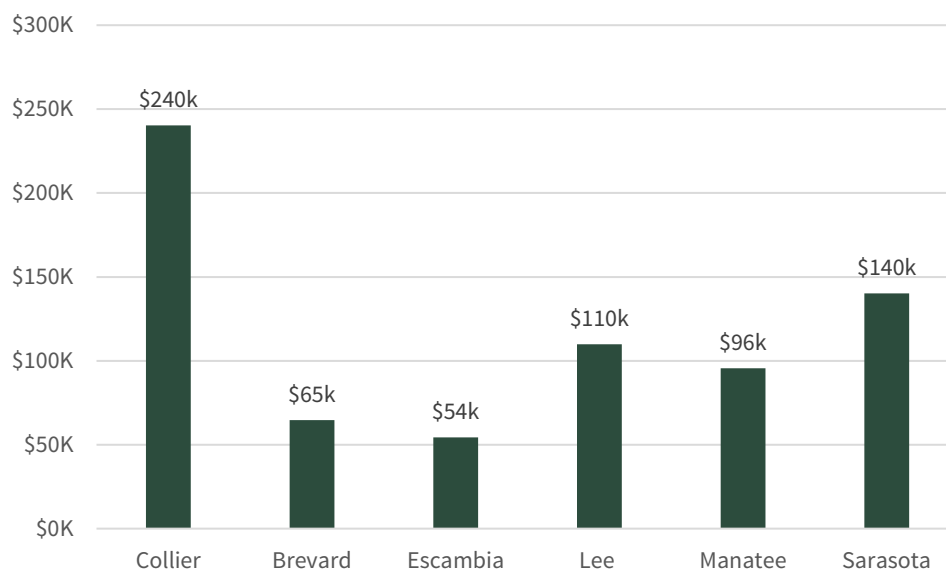


Source: BEBR 2018 population estimates, US Census Bureau

Taxable Value per Capita

Collier County has a significantly higher tax base per capita than counties in which the peer systems operate (Figure 3-2). General fund and ad valorem revenue is the most common source of local operating funds for Florida transit systems, including CAT.

Figure 3-2: Taxable Value per Capita (2018)



Source: Florida Department of Revenue 2018 Tax Roll data and BEBR 2018 population estimates

Service Characteristics

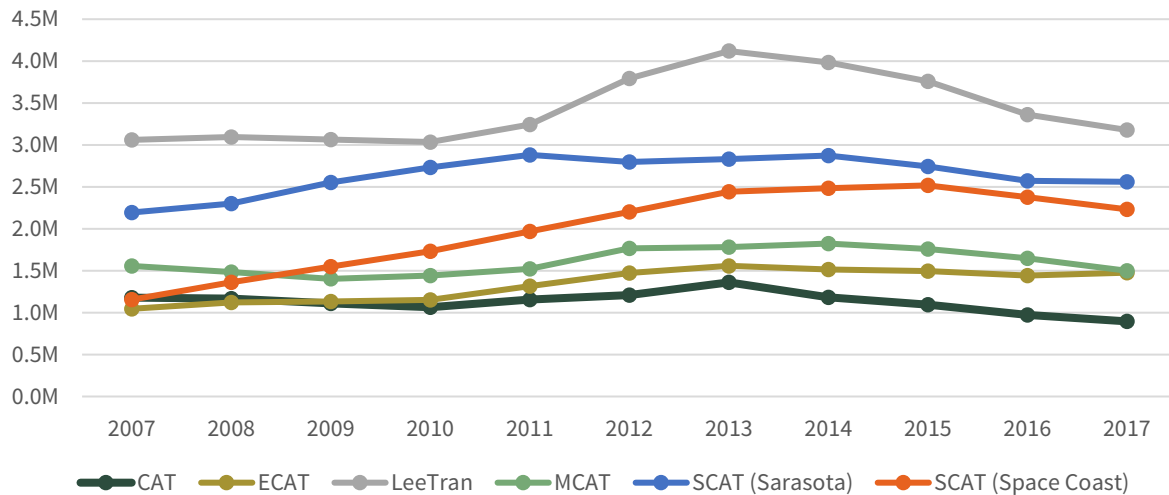
Within the service characteristics category, the variables analyzed for this peer review include:

- Passenger trips
- Average trip length in miles
- Trips per revenue mile
- Revenue hours per capita
- Vehicles operated in maximum service
- Fleet age

Passenger Trips (Ridership)

Consistent with Florida and national trends, ridership grew in varying degrees for CAT and each peer agency between 2007 through 2013. As previously discussed, as the economy has improved following the Great Recession and ride-sharing services have become a more popular way to travel, most transit agencies have experienced a ridership decline since 2013. This trend is true for CAT and each peer system. However, as shown in Figure 3-3, while CAT's ridership was similar to ECAT and Space Coast Area Transit in 2007, these two transit agencies have experienced an overall increase in ridership over the 10-years while CAT has not. Today CAT has the lowest total ridership of all the peer agencies included in this review.

Figure 3-3: Annual Ridership Trends (2007-2017)

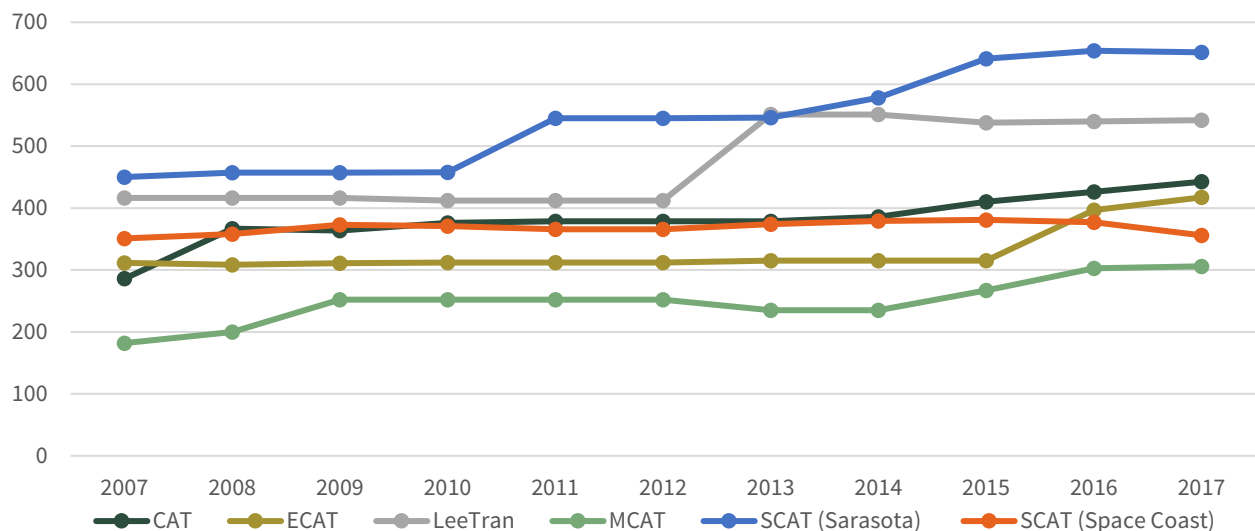


Source: 2007-2017 NTD data

Route Miles

For nearly all peer systems and CAT, the annual system route miles have increased over the last 10 years (Figure 3-4). CAT's annual route miles have increased by 55% during this period, which is higher than the average of the four remaining peers (excluding Space Coast Area Transit as an outlier since its annual route miles stayed relatively flat during this period).

Figure 3-4: Annual Route Miles

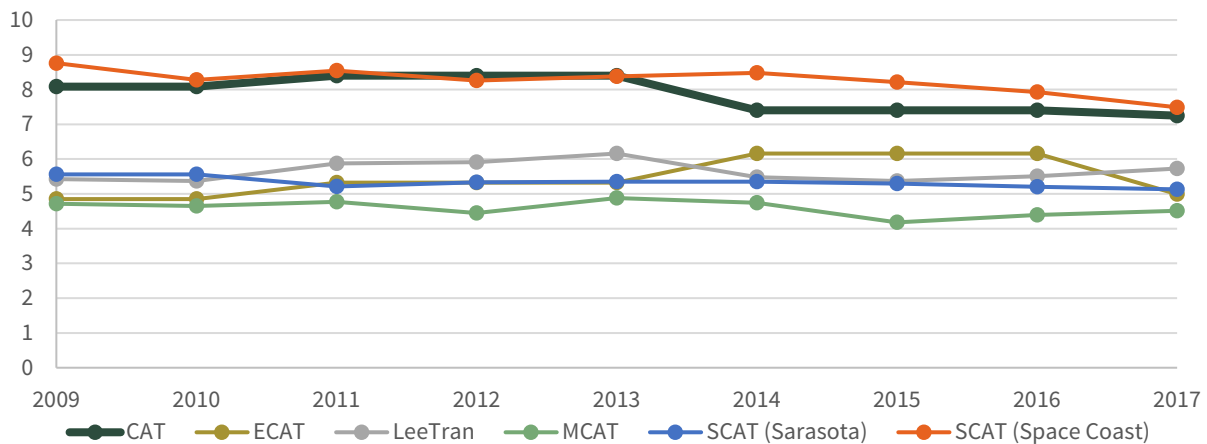


Source: 2007-2017 NTD data

Average Trip Length

The average trip length for CAT and the peer system have been mostly steady year over year (Figure 3-5). CAT has one of the higher average trip lengths of the agencies reviewed, likely a function of it providing service longer distances to areas outside of the urban core. CAT's average trip length has declined since 2013, as the area has seen growth in development.

Figure 3-5: Average Trip Length (miles)

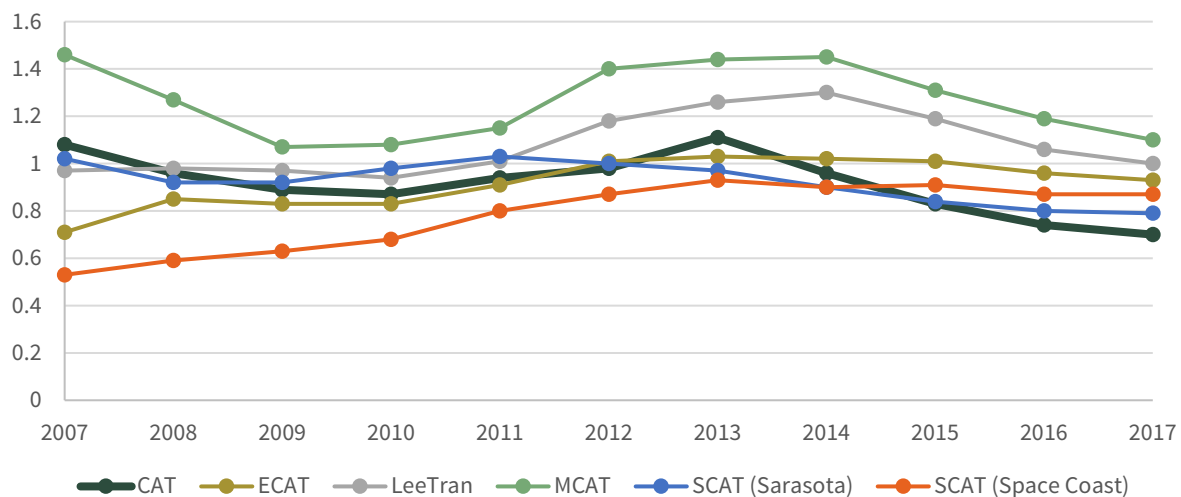


Source: 2007-2017 NTD data

Trips per Revenue Mile

Total trips per revenue mile have followed the same general trends as ridership, peaking in 2013 and subsequently declining for most systems (Figure 3-6).

Figure 3-6: Total Trips per Revenue Mile

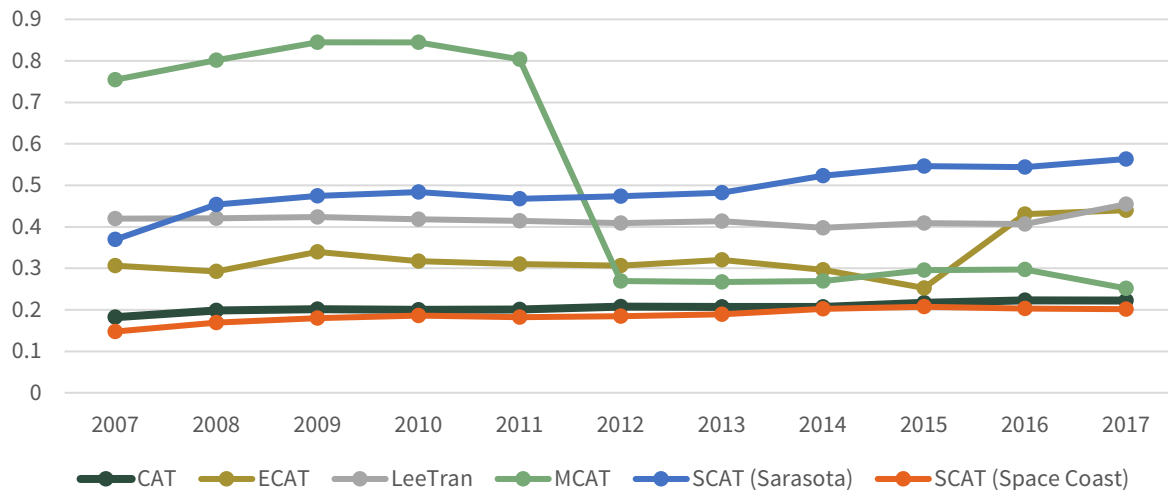


Source: 2007-2017 NTD data

Revenue Hours per Capita

As shown in Figure 3-7, revenue hours per capita have remained consistent for CAT since 2007. CAT is on the lower end of the range in terms of service provided per capita compared to the peer systems. While most agencies have seen little to no change in overall revenue hours per capita year-to-year, those that have (MCAT and ECAT) are due to more significant service changes.

Figure 3-7: Revenue Hours per Capita

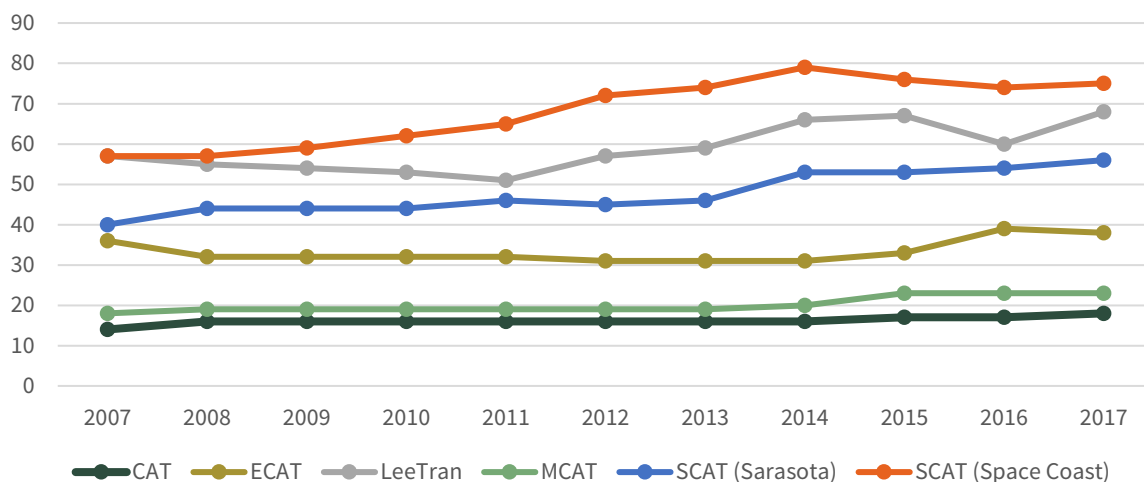


Source: 2007-2017 NTD data

Vehicles Operated in Peak Service

As shown in Figure 3-8, CAT's vehicles operated in peak service have grown from 14 to 18 over the past 10 years but remains considerably lower than most peer agencies. This is indicative of CAT's relative system size and service levels.

Figure 3-8: Vehicles Operated in Peak Service

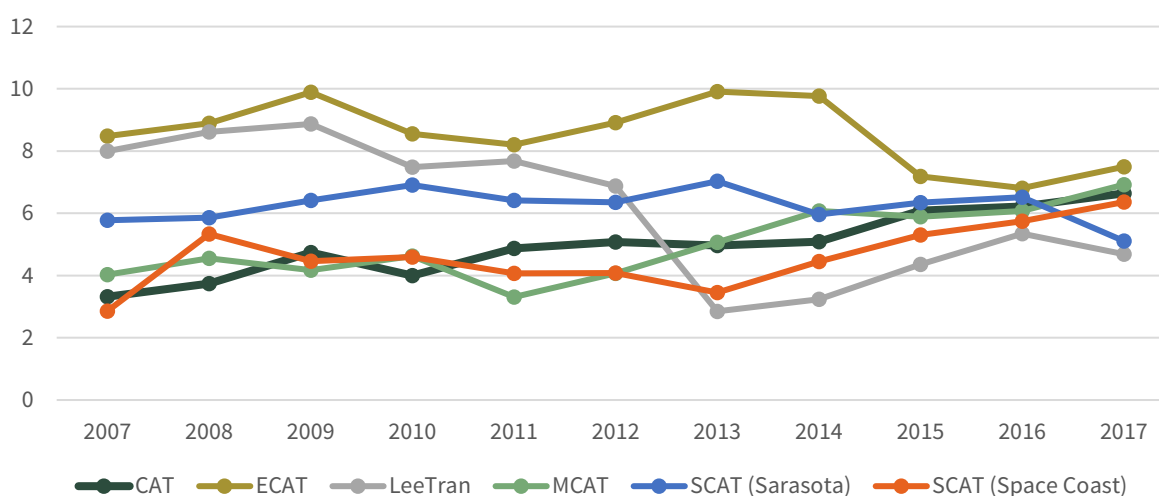


Source: 2007-2017 NTD data

Average Fleet Age

Figure 3-9 illustrates the lifecycle of transit vehicles in terms of the average fleet age. As vehicles age, they must be replaced causing ebbs and flows in the overall fleet average age. The increasing costs of vehicles, particularly those with newer technologies and alternative fuel systems, have caused many transit agencies to push back the vehicle replacement schedule, extending the average vehicle age over time. In addition to MCAT and Space Coast Area Transit, CAT's average fleet age has been steadily growing older. The remaining peer agencies reviewed, SCAT, ECAT, and LeeTran, had a younger fleet age in 2017 than in 2007.

Figure 3-9: Average Fleet Age (Years)



Source: 2007-2017 NTD data

Financial Characteristics

Within the financial characteristics category, the variables analyzed for this peer review include:

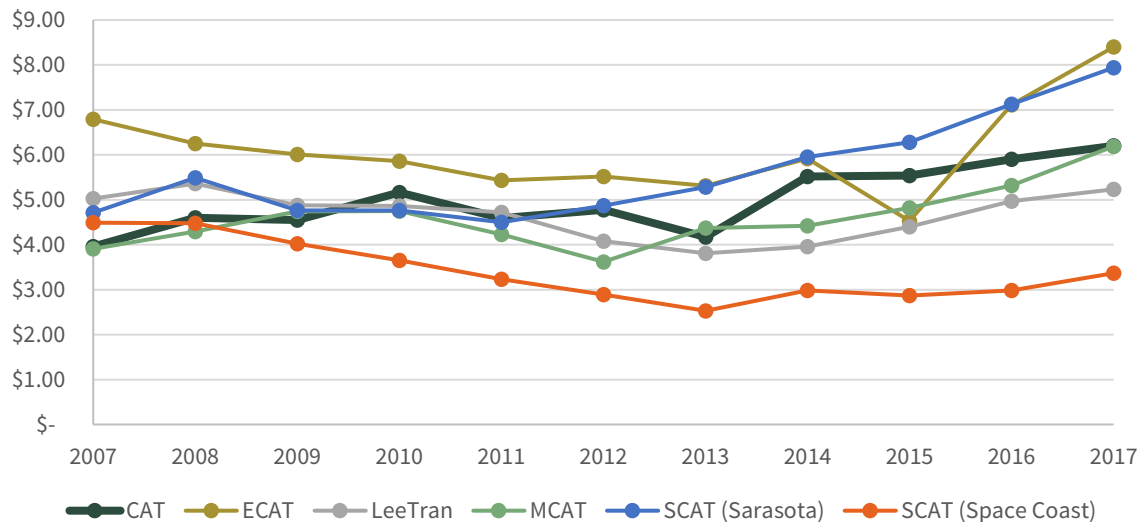
- Operating expense per passenger trip
- Operating expense per service area capita
- Capital expenses per trip
- Capital expenses per capita
- Average fare

Operating Expense per Passenger Trip

Operating expenses per passenger trip have been increasing for CAT, particularly since 2013 as the economy has rebounded, which is consistent with most other agencies included in the peer analysis. Only Space Coast Area Transit has seen slight decline in operating expenses per passenger trip over the entire 10-year period. CAT's operating costs have increased by 57% during

this 10-year period, which is higher than the 39% average increase observed for the four remaining peers (excluding Space Coast Area Transit as an outlier).

Figure 3-10: Operating Expense per Passenger Trip (\$)



Source: 2007-2017 NTD data

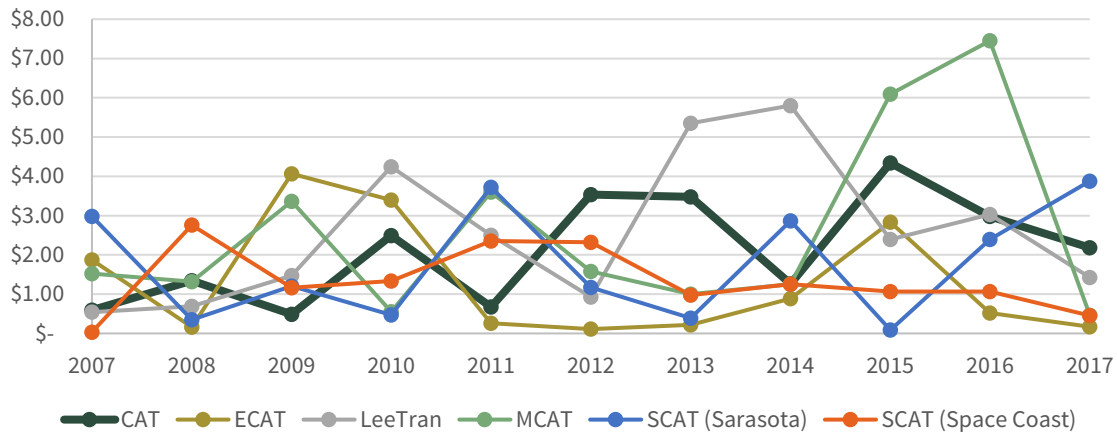
Capital Expense per Passenger Trip (\$)

As shown in Figure 3-11, capital expenses for all systems fluctuate from year to year for vehicle purchases, facilities, and other capital needs. There is no discernable trend related to capital expenses per passenger trips. Over the 10-year period, CAT has expended an average of \$2.85 annually per passenger trip. This falls within the range of the peer systems and is slightly higher than the peer system annual average of \$2.13 per trip.

Average Fare

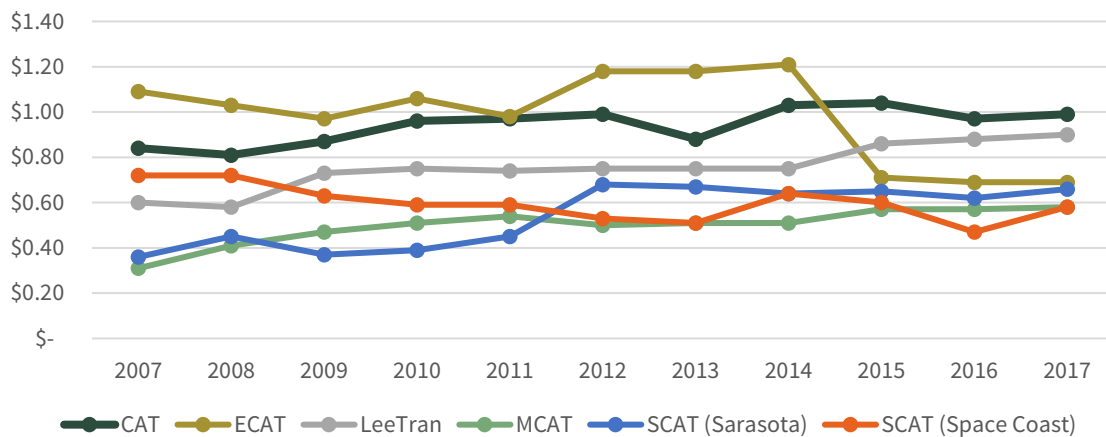
Fare revenue helps to offset a transit system's operational costs but increases in fares do not typically occur on a regular basis. This can be a challenge when operational costs increase more consistently than fares with considering inflation and other factors. As shown in Figure 3-12, of the peer systems, ECAT and Space Coast Area Transit experienced a decrease in the average fare over the 10-year period indicating a significant fare policy change occurred. While CAT had the highest average fare of the peer systems in 2017, it did not experience the same rate of increase as the peer agencies. The increase in average fare over the 10-year period (\$0.29) for the three remaining three peer systems was nearly twice that of CAT (\$0.15). However, as previously mentioned, an increase in CAT fixed-route fares went into effect October 1, 2018 that is not reflected in this figure.

Figure 3-11: Capital Expense per Passenger Trip



Source: 2007-2017 NTD data

Figure 3-12: Average Fare



Source: 2007-2017 NTD data

Key Findings

The findings from this peer review indicate that, among five comparable systems, CAT has the lowest number of total passenger trips and trips per revenue mile of service, the second lowest number of revenue hours of service per capita and operating expense per capita, and the highest average fares. CAT also has the second highest trip length of this peer group.

As with many mostly suburban Florida counties, operating cost-effective transit is challenging; however, when adjusted for protected lands, Collier's population density is within the range of the peers suggesting more transit potential than is currently provided. Although Collier is wealthier than its peer counties (as measured by property tax base per capita) and this wealth may be a contradiction for a strong transit market, the County also has a substantial service-sector economy whose workers are often transit dependent.

Section 4 Collier County Development Review Process

Collier County undertakes an annual review of the inventory and performance of its various capital facilities for which levels of service (LOS) standards have been established, including roads and bridges. The document produced from this effort is known as the Annual Update and Inventory Report (AUIR). Pertaining to roads, the AUIR provides an analysis of the existing conditions, summarizes the available capacity based on the adopted LOS, forecasts capacity of existing and planned road network as identified in the five-year capital improvement schedule, and identifies new projects needed to maintain or restore LOS deficiencies. The AUIR forms the basis for preparing the annual amendments to the County's Capital Improvement Element (CIE).

In 2004, Collier County moved from an annual concurrency review process, where traffic volumes were reviewed annually during the AUIR process, to what is labeled as a “checkbook” Transportation Concurrency Management System (TCMS). The intent of the “checkbook system” is to maintain a continuously updated log of traffic impacts upon approval of a final development order. As part of the County's TCMS, a Traffic Impact Study (TIS) must be performed for all development projects that produce net new trips to determine if there is available capacity on the affected road segments.

Traffic Impact Study

The TIS is required to quantify the potential traffic impacts of a proposed development project and determine the capacity consumed by the development for purposes of concurrency management, and to identify site-related operational deficiencies. A TIS is required for the following development applications:

- Growth Management Plan Amendment
- Zoning Changes (including Developments of Regional Impact [DRI])
- Stewardship Receiving Area Designations
- Site Development Plans
- Subdivisions/Platting
- All other development applications, except for building permits, that produce additional traffic or modifies existing traffic

While the fees collected to review a TIS vary based on which of the three study categories the development project falls in (i.e., Small-Scale, Minor, or Major), the basic requirements are not influenced by the size of the development project.

The analysis prepared during the TIS will determine if traffic impacts for a proposed development will “significantly impact” any roads or intersections. If the TIS indicates that projected traffic generated is not significant using the defined 2%-2%-3% standards (where the percentage of project trips is measured against the service volume of the adjacent and nearby roadways), then

the development's impact is not required to be analyzed. If the TIS indicates that projected traffic generated is considered significant and adverse, then operational impacts of the development project traffic will have to be mitigated for facilities failing to achieve acceptable levels of service.

If available capacity exists, traffic generation from the development project is recorded in the trip bank upon final development order approval and that capacity is no longer considered available for the purpose of any future TIS completed by subsequent development projects.

If the TIS reveals that there is not sufficient capacity on the affected road network within the analysis time period or the development's impact is significant or adverse, then the development must mitigate its impacts by either creating additional road capacity (or providing a proportionate-share payment) or lessening traffic volumes prior to approval of the development order.

Within one year from development order approval, 33% of applicable impact fees must be paid to retain trips in the trip bank beyond the one-year period and vest the development for concurrency. Final calculation of the impact fees is based upon the rates in effect when the building application is submitted. The balance of road impact fees due is paid at building permit issuance.

Concurrency

Within unincorporated county, there are three areas in which development projects may be exempted from the County's concurrency process. These include the South US 41 Transportation Concurrency Exception Area (TCEA), illustrated in Figure 4-1, and the Northwest and East Central Transportation Concurrency Management Areas (TCMA), illustrated in Figures 4-2 and 4-3, respectively.³

Developments within these areas are subject to transportation concurrency unless the applicant requests exemption. Development projects located in the TCEA and the TCMA's can be exempt from concurrency if certain requirements are met; however, the developer must still submit a TIS even if seeking concurrency exemption to maintain accurate capacity counts for the TCMS.

³ Section 6.02.02[I], Collier County Land Development Code

Figure 4-1: South US 41 TCEA

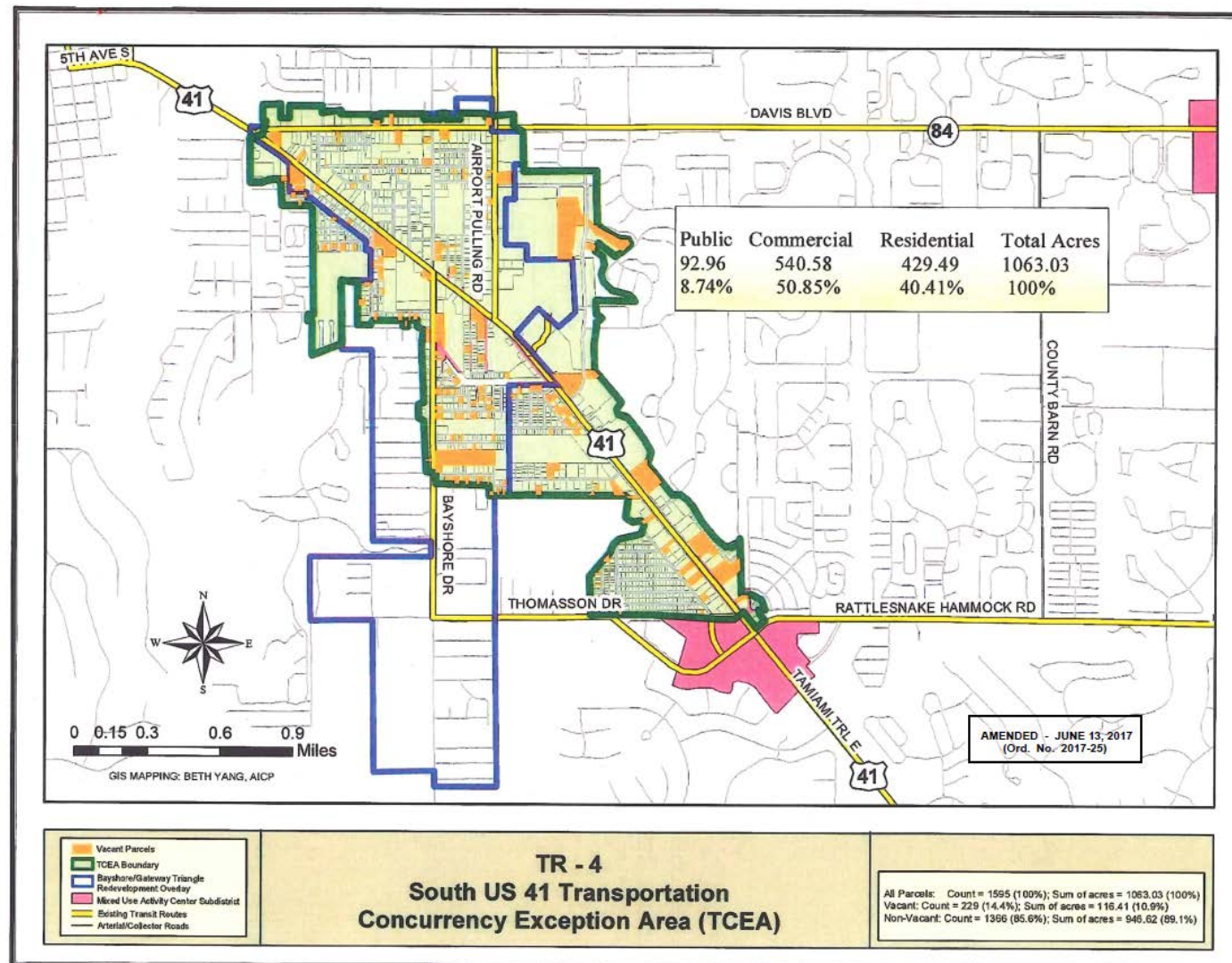


Figure 4-2: Northwest TCMA

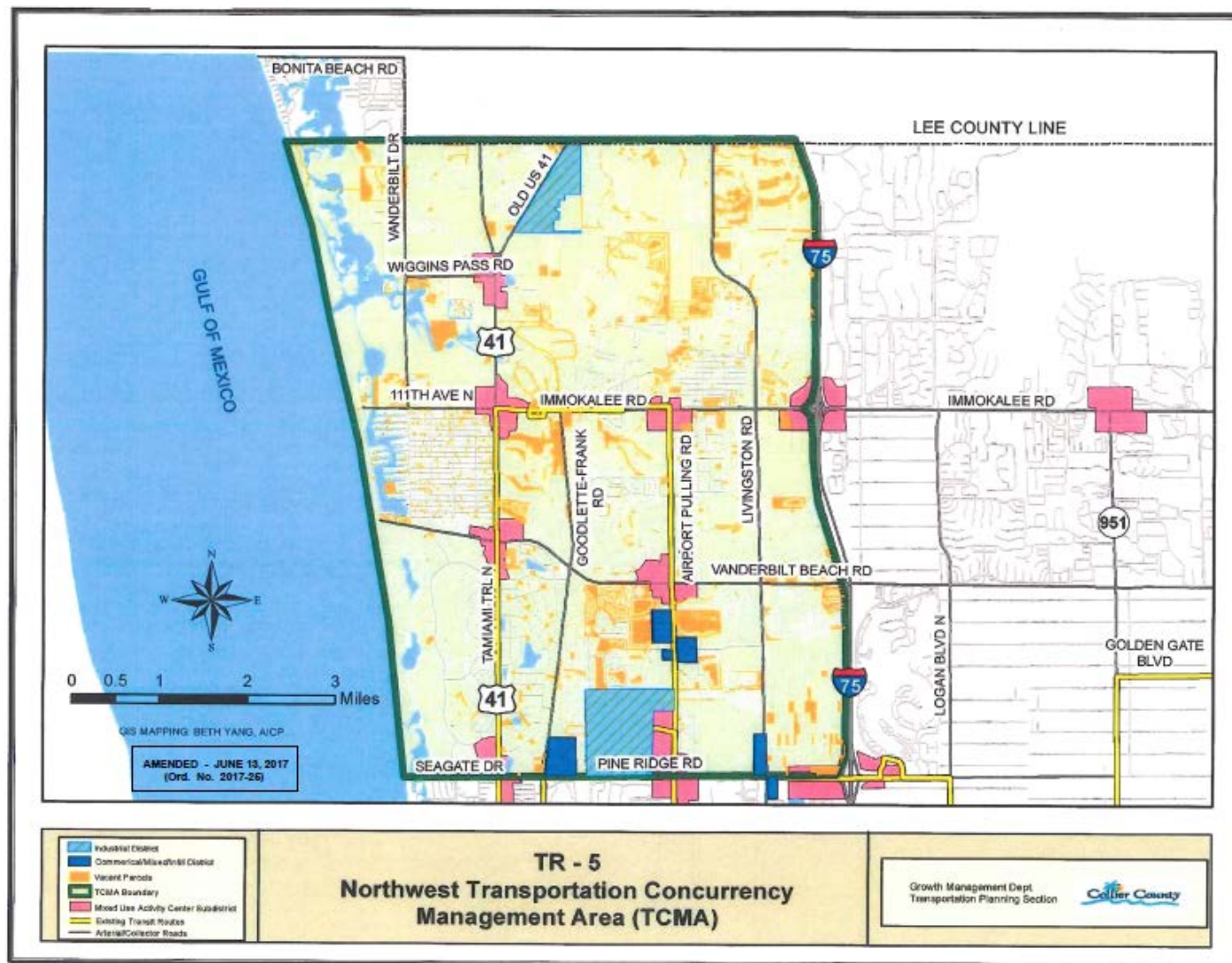
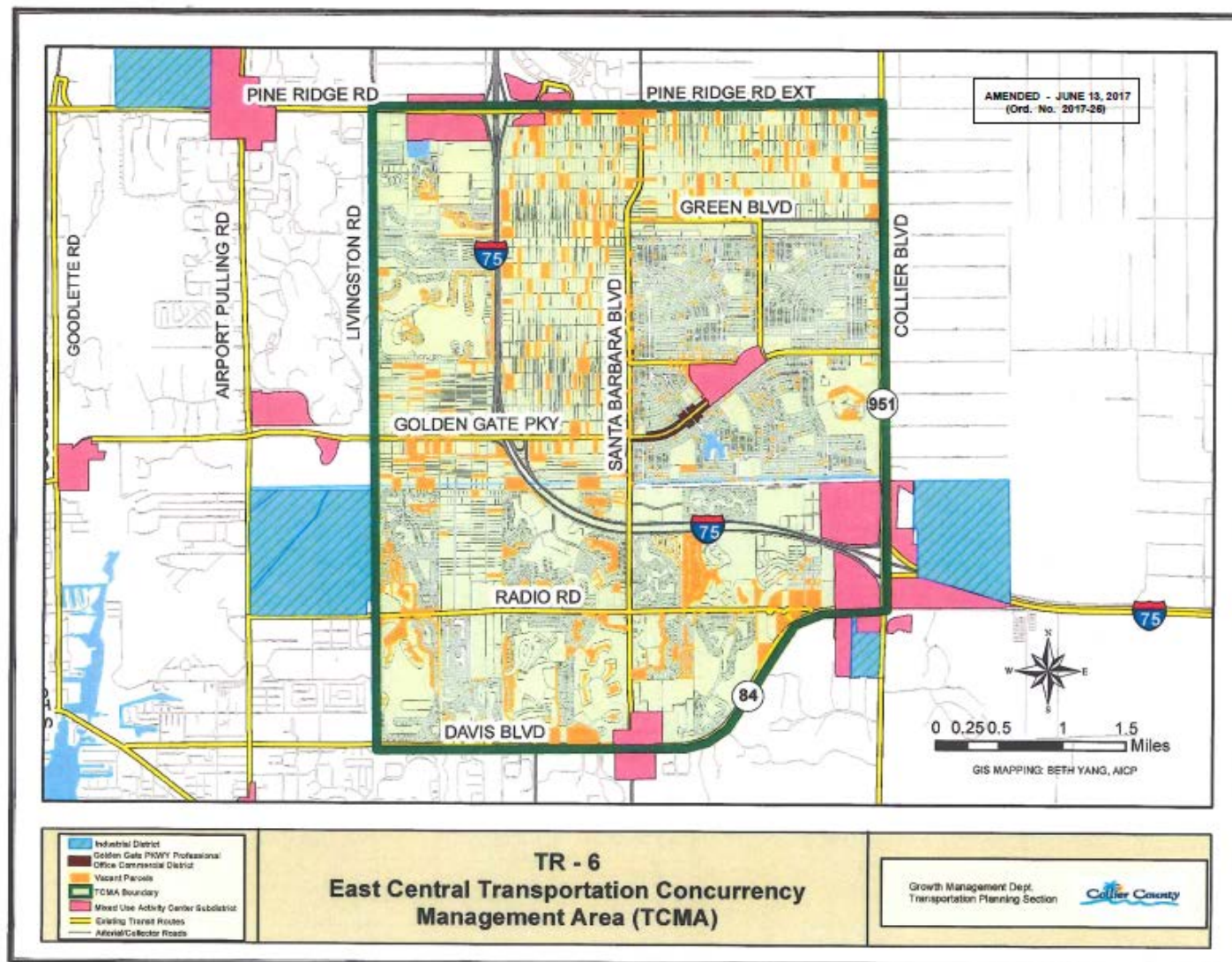


Figure 4-3: East Central TCMA



Transportation Concurrency Exception Area

Development projects located within the South US 41 TCEA may be exempt from transportation concurrency requirements if exemption is requested and the proposed development does not reduce the LOS of the Florida Intrastate Highway System (FIHS) by more than 5% of the capacity at the adopted LOS standard. If it does, the following conditions must be met:

- Commercial developments must implement at least two of the approved transportation demand management (TDM) strategies listed below that reduce peak hour trips or vehicle miles of travel (VMT) generated by the commercial development.⁴
 - **Preferential van/carpool parking** that is expected to increase the average vehicle occupancy for work trips generated by the development.
 - **Parking charge** that is expected to increase the average vehicle occupancy for work trips generated by the development and/or increase transit ridership.
 - **Cash subsidy** that is expected to increase the average vehicle occupancy for work trips generated by the development and/or increase transit ridership.
 - **Flexible work schedules** that are expected to reduce peak hour automobile work trips generated by the development.
 - **Compressed work week schedules** that would be expected to reduce vehicle miles of travel and peak hour work trips generated by the development.
 - **Telecommuting** that would reduce the vehicle miles of travel and peak hour work trips generated by the development.
 - **Transit subsidies** that would reduce auto trips generated by the development and increase transit ridership.
 - **Bicycle and pedestrian facilities** that would be expected to reduce vehicle miles of travel and automobile work trips generated by the development.
 - **Residential units included as a portion of a commercial project** that would reduce vehicle miles of travel.
- Residential developments must implement at least two of the approved TDM strategies listed below that provide mobility options or reduce VMT by the residential development.⁵
 - **Neighborhood commercial uses** that would reduce vehicle miles of travel.
 - **Transit shelters** within the development (must be coordinated with Collier County Transit) that would be expected encourage transit usage.
 - **Bicycle and pedestrian facilities** with connections to adjacent commercial properties that would be expected to increase non-driving trips in proximity.

⁴ Section 6.02.02(l)(3), Collier County Land Development Code

⁵ Section 6.02.02(l)(4), Collier County Land Development Code

- **Affordable housing** (minimum of 25% of the units) included within the development.
- **Vehicular access to adjacent commercial properties** with shared commercial and residential parking.

Transportation Concurrency Management Areas

Within each TCMA, 85% of the north-south lane miles and 85% of the east-west lane miles must be at or above the LOS standards to maintain concurrency. It should be noted that in the East Central TCMA, I-75 is not included in the concurrency analysis. If the analysis indicates that less than 85% of the lane miles are achieving the adopted LOS standard, then the proposed development will not be permitted unless modification of the development is made sufficient to maintain the LOS standard for the TCMA, or the facilities required to maintain the adopted LOS standard are committed.

If a TIS for a proposed development indicates that that development will impact a constrained or deficient roadway link by more than a *de minimis* amount (i.e., more than 1% of the maximum service volume at the adopted LOS), yet continue to maintain the adopted LOS for 85% of the east/west and north/south land miles, a proportionate fair share payment is required. The proportionate fair share payments within a TCMA must be used by Collier County to add trip capacity, enhance traffic operations, or enhance mass transit or other non-automotive transportation alternative that reduce vehicle trips within the TCMA. No impact will be *de minimis* if it exceeds the adopted LOS standard of any affected designated hurricane evacuation routes within the TCMA. Any impact to a hurricane evacuation route within a TCMA must require a proportionate fair share payment provided the remaining LOS requirements of the TCMA are maintained.

To be exempt from link-specific concurrency, the following must be achieved:

- Commercial developments must implement at least two of the approved TDM strategies that reduce peak hour trips or VMT by the commercial development previously listed under the TCEA requirements.
- Residential developments must implement at least two of the approved TDM strategies that provide mobility options or reduce VMT by the residential development previously listed under the TCEA requirements.

In determining the available capacity of a County or State road segment or area-wide capacity for a TCMA, the following must be considered:⁶

- Available capacity on existing affected road network.

⁶ Section 6.02.03[D], Collier County Land Development Code

- Capital road improvements under construction for which the construction contract has been let.
- Improvements included in a development agreement that are completed, under construction, or the construction contract has been issued before the impact from the development or phased development impact the road system.
- Construction of the required capital improvements included in the first two years of either the FDOT Five-Year Work Program or Collier County Schedule of Capital Improvements as part of the AUIR, Annual CIE, and financially feasible annual County budget.
- Final local development order is within a project located within a TCEA or TCMA.
- Necessary facilities are the subject of a binding proportionate fair share agreement with the developer.

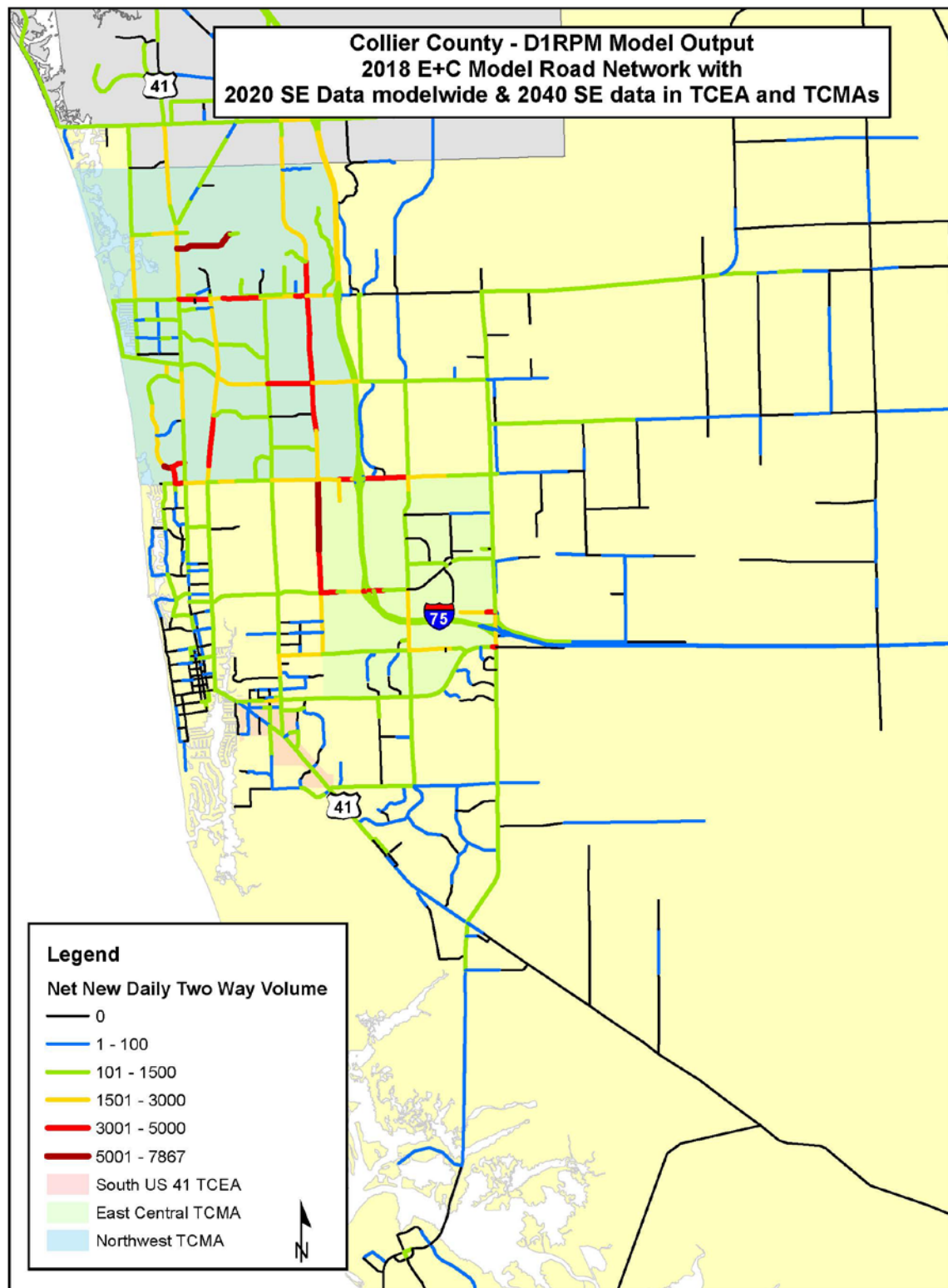
Analysis of Potential 2040 Traffic Congestion in TCEA/TCMAs

An analysis was completed to understand the net additional traffic impacts placed on the TCEA and TCMA road networks if population and employment growth projected by 2040 occurred today within these areas. The road network in this analysis is the 2018 E + C (Existing + Committed) roadway network from the FDOT District 1 Regional planning Model (RPM) v1.0.3. Projected growth from the RPM assumes 2040 population and employment growth based on socioeconomic (SE) forecasts within the TCEA and TCMAs and 2020 forecasted growth in the remainder of the county, so as to isolate potential traffic impacts due to projected growth within these three specific areas.

As shown in Map 4-1, there are relatively minimal impacts in terms of net new daily two-way traffic volumes observed in the South US 41 TCEA. Within the East-Central TCMA, traffic volumes on Livingston Rd (between Golden Gate Parkway and Pine Ridge Rd) and on Pine Ridge Rd (from Airport Pulling Rd to east of Santa Barbara Blvd) generally increased 10%-20% based on this analysis. In the Northwest TCMA, similar growth in traffic volumes were observed primarily on Livingston Rd (from Pine Ridge Rd to Immokalee Rd), Immokalee Rd (between US 41 and Livingston Rd), and Goodlette-Frank Rd (between Pine Ridge Rd and Vanderbilt Beach Rd).

The results of this analysis indicate that, if 2040 projected population and employment levels spontaneously occurred within the TCEA and TCMAs today, significant adverse impacts to traffic congestion would not be expected. This is supported by discussions with County staff that, due to the areawide LOS standard approach, development projects within the TCMAs rarely impact a deficient road to trigger mitigation requirements.

Map 4-1: TCEA and TCMA Traffic Analysis



Key Findings

While CAT staff participate in informal meetings with various County departmental staff concerning development review applications, this is no formal procedure for how potential impacts of the development project on the transit system are considered. A challenge with integrating transit into the development review process is establishing a rational nexus between the development and transit service needs. Based on discussions with County staff, it is very common for developers to dismiss any transit-related mitigation requests if no existing transit service is provided in proximity to the development. There is nothing binding requiring a developer to mitigate potential transit impacts as part of the development review process. The County's regulatory process should be updated to strengthen how this nexus is established and to better define the corresponding mitigation requirements. One such approach to establishing this nexus is to adopt LOS standards for transit services; however, in this event monitoring of CAT's performance will need to be integrated into the County's AUIR process consistent with the County's other public facilities.

Within the TCMA's, due to the areawide LOS standard, implementing TDM strategies does not become required unless the developer is impacting a deficient road. County staff has observed a tendency for development projects to be scaled back to avoid triggering these TDM requirements. Also, since developers can pick any TDM strategies from the provided options, those selected may be of the lowest cost and may not necessarily provide the best results or be most effective options for that specific development. It was also observed that regulatory language in the Land Development Code and policies in the Growth Management Plan provide inconsistent guidance on implementing and monitoring the effectiveness of TDM strategies. Since the TDM options have been codified for several years, examining ways to improve this list and ensure that more current approach and technologies are considered may be appropriate.

Section 5 Initial Strategies for Evaluation

This section discusses an initial list of regulatory or policy changes that Collier County could pursue to enhance consideration for transit in the development review process. Recommended strategies from this broader list selected for future implementation by Collier County are described in the next section.

Site Access Requirements

Collier County's Comprehensive Plan and Land Development Code do not have established requirements for transit facilities. As a component of the County's overall transportation system, access to transit should be considered, similar to roadway or sidewalk network access. In the same way that the County's Land Development Code regulates driveway access points, including the need for auxiliary lanes, traffic signals, or other infrastructure incident to providing a connection between the public transportation network and a private development site, the County may choose to require consideration of how the residents, customers, and employees of a new or redevelopment are provided access to the CAT's services.

These requirements should be roughly proportional to the scale of the development and should consider the needs of CAT customers and the interaction of CAT vehicles with other traffic along the roadway. In terms of proportionality, measures of scale related to trip generation are more readily relatable to potential use of transit service than measures of building square-footage or functional population. Because the benefit provided to the site by the required infrastructure is clear, the proportionality of the developer contribution to the development's impacts needs to be reasonable, but not necessarily mathematically quantified.

Site access requirements for transit should apply when development is situated along active transit routes, but may also apply when development is located along transit routes identified in appropriate planning documents, such as CAT's 10-year Transit Development Plan (TDP) or the Collier MPO's Long Range Transportation Plan (LRTP). Suggested transit site access requirements, similar to those implemented by other Florida communities, are shown in Table 5-1.

Table 5-1: Example Transit Site Access Requirements

Gross Daily Trip Generation	Transit Infrastructure Requirements
All Development	<i>Provide an ADA accessible pad for any existing bus stops situated along the development site.</i>
500 – 1,000	<i>If requested by the transit agency, provide a basic bus stop shelter</i>
>1,000 – 5,000	<i>If requested by the transit agency <u>and</u> the roadway owner, provide a bus bay with bus stop shelter for a bus stop situated along the development site</i>
> 5,000	<i>If requested by the transit agency, provide a roadside premium bus shelter or on-site transit center</i>

If provision of an ADA accessible pad, shelter, or shelter and bus bay requires right-of-way, the developer shall grant necessary right-of-way easement(s) except in cases where doing so would constitute a hardship upon the development. Construction of the required transit facilities and right-of-way easement shall not be creditable against the developer's transportation impact fee or proportionate share obligations (if any).

Growth Management Plan Options

As discussed in the previous section, Collier County has established a framework for alternative mitigation processes within the County's two TCMAs and the TCEA; however, this framework has not consistently resulted in transit-supportive development or developer contributions to support alternative modes. Based on review of the relevant Growth Management Plan policies and Land Development Code regulations, the following factors may contribute to the limited utility of the County's current alternative mitigation process:

- Alternative mitigation does not exempt developers from conducting a TIS and developers will frequently scale down their projects to avoid this obligation.
- The alternative mitigation process includes ongoing monitoring requirements which may be onerous to manage for both the County and developers, further disincentivizing use of the process.
- The application of bonus densities, allowed within the TCMAs and to meet affordable housing goals, are discretionary and are often denied by the County's Planning Board.

Both TCMAs and TCEAs are legacies of State-mandated concurrency and the legislation and administrative rules that established the specific requirements for TCMAs and TCEAs no longer exist. Under the current State regulations, local governments have significant flexibility in how to address transportation concurrency. Accordingly, the County has the option to consider what

aspects of the TCEA/TCMAs benefit the County and which aspects, designed to meet past State requirements, no longer serve the County’s interests.

The question of appropriate densities/intensities in the context of Collier County is a broader question, but there are established measures to indicate how density, diversity of land uses, and aspects of urban form relate to the efficient provision of transit service. Presently, most of Collier County west of CR 951/Collier Boulevard falls within the Urban Residential Mixed-Use Subdistrict, which allows a maximum of 16 residential dwelling units per acre (DU/acre). This area also includes Mixed Use Activity Centers; however, these also are limited to 16 residential DU/acre.

Table 5-2 show how different residential densities and non-residential employment intensities relate to support for transit investments. While the maximum allowed densities in Collier County correspond to the “Very High Investment” category, effective densities along transit corridors in Collier County are a blend of small areas of higher density infill and redevelopment combined with large areas of existing, low-density single-family residential development. Accordingly, it may be appropriate to consider higher allowed densities in order to off-set existing low-density development along transit corridors.

Table 5-2: Transit Service Density Thresholds

Level of Transit Investment	Dwelling Unit Density Threshold	Employment Density Threshold
Minimum Investment	4.5 – 5 DU/acre	4 employees/acre
High Investment	6 – 7 DU/acre	5 – 6 employees/acre
Very High Investment	≥ 8 DU/acre	≥ 7 employees/acre

¹ TRB, National Research Council, TCRP Report 16, Volume 1 (1996), “Transit and Land Use Form,” November 2002, MTC Resolution 3434 TOD Policy for Regional Transit Expansion Projects.

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

Potential strategies to promote transit supportive densities and to enable developers to contribute to transit improvements necessary to meet the demand new development or redevelopment places on the transit system include the following:

Reconfigure TCEA and TCMAs

Acknowledging that the specific requirements of the County’s TCEA and TCMAs are no longer required by state law, the County has latitude to reconfigure the TCEA and TCMAs into a consolidated transit-oriented infill and redevelopment district. Consistent with the original intent of the TCEA and TCMAs, the transportation review process for these districts could seek to incentivize infill and redevelopment in a manner that supports transit and non-motorized modes by simplifying the TIS requirements for most development projects while retaining a “back-stop” to guard against adverse traffic impacts of large scale development.

One approach that could be used to simplify the traffic review/mitigation process is to establish three thresholds for expedited transportation review based on a development’s net peak hour trip

generation. Like the current *Traffic Impact Study Guide*, these three levels reflect the complexity of the required study; however, in the proposed “TOD Infill and Redevelopment District” the procedures for the “Small” and “Minor” project studies would be further simplified as shown in Table 5-3.

At the County’s Administration’s discretion, consideration should be given to promoting mitigation through fair share payments used to fund alternative mitigation as a priority to equal mitigation or fair share payments for roadway improvements within the proposed TOD Infill and Redevelopment District. Consideration should also be given to simplifying the process for calculating fair share payments within the proposed TOD Infill and Redevelopment District to ensure the study process is not a disincentive to denser, more transit-supportive development.

Table 5-3: TOD Infill and Redevelopment District TIS Guidelines

Project Size	Net Peak Hour Trips ¹	Study Requirements	Mitigation
Small	<50 Peak Hour Trips	Site Access Only	Pay applicable transportation impact fee
Minor	50 - 5% LOS “D” Service Capacity	Site Access + Adjacent Intersections ²	Pay applicable transportation impact fee; make equal mitigation improvements or pay for fair share mitigation ³
Major	> 5% LOS “D” Service Capacity	Major Traffic Impact Study per TIS Guide	Pay applicable transportation impact fee; make equal mitigation improvements or pay for fair share mitigation ³

- 1) Percent of the LOS “D” peak hour two-way service capacity of the smallest adjacent thoroughfare roadway.
- 2) Adjacent major roadway intersections within 0.25 miles of the site are “significantly impacted” if the existing approach volume + proposed project peak hour trips are greater than 110% of the approach segment’s existing + committed adopted peak hour, peak direction service capacity.
- 3) Fair share obligations may, at the discretion of the County be directed toward off-site transit capital improvements and/or other “alternative mitigation options” and are off setting to the project’s impact fee obligations.

An alternative approach to an areawide TOD Infill and Redevelopment District is to define TOD Corridors incorporating higher performing transit routes and existing Activity Centers. While functionally similar, this approach clearly shows that higher-density mixed-use infill and development is to be concentrated along existing commercial corridors and activity center nodes rather than within single-use, lower-density neighborhoods.

Whether proposed as a replacement process for the geographic area currently covered by the TCEA and TCMA’s, or a TOD Corridor network, strategies to promote transit supportive densities and land use diversity should be paired with strategies to promote workforce housing. This could include “by-right” bonus densities for affordable/workforce housing within the TOD area or TOD corridors.

Simplifying the TIS process for small and minor-scale developments and making it easier to direct fair share contributions to transit investments and other alternative mitigation measures could be implemented in the near-term. However, as a longer-term strategy, the County could also consider

implementing a multimodal impact fee within the proposed TOD Infill and Redevelopment District or along TOD Corridors. This fee would be similar in scope to the County's current roadway transportation impact fee but would allow some percentage (e.g. 20%) of district revenues to be directed to transit capital expansion.

Reevaluate Transportation Demand Management (TDM) Strategies

As previously noted, there are two primary challenges to implementing TDM strategies within the TCEA and TCMA's under the current process. First is the tendency for development projects to be scaled back to avoid triggering the TDM requirements so they are ultimately not implemented. Second is that, under the current rules, developers can pick from any two TDM strategies from the options provided. Those that are selected may not be the most effective or sensible strategies for that specific development. Since the available TDM options have been codified for several years, examining ways to improve this list and ensuring that more current approach and technologies are considered is recommended. As part of this, there are several options for County staff to consider.

1. Require (rather than make optional) certain TDM-supportive infrastructure improvements keeping such requirements proportional to the scale of the development. The specific infrastructure strategies that could be required include:
 - a. Transit site access improvements for commercial and residential developments, as discussed previously in this section. For larger developments with higher trip generation, it may be more appropriate for the developer to pay the County directly for the cost of the required transit infrastructure. This will ensure consistency with CAT's design standards and provide CAT staff flexibility in determining how best to support the transit access and infrastructure needs for that development.
 - b. Covered bicycle racks or on-site bicycle storage for both commercial and residential developments with access to bicycle facilities. The number of racks/storage spaces provided should be proportional with the development size (based on square footage, number of employees, number of dwelling units, etc.) up to a specified limit.
 - c. Preferred parking spaces for vanpool, carpool, or other car-share vehicles (e.g., Zipcar) for commercial office developments as a ratio to the overall required number of parking spaces up to a specified limit.
 - d. Preferred parking for electric and car-share vehicles for commercial retail or mixed-use developments as a ratio to the overall required number of parking spaces up to a specified limit.

2. Currently there are no requirements or guidelines as to which TDM strategies a developer may select. TDM strategies that are of the lowest cost or easiest to implement can be selected to meet the requirements, even if they are not the best or even appropriate fit or most effective for a particular development project. It is recommended that the County consider categorizing the types of TDM strategies and the required number of strategies selected within each category for commercial or residential developments.
3. It is recommended that new TDM strategies be considered for inclusion in the list of options available to select from:
 - a. Shared or combined parking between two or more buildings or uses where a specified reduction of the required spaces is allowed if it can be demonstrated that the hours or days of peak parking need for the uses are different to where the lower total will provide adequate parking for all uses served by the facility.
 - b. Providing for end of trip facilities (shower and changing rooms) for employees who use active transportation to get to work.
 - c. Providing dedicated park-and-ride spaces for transit riders in proximity to an existing bus stop.
4. Regulatory language in the Land Development Code and policy language in the Growth Management Plan both address TDM requirements for development projects within a TCEA or TCMA; however, there are inconsistencies between the two and monitoring and evaluation of the TDM strategies post-implementation is not addressed in the Land Development Code. It is recommended that revised detailed regulatory language be provided in the Land Development Code and with supporting policy language provided in the Growth Management Plan.

Evaluate Mixed-Use Corridor and Activity Center Density Allowances

To better enable the limited area within western Collier County available for infill and redevelopment to more effectively off-set existing lower densities, consideration should be given to increasing allowed density within established activity centers and along mixed-use corridors. While other counties along the southwest Florida coast have similar upper density ranges as Collier County, others recognized increased densities along key transit corridors. For example, Manatee County allows up to 32 DU/acre along designated Urban Corridors for affordable housing and/or mixed-use activity nodes.

To better understand the potential impacts of allowing additional density along urban corridors and in mixed-use nodes, Collier County could undertake the following activities:

- Evaluate transit supportive densities based on existing uses and allowed activity center densities.

- Evaluate transit supportive densities based on existing uses and enhanced activity center densities.
- Compare the relative impacts of existing and enhanced densities on the roadway network.

Transit Operations Funding

The recommendations previously discussed in this section address certain capital infrastructure improvements provided or funded by the developer in proportion to the anticipated development impacts. However, like many transit agencies, CAT is challenged with maintaining sufficient operating revenues as costs increase due to inflation or for needed system expansion. Further, the peer analysis suggests that more transit potential exists in the county than is currently provided so system growth is likely.

Local funding sources available to Florida agencies for transit operations are primarily sales tax or general fund revenues; these are supplemented with fare revenue and other miscellaneous local sources.

In November 2018, Collier County voters approved a one percent discretionary local option sales surtax to pay for local authorized infrastructure projects. This local option sales surtax can only fund eligible infrastructure or capital improvements, not operations or maintenance expenses. Effective January 1, 2019, the surtax provides funding for specific roadway, bridge, and sideway transportation projects; community projects (such as mental healthcare and workforce housing), and public facility improvements. Collier County is not a Charter County and therefore is not eligible for the Charter County and Regional Transportation System surtax that can provide funding for transit operations and maintenance, in addition to capital infrastructure.⁷

As previously noted, CAT completed a fare study in 2018 and the fixed-route fare structure was modified with one-way fares increasing by \$0.50 on October 1st of that year. It is unlikely fares will be reviewed for potential modification for several more years as CAT's policy is to review the fare structure approximately every five years.

Given the above, general fund revenue is left as the primary option for increased local funding for transit operations. An increase in general fund revenue is typically achieved by increasing property tax (ad valorem) revenue. However, increasing property taxes can be politically challenging, so identifying ways to redistribute existing property tax or general fund revenue in a way does not impact existing series and program is ideal, but is often very difficult. Therefore, more creative approaches to funding CAT operations must be explored.

In July 2019, Urban3 made a presentation to the Board of County Commissioners about Collier County-specific fiscal data, projections, and recommendations related to long-term growth

⁷ As defined in § 212.055, F.S.

policies in rural towns and villages and in urban infill and redevelopment areas. In this presentation, a review of Collier County Property Appraiser data suggests that surface parking lots in in the county, particularly the urbanized area, are undervalued in comparison to the developed portion(s) of the parcel. This provides an opportunity for the Property Appraiser to review how parking lots are valued and if a policy change should be implemented where their value is increased to be more proportional to the accompanying building value. If this change is made and additional property tax generated as a result, then the Board of County Commissioners can make a policy decision to redirect the incremental increase in property tax revenues to fund transit operations rather than be redirected back to the general fund. Discussions with the Collier County Property Appraiser and County Senior Management should be held to determine if there is support for pursuing such a policy change.

Section 6 Final Recommendations & Implementation Support

Following discussions with the Project Advisory Team, comprised of Collier MPO, CAT, and Collier County Transportation and Growth Management staff, regarding direction from senior county leadership on potential recommendations from this study, it was decided to move forward with implementation support for the following:

- Provide draft Land Development Code language to require **transit infrastructure site access improvements** by new or redevelopment projects. The TIS procedures will also be reviewed to determine if any language changes are necessary to support transit site improvement requirements.
- Provide draft language to integrate updated and consistent **Transportation Demand Management (TDM) strategies** into the Land Development Code and Growth Management Plan. As part of this effort, research was conducted on 1) best practices for TDM employment, monitoring, and evaluation; 2) the feasibility of implementing a developer-funded transit pass program for employees and/or residents of new or redevelopment projects to provide potential operating revenue for Collier Area Transit.

The remainder of this section expands on the above recommendations and implementing actions resulting from this study. This study will conclude with these recommendations presented to the County's Public Transit Advisory Committee (PTAC) and the Collier MPO's Citizen Advisory Committee (CAC), Technical Advisory Committee (TAC), and Board in November and December 2020.

Following completion of this study, County planning staff, senior county leadership, and the County Attorney will carry forward implementation of the draft regulatory and policy language provided from this study as described below. As part of the implementation process, review by County's Development Services Advisory Committee (DSAC) and Planning Commission will be necessary, with recommendations from both submitted to the Board of County Commissioners for consideration as part of the Board's approval process.

Site Access Requirements

As noted in the prior section, Collier County's Land Development Code does not have established requirements for transit facilities. In implementing this new regulatory requirement, the transit infrastructure to be provided at the development site should be roughly proportional to the scale of the development's trip generation.

Site access improvement requirements need not be tied to an overall LOS standard but should be related to minimum design standards for public infrastructure provided by the County. For example, if the County generally constructs 5-foot wide 6-inch deep sidewalks along suburban roadways, a developer ought not be required to construct a 10-foot wide sidewalk. Likewise, if the typical CAT bus shelter (inclusive of furniture, concrete pad, and prefabricated shelter) costs

\$15,000, developers ought not be required to construct elaborate site-built shelters with sophisticated amenities beyond the scope of what CAT would typically provide. Guidance regarding the recommended improvements related to the scale of the development was based, in part, on a review of CAT’s Bus Stop Infrastructure Design Guidelines.

Regulatory Language Recommendations

Section 6.06.02 of the Land Development Code currently addresses site access requirements for sidewalks, bike lanes, and pathways. As part of this study, draft language was provided to the Project Advisory Team that incorporates transit infrastructure site access requirements into this section of the Code. To delineate this change, it is recommended that Section 6.06.02 be renamed from “Sidewalks, Bike Lane and Pathway Requirements” to “Multi-Modal Requirements.”

Site access requirements for transit should apply when development is situated along active transit routes, but may also apply when development is located along transit routes identified in CAT’s current 10-year TDP or as a cost feasible project in the first five years of Collier MPO’s adopted LRTP.

Transit site access requirements drafted for Collier County for consideration, similar to those implemented by other Florida communities, are summarized in Table 6-1.

Table 6-1: Proposed Transit Site Access Requirements

Development Project Gross Daily Trip Generation	Required Transit Access infrastructure
All Development	If requested by Collier Area Transit, construct bus stop signage, bench, and ADA accessible boarding and alighting pad for any existing bus stops situated along the development site for which this transit infrastructure is not already available.
Development 500-1,000 gross daily trips	If requested by Collier Area Transit, construct a new bus stop situated along the development site to include a bus stop sign, bench, shelter, and ADA accessible boarding and alighting pad.
Development 1,001-5,000 gross daily trips	If requested by Collier Area Transit, construct a new bus stop situated along the development site to include a bus bay/pull-in, signage, bench, shelter, and ADA accessible boarding and alighting pad.
Development 5,001 or more gross daily trips	If requested by Collier Area Transit, construct an on-site transit station with amenities such as signage, benches, shelters, bus bays/pull-ins, and ADA accessible boarding and alighting pads designed for the number of existing and planned routes to be served.

- 1 Transit facilities should be designed in accordance with Collier Area Transit’s Bus Stop Infrastructure Design Guidelines and Florida Department of Transportation’s Accessing Transit: Design Handbook for Florida Bus Passenger Facilities Version III (2017).
- 2 If provision of an ADA accessible pad, shelter, or shelter and bus bay requires right-of-way, the developer shall grant necessary right-of-way easement(s) except in cases where doing so would constitute a hardship upon the development. Physically constrained right-of-way or construction resulting in unsafe conditions may affect placement/requirements of required transit infrastructure.

- 3 Construction of the required transit facilities and right-of-way easement shall not be creditable against the developer's transportation impact fee or proportionate share obligations (if any).
- 4 Should the development frontage extend beyond ½-mile, multiple bus stops may be required spaced ¼-mile apart.
- 5 If transit infrastructure with potential traffic impacts (e.g., constructing a bus bay/pull-in or traffic signalization for a new transit station, etc.) is required along on a non-County road, coordination with the roadway owner is required.

The draft regulatory language for transit site access improvements also addresses:

- A variance provision when it can be shown that providing the required infrastructure will constitute a “hardship” on the site (i.e. a disproportionate requirement). In these cases, the local government may waive the requirement or establish a pay-in-lieu option for the developer.
- A stipulation that all workmanship materials, methods of placement, etc. shall be coordinated with Collier Area Transit and in conformance to the agency's Bus Stop Infrastructure Design Guidelines, Florida Department of FDOT Accessing Transit Handbook, and the Americans with Disabilities Act (ADA).

As part of this effort, the County's TIS procedures were also reviewed to note any updates required if the proposed changes above are codified. For consistency between the TIS procedures and Land Development Code, it is recommended that current language under Section 18 of the TIS procedures be expanded to reference that transit site requirements in Section 6.06.02 of the Land Development Code do not count towards alternative mitigation.

TDM Strategies

As discussed in the previous section, Collier County currently allows development located within the US 41 TCEA or Northwest and East Central TCMAs to be except from concurrency requirements so long as impacts to the transportation system satisfy several conditions and mitigated through use of selected TDM strategies. To assist in updating the County's TDM strategies, research was conducted to identify best practices in utilizing TDM strategies and what changes could be appropriate for Collier County. As part of this effort, research into developer funded transit pass programs was conducted for potential implementation in Collier County. Following key findings from this research effort, recommendations to integrate updated and consistent TDM strategies into the Land Development Code and Growth Management Plan are provided.

Key Research Findings

Degree of Urban Development: Many transit benefits programs implemented by employers offering subsidized transit and other support are located in more urbanized or downtown areas well-served by transit, according to the Transit Cooperative Research Program's (TCRP) report on the effectiveness of commuter benefit programs; many case studies on universal transit passes explored by the Glendale Downtown Mobility Study were also in more urbanized or downtown areas.

Implications for Collier County: The lower densities and suburban land use patterns of Collier County, including parts of the TCEA and TCMAs, pose a challenge to creating an effective TDM program that will result in reduced driving trips, yet there are suburban areas that have seen some degree of reduction. An effective program in this setting likely hinges on more robust and coordinated TDM strategies, particularly parking limitations and pricing, with conditions in place in surrounding areas to manage spillover effects of people parking in nearby areas for free. Another example is potentially improving the efficacy of rideshare by implementing a personalized carpool match program. Some of these approaches could also support other goals such as using revenues generated by paid parking to fund transit operations. However, these efforts require substantially more long-term resource investment in terms of management, coordination, and monitoring than the existing TDM program. They also may require widespread participation of developments in just a few select strategies to potentially improve the outcomes of these strategies (e.g., providing an impactful and consistent operating revenue stream for transit or reducing single-occupant auto trips), which in turn would reduce the current flexibility of the program with its range of options.

The Rise of Telework: An article by Guyot and Sawhill for the Brookings Institute indicates that telework has vastly increased during the COVID-19 pandemic. Not all workers are equally able to work from home, with workers in the top quartile for earnings more likely to have this option available. Some additional degree of telework may well continue after the pandemic, with implications for commuting and the availability of this strategy to employers as part of a TDM approach.

Implications for Collier County: Telecommuting may provide a less management-intensive way to achieve reduced VMT among certain occupations and workers, particularly with the increases that have occurred generally during the COVID-19 pandemic that may last in the long-term. More time will be needed to see how this affects commuting patterns in Collier County. However, it should be retained as a potential TDM strategy developers can choose.

Challenges to Commuter Benefit Transit Programs: While the TCRP report indicated that commuter benefit transit programs in suburban areas with low starting transit mode shares could see increases in ridership, they were typically smaller (although percent increase could be relatively large due to low starting absolute transit ridership numbers); other potential factors that could have influenced the low amount of additional transit usage in areas studied include the degree of financial support an employer paid towards the program, the availability of a wider range of other employee commute programs (e.g., rideshare matching and telecommuting), and free parking offered at sites. Differences in data collection survey design for the cases, as well as factors external to the program, were also mentioned as possibly affecting ridership findings.

Potential Suburban Challenges of Generating Revenues from Universal Transit Pass Programs: The degree of urban development in an area considering universal transit pass programs also affects the density of workers within the area, which may in turn influence

discounting per pass offered through the program (a greater number of employees participating may allow for greater discounts while still maintaining transit revenue). The Glendale study notes that in cases such as the Passport Annual Transit Pass Program in Portland, Oregon's Lloyd District and Boulder, Colorado's Eco-Pass, passes were purchased in bulk at prices that ranged from a 6% to 24% discount on annual pass rates.

Implications for Collier County: Universal transit pass and commuter benefit transit programs were researched to understand how these TDM strategies might support the generation of transit operating revenues. More than one case study highlighted the deep discounts provided for passes due to bulk purchasing. The lower density development in Collier County may pose a challenge to providing passes at a more affordable rate to employers while also generating revenue. An additional challenge is the "lumpy" nature in which the revenues would likely be collected, given the irregularity with which developments may come online. Supplemental funding could be generated through other TDM, such as paid parking, or designated districts with an associated funding source (e.g., tax increment district).

Importance of Parking Supply Limits and Pricing: K.T. Analytics, Inc. assessed TDM approaches in more suburban areas, specifically in activity centers.⁸ Its report emphasized that parking supply limitations and pricing sizably improved effectiveness of TDM programs; aspects of the surrounding areas would also affect outcomes (e.g., whether there is free parking in nearby areas, availability of transit, etc.). Without parking constraints and pricing, shifting the time of commute may be easier than reducing solo driving. Strategies such as rideshare can be boosted by personalized carpool matching services, as well as preferential parking or reduced parking costs for rideshare users; however, preferential parking requires strong enforcement.

Implications for Collier County: Currently parking space requirements for development projects produces an ample level of parking that does not reduce or adjust parking supply. Like most suburban communities, a significant portion of employer parking in the county is free or low cost. In the absence of parking supply controls and pricing, shifting commute times may be a particularly important aspect of Collier County's TDM program; advances in remote work may also allow for more flexibility in commute times for certain employment types where that option is feasible.

Importance of Program Management and Monitoring: The K.T. Analytics report and Glendale study highlight the use of Transportation Management Associations (or some other entity that could play that role, such as a Downtown Development Authority, Business Improvement District, etc.). The K.T. Analytics report also indicated that program commitment and vigilance of oversight may be more important than the stringency of the program.

⁸ K.T. Analytics, Inc., *An Assessment of Travel Demand Management Approaches at Suburban Activity Centers* (1989), prepared for USDOT

Along with the importance of program management, program monitoring is a critical component to ensure the ongoing contribution of the TDM strategies in reducing VMT. Elements of successful program management include:

Pre-occupancy site visit by planning or other agency staff to ensure the physical measures (e.g., bicycle parking, signage, etc.) have been included as planned.

Ongoing monitoring and reporting, which is discussed as one of the biggest challenges to TDM programs. Outside of large urban areas with robust TDM programs, self-reporting by employers and developers is most common whereas the local government agency plays an active role in monitoring and evaluation and establishing reporting structures. In larger urban areas, in addition to reporting by the development project, the public agency may conduct site visits to verify maintenance of physical measures and continuity in providing programmatic measures as specified in the TDM Plan. For several programs, the frequency of agency site visits was observed to lessen over time as projects remained in good standing.

Administrative fees charged to developers to offset the costs of TDM program administration, including ongoing monitoring and site visits.

Flexibility to allow for updates to the TDM strategies to meet the established targets or when a development project undergoes a change in use.

Implications for Collier County: The County has already incorporated TDM program monitoring concepts into its Growth Management Plan through Transportation Element Policy 5.5 and Policy 5.6 for the TCEA and TCMA's, respectively. However, such monitoring requirements and specifications are not codified in the Land Development Code. The current policy language states that developments not required to submit an annual monitoring report must provide an assessment as to the effectiveness of the strategies on a form provided by the County, but there is no indication of the criteria that determines which development are required to conduct an annual monitoring report versus a self-assessment. The current policy language provides flexibility for modifying the TDM strategies to be effective. The County may want to consider incorporating monitoring language into the Land Development Code and providing more detail as to which monitoring approach applies to a development project. Consideration for on-site inspections of physical TDM strategies should also be considered. In this event, it would be appropriate to charge an administrative fee to the developer for County staff resources required to ensure compliance with the TDM monitoring requirements.

Recommendations

A TDM program of more robust and coordinated strategies to potentially improve travel and funding outcomes would represent a paradigm shift in the approach to TDM in Collier County, likely requiring sizable increases in administrative resources or creation of a separate management entity. Programs of this nature are observed to occur most often in larger urban area where

specific factors, notably traffic congestion, frequent and reliable transit service, and limited parking supply (and/or high-priced parking) are all present. Additionally, requiring contributions to a transit pass program or other contribution to support transit operating revenues may not guarantee a sizable and continuous revenue stream for operations, but would reduce the choice of TDM strategy and consequently the flexibility of the program overall to potentially promote the most effective strategy for a given development.

In view of these conclusions, the Project Team recommends making the following adjustments.

- The existing TDM strategies should be refined and restructured into categories to allow selection of a maximum number of TDM options from specific categories. This will promote selecting a mix of strategies that are more effective, rather than the lowest cost or easiest to implement that may not achieve the desired results (i.e., providing bicycle racks when the development project is not connected to bike lanes or pathways). This approach retains a degree of flexibility in the program to allow the choice of more effective strategies within a given set while limiting the potential factor of cost or implementation ease in the decision-making of developers.
- To ensure that cost is not the only driving factor in the selection of TDM strategies, it is recommended that the developer application for concurrency exception require justification of the selected strategies and detail regarding how the strategies will be implemented/enforced. The Transportation Division Administrator should be allowed discretion in evaluating whether a suite of strategies for development is the most effective within cost feasible options.
- The County should consider more fully implementing the reporting requirement already included in their Growth Management Plan provisions to monitor TDM strategies, which can help inform future changes to the program. Additionally, TDM strategies should be maintained in the Land Development Code and any directly stated in the Growth Management Plan should be replaced with a reference to the code. This approach appears to have already been implemented for the TCMA's in Policy 5.6 of the Transportation Element.

To implement updated TDM strategies, amendments to the Land Development Code have been drafted for Collier County staff to consider for post-study implementation. Upon finalizing the regulatory language in the Land Development Code, affected Transportation Element policy language in the Growth Management Plan will need to be updated, as appropriate. A summary of the proposed amendments is provided in Table 6-2.

Table 6-2: TDM Implementation Support Summary

Summary of Proposed Changes	
Land Development Code (LDC)	
Section 6.02.02 – Management and Monitoring Program	
Section I (addressing TDM strategies for development projects within the TCEA)	
Subsection I.3 (Revised)	<ul style="list-style-type: none"> Separates strategies into three categories and provides guidance as to how many from each category must be selected for commercial development projects in the TCEA. Requires development projects located along an existing or planned transit route to select at least one TDM strategy that encourages transit ridership. Allows development projects with adequate bike lane/pathway connectivity to satisfy TDM requirements by providing on-site dedicated and secure bicycle storage in conjunction with end of trip user amenities (changing rooms, showers, etc.). Includes options to provide preferential parking or charging stations for electric vehicles; charging station(s) must be provided in conjunction with preferential parking. Includes option to provide dedicated on-site park-and-ride spaces for transit riders when located in proximity to an existing bus stop.
Subsection I.4 (Revised)	<ul style="list-style-type: none"> Requires residential development projects located along an existing or planned transit route in the TCEA to select at least one TDM strategy that encourages transit ridership. Includes provision of a transit subsidy as a TDM option.
Subsection I.5 (New)	<ul style="list-style-type: none"> Separates existing language regarding requirements for Traffic Impact Statement from any development project from Subsection I.4 regarding residential TDM strategy requirements. Clarifies that TDM strategies to obtain concurrency exception shall not count towards multimodal site improvements required under Section 6.06.02 of the LDC.
Subsection I.6 (New)	<ul style="list-style-type: none"> Adds requirement for developer to prepare a TDM Approval Plan, which must be approved prior to certification of concurrency exemption and contain the following information: <ul style="list-style-type: none"> Description of the development project Description of the selected TDM strategies Implementation and monitoring provisions (process, responsible party) Monitoring and evaluation regarding effectiveness of selected TDM strategies Provisions for adjusting the strategies if deemed not effective
Subsection I.7 (New)	<ul style="list-style-type: none"> Incorporates monitoring language from Policy 5.5 of the Transportation Element and expands to require an annual monitoring report for the first three years following occupancy and then every three years thereafter. Provides language to allow for modification of ineffective TDM strategies within the first three years of monitoring.

Table 6-2: TDM Implementation Support Summary (cont'd)

Summary of Proposed Changes	
LDC Section 6.02.02 – Management and Monitoring Program	
Section L (addressing TDM Strategies for development projects within the TCMA)	
	<p>Subsection L.5 (Revised)</p> <ul style="list-style-type: none"> Section originally restated TDM strategies for both commercial and residential development from those allowed for under a TCEA. Revised to refer back to TDM strategies for commercial development projects only listed under Section 1.3. Requirements for residential strategies provided in new section following.
	<p>Subsection L.6 (New)</p> <ul style="list-style-type: none"> Refers to TDM strategies for residential development projects in a TCMA listed under Section 1.4.
	<p>Subsection L.7 (New)</p> <ul style="list-style-type: none"> Clarifies that TDM strategies to obtain concurrency exception shall now count towards site improvements requirement under Section 6.06.02 of the LDC.
	<p>Subsection L.8 (New)</p> <ul style="list-style-type: none"> Refers to TDM Approval Plan requirements under Section I.6, which also apply for development projects in a TCMA.
	<p>Subsection L.9 (New)</p> <ul style="list-style-type: none"> Refers to strategy and monitoring requirements of selected TDM strategies as previously described under Section I.7, which also apply for development projects in a TCMA.
Growth Management Plan (GMP) Transportation Element	
Policy 5.5 & Policy 5.6	
	<ul style="list-style-type: none"> Recommend Policy 5.5 incorporate specific TDM strategies for the TCEA by referencing the LDC (similar to Policy 5.6 for the TCMA). If not, both policies should provide the same level of information and the strategies should be updated consistent with revisions approved to the LDC. Recommend incorporating specifics of TDM monitoring program in the LDC and providing reference to the program in the Transportation Element.



Transit Impact Analysis Study

Final Recommendations

Collier County MPO

Citizens Advisory Committee & Technical Advisory Committee

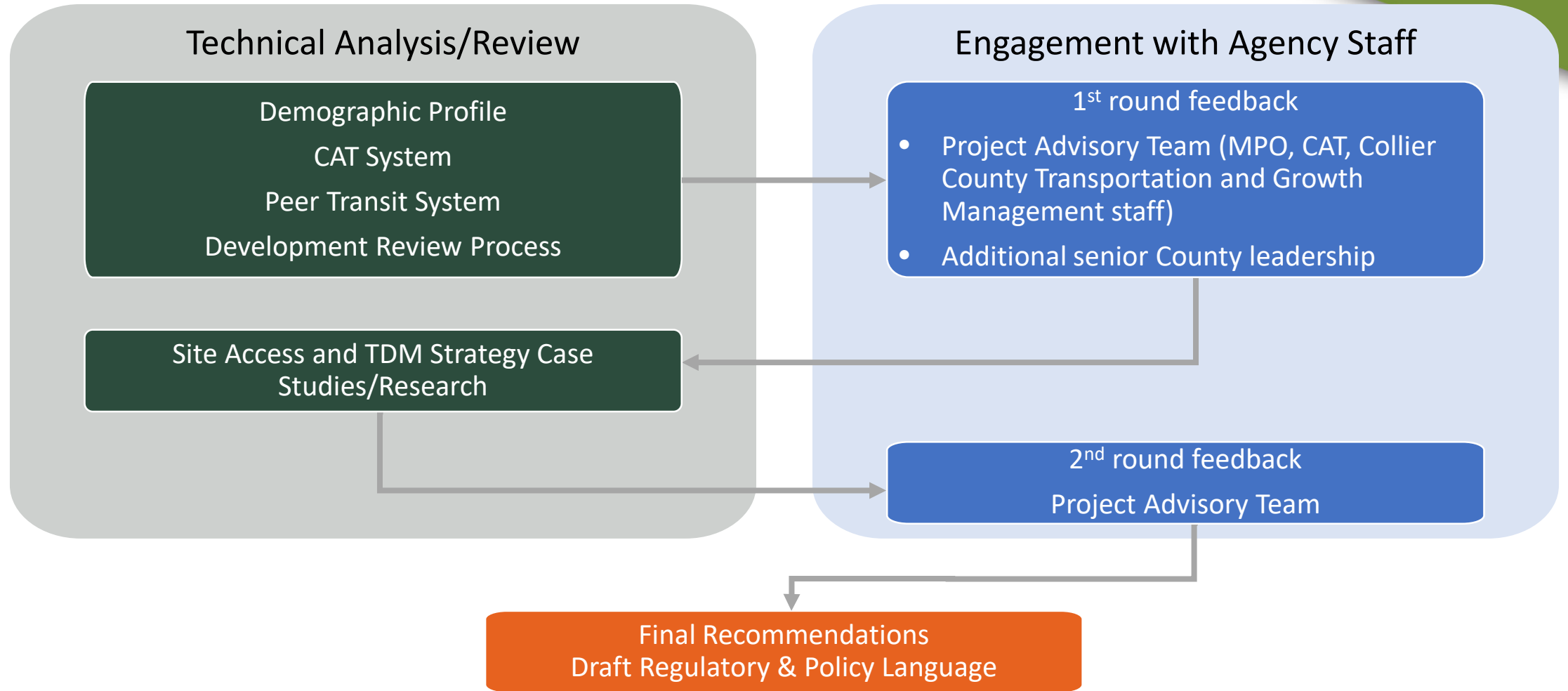
November 30, 2020



Study Purpose

- Introduce transit into development review process, not after the fact.
- Consider transit improvements as part of mitigation.
- Secure appropriate developer contributions for transit improvements.
- Evaluate range of potential strategies to provide implementable recommendations.

Study Process



Key Findings: Demographics & Transit

- High recent average annual growth rate (2.5% relative to state's 1.7%)
- Growth shifting eastward
- Seasonal population changes:
Peak ridership averages 10% higher than non-peak
- Increasing operating costs per rider (consistent with state/national trends)

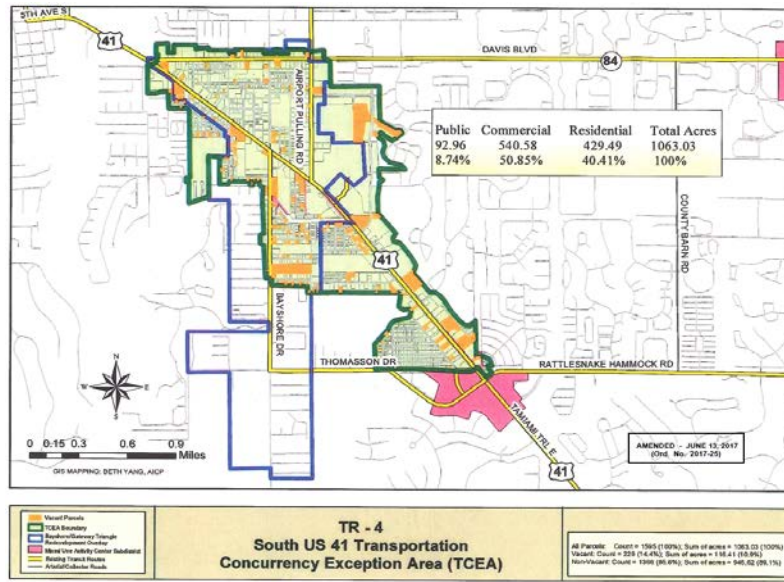
Key Findings: Peer Review

- Among 5 comparable peers CAT has:
 - Lowest passenger trips and trips per revenue mile
 - Second lowest revenue hours per capita / operating expense per capita
 - Second highest trip length
- Most potential for transit based on population density
- Substantial service-sector economy (high journey to work mode share despite relatively low overall ridership)

Key Findings: Potential Approaches

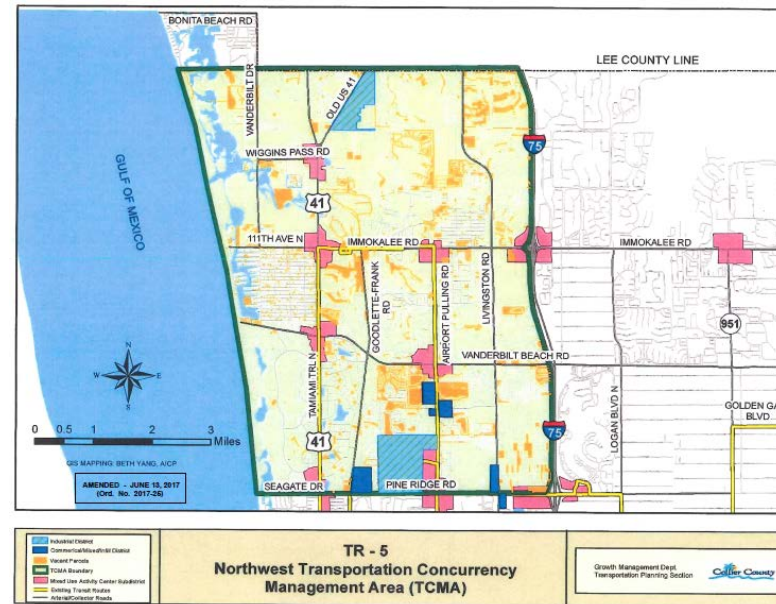
TCEAs & TCMA's = Urban areas delineated by a local government where infill and redevelopment are encouraged, and where exceptions to the transportation concurrency requirement are made, providing that alternative modes of transportation, land use mixes, urban design, connectivity, and funding are addressed.

Transportation Concurrency Exception Area (TCEA)

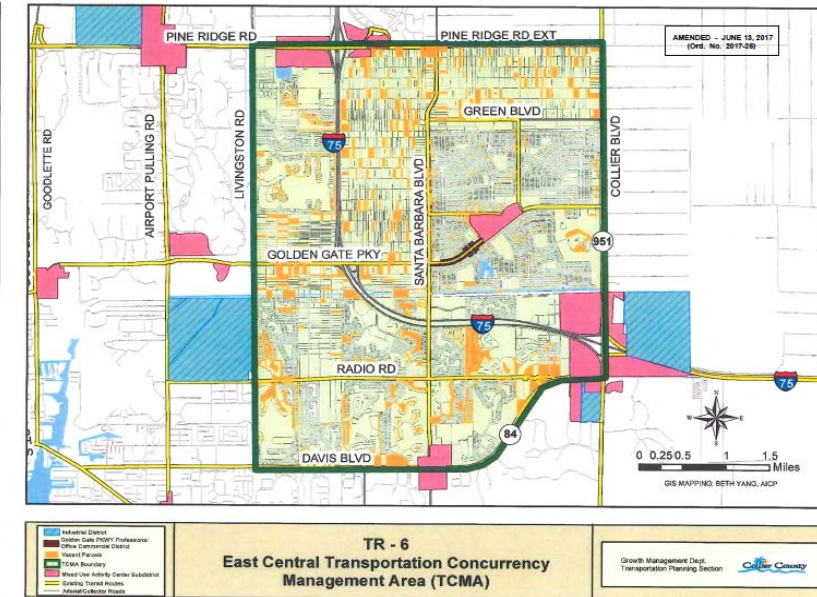


South US 41 TCEA

Transportation Concurrency Management Areas (TCMA)



Northwest TCMA



East Central TCMA

Key Findings: Review of Development Review Process

- No formal system to consider development impacts to transit system
- No transit-related mitigation required of developers
- In TCEAs/TCMAs:
 - Use of TDM strategies an option to gain concurrency exemption
 - Development often scaled-back to avoid TDM requirements
 - TDM strategies may be chosen based on cost or ease of implementation, not necessarily effectiveness
 - Inconsistent regulatory language and policies on TDM implementation, monitoring, and evaluation

Key Findings: Review of Development Review Process

- **Allowed Density**

- Many limitations to providing transit stem from the low density of development

- **Operations/Maintenance Funding**

- County not eligible for sales tax that can provide operations/maintenance funding
 - Fare increase in 2018
 - Likely need to focus on General Fund Revenue
 - Developer-funded mitigation does not provide consistent operating revenue

Key Findings: Potential Approaches

- **Transit Site Access**

- Currently, no requirement for site-related transit infrastructure (like for sidewalks, bike lanes, and pathways)
- Recommend establishing On-Site Transit Site Access regulations that:
 - Are proportional to scale of development and benefit development
 - Apply to development along existing/planned transit routes
 - Are consistent with scale/design of typical CAT facilities
 - Are similar to other site access requirements, not creditable against applicable impact fee or prop share obligations

Key Findings: Potential Approaches

- **TCEA/TCMA Reconfiguration**

- TCEA/TCMA no longer required by State law, allowing flexibility
- Creation of TOD/infill/redevelopment district or corridors
- Expedited review based on complexity of project
- Discretion to prioritize fair share payments for alternative mitigation

Key Findings: Potential Approaches

TDM = strategies that encouraging a shift from single-occupant vehicle (SOV) trips to non-SOV trips or alternative modes, or shift trips out of peak periods to reduce peak congestion.

- **Transportation Demand Management (TDM) Program**

- TDM programs more challenging in suburban settings
- Post-COVID, higher telework levels will likely continue
- Commuter benefit transit programs (e.g., universal transit pass) systems tend to see more mode shift in high density urban settings
- Pass programs often steeply discounted to gain ridership, not operating revenue
- Parking pricing/supply limitations increase TDM effectiveness in suburban areas
- More robust programs need management/administration
- Consideration for evaluation and monitoring important

Recommendations

- **Implement On-Site Transit Site Access Requirements**

- Development located on existing route or new route in 10-year TDP or yrs 1-5 of LRTP
- Requirements based on total project trip generation
- Consistent with CAT design guidelines/scale
- In-lieu fee option

Draft Site Access Requirements:

Development Project Gross Daily Trip Generation	Required Transit Access infrastructure
All Development	If requested by Collier Area Transit, construct bus stop signage, bench, and ADA accessible boarding and alighting pad for any existing bus stops situated along the development site for which this transit infrastructure is not already available.
Development 500-1,000 gross daily trips	If requested by Collier Area Transit, construct a new bus stop situated along the development site to include a bus stop sign, bench, shelter, and ADA accessible boarding and alighting pad.
Development 1,001-5,000 gross daily trips	If requested by Collier Area Transit, construct a new bus stop situated along the development site to include a bus bay/pull-in, signage, bench, shelter, and ADA accessible boarding and alighting pad.
Development 5,001 or more gross daily trips	If requested by Collier Area Transit, construct an on-site transit station with amenities such as signage, benches, shelters, bus bays/pull-ins, and ADA accessible boarding and alighting pads designed for the number of existing and planned routes to be served.

Recommendations

- **Adjust and Restructure TDM Strategies in GMP/LDC**
 - Tier existing strategies to improve effectiveness and support different modes
 - New strategies:
 - Electric vehicle preferential parking/charging stations
 - Park-and-ride spaces for transit riders in proximity to bus stops
 - Include requirements for:
 - Transit-related strategy required for development in proximity to existing/future routes
 - Access to bicycle facilities and provision of on-site storage and amenities
 - Enhanced reporting/monitoring requirements
 - Streamline language between GMP and LDC

Next Steps

Schedule of Study Presentations on Final Recommendations

- PTAC – November 17th
- MPO CAC & TAC – November 30th
- MPO Board – December 11th

Post-Study Implementation

- County staff/Attorney finalize regulatory language
- Review by DSAC & Planning Commission
- Approval by Board of County Commissioners

Request for Action

- Endorse the Study
- Support for post-study County implementation of regulatory and policy changes to:
 - Provide for transit site access requirements
 - Update Transportation Demand Management Strategies in TCEA & TCMAs

EXECUTIVE SUMMARY
COMMITTEE ACTION
ITEM 7C

Endorse Final Draft 2045 Long Range Transportation Plan (LRTP)

OBJECTIVE: For the Committee to endorse the Final Draft of the 2045 Long Range Transportation Plan (LRTP).

CONSIDERATIONS: The MPO is required to adopt its 2045 LRTP update at the Board's December meeting. The Final Draft of the 2045 LRTP, shown in **Attachment 1**, has been revised to address comments and new information received to-date. Appendices are provided in **Attachment 2**, and the Technical Compendium is provided in **Attachment 3**. The public comment period continues through the MPO Board meeting on 12/11/20. If additional public comments are received after the Committee's endorsement, they will be added to the public comment summary contained in the Technical Compendium.

Jacobs will give a brief presentation of changes made, and public comments received, since the Committee reviewed the draft in October 2020.

Due to file size, all documents have been provided electronically and can be viewed at the links below.

STAFF RECOMMENDATION: That the Committee endorse the Final Draft of the 2045 Long Range Transportation Plan (LRTP).

Prepared By: Anne McLaughlin, MPO Director

Attachments:

1. Final Draft 2045 LRTP – <https://www.colliermopo.org/wp-content/uploads/2020/11/7C-Attachment-1-DraftCollier2045LRTP11-19-20.pdf>
2. Appendices - <https://www.colliermopo.org/wp-content/uploads/2020/11/7C-Attachment-2-ConsolidatedAppendices11-19-20.pdf>
3. Technical Compendium – https://www.colliermopo.org/wp-content/uploads/2020/11/7C-Attachment-3-Collier2045LRTP_TechnicalCompendium11-19-20.pdf
4. Presentation – https://www.colliermopo.org/wp-content/uploads/2020/11/7C-Attachment-4-Presentation_11-30-2020-FINAL.pdf

COLLIER MPO

2045

LONG RANGE TRANSPORTATION PLAN

Final Draft 11-19-20

DECEMBER 2020



Prepared for

Collier Metropolitan
Planning Organization
2885 South Horseshoe Drive
Naples, FL 34104
Phone: 239-252-5814
Email:
colliermopo@colliergov.net

Anne McLaughlin
MPO Executive Director
Phone: 239-252-5884
Email:
Anne.McLaughlin@colliercountyfl.gov

Prepared by

Jacobs Engineering Group Inc.
5801 Pelican Bay Blvd, Suite 505
Naples, Florida 34108
United States
T +1.239.431.9231
T +1.239.431.9231
www.jacobs.com

Photography Credits

Bill Gramer
Jacobs Engineering Group Inc.

Nathan Lunsford
Jacobs Engineering Group Inc.

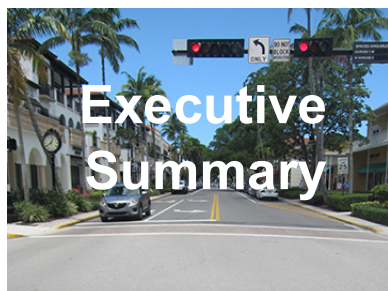
Adam Ahmad
Capital Consulting Solutions



Jacobs



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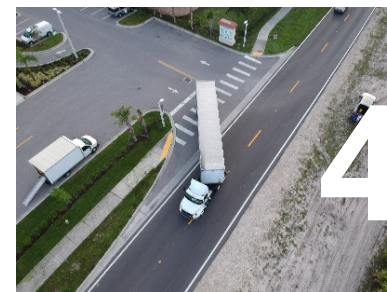
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- Appendix B Collier County Traffic Analysis Zones
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- Appendix D Collier MPO FY 2021–FY 2025 TIP Summary
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Abbreviations and Acronyms

AADT	Average Annual Daily Traffic	FPN	Financial Project Number
ACES	Automated, Connected, Electric and Shared-Use	FPL	Florida Power & Light
ACS	American Community Survey	FTA	Federal Transit Administration
ACUNE	Adaptation of Coastal Urban and Natural Ecosystems	FY	fiscal year(s)
ADA	Americans with Disabilities Act	GIS	geographic information system
AUIR	Annual Update and Inventory Report	HSIP	Highway Safety Improvement Program
BCC	Board of County Commission (Collier County)	ITS	Intelligent Transportation System
BEBR	Bureau of Economic and Business Research	LCB	Local Coordinating Board for the Transportation Disadvantaged
BPAC	Bicycle and Pedestrian Advisory Committee	LOS	level of service
BPMP	<i>Bicycle & Pedestrian Master Plan</i>	LRSP	Local Road Safety Plan
BRT	bus rapid transit	L RTP	Long Range Transportation Plan
CAC	Citizens Advisory Committee	M-CORES	Multi-use Corridors of Regional Economic Significance
CAT	Collier Area Transit	MOD	Mobility-On-Demand
CAV	Connected and Autonomous Vehicles	MPO	Metropolitan Planning Organization
CCGMP	Collier County Growth Management Plan	MPOAC	Metropolitan Planning Organization Advisory Council
CFR	Code of Federal Regulations	NHS	National Highway System
CIGM	Collier Interactive Growth Model	NHTSA	National Highway Traffic Safety Administration
CMC	Congestion Management Committee	NOAA	National Oceanic and Atmospheric Administration
CMP	Congestion Management Process	NPC	Naples Pathway Coalition
CR	county road	PD&E	Project Development and Environment
CRA	community redevelopment area	PE	preliminary engineering/design
CST	construction	PIP	Public Involvement Plan
E+C	existing plus committed	PM	performance measure
EJ	environmental justice	PPP	Public Participation Plan
ETDM	Efficient Transportation Decision Making	ROW	right-of-way
F.S.	Florida Statutes	SHS	State Highway System
FAA	Federal Aviation Authority	SIS	Strategic Intermodal System
FAC	freight activity center	SLR	sea level rise
FAST	Fixing America's Surface Transportation	SPR	System Performance Report
FDEP	Florida Department of Environmental Protection	STBG	Surface Transportation Block Grant
FDOT	Florida Department of Transportation	STIP	State Transportation Improvement Program
FHWA	Federal Highway Administration	SUN	Shared-Use Nonmotorized
FMTP	Freight Mobility and Trade Plan	TAC	Technical Advisory Committee
FPID	Financial Project Identification		

TAZ	Traffic Analysis Zone	TSM&O	Transportation System Management and Operations
T-BEST	Transit Boarding Estimation and Simulation Tool	TSPR	Transportation System Performance Report
TCMA	Transportation Concurrency Management Area	ULB	Useful Life Benchmark
TDP	Transit Development Plan	UPWP	Unified Planning Work Programs
TIP	Transportation Improvement Program	USACE	U.S. Army Corps of Engineers
TMA	Transportation Management Area	USC	U.S. Code
TOC	Traffic Operations/Management Center	V/C	volume-to-capacity
TRIP	Transportation Regional Incentive Program	VMT	vehicle miles traveled
TSA	transit service area	VRM	vehicle revenue miles
		YOE	year of expenditure



Executive Summary

Executive Summary

Development of the Collier Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP) began in March 2019 and culminated in its adoption in December 2020. This executive summary presents a brief overview of the process, the visions, and goals that guided the LRTP development, and the Needs and Cost Feasible Plans in both tabular and map forms. The Cost Feasible Plan presents the investments planned to serve the travel needs of the Collier Metropolitan Area during the next 20 years.

Supporting documentation for the Collier MPO 2045 LRTP in the form of technical reports and white papers can be found in a separately bound Technical Reports Compendium. The Collier MPO 2045 LRTP Appendices are also bound separately. Both documents can be found on the Collier MPO's website at www.colliermopo.org.

Established in 1982, the Collier MPO is responsible for the development and implementation of a balanced, integrated, and multimodal program that efficiently moves traffic throughout Collier County. The Collier MPO's jurisdiction includes Collier County (hereafter, "the County") and the cities of Naples, Marco Island, and Everglades City (refer to **Figure ES-1**). The MPO's

"The Collier MPO 2045 Long Range Transportation Plan envisions the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods while addressing current and future transportation demand, environmental sustainability, and community character."

Collier MPO 2045 LRTP Vision Statement

goal is to ensure a continuing, comprehensive, and cooperative long-range planning process that establishes a county-wide vision for growth and the transportation system needed to serve it. The LRTP is a central part of achieving this vision. To comply with federal requirements, the LRTP is produced or updated every 5 years and must maintain a minimum time horizon of 20 years. The previous Collier MPO 2040 LRTP update was adopted on December 11, 2015.

Plan Process

Updating the Collier MPO 2045 LRTP was a technical, collaborative process that included participation by the MPO Board members, virtual public workshops and public surveys, briefings to the various MPO advisory committees, and advisory meetings with the Technical Advisory Committee (TAC) and Citizens Advisory Committee (CAC).

As illustrated on **Figure ES-2** and **Figure ES-3**, five key steps were involved in the LRTP development process. The five stages of the plan process were built upon past planning efforts, a technical review of forecast socioeconomic growth, the financial outlook of the County, and input from County residents and elected officials.

The MPO Board's adoption of the Collier MPO 2045 LRTP acknowledged these five steps, with input from the public, the MPO committees, and MPO Board, resulting in a financially constrained plan of transportation improvements.

LRTP Goals and Objectives

The Collier MPO 2045 LRTP development process began by establishing the plan's vision statement, goals, and objectives. The goals and objectives help guide the LRTP process to meet the Collier MPO's vision, while considering federal, state, and

regional priorities. The LRTP goals and objectives refine the Collier MPO's vision and are a critical part of the planning process because the project needs are established based on these goals and objectives.

The advisory committees endorsed, and the MPO Board approved, the 2045 LRTP Goals and Objectives.

Figure ES-1. Collier MPO Jurisdiction



Source: Collier MPO Transportation Improvement Plan FY2021-FY2025 (Collier MPO 2020a)

Evaluation Criteria for Project Selection

Evaluation criteria were used to evaluate and compare how well potential transportation projects met the goals and objectives. Additionally, each goal was assigned a weighting

factor that emphasized certain goals that require more focus in the Collier MPO transportation system.

Figure ES-2. Collier MPO 2045 LRTP Key Process Steps

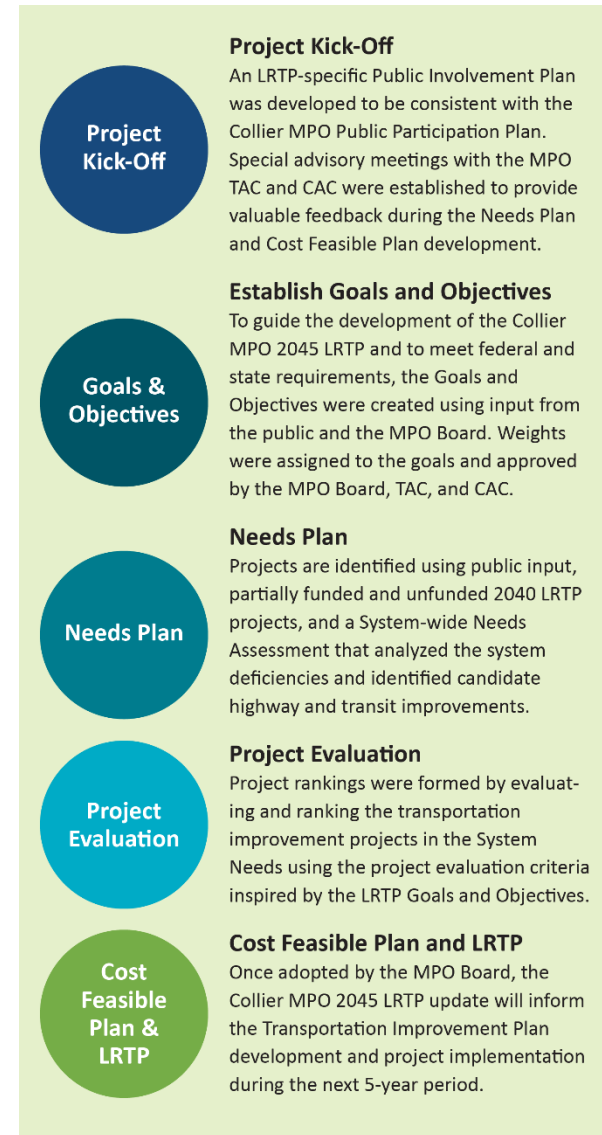
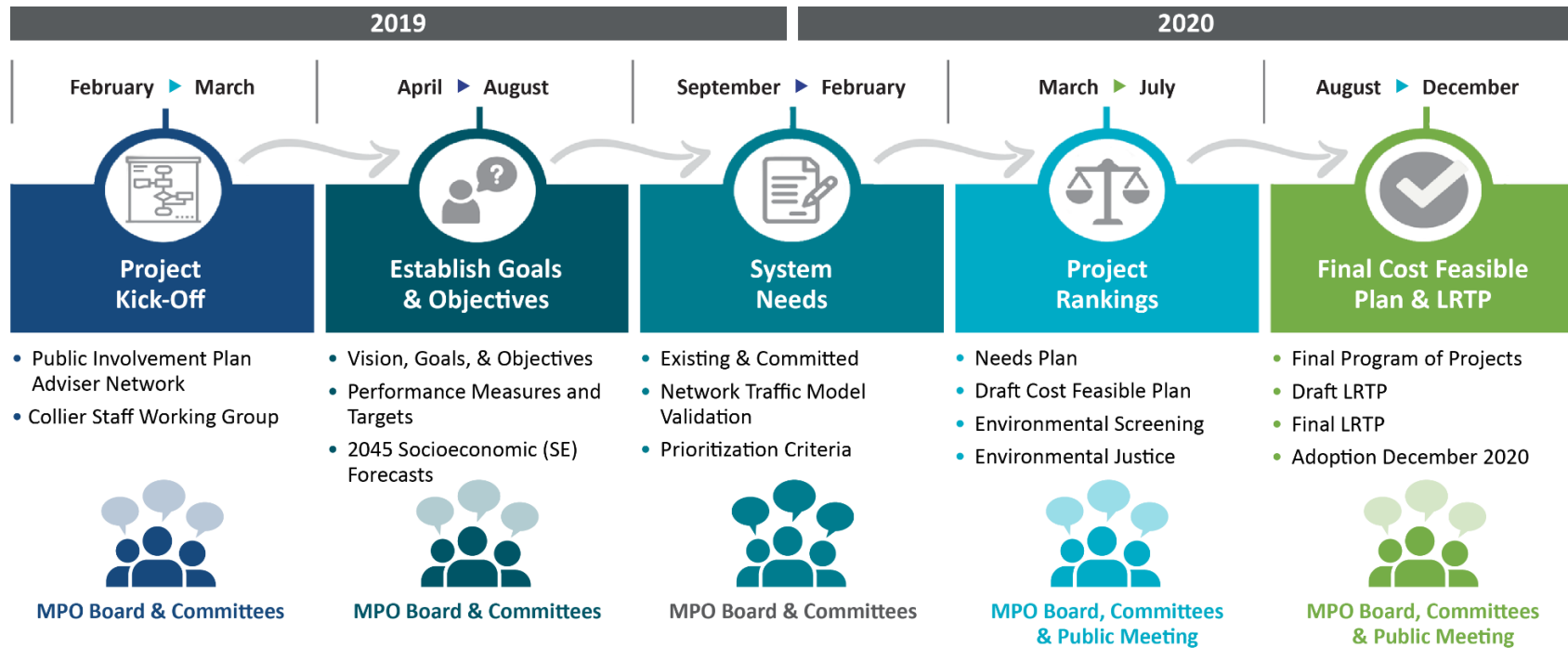


Figure ES-3. Plan Process



The project evaluation criterion showed the advantages and disadvantages of the proposed projects independently as well as in relation to each other. This type of evaluation was ultimately used to develop the recommendations and prioritize transportation projects in the Needs Plan and Cost Feasible Plan. The following presents the evaluation criteria and weighting factor used for each goal.

- **Goal #1:** Ensure the Security of Transportation System for Users – 8 percent weighting factor
 - **Project Evaluation Criteria:**
 - Improves or maintains critical evacuation routes

- Provides enhanced or potential new evacuation routes where needed
- **Goal #2:** Protect Environmental Resources – 12 percent weighting factor
 - Project Evaluation Criteria:
 - Minimize wetland encroachments by transportation projects
 - Minimize impacts to wetland flows (maintain or enhance existing flows to the extent feasible)
 - Minimize the adverse impacts on threatened and endangered species

- **Goal #3:** Improve System Continuity and Connectivity – 10 percent weighting factor

- Project Evaluation Criteria:
 - Improves existing infrastructure deficiencies
 - Improves connectivity with new transportation links to address system gaps

- **Goal #4:** Reduce Roadway Congestion – 18 percent weighting factor

- Project Evaluation Criteria:
 - Improves existing deficient facility or improves a new or neighboring facility intended to relieve an existing deficient facility
 - Improves intersections and roadways with poor levels of service

- **Goal #5:** Promote Freight Movement – 6 percent weighting factor

- Project Evaluation Criteria:
 - Enhances operation of the facility identified as a major freight route

- **Goal #6:** Increase the Safety of the Transportation System for Users – 10 percent weighting factor

- **Project Evaluation Criteria:**
 - Enhances safety of transportation system users
 - Improves facility or intersection identified as having a high crash occurrence or a fatality
 - Promotes traffic calming
 - Reduces vehicular conflicts with bicyclists, pedestrians, and other vulnerable road users

- **Goal #7:** Promote Multimodal Solutions – 10 percent weighting factor

- Project Evaluation Criteria:
 - Provides for trail improvements that implement the Bicycle and Pedestrian Master Plan
 - Provides multimodal improvement near affordable housing, centers of employment, multi-family housing, health care, educational, recreational, or cultural centers
 - Provides multimodal improvements for Environmental Justice communities and underserved neighborhoods, and connects these neighborhoods to centers of employment and important destinations for transit-dependent households
 - Improves transit (frequency and reliability) within existing or future transit service areas or within a community redevelopment area (CRA); improves access to park-and-ride facilities; provides for BRT
 - Improves bicycle or pedestrian access to transit
 - Improves safety and access for people of all ages and abilities; improves safety for people walking, biking, and using mobility devices

- **Goal #8:** Promote the Integrated Planning of Transportation and Land Use – 10 percent weighting factor
 - **Project Evaluation Criteria:**
 - Improves access to regional travel (for example, interstates, airports, ports, and Strategic Intermodal System [SIS] facilities)
 - Improves access to tourist destinations
 - Supports targeted redevelopments or CRAs (multimodal or vehicle improvements)
 - Identified in partner agency (city, transit, county, MPO, etc.) plans as a priority
- **Goal #9:** Promote Sustainability in the Planning of Transportation and Land Use – 8 percent weighting factor
 - **Project Evaluation Criteria:**
 - Benefits low-income areas and improves sustainability through increased housing choices and reduced automobile dependency













Collier MPO 2045 Long Range Transportation Plan

- **Goal #10:** Consider Climate Change Vulnerability and Risk in Transportation Decision-Making – 4 percent weighting factor
 - **Project Evaluation Criteria:**
 - Promotes transportation infrastructure resiliency in the face of climate change and sea level rise
- **Goal #11:** Consider Connected and Autonomous Vehicles (CAV) Technology in Future – 4 percent weighting factor
 - **Project Evaluation Criteria:**
 - Uses technological improvements (for example, Intelligent Transportation System (ITS), Transit Signal Priority, etc.)

The federal government's Fixing America's Surface Transportation Act includes several planning factors required for long-range transportation planning. The LRTP goals and objectives incorporate the federal planning factors required for all MPOs to address through planning. [Table ES-1](#) illustrates which 2045 LRTP goals meet the federal planning factor requirements.



Table ES-1. LRTP Goals and Federal Planning Factors

Federal Planning Factors	 Goal 1: Ensure the Security of the Transportation System for Users	 Goal 2: Protect Environmental Resources	 Goal 3: Improve System Continuity and Connectivity	 Goal 4: Reduce Roadway Congestion	 Goal 5: Promote Freight Movement	 Goal 6: Increase the Safety of the Transportation System for Users	 Goal 7: Promote Multimodal Solutions	 Goal 8: Promote the Integrated Planning of Transportation and Land Use	 Goal 9: Promote Sustainability in the Planning of Transportation and Land Use	 Goal 10: Consider Climate Change Vulnerability and Risk in Transportation Decision-Making
Safety						✓				
Security	✓									
Accessibility & Mobility			✓	✓			✓	✓		
Multimodal Connectivity			✓				✓		✓	
System Preservation										✓
Economic Vitality					✓		✓			
Environmental Quality		✓							✓	
System Efficiency				✓	✓			✓		
Resiliency & Reliability	✓			✓						✓
Transit & Tourism							✓	✓		

2045 Needs Plan

The 2045 LRTP Needs Plan identifies the multimodal transportation projects needed to address existing and future transportation network deficiencies within the Collier Metropolitan Area without considering funding limitations. Developing the Needs Plan is the starting point for understanding and prioritizing the region's overall transportation needs. The 2045 Needs Plan incorporates all transportation modes, including roadway needs for motorists and freight, transit, bicycle, and walking or using a mobility device.

Roadway Needs Plan

Roadway project needs were evaluated by scoring each project using defined goals and objectives, and the evaluation criteria described previously. The evaluation provided a score for each project that was used to rank the needs projects from highest to lowest. During the process, adjustments were made to the rankings as more testing was done, or as information about projects schedules and commitments became known. Development of the roadway needs also included collaboration with regional partners including the Lee County MPO for consistency between long-range plans and the Florida Department of Transportation (FDOT) District 1 travel model (D1RPM); coordination with the Collier County Growth Management Department, Capital Project Planning, Impact Fees & Program Management Division; Collier County Traffic Operations Department; scenario planning analysis; travel demand modeling; tribal coordination; and soliciting and incorporating public input. Further, several coordination meetings with the TAC and CAC were held during the development of the Needs Plan. [Table ES-2](#) and [Figure ES-4](#) present the roadway needs in tabular and map formats, respectively.

Transit Needs Plan

The transit needs and improvements were based on those identified in the Collier County *Ten-Year Transit Development Plan* (TDP) (Collier MPO 2020c), which is incorporated by reference into this LRTP and was developed by Collier Area Transit (CAT) in coordination with the Collier MPO. Transit needs information identified in this document was used to project transit needs for the County and its municipalities for the next 20 years.

Once the transit needs were identified, a quantitative/qualitative methodology was developed to evaluate and prioritize them based on weighing the benefits of each service improvement against the others. Three categories were identified for determining the criteria for evaluation: public outreach, transit markets, and productivity and efficiency. [Table ES-3](#) and [Figure ES-5](#) present the transit needs in map and tabular formats, respectively.

Bicycle and Pedestrian Needs

The bicycle and pedestrian needs were based on those identified in the Collier MPO *Bicycle & Pedestrian Master Plan* (BPMP) (Collier MPO 2019a), which is incorporated by reference into this LRTP. The BPMP's Vision, Goals, Objectives, and Strategies were developed with input from the MPO's advisory committees, the BPMP stakeholders' group, Collier MPO staff, and the consultant, and were vetted by the MPO Board. Once the needs were identified, the BPMP's goals and objectives served as the prioritization criteria to develop a list of prioritized bicycle and pedestrian facilities. The Needs Analysis in the BPMP is comprehensive and inclusive of many attributes, including Compete Streets – Safety Corridor Studies resulting from evaluations of high crash locations on roads overlapping with Environmental Justice communities and transit corridors.

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
1	51	Benfield Rd. Extension	The Lords Way	City Gate Blvd. N	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
2	41	Benfield Rd.	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake Hammock Extension	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
3	72	Big Cypress Pkwy.	Green Blvd.	Golden Gate Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
4	70	Big Cypress Pkwy.	Golden Gate Blvd.	Vanderbilt Beach Road Ext.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
5	71	Big Cypress Pkwy.	Vanderbilt Beach Rd. Extension	Oil Well Rd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
6	82	Big Cypress Pkwy.	Oil Well Rd.	Immokalee Rd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
7	62	Camp Keais Rd.	Pope John Paul Blvd.	Oil Well Rd.	Roadway Capacity	Widen from Two to Four Lanes
8	80	Camp Keais Rd.	Immokalee Rd.	Pope John Paul Blvd.	Roadway Capacity	Widen from Two to Four Lanes
9	1	Collier Blvd. (CR 951)	Golden Gate Main Canal	Green Blvd.	Roadway Capacity	Widen from Four to Six Lanes
10	21	CR 951 Extension	Collier Blvd. (CR 951) (northern terminus)	Lee/Collier County Line	Roadway Capacity	New 2-Lane Road
11	34	Everglades Blvd.	Randall Blvd.	South of Oil Well Road	Roadway Capacity	Widen from Two to Four Lanes
12	35	Everglades Blvd.	Vanderbilt Beach Rd. Extension	Randall Blvd.	Roadway Capacity	Widen from Two to Four Lanes

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
13	54	Everglades Blvd.	Golden Gate Blvd.	Vanderbilt Beach Rd. Extension	Roadway Capacity	Widen from Two to Four Lanes
14	63	Everglades Blvd.	I-75 (SR-93)	Golden Gate Blvd.	Roadway Capacity	Widen from Two to Four Lanes
15	37	Golden Gate Blvd.	Everglades Blvd.	Desoto Blvd.	Roadway Capacity	Widen from Two to Four Lanes
16	58	Golden Gate Blvd. Extension	Desoto Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Four-Lane Road
17	31	Goodlette-Frank Rd.	Vanderbilt Beach Rd.	Immokalee Rd.	Roadway Capacity	Widen from Two to Four Lanes
18	66	Green Blvd.	Santa Barbara Blvd./ Logan Blvd.	Sunshine Blvd.	Roadway Capacity	Widen from Two to Four Lanes
19	27	Green Boulevard Extension (16th Ave. SW)	23rd St. SW	Wilson Blvd. Extension	Roadway Capacity	New Two-Lane (Future Study Area)
20	33	Green Boulevard Extension (16th Ave. SW)	Collier Blvd. (CR 951)	23rd St. SW	Roadway Capacity	New Four-Lane (Future Study Area)
21	42	Green Boulevard Extension (16th Ave. SW)	Wilson Blvd. Ext	Everglades Blvd.	Roadway Capacity	New Two-Lane Road
22	60	I-75 (SR-93) Interchange	Everglades Blvd.		Interchange	New Interchange
23	8	I-75 (SR-93) Interchange (modified)	Golden Gate Pkwy.		Interchange	Interchange Improvement

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
25	22	I-75 (SR-93) Interchange (modified)	Immokalee Rd.		Interchange	Interchange improvement (DDI proposed)
27	40	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd.		Interchange	New Interchange - Partial (to/from the north)
29	5	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd. (CR 951)	Collier/Lee County Line	Roadway Capacity	New Ten-Lane Express (Toll) Lanes
30	7	Immokalee Rd. (CR 846)	Camp Keais Rd.	Carver St.	Roadway Capacity	Widen from Two to Four Lanes
31	23	CR 846 E	SR 29	Airpark Blvd.	Roadway Capacity	Widen from Two to Four Lanes
32	81	Keane Ave.	Inez Rd.	Wilson Blvd. Extension	Roadway Capacity	New Two-Lane Road (Future Study Area)
33	50	Little League Rd. Extension	SR 82	Westclox St.	Roadway Capacity	New Two-Lane Road
34	65	Logan Blvd.	Green Blvd.	Pine Ridge Rd.	Roadway Capacity	Widen from Four to Six Lanes
35	52	Logan Blvd.	Vanderbilt Beach Rd.	Immokalee Rd.	Roadway Capacity	Widen from Two to Four Lanes
36	67	Logan Blvd.	Pine Ridge Rd.	Vanderbilt Beach Rd.	Roadway Capacity	Widen from Two to Four Lanes
37	38	Oil Well Road/CR 858	Everglades Blvd.	Oil Well Grade Rd.	Roadway Capacity	Widen from Two to Six Lanes
38	46	Oil Well Road/CR 858	Ave Maria Entrance	Camp Keais Rd.	Roadway Capacity	Widen from Two to Six Lanes

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
39	10	Old US 41	US 41 (Tamiami Trail E)	Lee/Collier County Line	Roadway Capacity	Widen from Two to Four Lanes
40	45	Orange Blossom Drive	Airport Pulling Rd.	Livingston Rd.	Roadway Capacity	Widen from Two to Four Lanes
41A	19	Randall Blvd. Intersection (flyover)	Immokalee Rd.		Interchange	Ultimate Intersection Improvement: Overpass
41B	36	Randall Blvd.	Immokalee Rd.	8th St. NE	Roadway Capacity	Widen from Two to Six Lanes
42	39	Randall Blvd.	8th St. NE	Everglades Blvd.	Roadway Capacity	Widen from Two to Six Lanes
43	59	Randall Blvd.	Everglades Blvd.	Desoto Blvd.	Roadway Capacity	Widen from Two to Four Lanes
44	61	Randall Blvd.	Desoto Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Four-Lane Road
45	44	Santa Barbara Blvd.	Painted Leaf Ln.	Green Blvd.	Roadway Capacity	Widen from Four to Six Lanes
46	56	SR 29	SR 82	Collier/Hendry Line	Roadway Capacity	Widen from Two to Four Lanes
48	49	SR 29	I-75 (SR 93)	Oil Well Rd.	Roadway Capacity	Widen from Two to Four Lanes
50	24	SR 29	New Market Road North/Westclox Street	North of SR 82	Roadway Capacity	Widen from Two to Four Lanes
51	13	SR 29/New Market Rd. W (New Road)	CR 846 E	New Market Rd. N	Roadway Capacity	New Four-Lane Road

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
52	3	SR 29	Agriculture Way	CR 846 E	Roadway Capacity	Widen from Two to Four Lanes
53	15	SR 29	Sunniland Nursery Rd.	Agriculture Way	Roadway Capacity	Widen from Two to Four Lanes
54	16	SR 29	Oil Well Rd.	Sunniland Nursery Rd.	Roadway Capacity	Widen from Two to Four Lanes
55	6	SR 84 (Davis Blvd.)	Airport Pulling Rd.	Santa Barbara Blvd.	Roadway Capacity	Widen from Four to Six Lanes
56	9	Collier Blvd. (SR 951)	South of Manatee Rd.	North of Tower Rd.	Roadway Capacity	Widen from Four to Six Lanes
57	4	US 41 (SR 90) (Tamiami Trail E) intersection	Goodlette-Frank Rd.		Major Intersection Improvement	Major Intersection Improvement
58	12	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd.	6 L Farm Rd	Roadway Capacity	Widen from Two to Four Lanes
59	11	US 41 (SR 90) (Tamiami Trail E) intersection	Collier Blvd. (SR 951)		Major Intersection Improvement	Major Intersection Improvement
60	14	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd.	Old US 41	Corridor Study	Further Study Required
62A	73	Vanderbilt Beach Rd. Extension	16th St.	Everglades Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
62B	73	Vanderbilt Beach Rd. Extension	Everglades Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
63	53	Westclox Street Extension	Little League Rd.	West of Carson Rd.	Roadway Capacity	New Two-Lane Road
65	32	Wilson Blvd.	Keane Ave.	Golden Gate Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
66	17	Immokalee Rd. (Intersection)	Livingston Rd.		Major Intersection Improvement	Major Intersection Improvement
67	57	Veterans Memorial Blvd. Extension	Strand Blvd.	I-75	Roadway Capacity	New Four-Lane Road
68	83	Big Cypress Pkwy. Intersection (new)	Oil Well Grade Rd.		Minor Intersection Improvement	New At-Grade Intersection
70	68	Green Blvd. Extension	Everglades Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Two-Lane Road
73	20	Immokalee Rd. (CR 846) Intersection	Collier Blvd. (CR 951)		Major Intersection Improvement	Major Intersection Improvement
74	28	Immokalee Rd. (CR 846) Intersection	Wilson Blvd.		Major Intersection Improvement	Major Intersection Improvement
75	55	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd.		Interchange	New Partial Interchange
76	43	Vanderbilt Dr.	Immokalee Rd.	Woods Edge Pkwy.	Roadway Capacity	Widen from Two to Four Lanes

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
78	29	Golden Gate Pkwy. Intersection	Livingston Rd.		Major Intersection Improvement	Major Intersection Improvement
81	74	Bridge @ 47th Ave NE	West of Everglades Blvd.		New Bridge Project	New Bridge over Canal
82	75	Bridge @ Wilson Blvd.	South of 33rd Avenue NE		New Bridge Project	New Bridge over Canal
83	69	Bridge @ 18th Ave. NE	Between Wilson Blvd. N and 8th St. NE		New Bridge Project	New Bridge over Canal
84	76	Bridge @ 18th Ave NE	Between 8th St. NE and 16th St. NE		New Bridge Project	New Bridge over Canal
85	64	Bridge @ 13th St. NW	North Terminus at Vanderbilt Beach Rd. Extension		New Bridge Project	New Bridge over Canal
86	77	Bridge @ 16th St. SE	South Terminus		New Bridge Project	New Bridge over Canal
87	77	Bridge @ Location TBD - between 10th Ave. SE and 20th Ave. SE	East of Everglades Blvd.		New Bridge Project	New Bridge over Canal
88	48	Bridge @ Wilson Blvd. S	South Terminus		New Bridge Project	New Bridge over Canal
89	79	Bridge @ 62nd Ave NE	West of 40th St NE		New Bridge Project	New Bridge over Canal
115	N/A	Bridge @ 23rd St. SW	South of Golden Gate Blvd.		New Bridge Project	New Bridge over Canal

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
90	26	Pine Ridge Rd.	Logan Blvd.	Collier Blvd.	Roadway Capacity	Widen from Four to Six Lanes
92	N/A	SR 82	Hendry County Line	Gator Slough Ln.	Roadway Capacity	Widen from Two to Four Lanes
93	32	Immokalee Rd.	Shady Hollow Blvd. E	Rural Village Rd. (new)	Roadway Capacity	Widen from Two Four Lanes
94	57	Rural Village Rd. (new)	Immokalee Rd.	Immokalee Rd.	Roadway Capacity	New Four-Lane Road
95	N/A	Golden Gate Pkwy. (Intersection)	Goodlette-Frank Rd.		Major Intersection Improvement	Major Intersection Improvement
96	N/A	Pine Ridge Rd. (Intersection)	Airport Pulling Rd.		Minor Intersection Improvement	Minor intersection improvements
97	N/A	Immokalee Rd. (Intersection)	Logan Blvd.		Major Intersection Improvement	Major Intersection Improvement
98	N/A	Vanderbilt Beach Rd. (Intersection)	Livingston Rd.		Minor Intersection Improvement	Minor intersection improvements
99	N/A	Vanderbilt Beach Rd. (Intersection)	Logan Blvd.		Minor Intersection Improvement	Minor intersection improvements
100	N/A	Collier Blvd. (Intersection)	Pine Ridge Rd.		Major Intersection Improvement	Major Intersection Improvement

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
101	N/A	Pine Ridge Rd. (Intersection)	Goodlette-Frank Rd.		Minor Intersection Improvement	Minor intersection improvements
102	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Vanderbilt Beach Rd.		Major Intersection Improvement	Major Intersection Improvement
103	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Pine Ridge Rd.		Major Intersection Improvement	Major Intersection Improvement
104	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Golden Gate Pkwy.		Major Intersection Improvement	Major Intersection Improvement
107	N/A	Golden Gate Pkwy.	Collier Blvd.		Major Intersection Improvement	Major Intersection Improvement
108	N/A	Vanderbilt Beach Rd.	Airport Pulling Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements
109	N/A	Immokalee Rd.	Goodlette-Frank Rd.		Major Intersection Improvement	Intersection Innovation/Improvements
110	N/A	Immokalee Rd.	Airport Pulling Rd.		Major Intersection Improvement	Intersection Innovation/Improvements
111	N/A	US 41	Immokalee Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements

Table ES-2. 2045 Needs Plan List of Roadway Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
112	N/A	Airport Pulling Rd.	Orange Blossom Dr.		Minor Intersection Improvement	Intersection Innovation/Improvements
113	N/A	Airport Pulling Rd.	Golden Gate Pkwy.		Minor Intersection Improvement	Intersection Innovation/Improvements
114	N/A	Airport Pulling Rd.	Radio Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements

Note:

DDI = diverging diamond interchange

Figure ES-4. 2045 Needs Plan Project Map

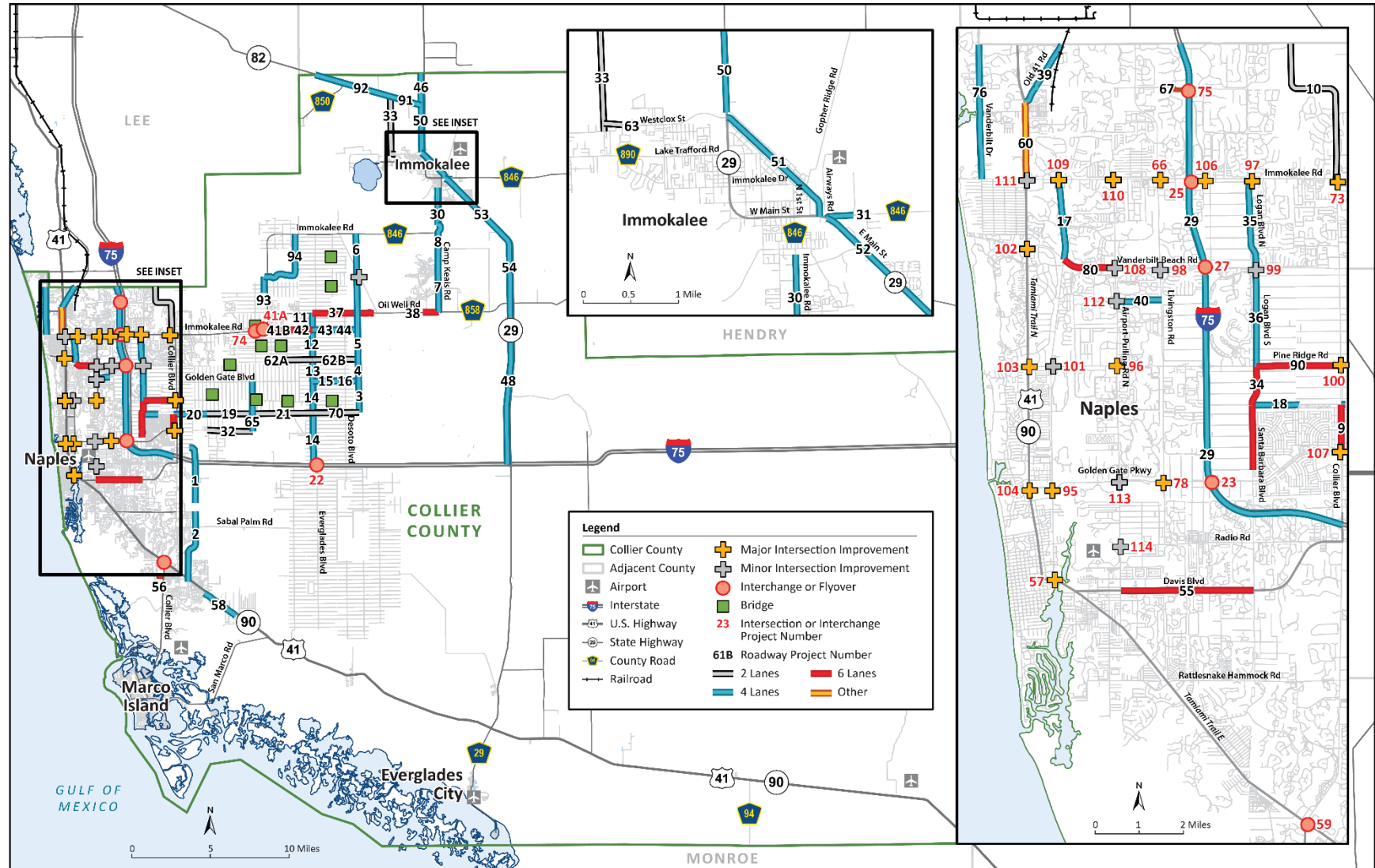


Table ES-3. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Route Network and New Service		
Route 22 and 23 Realignment	1	<p>Realign to streamline circulation in Immokalee, reduce duplication with Route 23, reduce the need for transfers between Routes 22 and 23, and extend service east along Main Street and to the various packing houses that employ approximately 20,000 employees.</p> <p>Realign Route 23 to provide direct connections to the westernmost residential cluster on Lake Trafford Road, the County Health Department, several packing houses along New Harvest Road, and the easternmost residential cluster on Farm Workers Way.</p>
Route 11 Extension	2	Minor extension of the north to connect to the Walmart on Tamiami Trail and Immokalee Rd. Or consider connecting to the LinC at the Walmart.
Route 14 Realignment	3	Realign Routes 13 and 14 from a one-way pair to two bidirectional routes, with Route 14 operating along Goodlette-Frank Rd.
Routes 17/18 Realignment	4	Realign to combine the two routes along the portion from Government Center along Tamiami Trail to Rattlesnake Hammock Road to Collier Blvd. to the Super Walmart at Tamiami Trail; Remove service along Tamiami Trail.
Route 13 Realignment	4	Realign Routes 13 and 14 from a one-way pair to two bidirectional routes, with Route 13 operating along 9th Street/Tamiami Trail.
Routes 19/28 Realignment	6	Realign by eliminating unproductive segments of Route 19 and combining the service hours into Route 28 with increased frequency.
Route 12 Extension	7	Minor extension west into Walmart and other shopping plazas at the intersection of Tamiami Trail and Immokalee Rd.
Route 25 NS	8	Split and extend the north-south alignment north to Immokalee Rd.
Route 20/26 Realignment	9	Combine Routes 20 and 26 to improve frequency and streamline service.
New I—75 Premium Express	9	Would operate like an express commuter service beginning at the Government Center and end at the Florida Gulf Coast Town Center. The route would require one vehicle to provide 90-minute headway service from 6 a.m. to 8 p.m.
Route 21 (Marco Island Express)	11	Provide express service to the Walmart Supercenter on Collier Blvd. and Tamiami Trail and potentially to the Government Center.

Table ES-3. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Route 27 EW	12	Extend the East-West alignment east to provide service along Immokalee Rd. to the Publix shopping center at Immokalee Rd. and Oil Well Rd.
Route 25 EW	13	Split and keep east-west alignment the same while changing the NS alignment.
New Bayshore Shuttle	13	Would operate as a fixed-route electric shuttle with free hop-on/hop-off service. The route would require one vehicle to provide 15-minute headway service from Weeks Ave. to the Naples Botanical Garden from 11:00 a.m. to 9:00 p.m.
Route 27 NS	15	Extend the North-South alignment south along Collier Boulevard to Tamiami Trail.
New Island Trolley	15	Would travel along Collier Blvd. on Marco Island as a fixed-route and connect to the realigned Route 21 Marco Island Express route. Would be a hop-on/hop-off type, fare-free service using two vehicles with 30-minute headways.
Frequency Improvements		
Route 121	1	Add one morning and one evening trips during peak periods.
Route 15	2	Reduce headway time from 90 minutes to 45 minutes.
Route 11	3	Reduce headway time from 30-minutes to 20-minutes.
Route 12	3	Reduce headway time from 25- to 90-minutes to 30-minute peak headway and a 60-minute off-peak headway.
Route 16	5	Reduce headway time from 90 minutes to 45 minutes.
Route 13	6	Reduce headway time from 40 minutes to 30 minutes.
Route 14	6	Reduce headway time from 60 minutes 30 minutes.
Route 24	6	Reduce headway time from 85 minutes to 60 minutes.

Table ES-3. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Proposed Span Improvements		
Route 11	1	Extend service to 10:00 p.m.
Route 13	1	Extend service to 10:00 p.m.
Route 14	1	Extend service to 10:00 p.m.
Route 19	4	Extend service to 10:00 p.m.
Route 24	4	Extend service to 10:00 p.m.
Route 17/18	6	Extend service to 10:00 p.m.
Capital Infrastructure Needs Identified but Not Ranked		
New UF/IFAS and Lehigh Acres Route	-	Would connect Immokalee to the University of Florida/IFAS satellite campus and Lehigh Acres. Further study is recommended due to the roadway constraints for transit vehicles entering/exiting UF/IFAS campus.
Downtown Autonomous Circulator	-	Would address the parking shortage in downtown and would begin on S. 4th Ave. from S. 9th St. to S. 3rd St. and go south along S. 3rd St. to S. 13th Ave. Further Study is recommended
Naples Pier Electric Shuttle	-	The downtown autonomous circulator would alleviate parking demand in downtown. It would begin at Naples Pier and run along Broad Avenue with a stop at Crayton Cove, before going north along S. 8th St. to S. 6th Ave. Further study is recommended.
Mobility-On-Demand	-	Uses on-demand information, real-time data, and predictive analytics that provides travelers the best transportation choice for their needs. Service can be requested via a mobile app, website, or by calling CAT. Helps solve the 'first/last mile' problem associated with limited access to transit. Four Mobility-On-Demand (MOD) Zones identified: Golden Gate, North Naples, Naples Zone, and Marco Island. Further study is recommended.
Vanpooling (Everglades City)	-	Indicated by FDOT District 1 as a workable solution for rural communities, such as Everglades City. The proposed program could connect commuters from Everglades City to the Government Center. Further study is recommended.

Table ES-3. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Regionwide Technology	-	The technology needs outlined in the TDP's Situation Appraisal includes implementing or upgrading transit scheduling and dispatching software, installing automatic passenger count and vehicle announcement systems for fixed-route vehicles, updating fare collection systems, and enhancing on-board safety measures.
Park-and-Ride Lots	-	Improve transit access through the development of park-and-ride lots.
Bus Stop Infrastructure	-	Continue to improve and add additional benches, shelters, bicycle storage facilities, and other infrastructure at bus stops to enhance the rider experience and potentially attract new riders.
Improve Americans with Disabilities Act (ADA) Accessibility	-	Improve bus stop safety and ADA accessibility throughout the entire system for all riders.
Replace and Add New Vehicles	-	Continue to replace existing fleet and add new vehicles in order to provide new service.

Figure ES-5. Transit Network Service Needs

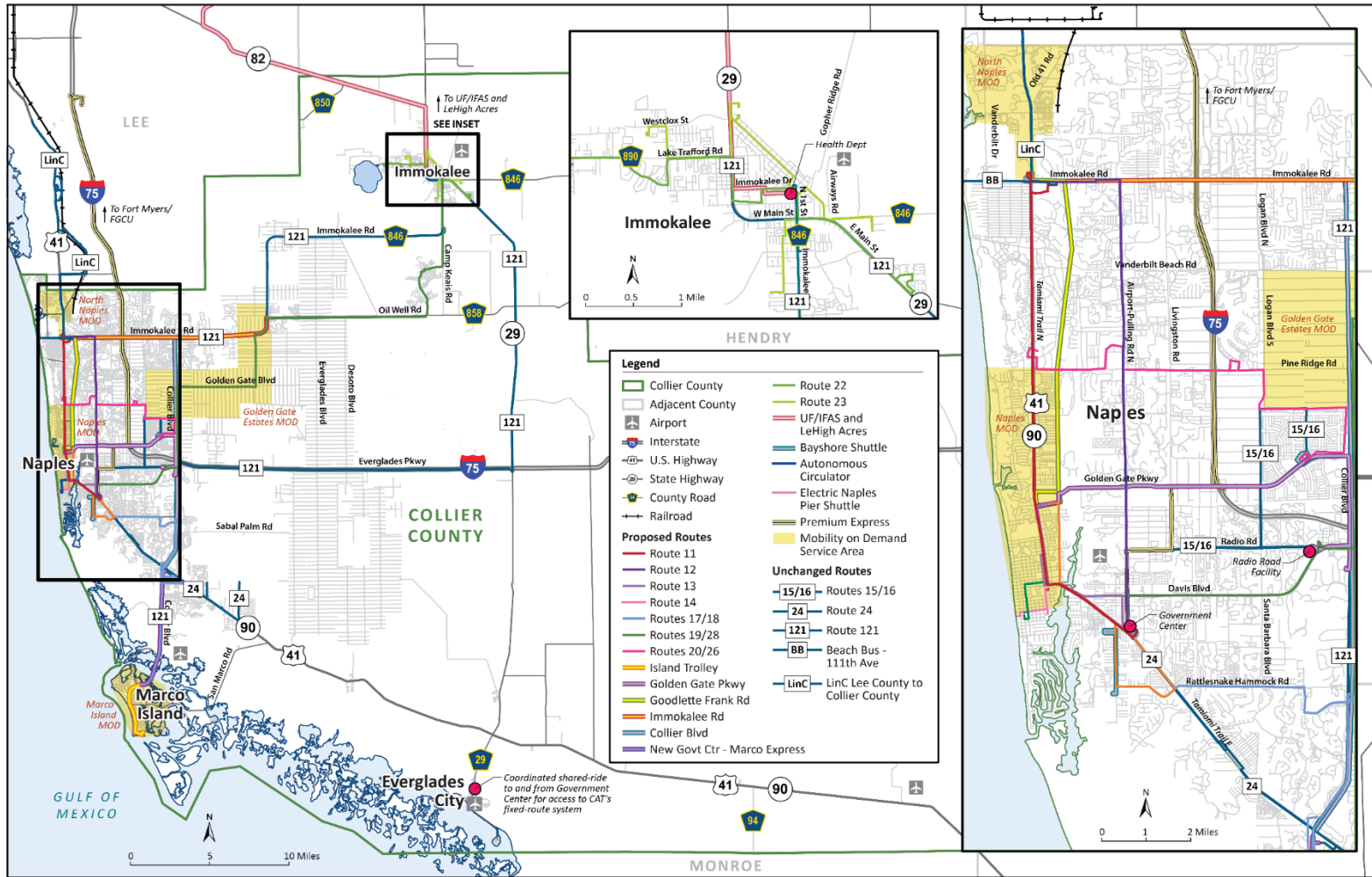


Table ES-4 presents the prioritized bicycle and pedestrian facilities. The BPMP identified the following as priority projects to complete the SUN Trail (FDOT 2016) and Spine Trail network.

- SUN Trail Alignments
- Florida Power & Light (FPL) Easement/Livingston/Rich King Greenway Alignment
- Gordon River Greenway Connections
- Golden Gate Canal Greenway (Proposed)
- Golden Gate Parkway between Santa Barbara and Collier Boulevards
- SR 29 and SR 82

2045 Cost Feasible Plan

The 2045 LRTP Cost Feasible Plan identifies the multimodal transportation projects that can be funded through 2045 based on the estimated revenues.

Roadway Cost Feasible Projects

To develop the cost feasible roadway projects, planning-level costs were developed for each project phase including Project Development and Environment Study, preliminary engineering/design (PE), ROW, construction (CST), and environmental mitigation. The project phase costs were developed using the FDOT 2045 LRTP Cost Estimation Tool and recent roadway project costs within the County. The cost components were applied to individual roadway projects from the Needs Plan to develop the roadway cost feasible projects for the LRTP.

Six alternative network scenarios were modeled using the D1RPM. The first two network scenarios were not financially constrained and helped refine and develop the list of project needs. Alternative Network Scenarios 3 through 6 were modeled using an iterative process on a financially constrained list of projects to test travel demand and congestion throughout the network. Projects were also prioritized based on the project ranking in the Needs Plan, traffic modeling results, County input, and public input.

The Collier MPO Transportation Improvement Program (TIP) and FDOT Work Program are updated annually and extend to 2025. The cost feasible projects presented in herein are consistent with the TIP and FDOT Work Program.

Financial planning for statewide and metropolitan transportation plans is typically required for three periods: short range, intermediate range, and long range. Therefore, the cost feasible projects are presented in three multi-year planning periods: Fiscal Years (FY) 2026 to 2030, FY2031 to FY2035, and FY2036 to FY2045. **Table ES-5** presents the SIS roadway cost feasible projects by planning year and project phase. **Figure ES-6** presents a map of the projects and a distribution of the costs by phase. **Table ES-6** presents the FDOT Other Roads Projects and Local Roadway Projects by planning year and project phase. **Figures ES-7, ES-8, and ES-9** present these projects by planning years including the distribution of costs by phase. **Table ES-7** presents the partially funded projects within the FDOT Other Roads Projects and Local Roadway Projects, and **Figure ES-10** presents a map of partially funded projects for the entire planning period (FY2026 to FY2045).

Table ES-4. Prioritized Bicycle and Pedestrian Facilities*Source: Collier MPO BPMP*

Road	From	To	Distance	Agency	Facility Type
111th Ave. N	Vanderbilt Dr.	Tamiami Trl. N	1.0	Collier County	Bike Lane/Path
Airport Rd. N	Pine Ridge Rd.	Immokalee Rd.	4.2	Collier County	Bike Lane/Path
Airport Rd. N	S Horseshoe Dr.	Pinewoods Cir.	2.5	Collier County	Bike Lane/Path
Airport Rd. S	Seagrape Ave.	Davis Blvd.	0.5	Collier County	Bike Lane/Path
Airport Rd. S	Davis Blvd.	Tamiami Trl. E	0.8	Collier County	Safety
Bluebill Ave.	Bluebill Ave.	Vanderbilt Dr.	0.4	Collier County	Bike Lane/Path
Bonita Beach Rd.	Vanderbilt Dr.		1.7	Collier County	Bike Lane/Path
Castaways St.	Saturn Ct.	Amazon Ct.	0.2	Marco Island	Marco Master Plan
Collier Blvd.	17th Ave. SW	City Gate Blvd. N	2.0	Collier County	Bike Lane/Path
Collier Blvd.	N End Jolley Bridge	Fiddlers Creek Pkwy.	3.6	Collier County	Bike Lane/Path
Copeland Ave. S	Broadway	Oyster Bar Ln.	0.7	Everglades City	Pathway
Davis Blvd.	Tamiami Trl.	Airport Rd. S	1.0	Collier County	Bike Lane/Path
Everglades Blvd.	Oil Well Rd.	58TH AVE NE	3.1	Collier County	Sidewalk
Golden Gate Pkwy.	9th St. N	Estuary Blvd.	1.6	Naples	Bike Lane/Path
Greenbrier St.	Manor Ter.	Saturn Ct.	0.2	Marco Island	Marco Master Plan
Immokalee Rd.	Tamiami Trl.	Northbrooke Dr.	4.0	Collier County	Bike Lane/Path
Logan Blvd. N	Logan Blvd.	Vanderbilt Beach Rd.	1.1	Collier County	Bike Lane/Path
Logan Blvd. S	Logan Blvd.	Green Blvd.	2.0	Collier County	Bike Lane/Path
Oil Well Rd.	Everglades Blvd. N	Oil Well Grade Rd.	3.9	Collier County	Bike Lane/Path
Oil Well Rd.	Ave Maria Blvd.	SR 29	5.7	Collier County	Bike Lane/Path
Old US 41 N	Tamiami Trl.	Performance Way	1.5	Collier County	Pathway
Peru St.		Seagrape Dr.	0.1	Marco Island	Marco Master Plan
Pine Ridge Rd.	Tamiami Trl.	Logan Blvd. S	5.1	Collier County	Bike Lane/Path
Randall Blvd.	Randall Blvd.	Approach Blvd.	1.5	Collier County	Bike Lane/Path
Rattlesnake H Rd.	Valley Stream Dr.	Collier Blvd.	3.5	Collier County	Bike Lane/Path
San Marco Rd.	Goodland Dr.	Tamiami Trl. E	6.5	Collier County	Pathway
Santa Barbara Blvd.	Green Blvd.	17th Ave. SW	0.2	Collier County	Bike Lane/Path
Saturn Ct.	Castaways St.	Greenbrier St.	0.1	Marco Island	Marco Master Plan
Seagrape Dr.	Peru St.	Swallow Ave.	0.7	Marco Island	Marco Master Plan
Tamiami Trl. E	Greenway Rd.	Six LS Farm Rd.	2.5	Collier County	Pathway
Vanderbilt Beach Rd.	Gulfshore Dr.	Vanderbilt Dr.	0.4	Collier County	Bike Lane/Path
Wiggins Pass Rd.	Vanderbilt Dr.	Tamiami Trl. N	1.0	Collier County	Bike Lane/Path
Wilson Blvd. N	Golden Gate Blvd	24th Ave. NE	3.0	Collier County	Pathway
Total Miles			66.3		

Table ES-5. Collier MPO 2045 LRTP SIS Cost Feasible Plan Projects
Draft 9/21/2020 (in millions \$)

Map ID	Facility (FPID No.)	Limits From	Limits To	Description	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045
						PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	
92	SR 82 [4308481]	Hendry Co.Line	Gator Slough Lane	Widen from 2-Lanes to 4-Lanes	\$44.73	0.07	\$2.12	\$42.54			\$2.80							\$2.80
50	SR 29 [4175406]	New Market Road North	North of SR-82	Widen from 2-Lanes to 4-Lanes (with center turn lane)	\$1.47	0.38	1.09				29.94							\$29.94
51	SR 29/New Market Rd W - New Road [4175405]	Immokalee Rd (CR 846)	New Market Rd N	New 4-Lane Road	\$6.74	0.06	\$6.68			\$5.88							\$49.91	\$55.78
52	SR 29 [4175404]	Agriculture Way	CR 846 E	Widen from 2-Lanes to 4-Lanes	\$0.27	0.27							\$5.63				\$23.32	\$28.95
29	I-75 (SR-93) Managed (Toll) Lanes [FPID 4425192]	E of Collier Blvd (SR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes (10-lanes)	\$0.03	0.03						63.25					145.43	\$208.67
48	SR 29 [4344901]	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	\$0.03	0.03						4.33						\$4.33
53	SR 29 (SEGMENT D) [4175403]	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lanes to 4-Lanes	\$0.50	0.5							\$2.38					\$2.38
54	SR 29 (SEGMENT E) [4175402]	Oil Well Rd	Sunniland Nursery Rd	Widen from 2-Lanes to 4-Lanes	\$8.33	8.33							\$4.55					\$4.55
46	SR 29 [4178784]	SR 82	Hendry C/L	Widen from 2-Lanes to 4-Lanes	\$1.37	0.07	\$1.30											\$0.00
				Totals	\$63.47	\$9.74	\$11.19	\$42.54	\$0.00	\$5.88	\$32.74	\$67.58	\$12.55	\$0.00	\$0.00	\$145.43	\$73.22	\$337.40
						\$63.47			\$38.62			\$80.13			\$218.65			
PRE-ENG	PRE-ENG includes PD&E and Design																	
PDC	Present Day Cost																	
ROW	Right-of-Way																	
CST	Construction																	
YOE	Year of Expenditure																	

Figure ES-6. Collier MPO 2045 LRTP SIS Cost Feasible Plan Projects

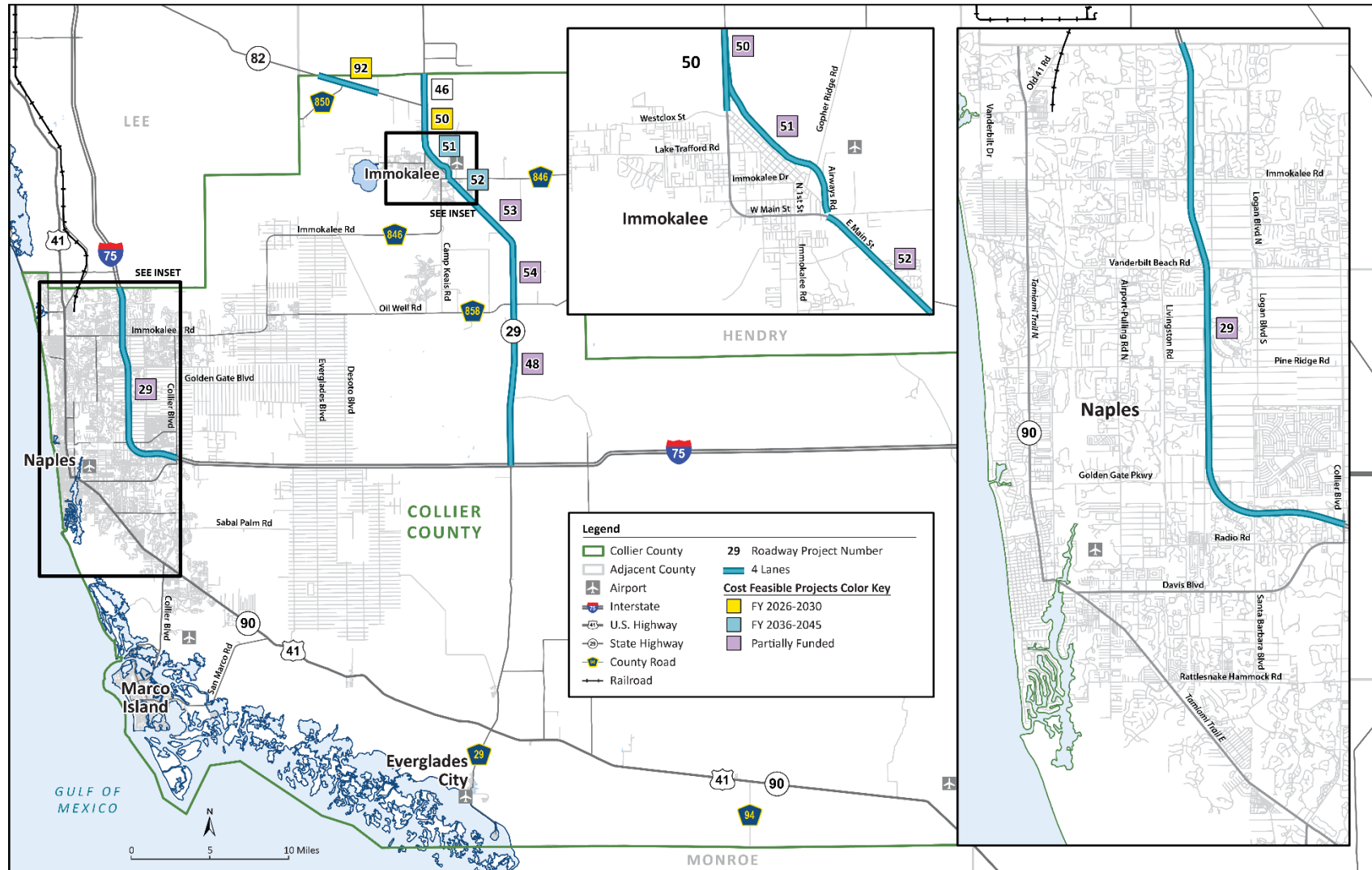


Table ES-6. Collier MPO 2045 LRTP Cost Feasible Plan Projects – FDOT Other Roads Projects and Local Roadway Projects

Draft 11/12/2020 (in millions \$)

Map ID	Facility	Limits from	Limits to	Description	Total Project Cost (PDC 2019 \$)	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045 (YOE \$ without SIS)	Total SIS Costs	County	OA PRE-ENG	OA ROW and CST	Funding Source
							PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST						
PLAN PERIOD 2 CONSTRUCTION FUNDED PROJECTS																								
12	Everglades Blvd	Vanderbilt Bch Rd Ext.	Randall Blvd	Widen from 2-Lanes to 4-Lanes	\$32.80					\$5.59	\$2.38	\$35.31							\$43.27		\$43.27			County
23	I-75 (SR-93) Interchange (new)	Golden Gate Pkwy		Interchange Improvement	\$9.59					\$0.58		\$12.24							\$12.81			\$0.58	\$12.24	OA
25	I-75 (SR-93)	Immokalee Rd		Interchange Improvement (DDI proposed)	\$9.59					\$0.58		\$12.24							\$12.81			\$0.58	\$12.24	OA
37	Oil Well Road / CR 858 [60144]	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	\$36.78	\$1.81	\$0.91		\$0.90	\$6.73		\$42.11							\$48.83		\$48.83			County
57	US 41 (SR 90) (Tamiami Trail E)	Goodlette-Frank Rd		Major Intersection Improvement	\$13.00					\$0.63	\$2.97	\$13.41							\$17.01			\$0.63	\$16.38	OA
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4 Lanes	\$31.88					\$3.91	\$4.46	\$33.53							\$41.90			\$3.91	\$37.98	OA
66	Immokalee Rd	Livingston Rd		Major Intersection Improvement	\$24.50							\$26.82							\$26.82		\$26.82			County
78	Golden Gate Pkwy (Intersection)	Livingston Rd		Major Intersection Improvement	\$24.50					\$5.63		\$26.82							\$32.45		\$32.45			County
111	US 41	Immokalee Rd		Intersection Innovation /Improvements	\$17.50					\$3.13		\$20.12							\$23.24			\$3.13	\$20.12	OA
PLAN PERIOD 3 CONSTRUCTION FUNDED PROJECTS																								
39	Old US 41	US 41	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	\$22.59					\$3.85	\$1.70					\$30.06			\$35.61			\$3.85	\$31.76	OA
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	\$51.57					\$7.29	\$5.35					\$65.04			\$77.67		\$77.67			County
59	US 41	Collier Blvd		Major Intersection Improvement	\$17.25					\$2.81						\$23.66			\$26.47			\$2.81	\$23.66	OA
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Further Study Required (Complete Streets Study for TSM&O Improvements	\$17.25					\$0.46			\$2.00			\$23.66			\$26.12			\$2.46	\$23.66	OA
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes	\$21.72					\$1.99				\$4.52	\$25.00				\$31.51		\$31.51			County

PRE-ENG includes PD&E and Design Present Day Cost Right-of-Way Construction YOE Year of Expenditure

Table ES-6. Collier MPO 2045 LRTP Cost Feasible Plan Projects – FDOT Other Roads Projects and Local Roadway Projects (continued)

Draft 11/12/2020 (in millions \$)

Map ID	Facility	Limits from	Limits to	Description	Total Project Cost (PDC 2019 \$)	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045 (YOE \$ without SIS)	Total SIS Costs	County	OA PRE-ENG	OA ROW and CST	Funding Source
							PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST						
PLAN PERIOD 4 CONSTRUCTION FUNDED PROJECTS																								
11	Everglades Blvd	Randall Blvd	South of Oil Well Rd	Widen from 2-Lanes to 4-Lanes	\$16.42								\$3.00	\$1.53				\$24.65	\$29.18		\$29.18			County
22	I-75 (SR-93) Interchange (new)	Vicinity of Everglades Blvd		New Interchange	\$42.26				\$3.76				\$5.30	\$8.32				\$55.65	\$73.03			\$9.07	\$63.97	OA
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	\$3.90											\$0.77	\$0.55	\$5.88	\$7.20		\$7.20			County
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes	\$22.23				\$3.40					\$3.16				\$32.31	\$38.87		\$38.87			County
63	Westclox Street Ext.	Little League Rd	West of Carson Rd	New 2-Lane Road	\$3.01								\$0.51				\$0.55	\$4.45	\$5.51		\$5.51			County
65	Wilson Blvd	Keane Ave.	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	\$36.15								\$8.82	\$4.23				\$50.29	\$63.35		\$63.35			County
97	Immokalee Rd (Intersection)	Logan Blvd		Major Intersection Improvement	\$11.50								\$2.12					\$18.55	\$20.67		\$20.67			County
99	Vanderbilt Beach Rd (Intersection)	Logan Blvd		Minor Intersection Improvement	\$11.50								\$2.12					\$18.55	\$20.67		\$20.67			County
101	Pine Ridge Rd	Goodlette-Frank Rd		Minor Intersection Improvement	\$5.75											\$1.20		\$9.28	\$10.48		\$10.48			County
C1	Connector Roadway from I-75 Interchange (New)	Golden Gate Blvd	Vanderbilt Beach Rd	4-Lane Connector Roadway from New Interchange (Specific Location TBD During Interchange PD&E	\$17.57				\$0.44				\$2.80	\$1.62				\$26.29	\$31.14			\$3.24	\$27.90	OA
C2	Connector Roadway from I-75 Interchange (New)	I-75 (SR-93)	Golden Gate Blvd	4-Lane Connector Roadway from New Interchange (Specific Location TBD During Interchange PD&E Study)	\$80.59				\$2.00				\$13.28	\$7.41				\$120.02	\$142.70			\$15.28	\$127.43	OA

PRE-ENG includes PD&E and Design

Present Day Cost

Right-of-Way

Construction

YOE Year of Expenditure

Figure ES-7. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2026–FY2030)

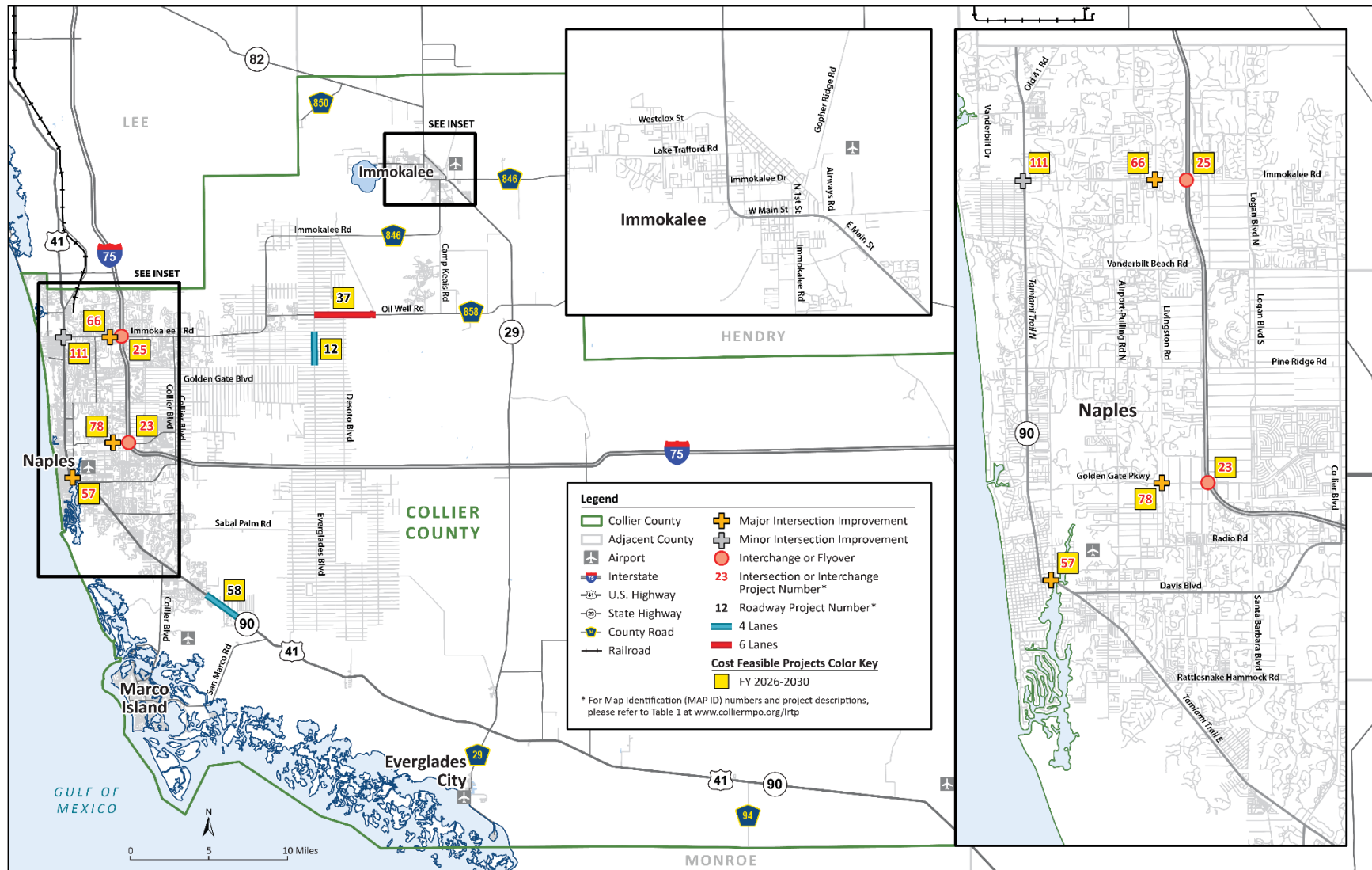


Figure ES-8. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2031–FY2035)

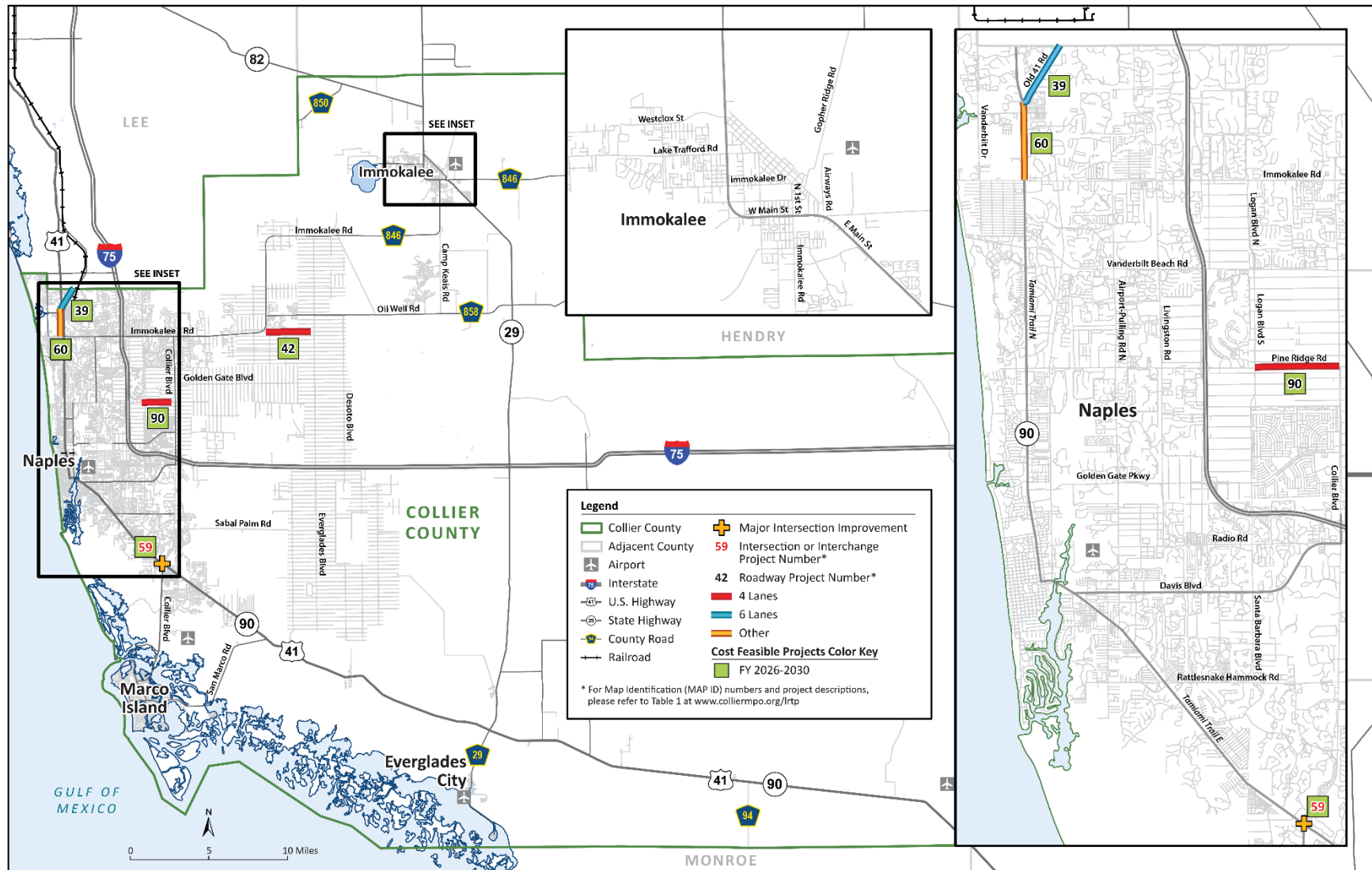


Figure ES-9. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2036–FY2045)

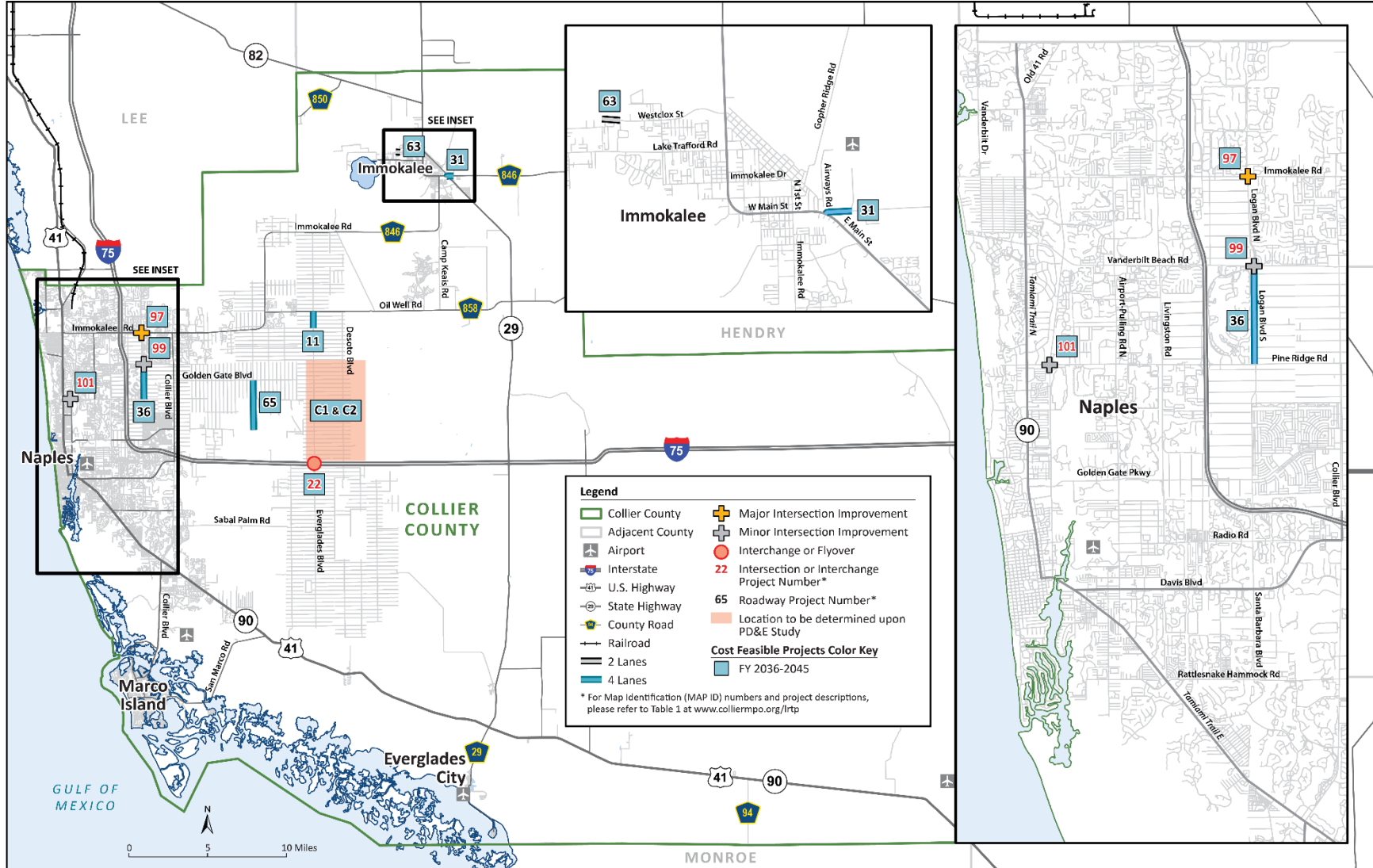


Table ES-7. Collier MPO 2045 LRTP Cost Feasible Plan Projects – Partially Funded Projects (FY2026–FY2045)

Draft 11/12/2020 (in millions \$)

Map ID	Facility	Limits from	Limits to	Description	Total Project Cost (PDC 2019 \$)	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045 (YOE \$ without SIS)	Total SIS Costs	County	OA PRE-ENG	OA ROW and CST	Funding Source
							PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST						
PARTIALLY FUNDED PROJECTS																								
1	Benfield Rd (New) [60129]	The Lords Way	City Gate Blvd N	New 2-Lane Road (Expandable to 4-	\$37.31	\$11.00	\$0.00	\$4.00	\$7.00		\$4.00			\$5.00				\$9.00		\$9.00				County
5	Big Cypress Pkwy	Vanderbilt Beach Rd Ext.	Oil Well Rd	New 2-Lane Road (Expandable to 4-	\$37.31										\$7.70	\$4.04		\$11.74		\$11.74				County
30	Immokalee Rd (CR 846)	Camp Keiss Rd	Eustis Ave	Further Study Required (Immokalee Rd Planning Study)	\$2.00					\$2.00								\$2.00		\$2.00				County
33	Little League Rd Ext.	SR 82	Westclox St.	New 2-Lane Road	\$40.99										\$8.48	\$7.33		\$15.81		\$15.81				County
41A	Randall Blvd (flyover) [60147]	Immokalee Rd		Ultimate Intersection Improvement: Overpass	\$35.66	\$9.75	\$0.95		\$8.80						\$9.46			\$9.46			\$9.46	\$0.00		OA
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6-Lanes	\$40.26							\$0.94			\$9.01		\$45.88	\$55.83			\$9.95	\$45.88		OA
62B	Vanderbilt Beach Rd Ext.	Everglades Blvd	Big Cypress Pkwy	New 2-Lane Road (Expandable to 4	\$41.17										\$8.38	\$16.07		\$24.46		\$24.46				County
69	Everglades Blvd	Oil Well Rd / CR 858	Immokalee Rd	Widen 2 to 4 Lanes	\$72.75					\$3.12	\$5.00							\$8.12		\$8.12				County
74	Immokalee Rd (CR 846) intersection	Wilson Blvd		Major Intersection Improvement	\$17.25										\$6.60			\$6.60			\$6.60	\$0.00		OA
93	Immokalee Rd	43rd Ave/Shady Hollow Blvd E	North of 47th Ave. NE	Widen from 2-Lanes to 4-Lanes	\$9.79										\$2.26	\$0.48		\$2.74		\$2.74				County
94	Rural Village Blvd	Immokalee Rd	Immokalee Rd	New 4-Lane Road	\$23.41										\$5.84	\$2.96		\$8.80		\$8.80				County
98	Vanderbilt Beach Rd	Livingston Rd		Minor Intersection Improvement	\$21.50										\$2.40			\$2.40		\$2.40				County
102	US 41 (SR 90) (Tamiami Trail E)	Vanderbilt Beach Rd		Major Intersection Improvement	\$2.50										\$4.90			\$4.90			\$4.90	\$0.00		OA
103	US 41 (SR 90) (Tamiami Trail E)	Pine Ridge Rd		Major Intersection Improvement	\$2.50										\$4.90			\$4.90			\$4.90	\$0.00		OA
104	US 41 (SR 90) (Tamiami Trail E) [4464511]	Golden Gate Pkwy		Major Intersection Improvement	\$3.50	\$0.50	\$0.27	\$0.23							\$4.40			\$4.40			\$4.40	\$0.00		OA

Notes:

Partially funded for construction

PRE-ENG includes PD&E and Design

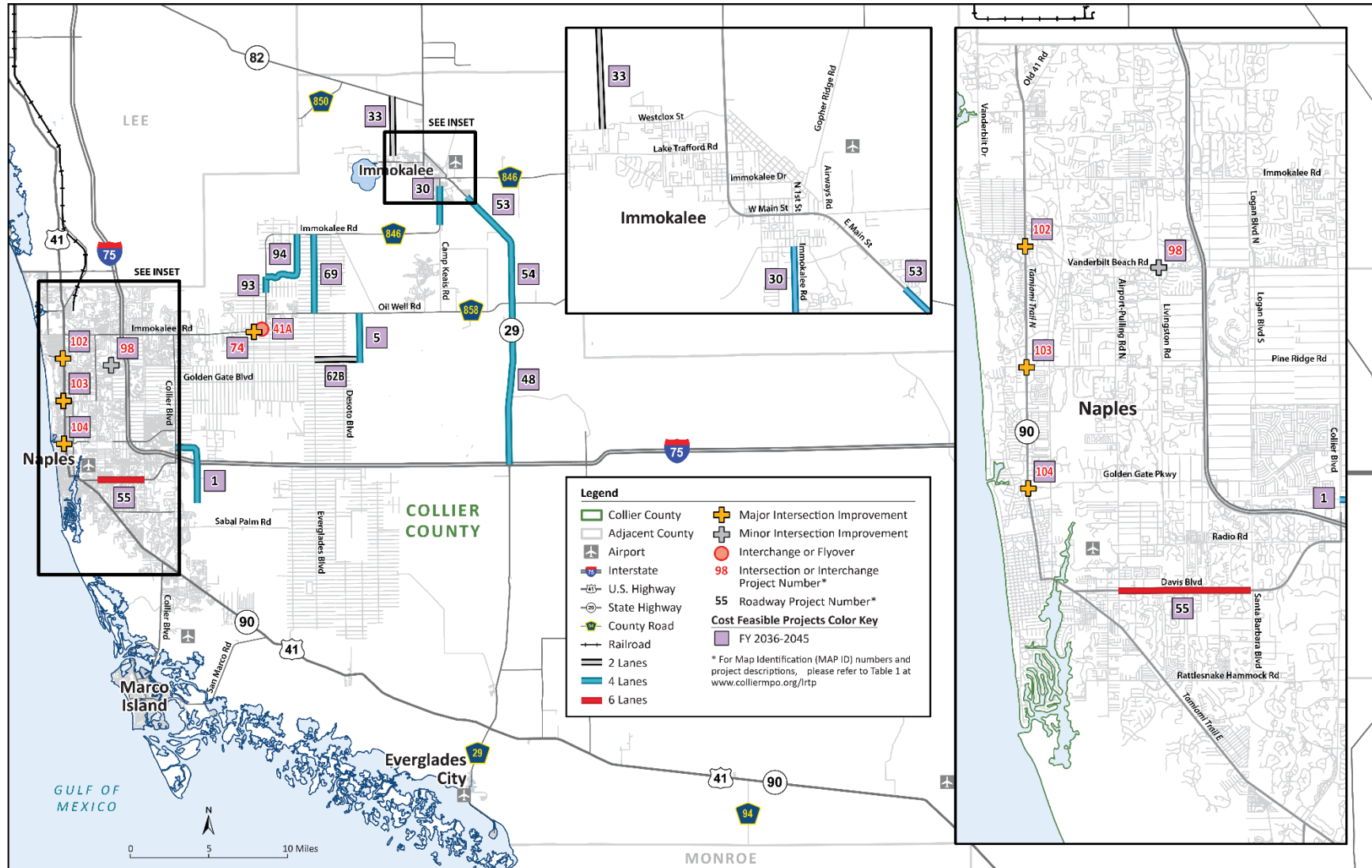
Present Day Cost

Right-of-Way

Construction

YOE Year of Expenditure

Figure ES-10. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map – Partially Funded (FY2026–FY2045)



Figures ES-11 and ES-12 present the total costs by project phase and funding source, respectively, for the FDOT Other Roads and Local Roads cost feasible projects for this 2045 LRTP update.

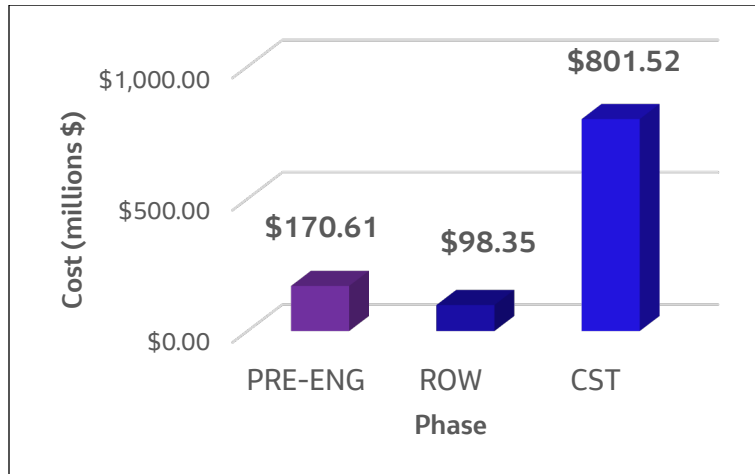


Figure ES-11. Total Costs by Project Phase for FDOT Other Roads and Local Roads Funded Projects 2026–2045
(Year of Expenditure [YOE] \$ in millions)

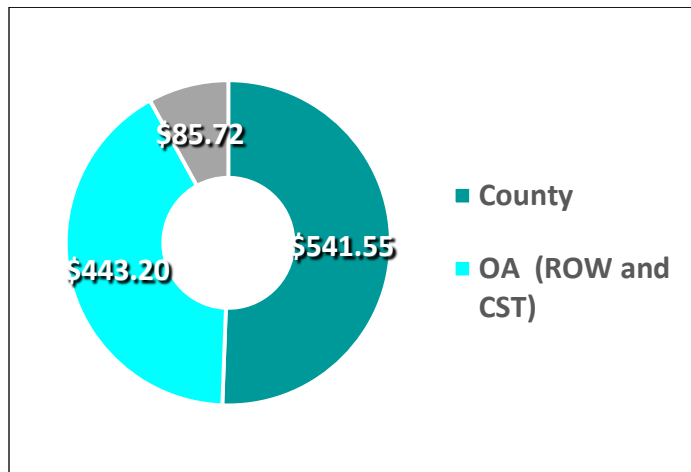


Figure ES-12. Total Costs by Funding Source 2026–2045
(YOE \$ in millions)

Congestion Management Projects

Congestion management and ITS projects are generally short-term and immediate action projects. Therefore, their role in the LRTP process is modest and are more thoroughly addressed in the congestion management process. The current TIP includes several improvements to the traffic management center, arterial monitoring cameras, and other traffic equipment improvements that address safety, active roadway management, and bicycle and pedestrian facilities. **Table ES-8** presents congestion management projects funded for construction in the 2021-2025 TIP.

Table ES-8. Congestion Management Projects Funded in TIP

ITS Projects	Funded Amount	TIP/CIP Year
Bicycle Detection – City of Naples (refer to Figure 4-7 in Chapter 4)	\$66,429	CST 2024/25
ITS Fiber Optic and FPL Power Infrastructure at 13 locations	\$272,725	CST 2024/25
Travel Time Data Collection and Performance Measures	\$700,000	CST 2020/21
New Updated School Flasher System	\$353,250	CST 2024/25
New Vehicle Count Station Update (refer to Figure 4-7 in Chapter 4)	\$311,562	CST 2023/24
New Adaptive Traffic Control System at 13 signalized locations along Santa Barbara Boulevard and Golden Gate Parkway (refer to Figure 4-7 in Chapter 4)	\$893,000	PE 2023/24 CST 2024/25

Source: Collier MPO 2020 Transportation System Performance Report & Action Plan

Other Consideration for SU Funds

In addition to congestion management and bridge projects, the MPO allocates its TMA SU funds to planning, bicycle/ pedestrian facilities, and safety projects. These five categories are often referred to as “SU Box” funds by the MPO. The Planning SU Box funds are used to supplement the MPO’s federal Planning (PL) funds to cover costs associated with updating the LRTP every 5 years. The MPO may also use SU Box funds to update the Bicycle and Pedestrian Master Plan, Transportation System Performance Report, Local Roads Safety Plan (LRSP), freight studies, and other plans and studies that are integral to updating the LRTP.

The MPO sets aside SU Box funds allocated to safety projects to implement the LRSP. The LRSP identifies priority projects that include engineering, enforcement, education, and emergency response. Safety projects will be vetted by the Congestion Management Committee, BPAC, TAC, and CAC before going to the MPO Board for adoption. The MPO may also choose to use Safety Box funds to supplement FDOT funding on safety projects that address the MPO’s and FDOT’s shared Vision Zero Safety Performance Targets. **Table ES-9** presents the presents the SU funds by planning year and project phase. **Figure ES-13** presents a summary of the allocation of SU Funds through 2045.

Bicycle and Pedestrian Cost Feasible Projects

The BPMP is a systems plan that focuses on identifying the needs and a policy framework for prioritization and implementation of bicycle and pedestrian projects. Further, it provides maximum flexibility in bringing projects forward for funding and offers design guidelines based on best practices that implementing agencies may use as guidance. Therefore, implementation of these projects is more thoroughly addressed through the individual agencies and the MPO bicycle and pedestrian advisory process.

Transit Cost Feasible Projects

Similar to the development of roadway cost feasible projects, the cost feasible transit projects were developed by estimating the costs associated with each project in the transit needs.

Numerous cost assumptions were made to forecast transit costs for 2021 through 2045. Costs include annual service and technology/capital improvements that are programmed for implementation within the plan period.

Based on the funding availability and prioritized results, the transit cost feasible projects are summarized in **Table ES-10** and illustrated in **Figure ES-14**.

Table ES-9. SU Box Funds by Planning Year and Project Phase

Allocation Type	Plan Period 2: 2026-2030			Plan Period 3: 2031-2035			Plan Period 4: 2036-2045			Total Cost 2026- 2045
	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	
MPO Supplemental Planning Funds	\$0.70			\$0.80			\$1.90			\$3.40
Bicycle Pedestrian Box Funds			\$10.17			\$10.13			\$20.15	\$40.45
Congestion Management/Intelligent Transportation Box Funds			\$10.17			\$10.13			\$20.15	\$40.45
Bridge Box Funds			\$4.96			\$4.94			\$9.80	\$19.70
Safety			\$0.80			\$0.80			\$1.50	\$3.10

Figure ES-13. SU Fund Allocation Through 2045

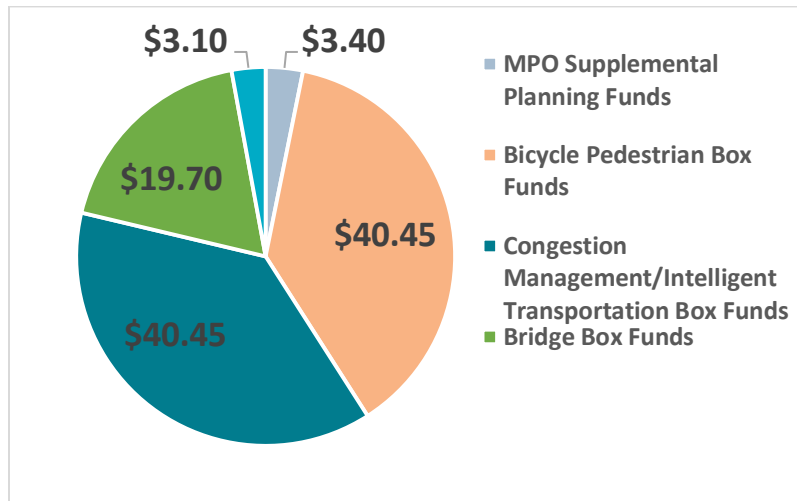


Table ES-10. 2045 Transit Cost Feasible Summary

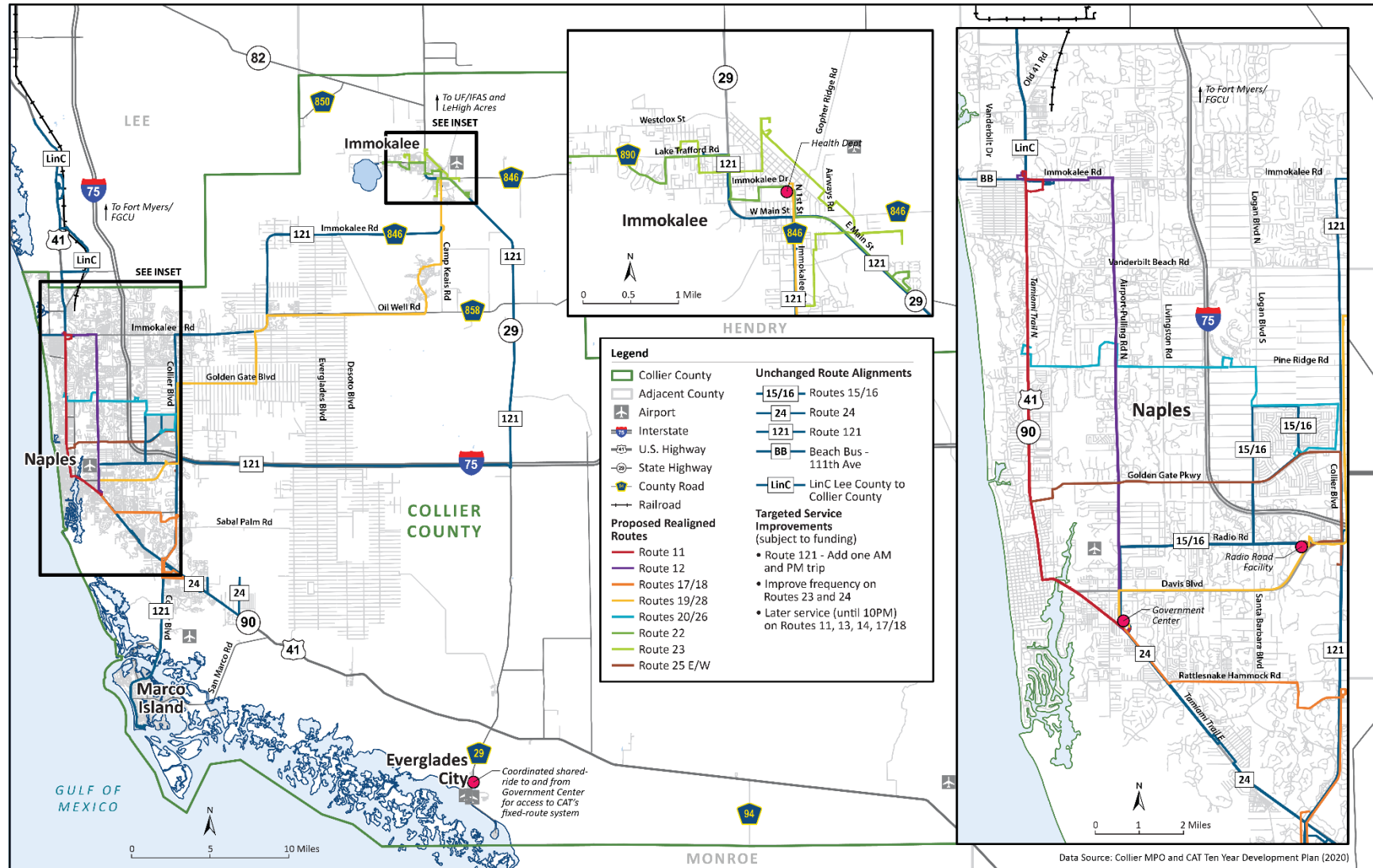
Funded Need	Plan Period 1: 2021–2025 (YOE)	Plan Period 2: 2026–2030 (YOE)	Plan Period 3: 2031–2035 (YOE)	Plan Period 4: 2036–2045 (YOE)	Total Costs 2026–2045 (YOE)
OPERATING					
Maintain Existing Fixed Route	\$32,840,000	\$35,984,000	\$39,179,000	\$89,662,000	\$164,825,000
Maintain Existing Paratransit	\$23,484,000	\$25,640,000	\$28,018,000	\$59,121,000	\$112,779,000
Route 22 - Realigned	\$0	\$0	\$0	\$0	\$0
Route 23 – Realigned + Frequency Improvement	\$1,618,000	\$2,188,000	\$2,391,000	\$5,471,000	\$10,050,000
Route 121 – Add Additional a.m./p.m. Stop	\$694,000	\$938,000	\$1,026,000	\$2,347,000	\$4,311,000
Route 24 – Improve Frequency	\$869,000	\$1,176,000	\$1,285,000	\$2,941,000	\$5,402,000
Route 11 – Increase Service Span to 10 p.m.	\$0	\$257,000	\$684,000	\$1,564,000	\$2,505,000
Route 13 – Increase Service Span to 10 p.m.	\$0	\$175,000	\$465,000	\$1,063,000	\$1,703,000
Route 14 – Increase Service Span to 10 p.m.	\$0	\$175,000	\$465,000	\$1,063,000	\$1,703,000
Route 17/18 – Increase Service Span to 10 p.m.	\$0	\$317,000	\$842,000	\$1,928,000	\$3,087,000
Total Operating Costs	\$59,505,000	\$66,848,000	\$74,354,000	\$170,166,000	\$306,365,000
CAPITAL					
Vehicles					
Replacement of Fixed Route Vehicles	\$7,307,000	\$8,557,000	\$8,223,000	\$18,817,000	\$35,597,000
Replacement of Paratransit Vehicles	\$2,147,000	\$2,344,000	\$2,327,000	\$5,328,000	\$9,999,000
Replacement of Administrative Vehicles	\$92,000	\$100,000	\$107,000	\$245,000	\$452,000
Preventative Maintenance	\$908,000	\$1,122,000	\$1,130,000	\$2,586,000	\$4,838,000
Spare Vehicles	\$504,000	\$590,000	\$0	\$718,999	\$1,308,000
Route 23 Realignment + Frequency Improvements	\$504,000	\$0	\$0	\$0	\$0
Routes 24 and 121 Frequency Improvements	\$1,008,000	\$0	\$0	\$0	\$0
Total Vehicle Capital Costs	\$12,470,000	\$12,713,000	\$11,787,000	\$27,694,000	\$52,194,000

Table ES-10. 2045 Transit Cost Feasible Summary

Funded Need	Plan Period 1: 2021–2025 (YOE)	Plan Period 2: 2026–2030 (YOE)	Plan Period 3: 2031–2035 (YOE)	Plan Period 4: 2036–2045 (YOE)	Total Costs 2026–2045 (YOE)
<i>Other Capital Needs</i>					
Bus Shelters	\$4,286,000	\$2,781,000	\$3,037,000	\$6,951,000	\$12,769,000
Safety/Security	\$538,000	\$586,000	\$642,000	\$1,468,000	\$2,696,000
Driver Protection Barriers	\$82,000	\$0	\$0	\$0	\$0
Technology	\$2,585,000	\$50,000	\$265,000	\$605,000	\$920,000
Study: Santa Barbara	\$25,000	\$0	\$0	\$0	\$0
Study: SUF/IFAS	\$25,000	\$0	\$0	\$0	\$0
Study: I-75	\$25,000	\$0	\$0	\$0	\$0
Study: Everglades City	\$25,000	\$0	\$0	\$0	\$0
Study: Fares	\$50,000	\$0	\$0	\$0	\$0
Study: MoD	\$50,000	\$0	\$0	\$0	\$0
CAT Bus and Maintenance Building ^a	\$7,065,497	\$0	\$0	\$0	\$0
<i>Total Other Capital Costs</i>	\$14,756,500	\$3,417,000	\$3,944,000	\$9,024,000	\$16,385,000
<i>Total Capital Costs</i>	\$27,226,500	\$16,129,000	\$15,713,000	\$36,720,000	\$68,579,000

^a FY 2020/21 through FY 2024/25 TIP Amendment – FTA Grant Award (5339B Funding)

Figure ES-14. 2045 Transit Cost Feasible Plan Projects Map (Operations)





Introduction

- 1-1** What Is the MPO?
- 1-2** What Is the Long Range Transportation Plan?
- 1-3** Federal and State Planning Requirements
- 1-4** Regional Transportation Planning

Chapter 1 Introduction

1-1 What Is the MPO?

The Collier Metropolitan Planning Organization (MPO) was created in 1982 following Title 23 of United States Code Section 134 (23 USC §134) Metropolitan Transportation Planning federal requirements that each urbanized area with a population exceeding 50,000 establish an MPO. Federal law requires that MPOs be governed by a board composed of local elected officials, governmental transportation representatives for all modes of transportation, and appropriate state officials.

The Collier MPO is governed by a board of nine voting members and one non-voting advisor from the Florida Department of Transportation (FDOT), as shown on **Figure 1-1**.

The Collier MPO's jurisdiction includes Collier County (hereafter, "the County") and the cities of Naples, Marco Island, and Everglades City (refer to **Figure 1-2**).

The MPO uses federal, state, and local funds to carry out a *Continuing*, *Cooperative*, and *Comprehensive* long-range planning process that establishes a Countywide vision for the transportation system. The Long Range Transportation Plan (LRTP) is a central part of achieving this vision.

MPOs are required to develop and update their LRTPs on a 5-year cycle to ensure that the future transportation system is efficient, fosters mobility and access for people and goods, and enhances the overall quality of life for the community.

To carry out its functions, the MPO Board is assisted by several transportation planning committees in addition to its professional staff. These committees consist of the Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), Bicycle and Pedestrian Advisory Committee (BPAC), Congestion Management Committee (CMC), and the Local Coordinating Board for the Transportation Disadvantaged (LCB).

Figure 1-1. Collier MPO Board

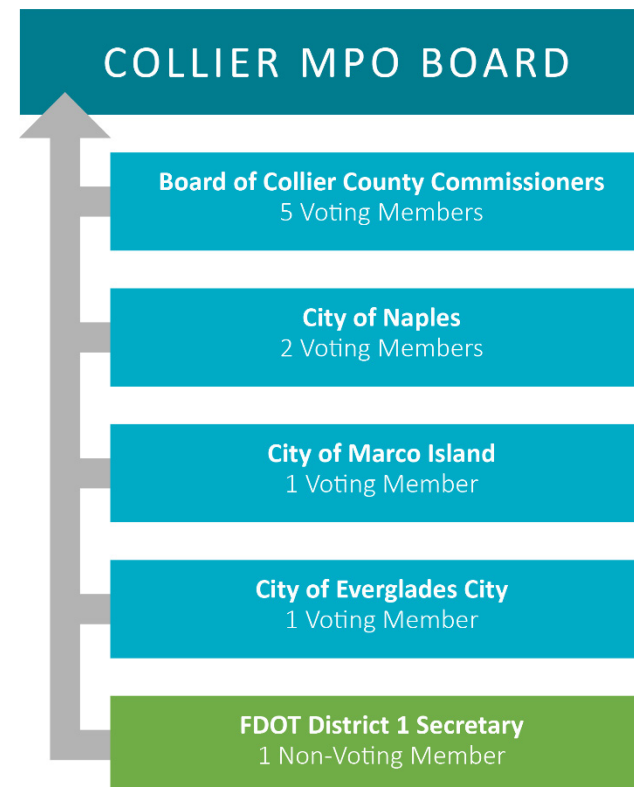


Figure 1-2. Collier MPO Jurisdiction

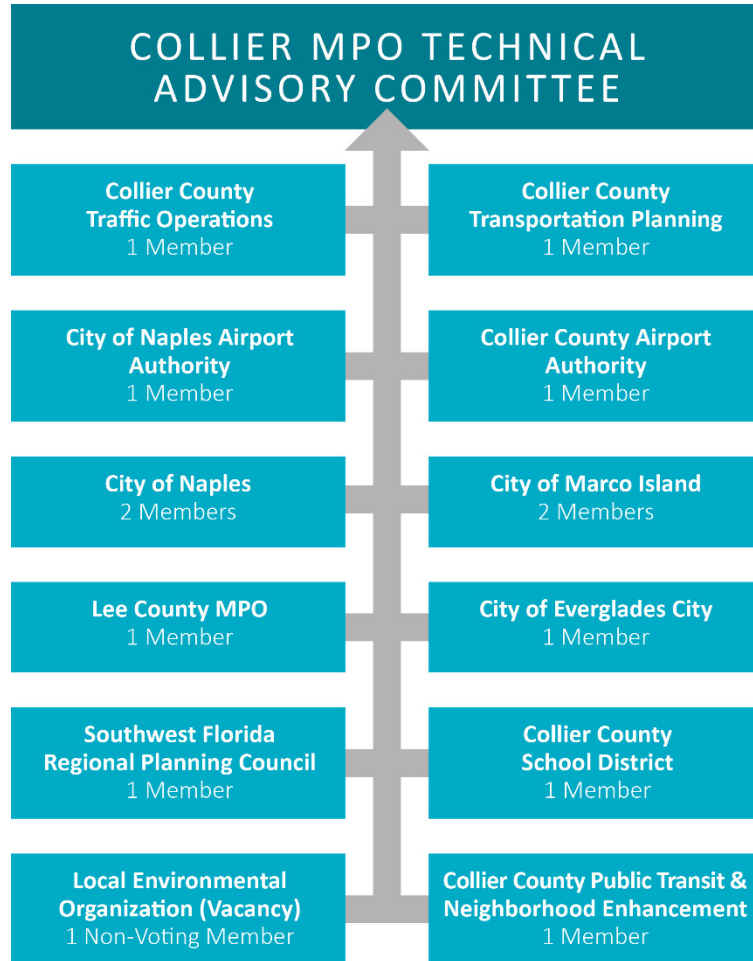


Source: Collier MPO Transportation Improvement Plan FY2021-FY2025 (Collier MPO 2020a)

Technical Advisory Committee: The TAC consists of technically qualified representatives of agencies within the Collier County Metropolitan Planning Area. TAC members are responsible for planning, maintaining, operating, developing,

and improving the transportation system throughout the County and its associated municipalities. They review transportation plans and programs from a technical perspective. There are 13 voting members and one non-voting member (refer to **Figure 1-3**).

Figure 1-3. Technical Advisory Committee



Citizens Advisory Committee: The CAC consists of citizens representing a cross section of the geographic areas and citizens representing disabled and minority populations.

They are recruited to represent the cities of Naples, Marco Island, and Everglades City, and the county commission districts of the unincorporated areas of the County. These individuals make recommendations to the MPO Board from the citizen's perspective on proposed L RTPs, individual projects, priorities for state and federal funding, and other transportation issues. The CAC has 13 voting members, including four at-large members (refer to **Figure 1-4**).

Figure 1-4. Citizens Advisory Committee

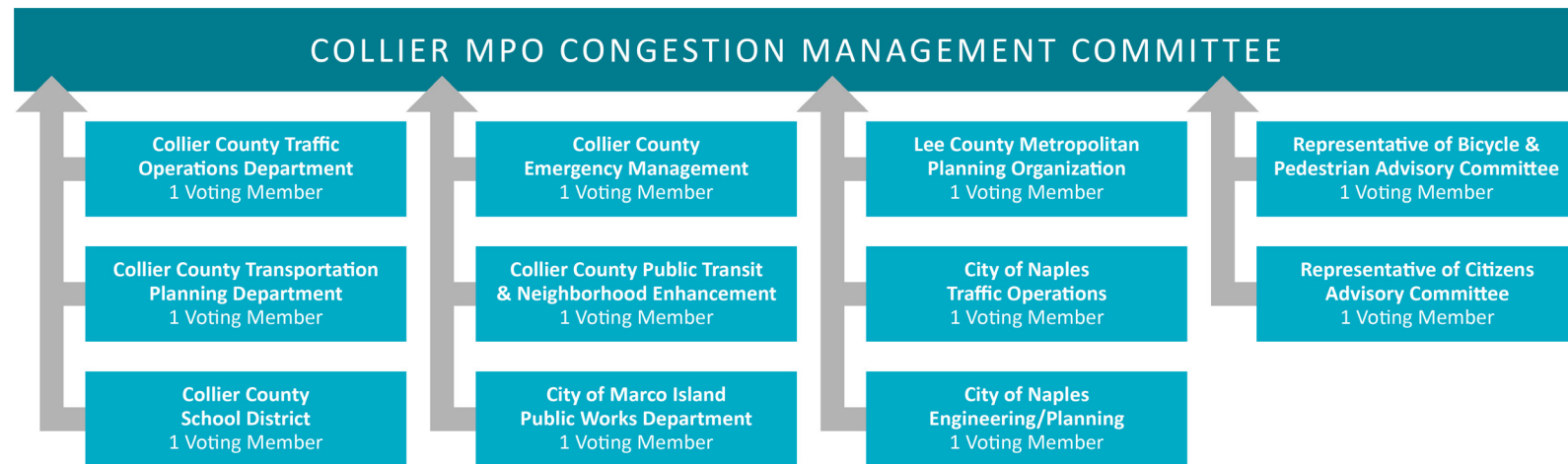


Bicycle and Pedestrian Advisory Committee: Formerly known as the Pathways Advisory Committee, the BPAC consists of 12 at-large voting members who represent a wide cross section of the Collier Metropolitan Area residents and neighborhoods, bicycle and pedestrian safety professionals, transit riders, local bicycle and pedestrian advocacy groups, organizations that encourage active transportation from a community health perspective, and advocates for persons with disabilities and other transportation-disadvantaged populations. The BPAC provides citizen input into the deliberations on bicycle- and pedestrian-related issues within the community and advises the MPO Board on developing a Bicycle and Pedestrian Plan. The BPAC is also involved in recommending priorities for bicycle and pedestrian projects and program implementation.

Congestion Management Committee: The CMC serves the MPO in an advisory capacity on technical matters relating to the MPO's Congestion Management System and the regional Intelligent Transportation System (ITS) architecture.

The committee is responsible for creating and amending the Congestion Management Process (CMP) and for prioritizing candidate congestion management projects to be funded with federal and state funding. The CMC has 11 voting members (refer to **Figure 1-5**). Members are appointed by agencies/ jurisdictional departments, with the exception of two members that are appointed by the BPAC and CAC.

Figure 1-5. Congestion Management Committee



Local Coordinating Board for the Transportation

Disadvantaged: The LCB helps the MPO identify local service needs and provide information, advice, and direction to the Community Transportation Coordinator on the coordination of services to be provided to the transportation disadvantaged pursuant to Chapter 427.0157, Florida Statutes (F.S.). The LCB includes representatives from various state and local agencies as well as citizen representatives (refer to **Figure 1-6**). An elected official is appointed by the MPO Board to serve as chairperson.

The LCB also reviews the amount and quality of transit service being provided to the County's transportation-disadvantaged population. The Collier LCB meets each quarter and holds at least one public hearing a year. The purpose of the hearings is to provide input to the LCB on unmet transportation needs or any other areas relating to local transportation disadvantaged services.

Figure 1-6. Local Coordinating Board for the Transportation Disadvantaged



1-2 What Is the Long Range Transportation Plan?

The MPO is required to complete an LRTP to receive federal funds. The LRTP must be multimodal and should include, at a minimum, highway and transit infrastructure improvements. The Collier MPO LRTP includes highway (incorporating freight) and transit modes, and by reference, non-motorized modes. The LRTP covers a broad range of issues including environmental impact, economic development, mobility, safety, security, and quality of life. Chapter 2 provides a more detailed examination of federal compliance.

To comply with federal requirements, the LRTP is produced or updated every 5 years and must maintain a minimum time horizon of 20 years. The previous 2040 LRTP update was adopted on December 11, 2015 (Collier MPO 2015). The Collier MPO 2045 LRTP update began in March 2019. As described in Chapter 3, the Collier MPO 2045 LRTP was developed to ensure consistency with all applicable state and federal requirements guiding the LRTP process.

The primary purpose of the 2045 LRTP update is to help citizens, businesses, and elected officials collaborate on developing a multimodal and sustainable transportation system that addresses projected growth over the next 20 years. The 2045 LRTP update serves as an instrument to identify needed improvements to the transportation network and provides a long-term investment framework that addresses current and future transportation challenges.

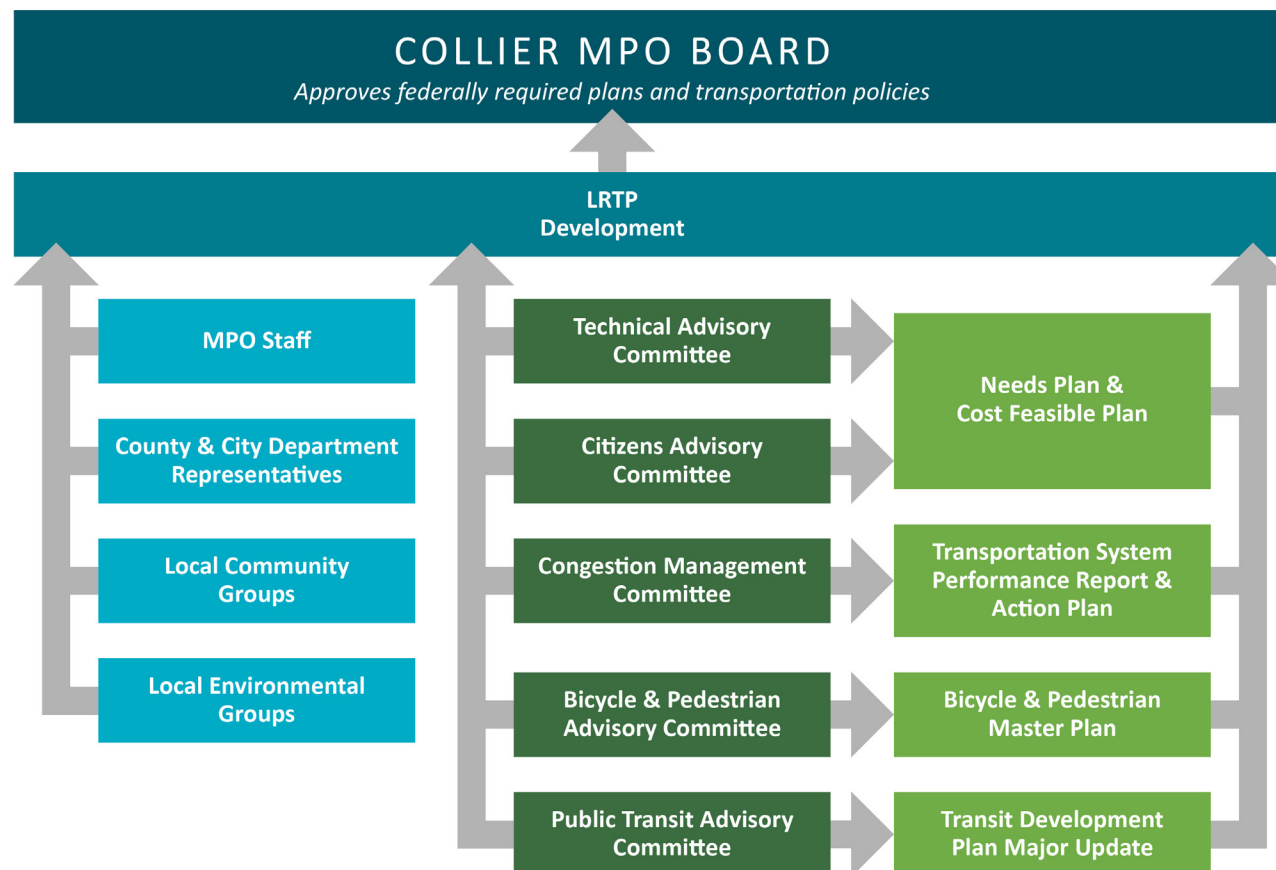


During the development of the 2045 LRTP, the MPO engaged its standing committees, particularly the TAC and CAC, who reviewed and commented on every aspect of the LRTP. Both committees held a series of monthly meetings through the summer of 2020 to assist the MPO on the Needs and Cost Feasible Plans. The CMC, BPAC, and the LCB also helped to guide the development of the LRTP by providing their expertise on the development of their committee's corresponding transportation plans.

As shown on **Figure 1-7**, the CMC contributed to the Transportation System Performance Report and Action Plan (2020), which addresses congestion; the BPAC contributed to the *Bicycle & Pedestrian Master Plan* (2019), which is incorporated into the bicycle and pedestrian section of the LRTP; and Collier County's Public Transit Advisory Committee contributed to the *Transit Development Plan Major Update* (2020), which is incorporated in the transit section of the LRTP.

Further, the MPO's informal Adviser Network (400-plus members) of community, business, and environmental groups provided essential public input through a series of small group and one-on-one interviews. Additional public input was gained by conducting outreach to traditionally underserved communities, virtual public meetings, and surveys. Because of the COVID-19 pandemic that occurred during the 2045 LRTP update, traditional meetings planned for the update were switched to virtual platforms.

Figure 1-7. 2045 LRTP Development and Guidance



1-3 Federal and State Planning Requirements

Federal

In December 2015, the Fixing America's Surface Transportation (FAST) Act was signed into law and built on the program structure and reforms of the Moving Ahead for Progress in the 21st Century Act (MAP-21), which was signed into law in 2012. The FAST Act includes provisions to enhance and support the improved transportation planning factors outlined in MAP-21. Under the FAST Act, two additional planning factors were added:

- *improve the resilience and reliability of the transportation system and reduce or mitigate stormwater impacts on surface transportation*
- *enhance travel and tourism*

Under the FAST Act, several planning factors are required for long-range transportation planning as shown on [Figure 1-8](#).

In addition to the FAST Act planning factors, MAP-21 included transitioning to a performance-based program, including establishing national performance goals for federal-aid highway programs. The FAST Act continued this overall performance management approach, requiring state DOTs and MPOs to conduct performance-based planning by tracking performance measures and setting data-driven targets to improve those measures.

Figure 1-8. FAST Act Planning Factors



Performance-based planning ensures the most efficient investment of federal transportation funds by increasing accountability, transparency, and providing for better investment decisions that focus on key outcomes related to the following seven national goals, which include:

- **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair
- **Congestion Reduction** - To achieve a significant reduction in congestion on the National Highway System (NHS)
- **System Reliability** - To improve the efficiency of the surface transportation system
- **Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
- **Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment
- **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

The FAST Act supplemented the MAP-21 legislation by establishing timelines for state DOTs and MPOs to comply with the requirements of MAP-21. State DOTs are required to establish statewide targets and MPOs have the option to support the statewide targets or adopt their own. The Collier MPO has chosen to support the statewide targets. The transition to performance-based planning is ongoing and has been addressed within the tasks identified in this LRTP.

For the County and its municipalities to be eligible for federal and state funds, the MPO must adopt and maintain a transportation plan covering at least 20 years (the LRTP), and a 5-year Transportation Improvement Program (TIP), which is a fiscally constrained, multimodal program of transportation projects within the Collier Metropolitan Planning Area. The TIP is updated each year and includes highway, bridge, bicycle and pedestrian facilities; transit; congestion management; road and bridge maintenance; transportation planning; and transportation-disadvantaged projects. Both the LRTP and the TIP are required by federal and state law.

The TIP identifies, prioritizes, and allocates funding for transportation projects. Projects in the TIP are included in the existing-plus-committed (E+C) component of the MPO's LRTP. Development of the TIP is a continuous process involving agency staff and public involvement. The adopted TIP and potential TIP project priorities must be consistent with the LRTP.

MPOs are governed by federal law (23 USC §134), with regulations included in Title 23 of the Code of Federal Regulations Part 450 (23 CFR 450). When MPOs were mandated in 1962, federal laws required metropolitan transportation plans and programs be developed through a 3-C planning process. The law intended for MPOs to serve as a forum for collaborative transportation decision-making.

Further, planning is to be conducted continually using a cooperative process with state and local officials and public transportation agencies operating within the MPO's boundaries.

Because the Collier MPO serves a population of more than 200,000, it meets the federal definition of a Transportation Management Area (TMA) and, therefore, must meet additional federal conditions including the establishment of a CMP. The CMP identifies challenges and solutions to reduce congestion and improve traffic flow along arterial roadways. The CMP is also used as a tool to help identify projects in the TIP and LRTP. As stated previously, the Collier MPO CMC is responsible for creating and amending the CMP.

The LRTP must include a financial plan to ensure that reliable and reasonable funding sources are identified to implement the LRTP. The cost of projects listed in the LRTP must balance financially with the revenues from funding sources forecasted to be reasonably available over the duration of the LRTP. Chapter 3 provides a more detailed account of federal and state financial requirements for the LRTP.

The Public Participation Plan (PPP) provides a framework to the public involvement process regarding the MPO planning-related activities. The PPP describes the MPO's strategies and techniques to inform and engage the public in transportation planning issues to maximize public involvement and effectiveness. PPPs are living documents that should be updated once every 5 years, preferably prior to the initiation of the development of a new LRTP update. In addition to the PPP, each MPO should develop an LRTP-specific PPP or Public Involvement Plan (PIP). The PIP builds off of the content and assumptions within the approved PPP but provides additional information, such as specific stakeholders to be engaged during the LRTP development, a summary of proposed engagement activities throughout the LRTP development, and

an engagement milestone schedule. A PIP was developed for the 2045 LRTP update and is further discussed in Chapter 3.

In January 2018, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the *Federal Strategies for Implementing Requirements for LRTP Updates for the Florida MPOs* to the FDOT and the MPOs in Florida (FHWA and FTA 2018). The guidance, commonly referred to as FHWA's Expectations Letter, outlines the agencies' expectations for the development of LRTP updates to assist MPOs in meeting the federal planning requirements. In July 2020, FDOT issued a notice that FHWA expected MPOs to also address previous FHWA Expectation Letters from December 4, 2008 (*FHWA's Strategies for Implementing Requirements for LRTP Update for the Florida MPOs*) and November 2012 (*Federal Strategies for Implementing Requirements for LRTP Update for the Florida MPOs*).

The Collier MPO 2045 LRTP update's adherence to the 2018, 2012, and 2008 FHWA's Expectations Letters is summarized in [Appendix A](#).

State

The FDOT Office of Policy Planning develops Planning Emphasis Areas on a 2-year cycle in coordination with the development of the MPOs' respective Unified Planning Work Programs (UPWPs). The emphasis areas set planning priorities, and MPOs are encouraged to address these topics as they develop their planning programs.

The 2020 FDOT Florida Planning Emphasis Areas are:

- **Safety.** MPOs are encouraged to consider how to expand on the level of analysis and reporting required by the performance measurement process to further study their unique safety challenges.

- **System Connectivity.** MPOs should emphasize connectivity within their boundaries to serve the unique needs of their urban and non-urban jurisdictions beyond their boundaries to emphasize continuity on those facilities that link their MPO to other metropolitan and non-urban areas, and include multimodal linkages that support connectivity for people and freight.
- **Resilience.** MPOs can address resilience within their planning processes by leveraging tools, such as the FHWA (2017) *Resilience and Transportation Planning* guide and the FDOT Quick Guide: *Incorporating Resilience in the MPO LRTP* (FDOT 2020a). MPOs should consider the additional costs associated with reducing vulnerability of the existing transportation infrastructure to help develop a more realistic and cost-effective planning document.
- **ACES (Automated/Connected/Electric/Shared-use) Vehicles.** Increased deployment of ACES vehicles with enabling policies and supportive infrastructure may lead to great improvements in safety, transportation choices, and quality of life for Floridians, visitors, and the Florida economy. Though there is a great deal of speculation and uncertainty of the potential impacts these technologies will have, MPOs are to determine how best to address the challenges and opportunities presented to them by ACES vehicles.

Additionally, with the intent to encourage and promote the safe and efficient management, operation, and development of surface transportation systems, the Florida legislature enacted Section 339.175(6)(b), F.S., which requires the LRTP

to provide for consideration of projects and strategies that will:

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

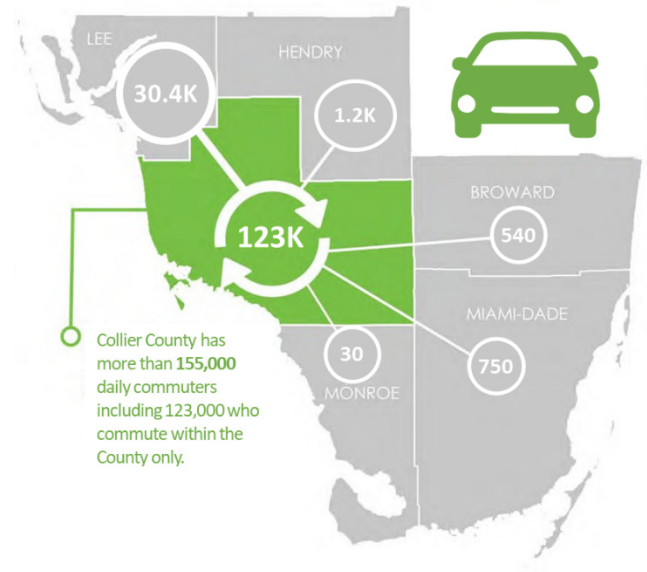
In addition to adhering to these requirements, other statutory requirements set forth by the state of Florida regarding the development of a LRTP are presented in [Appendix A](#).

1-4 Regional Transportation Planning

The Collier County Metropolitan Area highways are part of a regional network that not only connects different parts of the County and its municipalities, but also links the County and its municipalities to neighboring counties in the region, to the state, and to the nation. As illustrated on [Figure 1-9](#), business travel between Collier County and its neighbors is significant,

especially between Collier County and Lee County. From 2011 to 2015, the U.S. Census Bureau's American Community Survey (ACS) analysis of commuting patterns reported approximately 30,400 daily inter-county auto-oriented trips between Collier and Lee counties.

Figure 1-9. Daily Collier County Work Travel Patterns



Source: U.S. Census Bureau, 2011-2015 5-Year American Community Survey
Commuting Flows

The Collier MPO provides for the creation of a region-wide multimodal transportation planning process in accordance with federal and state guidelines to ensure the coordination of transportation planning and policy activities in FDOT District One.

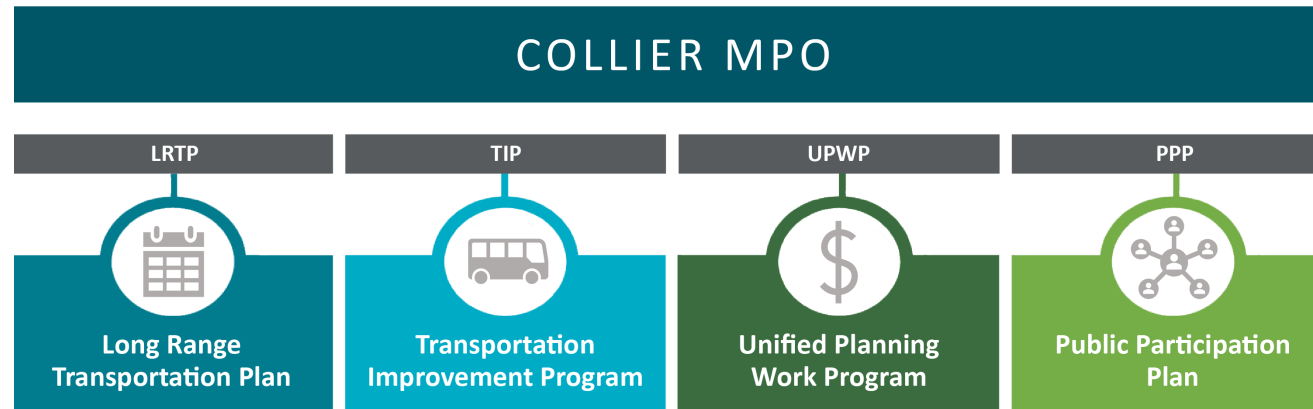
The Collier MPO performs the following regional transportation planning activities:

- Participates in the Lee County MPO and advisory committee meetings.
- Participates and coordinates in the Joint MPO Board and Joint Advisory Committee meetings with Lee County MPO.
- Coordinates with FDOT, Lee County MPO, other adjoining MPOs and adjoining jurisdictions, municipalities, or agencies to ensure that regional needs are being addressed and planning activities are consistent. Such coordination includes, but is not limited to, discussion of regional plans, review of the Strategic Intermodal System (SIS) plan, evaluation and ranking of Transportation Regional Incentive Program (TRIP) projects, and update of joint priorities for regional and statewide funding.
- Develops, adopts, and updates regional transportation priorities, including the Regional Transportation Network Priorities (which includes the SIS and other important cross-county connections and intermodal facilities), the TRIP projects, and Regional Enhancement Priorities.
- Participates in the Florida Metropolitan Planning Organization Advisory Council (MPOAC), and FDOT District One Coordinated Urban Transportation Studies (CUTS), FDOT/FHWA quarterly conference calls and regional quarterly meetings.
- Analyzes state and federal laws and regulations for MPOs, committees, and local government officials to aid them in their application of regional transportation policy strategies.
- Participate in the Multi-use Corridors of Regional Economic Significance (M-CORES) Southwest-Central Florida Corridor Task Force meetings.

Further, as shown on **Figure 1-10**, the Collier MPO under state and federal laws is required to produce documents that support

region-wide transportation planning which include the LRTP, TIP, UPWP, and PPP. The PPP provides a framework for public involvement in regard to all MPO planning-related activities.

Figure 1-10. Collier MPO Documentation Responsibilities



A group of people, including adults and children, are on bicycles at a traffic light. A large white number '2' is overlaid on the image. The background shows green trees and a utility pole.

2

Plan Process

- 2-1** Plan Process
- 2-2** County Overview
- 2-3** Forecasting Growth
- 2-4** Public Participation

Chapter 2 Plan Process

2-1 Plan Process

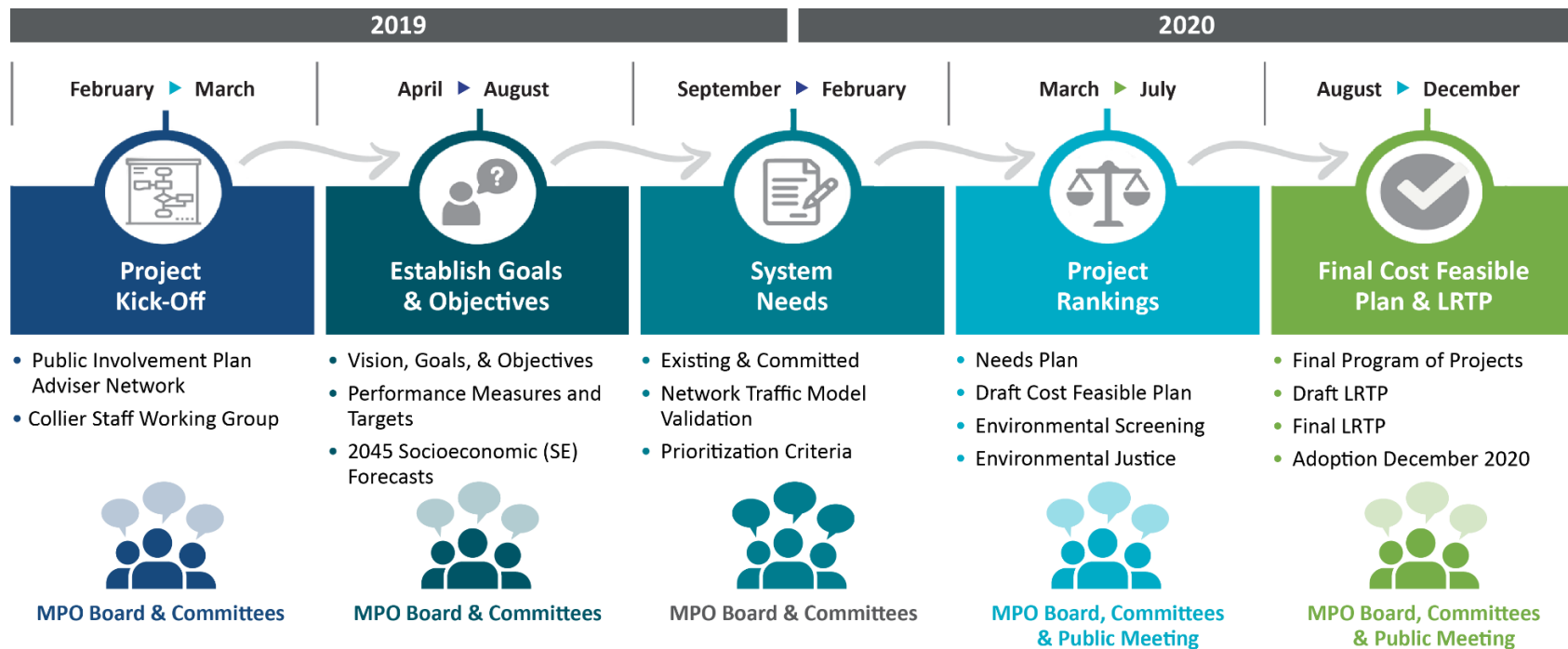
This chapter discusses the staged process to develop the Collier MPO 2045 LRTP update and describes the plan development activities resulting from public involvement. Goals and Objectives, the Needs Plan, and the Cost Feasible Plan outlined in this chapter are described in detail in Chapters 3, 4, and 6, respectively. Updating the Collier MPO 2045 LRTP was a technical, collaborative process that included participation by the MPO Board members, virtual public workshops and public surveys, briefings to the various MPO advisory committees (described in Chapter 1), and advisory meetings with the TAC and CAC. As illustrated on [Figure 2-1](#) and [Figure 2-2](#), five key steps were involved in the LRTP development process. The MPO Board’s adoption of the Collier MPO 2045 LRTP acknowledged these five steps, with input from the public, the MPO committees, and MPO Board, resulting in a financially constrained plan of transportation improvements.

The five stages of the plan process were built upon past planning efforts, a technical review of forecast socioeconomic growth, the financial outlook of the County, and input from County residents and elected officials.

Figure 2-1. Collier MPO 2045 LRTP Key Process Steps



Figure 2-2. Plan Process



2-2 County Overview

Collier County is the largest county in Florida by land area. Approximately 67 percent of the County's land area has a land use designation of Conservation, is owned primarily by the federal and state government, and is restricted from development. According to the Florida Legislature Office of Economic and Demographic Research (EDR 2020), the County had an estimated population of 376,706 in 2019. Of the 67 total counties in the state, Collier County is the 16th most populous county in Florida with 1.8 percent of the state's population.

U.S. Census population data show that Collier County population increased by 53 percent between 1990 and 2010. The state of Florida population increased by 31 percent during the same time. Between 2010 and 2019, the population in the County further increased by approximately 17 percent, while the state's population increased by approximately 13 percent (EDR 2020). As noted earlier, there are three municipalities located within Collier County: the cities of Naples and Marco Island and Everglades City.

City of Naples

The City of Naples is the largest in population of the three municipalities within the County. As of 2018, the full-time residential population was 22,000 with a potential seasonal population of more than 33,000 in the winter months (City of Naples 2020). The City has a council-manager form of government that is comprised of a mayor and six council members, all of whom are elected City-wide on a non-partisan basis. The City's Planning Advisory Board guided a community-wide assessment of the City Vision documented in the *Vision 2020 Analysis and Recommendations* report (City of Naples 2019). Through the public outreach process during the assessment, five Vision Goals for the City were identified:

- Preserve Naples' Small Town Character and Culture
- Environmental Sensitivity
- Maintain an Extraordinary Quality of Life for Residents
- Maintain and Strengthen the Economic Health and Vitality of the City

City of Marco Island

The City of Marco Island is located on the largest barrier island of the chain of islands off the southwest Florida coast known as the Ten Thousand Islands. According to the U.S. Census, the 2019 population estimate is almost 18,000. The City estimates the potential seasonal population as more than 40,000 in the winter months. The City has a council-manager form of government with seven council members. According to the City website, more than 1,700 vacant lots remain on the island and new homes are constructed at a rate of 200 to 300 a year (City of Marco Island 2020). The City's Future Land Use Element goal is *To enhance Marco Island's quality of life,*

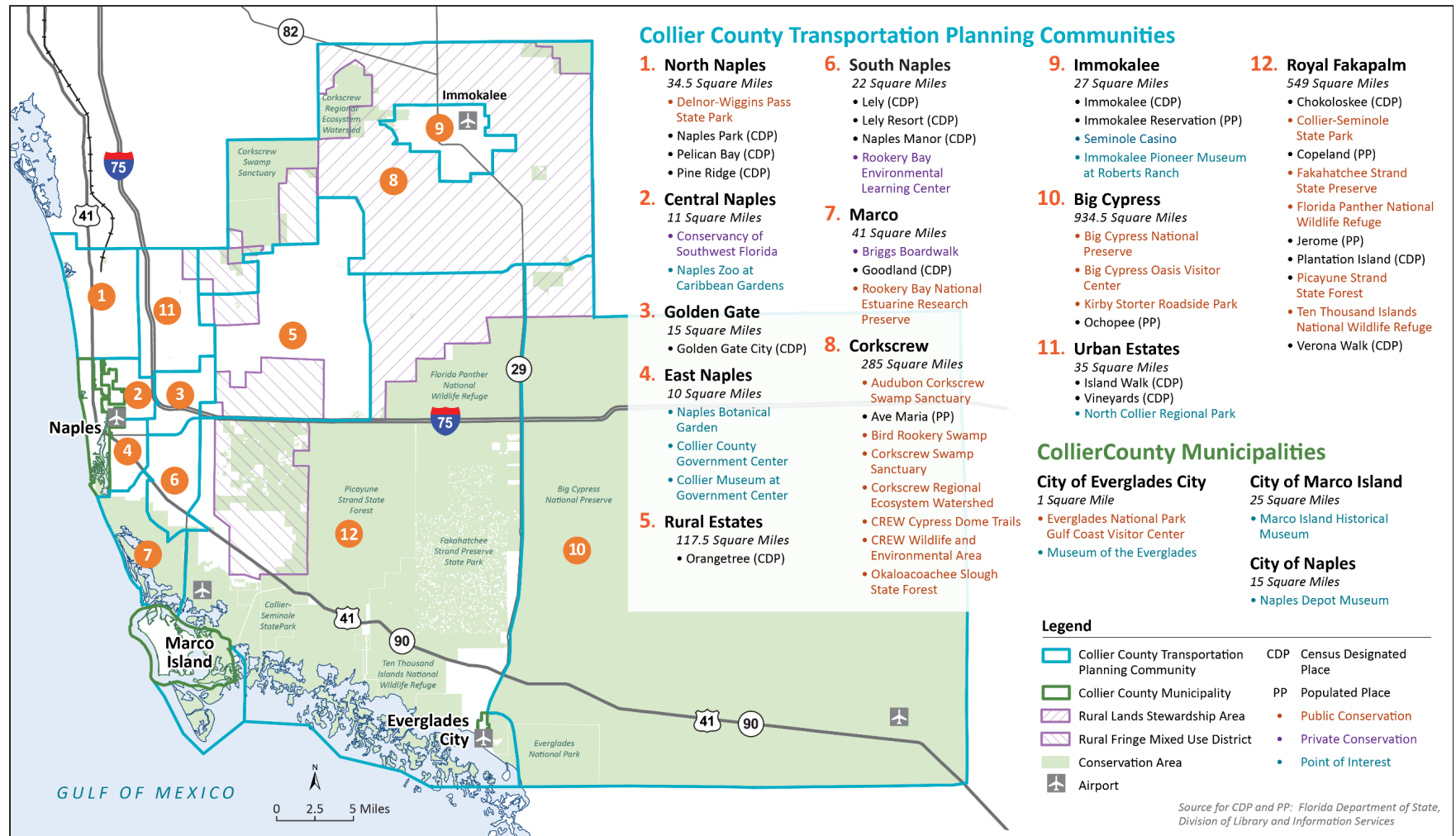
environmental quality, and tropical small town and resort character by managing growth and assuring a stable residential community with sufficient businesses to serve the needs of residents and visitors.

Everglades City

Everglades City is the smallest in population and land size of the three municipalities in Collier County. According to the U.S. Census, the 2019 year-round population estimate of the City is more than 400. The City is comprised of a mayor and five council members, all of whom are elected City-wide on a non-partisan basis. The City is surrounded by seven national and state parks including the Everglades National Park Gulf Coast Visitor Center, which is located within the City limits. The City estimates that 1 to 1.3 million people visit annually (City of Everglades City 2019). The City has a strong ecotourism industry and seeks to preserve its small town character. In January 2019, the City was designated as an official Trail Town by Florida's Office of Greenways and Trails.

As shown on **Figure 2-3**, three municipalities and 12 planning communities lie within the County (Collier County 2020a). With the absence of a designated urban service area or an urban growth boundary, the Collier County Growth Management Plan (CCGMP) (Collier County 2020b) includes two primary designations within the Future Land Use Map: Urban and Rural/Agricultural. All lands within the County geography fall into one of these two categories, which help shape or control the pattern of urban development and land use controls.

Figure 2-3. Collier County Planning Communities, Points of Interest, and Unincorporated Communities



Source: Collier County (2020)

Eight of the planning communities have land use designations of Urban as follows:

- North Naples
- Central Naples
- East Naples
- South Naples
- Golden Gate
- Marco
- Urban Estates
- Immokalee

The remaining four are designated as Rural:

- Royal Fakapalm
- Big Cypress
- Rural Estates
- Corkscrew

While growth is expected to continue in urban planning communities, many of them are approaching build-out, causing development to spread to rural planning communities. The Urban designation promotes a diversity of urban development and a wide variety of land uses within the designation, and is configured to guide concentrated population growth and intensive land development away from areas of great sensitivity and toward areas more favorable to development.

The Rural/Agricultural designation does not prevent development, but instead limits the range of land uses within the designation. Collier County uses a zoning technique called Transfer of Development Rights, which permanently protects land with conversation value by redirecting development to a more suitable area planned to accommodate growth and development. The Collier County Future Land Use Element

(Collier County Planning and Zoning Department 2019) states that the Transfer of Development Rights are primarily applicable to the Rural Fringe Mixed Use District and Rural Lands Stewardship Area as a key component of the County's overall strategy to direct incompatible land uses away from important natural resources, including large connected wetland systems and listed species and their habitat.

2-3 Forecasting Growth

A major element of the Collier MPO 2045 LRTP development was to determine the travel demand within the MPO boundary. Travel demand estimation is a critical part of long range transportation planning because it helps ensure that the system will meet future needs. By quantifying the extent and locations of anticipated population and employment growth areas, the demand for travel in 2045 can be estimated using regional travel demand models. Travel demand models test various transportation improvements to determine how well they meet future demands, and use base-year and future-year socioeconomic data (associated with each LRTP update cycle). For the Collier MPO 2045 LRTP update, the base- and future-year socioeconomic data were 2015 and 2045, respectively.

Base Year (2015) and Forecast Year (2045) Socioeconomic Data

Travel demand models are driven in part by the interaction of land use activities and socioeconomic characteristics of the transportation network. Socioeconomic data, such as population, households, employment, and schools, that are located in each Traffic Analysis Zone (TAZ), are inputs to the travel demand model. A TAZ is a small geographic unit used in travel models to create trip generation rates for all land uses within the TAZ, and thus cumulatively for the entire region.

The Collier MPO 2045 LRTP update includes 730 TAZs for Collier County, as presented in [Appendix B](#).

A primary source of socioeconomic data for the Collier MPO 2045 LRTP was Collier County's 2017 Collier Interactive Growth Model (CIGM) data. The CIGM is a population forecasting model that first predicts where and when residential growth will take place in each TAZ, then forecasts where and when supporting land uses, such as employment, shopping, and schools, will be required.

The University of Florida's Bureau of Economic and Business Research (BEBR) produces Florida's official state and local population estimates and projections. The BEBR estimates are used for distributing state revenue-sharing dollars to cities and counties in Florida, and their projections for future years are used in city and county comprehensive plans and in MPO plans. BEBR data are provided geographically at the county and city levels and, therefore, are not available by TAZ.

Base Year (2015)

Developing the base-year socioeconomic data included coordinating and refining the 2017 CIGM population data (produced for each TAZ) to match the U.S. Census Bureau American Community Survey countywide population estimate for 2015. Other 2015 socioeconomic data came from various sources, including official U.S. Census data and the CIGM, which provided data on jobs, schools, and number of hotel/motel rooms.

Forecast Year (2045)

The CCGMP requires that the County's Capital Improvement Plan be based on BEBR data mid-range (or medium) projection (Policy 4.9, Future Land Use Element). To maintain consistency between the CCGMP and the Collier MPO 2045 LRTP, the socioeconomic data for 2045 were adjusted to match the BEBR medium projection for the year 2045 before being used as the forecast data for the travel model.



Randall Boulevard looking west toward Immokalee Road (CR 846)

Summary of Socioeconomic Data

Table 2-1 summarizes and compares the 2015 and 2045 socioeconomic data. Total residential population is forecasted to increase 43 percent by 2045 at 510,237, with single-family population increasing approximately 63 percent, and multi-family population increasing 21 percent. The total number of dwelling units is expected to increase 29 percent, with single-family dwelling units increasing 47 percent and multi-family dwelling units growing 13 percent.

Figures 2-4 and **2-5** present the Dwelling Units Growth and Commercial Square Footage Growth, respectively. The most significant increase in dwelling unit and commercial square footage are primarily located in the following areas:

- Rural Land Stewardship Area
- Rural Mixed Fringe District

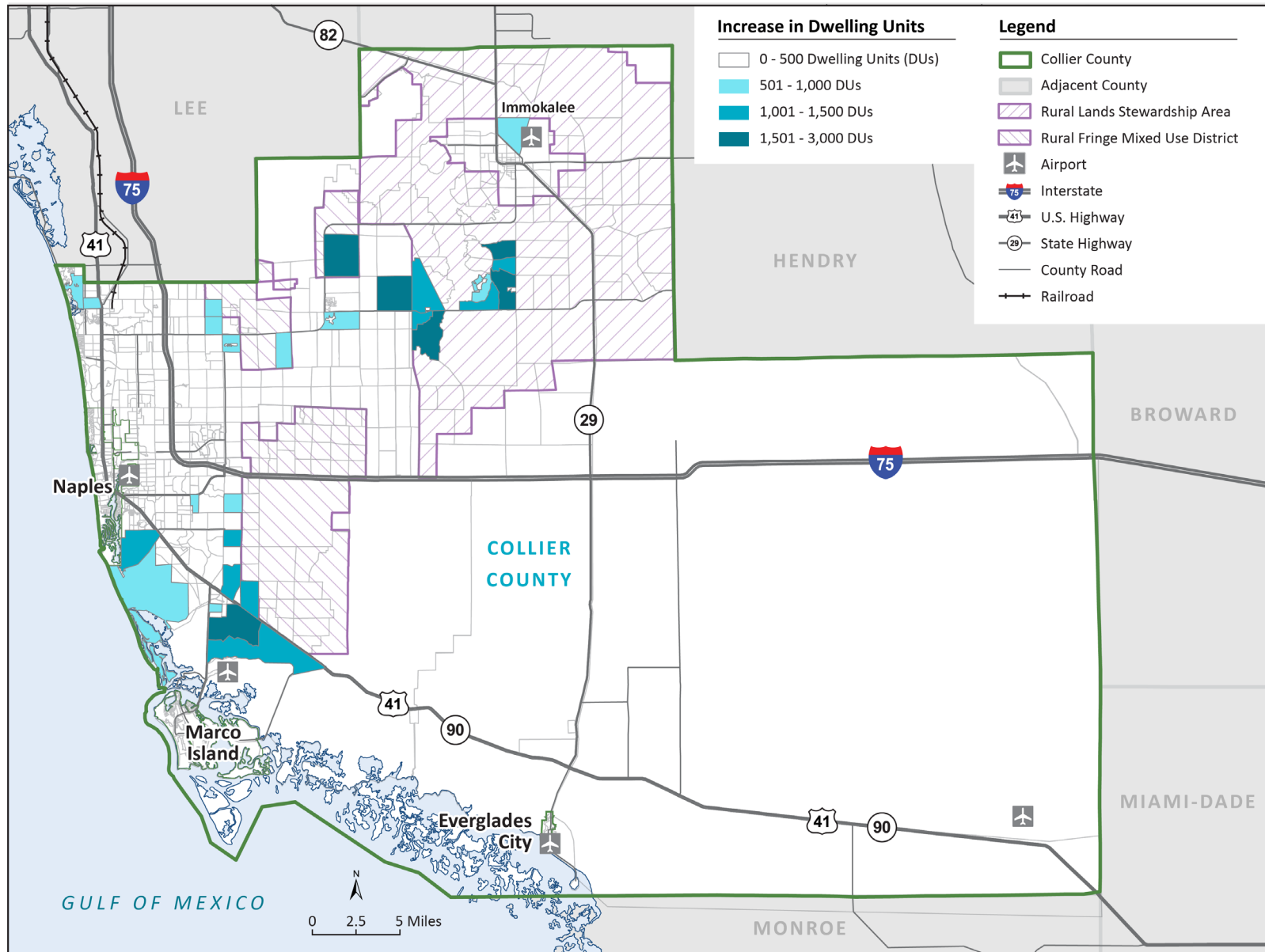
The Collier 2045 LRTP *2015 and 2045 Socio-economic Data Technical Memorandum* prepared under separate cover (Spikowski Planning Associates 2020) presents further details on the development of the socioeconomic data and forecasting. While the land use forecasting process is based upon reasonable assumptions of future land use and development, it is a forecast based upon the current understanding of where development could occur.

Table 2-1. 2015 and 2045 Socioeconomic Data

	2015	2045	Growth
Single-Family Dwelling Units	102,622	151,104	47%
Multi-Family Dwelling Units	115,147	130,655	13%
Total Dwelling Units	217,769	281,759	29%
Single-Family Population	184,377	300,152	63%
Multi-Family Population	173,386	210,085	21%
Total Residential Population	357,763	510,237	43%
Employees (at place of work/employment)	143,044	212,780	49%
Workers (at place of residence)	179,594	194,090	8%
Hotel/Motel Units	8,817	9,380	6%
Total School Enrollment (including colleges)	67,922	75,117	11%

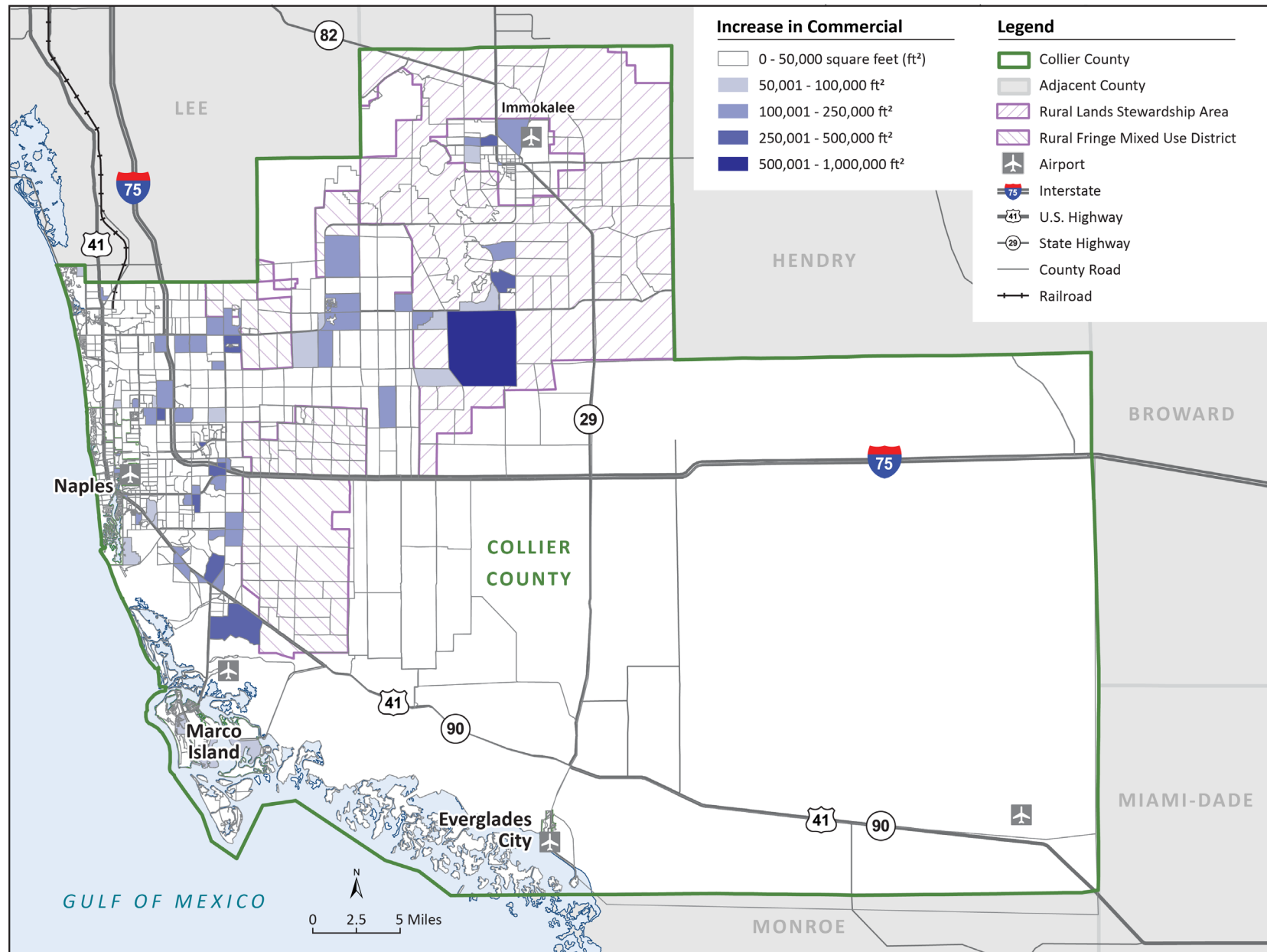
Source: Spikowski Planning Associates 2020

Figure 2-4. Dwelling Unit Growth Areas



Source: Spikowski Planning Associates (2020)

Figure 2-5. Commercial Square Footage Growth Areas



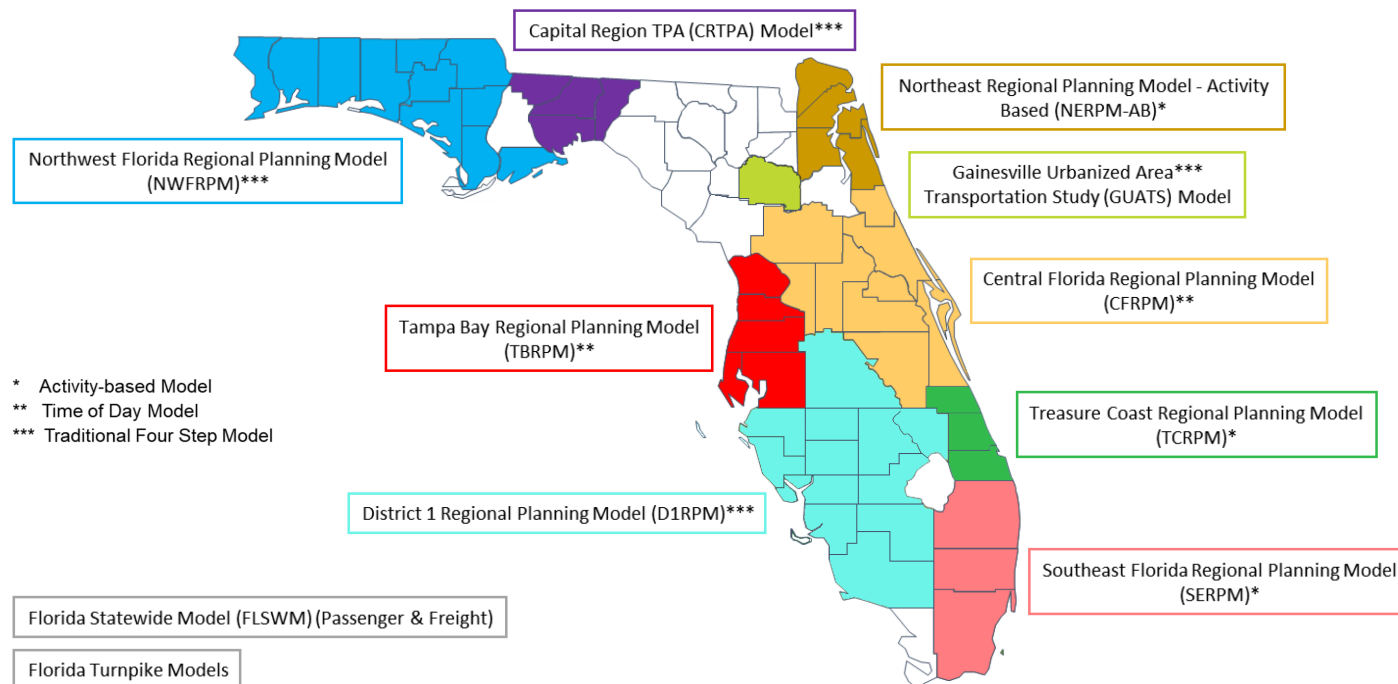
Source: Spikowski Planning Associates (2020)

Travel Model Development Process

FDOT requires regional and local transportation planning agencies to use an FDOT-approved travel demand model (if available) for their planning area. Travel models simulate responses people make about how to travel, given various possible network configurations and capacities of highways and transit service. **Figure 2-6** presents the approved FDOT travel demand models in Florida. Because Collier County is located within FDOT District One, the FDOT District One Regional Planning Model (D1RPM) was used for the Collier MPO 2045 LRTP update.

The D1RPM travel model was validated and calibrated for the base year 2015 using actual traffic counts and transit service for 2015, along with the actual 2015 socioeconomic data for each TAZ. The 2015 socioeconomic data was input to the D1RPM travel model and the resulting traffic assignments were compared to actual traffic counts. After the model was validated to approximate 2015 conditions, the 2045 forecast data that had been distributed to each TAZ were used as inputs to estimate travel demand and potential project performance to meet that demand in 2045. The Collier MPO provided FDOT with the socioeconomic data for 2015 and

Figure 2-6. FDOT-Approved Travel Demand Models



2045 as inputs for the D1RPM model, and FDOT provided all travel model runs during the Collier MPO 2045 LRTP update.

Future-year roadway configurations, or alternative scenario travel networks, were developed by modeling the Existing Plus Committed (E+C) travel network using 2045 socioeconomic data to estimate future deficiencies. The E+C network includes all new road or capacity projects that have been implemented since 2015 (existing), plus all projects that have construction funded in the 2023 FDOT 5-Year Work Program (committed). Once potential deficiencies were understood, the new projects were identified as alternative network scenarios for input to the model. In addition to advisory meetings with the TAC and CAC, FDOT and Collier MPO staff held several coordination meetings on issues related to the model development process and the use of the model for developing the Needs Plan and the Cost Feasible Plan. Six alternative network scenarios were modeled and evaluated for the Collier MPO 2045 LRTP update. The 2045 LRTP *Scenario Network Modeling Technical Memorandum* provides additional details on the modeling of the six alternatives.

Forecasting Methodology

Population estimates and forecasts in travel models count the number of permanent residents in a manner similar to the U.S. Census Bureau. The population input entered into the D1RPM was the “residential population,” or the number of permanent residents in single-family and multi-family dwellings (not including seasonal residents and permanent residents living in group quarters, such as nursing homes, dormitories, jails, etc.). Seasonal residents were not included in the population totals; the dwellings they occupy seasonally were tabulated, but identified as “vacant” along with

dwellings that were vacant for other reasons (for example, for sale or for rent).

The 2015 American Community Survey of countywide residential population of 357,305 is less than the population from the estimated 2017 CIGM population of 367,516. Therefore, the CIGM population and housing data for 2017 were correlated to 2015 levels.

To forecast 2045 estimates, the CIGM first determines the likely amount of residential, commercial, and industrial development in each TAZ at full build-out. For the LRTP update, logistic growth curves were adjusted for certain TAZs to simulate a conservative growth rate through 2045, so that the countywide residential population would be aligned with the BEBR medium projection for 2045. These growth-curve adjustments had no effect on the anticipated density and intensity at build-out of any TAZ based on applicable land use designations.

The 2015 employment levels were prepared by FDOT based on data from InfoUSA, a commercial provider. The CIGM employee forecasts for 2045 were the primary basis for socioeconomic data on employment for 2045, as neither InfoUSA nor any source other than the CIGM is able to provide accurate forecasts for small areas, such as TAZs. The CIGM also provided 2045 forecasts for industrial, retail, office, and public school employees.

The CIGM school enrollment data consists of the number of students attending a K–12 public school in each TAZ. School enrollment data were supplemented with charter school and private school enrollments from the Collier County School District and the Florida Department of Education, respectively. School enrollment data were further supplemented with the number of students in colleges and universities. The 2045

total school enrollment forecasts were derived similar to the population growth forecasts.

Additional 2015 data used for the D1RPM included the U.S. Census Bureau data plus data provided directly by county and state agencies, including the number of single-family dwellings in each TAZ with two or more vehicles and the average household income in each TAZ. Because the U.S. Census does not provide separate data by TAZ, multiple adjoining TAZs were assigned the data from a single larger area, such as a Census block group or Census tract.

2-4 Public Participation

The major steps defined in the public participation process are consistent with the major milestones in the LRTP development process (refer to Figure 2-1). Public outreach techniques during the Collier MPO 2045 LRTP update included public meetings, newsletters, website, social media, surveys, and public service announcements. The *2045 LRTP Public Involvement Summary Report* (provided under separate cover) presents a detailed summary of the public outreach efforts and results. **Table 2-2** presents a chronology of the public participation outreach throughout the 2045 LRTP update.

The 2045 LRTP update was kicked off by presenting an overview of the LRTP process and tasks at the MPO Board and TAC/CAC meetings in May 2019. The LRTP update process began with developing the Collier MPO 2045 LRTP Public Involvement Plan (provided under separate cover), which was presented to the TAC/CAC and MPO Board on August 26 and September 13, 2019, respectively.

The PIP identifies outreach efforts and techniques that give officials, agencies, local government, interested parties, and the public an opportunity to participate in the planning process. The PIP also identifies methods to measure the effectiveness of the outreach.

Additionally, the LRTP 2045 *Goals, Objectives and Decision-Making Framework White Paper* (provided under separate cover) was also presented to the MPO Board and TAC/CAC, which included a presentation of the proposed Vision, Goals, and Objectives, and evaluation criteria of the Collier MPO 2045 LRTP update. The TAC/CAC and MPO Board comments were subsequently incorporated into the documents, and the MPO Board endorsed the PIP and the Goals, Objectives and Decision-Making Framework White Paper during their regularly scheduled meeting on October 11, 2019.

Advisory meetings with the TAC/CAC were established during the early phases of the Collier MPO 2045 LRTP update. The advisory meetings provided valuable feedback during the development of the E+C Network alternatives for network scenario planning, Needs Plan development, and the Cost Feasible Plan development. The COVID-19 pandemic occurred during the 2045 LRTP update, requiring some of the meetings to be moved to a virtual platform.

Table 2-2. Public Participation Events

Event Details	Group	Date
2045 LRTP Kick-off - Overview of LRTP Tasks	MPO Board	5/10/2019
	TAC/CAC	5/20/2019
Presentation of Draft Evaluation Framework White Paper and Draft PIP	TAC/CAC	8/26/2019
	MPO Board	9/13/2019
Presentation of PIP, and Goals, Objectives, and Decision-Making Framework for endorsement	TAC/CAC	9/30/2019
Presentation of Updates to the Evaluation Framework White Paper and PIP based on MPO input; endorsed by MPO Board	MPO Board	10/11/2019
Presentation of E+C Network and basic Socioeconomic Data; Board approved submittal of the E+C Network to FDOT	TAC/CAC	10/28/2019
	MPO Board	11/8/2019
Attended the Ciclovía Immokalee event at the Immokalee Community Park to present the E+C Network and to distribute the LRTP Kick-off Survey and newsletter	Members of the Public	11/2/2019
Presentation of the 2045 Socioeconomic (SE) Forecast Zonal Data (by TAZ); TAC/CAC endorsed the zonal data; MPO Board approved submittal of the zonal data to FDOT	TAC/CAC	11/25/2019
	MPO Board	12/13/2019
Presented a slideshow explaining the 2015 and 2045 SE Data.	TAC/CAC	1/27/2020
Presentation of 2045 LRTP update	TAC/CAC	2/24/2020
Presentation of 2045 LRTP update	MPO Board	3/13/2020
Presentation of Alternative 1 Network Scenario modeling results and Proposed Alternative 2 Network Scenario; TAC/CAC provided input	TAC/CAC	5/18/2020
Presentation of Alternative 2 Network Scenario modeling results and Proposed Alternative 3 Cost Feasible Network; TAC/CAC and MPO Board provided input	TAC/CAC	6/10/2020
	MPO Board	6/12/2020
Presentation of Alternative 3 Cost Feasible Network modeling results, evaluation criteria scoring, and project rankings; TAC/CAC provided input	TAC/CAC	7/8/2020
Virtual Public Meeting Number 1; presentation of the Draft Project Needs List and overview of the LRTP process; panel of Collier MPO Staff, Collier County Staff, and FDOT Staff present for the question-and-answer session	Members of the Public	7/29/2020
Presentation of Alternative 4 Cost Feasible Network modeling results, proposed Alternative 5 Cost Feasible Network, project costs, revenue forecasts, and the 7/29/2020 virtual public meeting results; TAC/CAC provided input	TAC/CAC	8/7/2020

Table 2-2. Public Participation Events

Event Details	Group	Date
Presentation of the Needs Plan Projects	Immokalee CRA	8/19/2020
Presentation of Draft Cost Feasible Plan Roadway Network, Draft Chapter 4 System-wide Needs Plan, and Draft Financial Resources Technical Memorandum	TAC/CAC	8/31/2020
Presentation of Cost Feasible Plan Roadway Network and Draft Chapter 4 Needs Plan	BPAC	9/5/2020
Presentation of Final Project Needs List, Draft Cost Feasible Plan, revenue forecast, project costs, project rankings, and results of public input; MPO Board provided input	MPO Board	9/11/2020
Overview Draft Needs and Cost Feasible Plan Roadway Network/TDSP	LCB	9/16/2020
Presentation of the Needs Plan Projects	Collier MPO LCB	9/16/2020
Presentation of Draft Cost Feasible List of Projects; presentation of Draft Chapters 4 and 5 for endorsement; presentation of Chapter 6 for comments.	TAC/CAC	9/28/2020
Presented Draft List of Cost Feasible Projects for the 2045 LRTP for concurrence to move forward for Public Outreach. Draft list of Cost Feasible Projects was approved.	MPO Board	10/9/2020
Virtual Public Meeting Number 2; presentation of the Draft Cost Feasible Plan; panel of Collier MPO Staff, Collier County Staff, and FDOT Staff present for the question-and-answer session	Members of the Public	10/14/2020
Presentation of Draft Chapter 6 Cost Feasible Plan	BPAC	10/20/2020
Presentation of the results of public input, Draft Cost Feasible Plan, and Draft LRTP	TAC/CAC	10/26/2020
Presentation of Draft LRTP with focus on Cost Feasible Plan	Seminole Tribe (Staff)	11/4/2020
Presentation of Draft LRTP with focus on Cost Feasible Plan (postponed because of tropical storm)	Miccosukee Tribe (Council & Staff)	Schedule Pending
Presentation of the results of public input, Draft Cost Feasible Plan, and Draft LRTP	MPO Board	11/13/2020
Presentation of Draft LRTP	BPAC	11/17/2020
Presentation of Draft LRTP	CMC	11/18/2020
Presentation of Final LRTP for endorsement	TAC/CAC	11/30/2020
Presentation of the Final Cost Feasible Plan and Final LRTP; MPO Board approved Final LRTP for adoption	MPO Board	12/11/2020

Public input was an important part of the LRTP development process and helped refine the community's collective goals and objectives, which in turn helped guide the entire planning process. The first public engagement activity was a Kick-Off Public Survey, which was posted on the Collier MPO website.

The initial community outreach occurred November 2, 2019, when Collier MPO representatives attended the Ciclovía Immokalee event. This event was at the Immokalee Community Park and is a free family-friendly event held monthly to promote healthy habits and physical activities for families. The LRTP Kick-Off Public Survey and Newsletter were distributed at the event and transportation network maps were displayed. In addition to completing the survey, attendees were invited to the Collier MPO Information Booth to view the E+C network and provide input on existing and future needed transportation projects.



Local Residents View Maps at the Ciclovía Immokalee Event on November 2, 2019

Because of the COVID-19 pandemic, the public involvement meetings were moved to a virtual platform. The first virtual public meeting was held in July 2020 using a GoToMeeting platform and presented the Draft Needs Plan. The second virtual public meeting was held using Zoom in October 2020 and presented the Draft Cost Feasible Plan. Both meetings were advertised through the Collier MPO website and the Collier County Facebook page and were further promoted using a Facebook ad 1 week prior to the events.

Virtual Public Meeting #1 included the following displays for public review on the Collier MPO website:

- LRTP Process and Schedule
- LRTP Goals and Objectives
- Draft Needs Network
- 2045 Forecasted Growth
- Bicycle and Pedestrian Master Plan
- Proposed Transit Network
- Prerecorded video presentation

Additionally, a map of the Draft Project Needs List was presented in a WikiMapping tool by a link on the Collier MPO website, and made available to the public 1 week prior to the virtual public meeting. The WikiMapping tool allowed the user to like or dislike a project and add a comment if desired. The tool also prompted each participant to select their top five priority projects in the Needs Plan and included an opportunity to provide additional feedback on each project. A survey was also included with the Needs Plan WikiMap.

Virtual Public Meeting #2 included the following displays for public review on the Collier MPO website:

- 2045 Collier MPO Draft LRTP Chapters 1 through 6
- Draft Cost Feasible Plan Roadway Network Map and Table

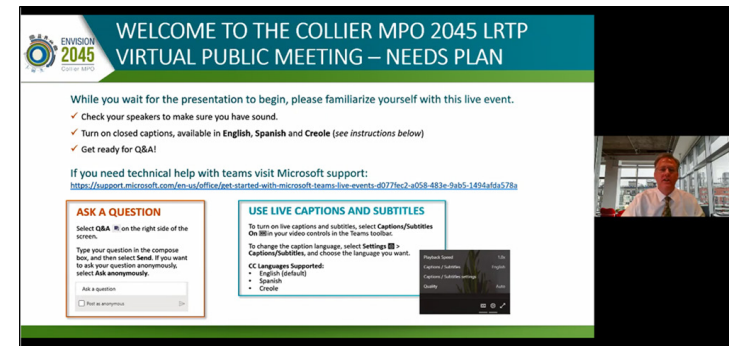
- Draft Cost Feasible Plan Roadway Network Maps by funding years
- Bicycle and Pedestrian Draft Cost Feasible Map
- Prerecorded video presentation

Additionally, a map of the Draft Cost Feasible Plan was presented in a WikiMapping tool on the Collier MPO website and made available to the public 1 week prior to the virtual public meeting. The tool also prompted each participant to select their top five priority projects in the Cost Feasible Plan and included an opportunity to provide additional feedback on each project.

At the start of each virtual public meeting, participants were greeted with a prerecorded video presentation. A panel of MPO staff and representatives, Collier County staff, and FDOT staff was available for the question-and-answer portion of the virtual meeting. Participants were asked to submit questions prior to the meeting but could also ask questions using the chat option during the meeting. A moderator presented the questions to the panel during the question-and-answer portion of the meeting. Meeting participants were asked to complete a comment form after the meeting and to complete the wiki map and survey exercise on the MPO website if they had not already done so. The comment period for the 2045 LRTP Draft Needs Plan, and the 2045 LRTP Cost Feasible Plan remained open through August 12, 2020, and October 31, 2020, respectively.

In addition to the public workshops, scheduled project updates were given to the TAC/CAC and the MPO Board. As the process reached the point of plan deliverables, technical memoranda were prepared and submitted to the TAC/CAC and MPO Board for review and comment.

Following the development of this Draft Collier MPO 2045 LRTP update document, and during the formal public comment period, copies of the document were distributed to a variety of publicly accessible locations (for example, public libraries, government center, etc.) and another virtual public meeting was conducted to solicit comments on the draft LRTP document, including the Cost Feasible Plan recommendations. All public written comments received throughout the process were incorporated as part of the Support Documentation, and any comments received during the public comment period were specifically addressed prior to the Collier MPO's adoption hearing.



Screen Capture from Virtual Public Meeting No. 1



Screen Capture from Virtual Public Meeting No. 2

Outreach Results

As a result of the public outreach, the MPO received a number of comments from members of the public and various agencies. The following summarizes the results of the outreach and any changes made to the list of needs or cost feasible projects as a result.

Survey Results

Kick-Off Public Survey

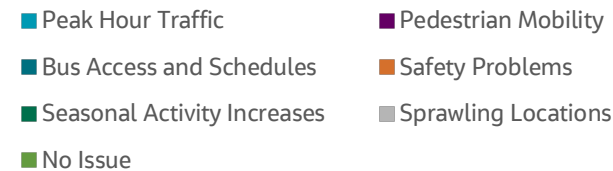
As noted previously, the first public engagement activity was a Kick-Off Public Survey, which was posted on the Collier MPO website. The survey was offered in English, Spanish, and Creole. A total of 36 surveys were completed online. To gain more feedback, particularly with traditionally underserved residents in Collier County, MPO representatives participated in the Ciclovía Immokalee event, where an additional 63 surveys were completed. Immokalee is a Census Designated Place with a population of 24,154 (US Census 2010). According to the 2010 US Census, the Hispanic or Latino population is 72 percent and the African-American population is 21 percent of the population within the Immokalee Census Designated Place, with a 42 percent poverty rate.

When asked about Collier County's biggest transportation challenge, the majority responded with pedestrian mobility and bus access/schedules (refer to [Figure 2-7](#)).

When asked which mode of transportation they mainly use in Collier County, 46 percent stated that they drive and 24 percent use transit. However, when asked which mode of transportation they would prefer to mainly use, 27 percent stated that they would prefer to drive, while 39 percent would prefer to use transit. An additional 17 percent noted that they would prefer to bicycle as opposed to the five percent that stated it is their main mode of transportation. The 2045 LRTP

Public Involvement Summary Report (provided under separate cover) includes all the survey results.

Figure 2-7. Kick-Off Public Survey Results



Virtual Public Meeting #1 Survey Results

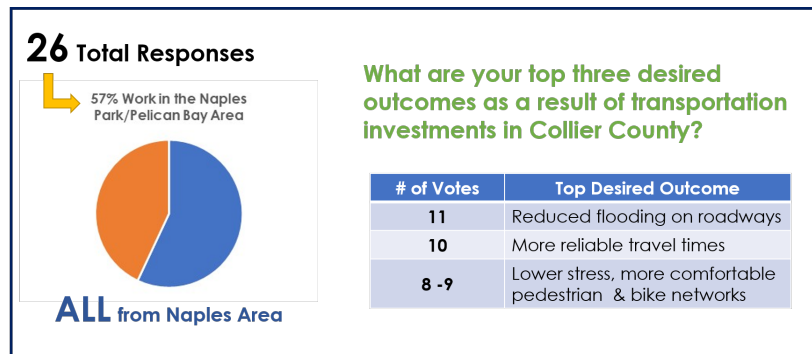
The following presents a summary of the survey results associated with Virtual Public Meeting #1. As a result of the survey, 26 responses were received. Each participant was asked to select the top three desired outcomes as a result of transportation investments in the County:

- More affordable travel options
- Improved walkable and connections to your neighbors
- More frequent bus service
- Easier access to neighborhood destinations, like schools and parks
- More bus service to more places in Collier County

- More reliable travel times
- Lower stress, more comfortable bicycle network
- Lower stress, more comfortable pedestrian network
- Easier access to regional destinations, like work or the beaches
- Shaded bicycle and pedestrian pathways
- Reduced flooding on roadways
- Safer and more comfortable to cross streets

All responses were from the Naples area, with 57 percent of respondents noting they worked in Naples Park/Pelican Bay area. **Figure 2-8** presents a summary of the survey results.

Figure 2-8. Virtual Public Meeting #1 Survey Results



Public and Agency Comments

As a result of the public outreach, five comments were received via email from either an agency or the public, including the Conservancy of Southwest Florida and FDOT District One Freight and Support Coordinator. During the virtual public meetings, a total of 27 comments or questions were made using the chat feature of the virtual meeting platform.

A total of 151 responses were received using the WikiMapping tool for both the Needs and Cost Feasible Plans, and resulted in 125 likes or dislikes to the individual projects. Additionally, 12 comments were noted on individual projects as well. The comments included concerns at intersections, natural environment impacts, and areas for improvement. Of the 125 likes/dislikes received, approximately 80 percent were likes for individual projects in either the Needs and Cost Feasible Plans.

Changes Made as a Result of Public Input

The following components of the LRTP are the direct result of public input:

- For the Evaluation Criteria and Weighting Factors, adjustments were made to differentiate between primary and secondary zone habitat and an objective to minimize impacts to wetland flows was added in response to input from the Conservancy of Southwest Florida.
- Greater emphasis was given to multimodal evaluation criteria, transit, and bike/pedestrian project priorities in response to public input, including input from BPAC and information provided in the Transit Development Plan.

- To address existing seasonal and future congestion noted by the CAC on Vanderbilt Drive, US 41 north of Immokalee Road, Wiggins Pass, and Old 41, the network was corrected to add a planned extension of Veteran's Memorial Parkway west to US 41. Also, project no. 60 was added to the Cost Feasible Plan on US 41 between Immokalee Road and Old US 41 to study potential alternatives for addressing congestion, enhancing bike/pedestrian safety and transit.
- Safety elements were funded through SU Box Allocations in response to public comments on related plans including the Local Roads Safety Plan and Transportation System and Performance Report for bike/pedestrian safety and the need for ongoing public education.
- In response to concerns from the Immokalee Community Redevelopment Agency, the Little League Road Extension project (project no. 33) was moved from the Needs list to

the partially funded list on the Cost Feasible Plan. As an interim improvement, Westclox Street Extension (project no. 63) was added to the Cost Feasible Plan in plan years 2036–2045.

- The Seminole Tribe (and a BPAC member) expressed concern with congestion on South 1st Street in Immokalee near the Seminole Casino. In response, project no. 30 was added to Cost Feasible Plan to study potential alternatives for addressing congestion and enhancing bike/pedestrian safety and transit.
- In response to comments received from the MPO Board, project no. 69, Everglades Boulevard from Oil Well Road to Immokalee Road, was added to the Cost Feasible Plan as partially funded for pre-engineering because of its importance as a designated evacuation route.



2045 LRTP Goals and Objectives

- 3-1** Long Range Vision for Collier County Transportation
- 3-2** 2045 LRTP Goals
- 3-3** Applying Priorities to Decision-Making

Chapter 3 2045 LRTP Goals and Objectives

3-1 Long Range Vision for Collier County Transportation

The Collier MPO 2045 LRTP development process began early in 2019 by establishing the plan's vision statement, goals, and objectives. The goals and objectives help guide the LRTP process to meet the Collier MPO's vision, while considering federal, state, and regional priorities. The LRTP goals and objectives refine the Collier MPO's vision and are a critical part of the planning process because the project needs are established based on these goals and objectives.

"The Collier MPO 2045 Long Range Transportation Plan envisions the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods while addressing current and future transportation demand, environmental sustainability, and community character."

Collier MPO 2045 LRTP Vision Statement

Federal Planning Factors

This 2045 LRTP update addresses federal mandates for regional transportation planning. As noted in Chapter 1, the guidance, commonly referred to as FHWA's Expectations Letter, outlines the agency's expectations for the development of LRTP updates to help MPOs meet the federal planning requirements. Based on the FAST Act provisions, the FHWA Expectations Letter notes

that MPOs are now required to address the following new planning factors:

- Improve the resiliency and reliability of the transportation system, and reduce or mitigate storm water impacts of surface transportation
- Enhance travel and tourism

Including these two new planning factors, the FAST Act requires 10 planning factors for long-range transportation planning (detailed in Chapter 1-3). **Figure 3-1** illustrates the federal planning factors.

Figure 3-1. Federal Planning Factors



Source: FDOT (2019c)

Statewide and Metropolitan Planning Priorities

Florida Statutes require that LRTPs include projects and strategies that will serve all modes of transportation and benefit the region as follows:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety and security of the transportation system for motorized and nonmotorized users
- Increase accessibility and mobility options available to people and for freight
- Protect and enhance the environment, promote energy conservation, and improve quality of life
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system

The LRTP should emphasize coordination with local jurisdictions (cities of Naples, Marco Island, and Everglades City) and consistency with future land use planning and locally adopted comprehensive plans of those entities and should consider a 20-year planning horizon. The LRTP should strive for integrated land use and transportation planning that fosters sustainable development and reduces greenhouse gas emissions.

Collier County Growth Management Plan

The Future Land Use Element of the CCGMP (the County's comprehensive plan) was adopted in 1997 and amended in November 2019. The plan's core principles of growth include:

- Protect natural resource systems and guide development away from areas of greatest sensitivity
- Coordinate land use and public facilities to develop within Urban Designated Areas
- Manage coastal development
- Provide adequate and affordable housing
- Attain high-quality urban design
- Improve efficiency and effectiveness in the land use regulatory system
- Protect private property rights

Collier County Community Housing Plan

The *Collier County Community Housing Plan* (Collier County 2017) has the central goal of a diverse range of attainable and affordable housing for all residents. Specific transportation recommendations from this plan include:

- Integrate bus routes with affordable housing locations: identify corridors for multi-family development, implement park-and-ride systems, and explore bus rapid transit (BRT) and express service lines
- Enhance bike lane and pedestrian systems: implement Comprehensive Pathways Plan; enhance safety for vulnerable users

- Ride-sharing options for enhanced mobility: create a ride-sharing option
- Revenue for transit and alternative mobility: establish sustainable and secure revenue streams; implement a recurring revenue source; establish uniform standards to determine the impacts on transit from new development

3-2 2045 LRTP Goals

The advisory committees endorsed, and the MPO Board approved in October 2019, a White Paper entitled *Goals, Objectives and Decision-Making Framework* for the 2045 LRTP. The following material is consistent with that document.

The 2045 LRTP goals include:

- Goal #1: Ensure the Security of Transportation System for Users
- Goal #2: Protect Environmental Resources
- Goal #3: Improve System Continuity and Connectivity
- Goal #4: Reduce Roadway Congestion
- Goal #5: Promote Freight Movement
- Goal #6: Increase the Safety of the Transportation System for Users
- Goal #7: Promote Multimodal Solutions
- Goal #8: Promote the Integrated Planning of Transportation and Land Use
- Goal #9: Promote Sustainability in the Planning of Transportation and Land Use
- Goal #10: Consider Climate Change Vulnerability and Risk in Transportation Decision-Making

- Goal #11: Consider Connected and Autonomous Vehicles (CAV) Technology in Future

Goals 1 through 8 and their associated objectives (summarized in the following section) originated in the Collier MPO 2040 LRTP. These goals were accepted by the Collier MPO Board on May 10, 2019. Goals 9 and 10 along with their associated objectives were added in response to new federal planning factors as well as input received from the TAC at their May 20, 2019 meeting.

Goals 9 and 10 address sustainability and resiliency, which are becoming more important in transportation planning as extreme weather events, such as flooding, severe heat, and intense storms, threaten the long-term investments that federal, state, and local governments have made in transportation infrastructure.

The Collier MPO added **Goal 11** in response to the new FDOT requirement summarized as follows. In May 2018 the FDOT Office of Policy Planning issued *Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicle* (FDOT 2018), which notes that a key role of MPOs in supporting the state of Florida's transition to an Automated, Connected, Electric and Shared-Use future will include developing policies and prioritizing projects that encourage shared-use of vehicles.

Therefore, new FDOT requirements state that LRTPs must at a minimum:

Assess capital investment and other measures necessary to make the most efficient use of existing transportation facilities to relieve vehicular congestion, improve safety, and maximize the mobility of people and goods. Such efforts must include, but are not limited to, consideration of infrastructure and technological improvements necessary to accommodate

advances in vehicle technology, such as autonomous technology and other developments. [s.339.175(7)(c)(2), F.S.]

Priorities: Goals, Objectives, and Evaluation Criteria

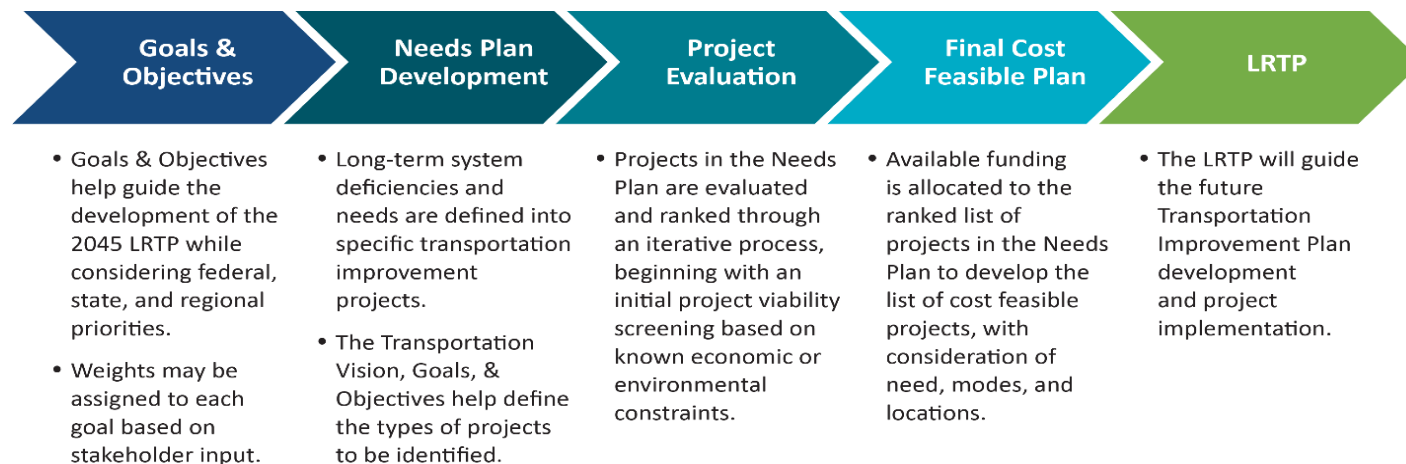
The 2045 LRTP Goals and Objectives are listed on the following pages. The goals provide a framework for realizing the LRTP vision. The objectives provide specific guidance on how to achieve each goal.

This LRTP is guided by the goals and objectives, each of which represents a specific element of how the transportation system should be managed for the next 25 years. The 11 goals are intended to maintain Collier County and its incorporated cities as livable communities and to improve the Countywide transportation system, keeping pace with growth and expected demand for transportation services in the region.

Evaluation criteria were used to evaluate and compare how well potential transportation projects met the goals and objectives. Additionally, each goal was assigned a weighting factor that placed more emphasis on certain goals that require more focus in the Collier MPO transportation system. A project evaluation criterion shows the advantages and disadvantages of the proposed projects independently as well as in relation to each other. As shown on **Figure 3-2**, this type of evaluation is ultimately used to develop the recommendations and prioritize transportation projects in the Needs Assessment and Cost Feasible Plan.

To support the performance-based process emphasized in the FAST Act, the following pages present defined goals and objectives and the evaluation criteria applied to each proposed project.

Figure 3-2. LRTP Development Framework



Goal #1: Ensure the Security of Transportation System for Users



The primary security issue for Collier County residents relates to implementation of sound emergency management plans. The primary threat to the County is extreme weather events, particularly hurricanes and wildfires. As a result, emphasis has been placed on enhancing important evacuation

routes.

The total weighting factor for this goal is 8 percent.

Objectives:

- Enhance important evacuation routes
- Maintain sound transportation components of the emergency management plan for Collier County

Project Evaluation Criteria:

- Improves or maintains critical evacuation routes
- Provides enhanced or potential new evacuation routes where needed

Goal #2: Protect Environmental Resources



Collier County is fortunate to have wide-ranging environmental resources including extensive wetland resources and natural wildlife areas that greatly enhance the quality of life for residents and visitors. Protection of these resources has been highly valued in the 2045 LRTP.

The total weighting factor for this goal is 12 percent.

Objectives:

- Minimize encroachment by transportation projects on wetlands and other protected natural areas
- Minimize adverse impacts on threatened and endangered species

Project Evaluation Criteria:

- Minimize wetland encroachments by transportation projects
- Minimize impacts to wetland flows (maintain or enhance existing flows to the extent feasible)
- Minimize the adverse impacts on threatened and endangered species

Goal #3: Improve System Continuity and Connectivity



Continuity and connectivity make it easier for residents and visitors to access the transportation system as directly as possible. Connectivity is a priority for all modes, and the future network provides direct routes and reduces travel time.

The total weighting factor for this goal is 10 percent.

Objectives:

- Improve continuity and capacity of existing facilities
- Promote connectivity by creating new transportation links
- Create a network of direct routes between and within areas of development

Project Evaluation Criteria:

- Improves existing infrastructure deficiencies
- Improves connectivity with new transportation links to address system gaps

Goal #4: Reduce Roadway Congestion



Congestion and accompanying delay poses a serious cost to the residents of Collier County, reducing their access to jobs, education, health care, shopping, recreation, and other activities. The 2045 LRTP emphasizes reducing congestion to help enhance the quality of life for County residents.

The total weighting factor for this goal is 18 percent.

Objectives:

- Reduce the number of deficient roadways (those with a high volume-to-capacity ratio) identified in the 2045 existing plus committed (E+C) network
- Reduce travel delay between residential areas and key destinations

Project Evaluation Criteria:

- Improves existing deficient facility or improves a new or neighboring facility intended to relieve an existing deficient facility
- Improves intersections and roadways with poor levels of service

Goal #5: Promote Freight Movement



Efficient freight movement is directly related to the economic well-being of a community. The cost of moving freight is reflected in all consumables and in local production activities.

The total weighting factor for this goal is 6 percent.

Objectives:

- Enhance movement on major regional freight mobility corridors or freight distribution routes
- Improve access to freight activity centers (distribution facilities or major commercial/industrial districts)

Project Evaluation Criteria:

- Enhances operation of the facility identified as a major freight route

Goal #6: Increase the Safety of the Transportation System for Users



Safety of the transportation system is an important factor in the MPO's planning and project development process. The investment of projects that enhance safety will lead to reduced crashes and lower crash severity for all modes of transportation.

The total weighting factor for this goal is 10 percent.

Objectives:

- Reduce the number of fatalities, injuries, and crashes
- Ensure adequate bicycle and pedestrian facilities are incorporated into new highway and transit projects
- Implement safety-related improvements on high crash corridors

Project Evaluation Criteria:

- Enhances safety of transportation system users
- Improves facility or intersection identified as having a high crash occurrence or a fatality
- Promotes traffic calming
- Reduces vehicular conflicts with bicyclists, pedestrians, and other vulnerable road users

Goal #7: Promote Multimodal Solutions



The County recognizes the importance of alternative forms of transportation that promote healthful living, improve air quality, and improve residents' quality of life.

The total weighting factor for this goal is 10 percent.

Objectives:

- Improve frequency and reliability of public transit service routes and improve access to park-and-ride lots
- Improve pedestrian and bicycle facilities
- Improve air quality
- Improve quality of life
- Promote healthy living
- Implement Complete Streets policies¹

Project Evaluation Criteria:

- Provides for trail improvements that implement the Bicycle and Pedestrian Master Plan

- Provides multimodal improvement near affordable housing, centers of employment, multi-family housing, health care, educational, recreational, or cultural centers
- Provides multimodal improvements for environmental justice communities and underserved neighborhoods, and connects these neighborhoods to centers of employment and important destinations for transit-dependent households
- Improves transit (frequency and reliability) within existing or future transit service areas (TSA) or within a community redevelopment area (CRA); improves access to park-and-ride facilities; provides for BRT
- Improves bicycle or pedestrian access to transit
- Improves safety and access for people of all ages and abilities; improves safety for people walking, biking, and using mobility devices

¹ <https://www.fdot.gov/roadway/csi/default.shtm>

Goal #8: Promote the Integrated Planning of Transportation and Land Use



Transportation improvements can often result in new economic development and land use activity. In turn, decisions related to land use and economic development are often the basis for transportation system investments. The Collier MPO strives to develop projects that promote land use objectives of the County and its incorporated cities.

The total weighting factor for this goal is 10 percent.

Objectives:

- Coordinate with local governments and partner agencies to assure transportation plans and programs support local land use plans and a sustainable transportation system
- Assure that local growth management objectives are reflected in transportation plans and programs
- Assure that transportation plans and projects promote economic sustainability for the County

Project Evaluation Criteria:

- Improves access to regional travel (for example, interstates, airports, ports, and SIS facilities)
- Improves access to tourist destinations
- Supports targeted redevelopments or CRAs (multimodal or vehicle improvements)
- Identified in partner agency (city, transit, county, MPO, etc.) plans as a priority

- Improves vehicle or freight movement to an intermodal facility

Goal #9: Promote Sustainability in the Planning of Transportation and Land Use



A sustainable transportation system allows for the basic access and needs of the community to be met safely. It operates fairly and efficiently, offers a choice of transportation modes, and promotes equity for all users.

The total weighting factor for this goal is 8 percent.

Objectives:

- Improve the sustainability of communities through increased access to affordable housing and centers of employment and reduced automobile dependency
- Ensure that transportation system improvements are equitable and fair to all residents of the County
- Engage a diverse public in the development of the region's transportation system

Project Evaluation Criteria:

- Benefits low-income areas and improves sustainability through increased housing choices and reduced automobile dependency

Goal #10: Consider Climate Change Vulnerability and Risk in Transportation Decision-Making



A resilient transportation system is one that supports mobility, system preservation, and evacuation needs, and addresses social equity.

The total weighting factor for this goal is 4 percent.

Objectives:

- Identify key climate impacts (rising sea levels, hurricanes, etc.)
- Identify sensitive assets and thresholds for impacts
- Identify, evaluate, and adopt strategies to address identified vulnerabilities
- Screen projects during planning to avoid making investments in particularly vulnerable areas

Project Evaluation Criteria:

- Promotes transportation infrastructure resiliency in the face of climate change and sea level rise

Goal #11: Consider Connected and Autonomous Vehicles (CAV) Technology in Future



Advances in automotive infrastructure technology through connected vehicles or self-driving cars pose some of the biggest challenges to transportation planning (for example, equity among users). The potential for disruptions to transportation systems includes changes to land uses and the

system network itself. However, because of the potential safety benefits, the Collier MPO is exploring ways to incorporate these technologies into the transportation network.

The total weighting factor for this goal is 4 percent.

Objectives:

- Explore options for application and implementation of CAV technologies, in light of the lack of current guidance
- Consider new guidance and developments during the LRTP process

Project Evaluation Criteria:

- Uses technological improvements (for example, ITS, Transit Signal Priority, etc.)

3-3 Applying Priorities to Decision-Making

The 2045 LRTP development process builds upon the 2040 LRTP and input from the MPO Board, advisory committees, planning partners, and public input (surveys) to establish the long-range vision statement for the MPO's transportation system in 2045. The goals and objectives of the transportation plan are established to help realize this vision. The goals and objectives of the LRTP ultimately guide the entire LRTP development process by creating a decision-making framework through which projects can be evaluated and ranked to define and document project priorities.

Evaluation Criteria for Project Selection

Like the goals and objectives, the 2045 LRTP evaluation criteria (refer to [Table 3-1](#)) build upon the evaluation criteria established in the 2040 plan. Evaluation criteria are used to evaluate and then compare how well potential transportation projects meet the goals and objectives. Each criterion is assigned a weighting factor that places more emphasis on those criteria that require more focus in the Collier MPO transportation system. Ultimately, this type of evaluation is used to develop the recommendations and prioritize transportation projects.

The evaluation criteria and performance measures listed in Table 3-1 demonstrate the scoring methodology for project evaluation and selection, creating an actionable way for the vision, goals, and objectives to shape project selection.

Table 3-1. 2045 LRTP Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
1. Ensure the Security of Transportation System for Users Total Weighting Factor: 8%	1A - Improves or maintains critical evacuation routes	Yes = 5; No = 0	4
	1B - Provides enhanced or potential new evacuation routes where needed	Does the roadway connect to an existing evacuation route or does it have potential to be a new evacuation route (for example, major extension or new project that connects to a Strategic Intermodal System?) Yes = 5; No = 0	4
2. Protect Environmental Resources Total Weighting Factor: 12%	2A - Minimize wetland encroachments by transportation projects	How many acres of wetland encroachment based on National Wetlands Inventory? No impact = 0; 0–5 acres = -1; 6–10 acres = -2; 11–15 = -3; 15–20 = -4; 21 or more = -5 (max)	4
	2B - Minimize impacts to wetland flows (maintain or enhance existing flows to the extent feasible)	Proximity to protected natural areas (0.5 miles) Within 0.5 miles of Conservation Areas/Preserves lands? Yes = -1 No = 0	4
	2C - Minimize the adverse impacts on threatened and endangered species	Amount of habitat encroachment based on primary panther habitat? No impact = 0 0–10 acres = -1 11–20 acres = -2 21–30 = -3 31–40 = -4 40 or more = -5 (max)	4

Table 3-1. 2045 LRTP Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
3. Improve System Continuity and Connectivity Total Weighting Factor: 10%	3A - Improves existing infrastructure deficiencies	Does the project improve mobility in an existing roadway facility (for example, widening, intersection improvements, etc.)? Yes = 5; No = 0	5
	3B - Improves connectivity with new transportation links to address system gaps	Does the project improve connectivity with a new facility including projects that are extensions that connect to future or existing facilities? Yes = 5; No = 0	5
4. Reduce Roadway Congestion Total Weighting Factor: 18%	4A - Improves existing deficient facility or improves a new or neighboring facility intended to relieve an existing deficient facility	Does the project increase capacity or provide relief to a parallel facility (for example, new facilities, bridges over canals, etc.)? Yes = 5; No = 0	9
	4B - Improves intersections and roadways with poor levels of service	Does capacity ratio decrease when compared to the 2045 E+C Alternative? Yes = 5; No = 0	9
5. Promote Freight Movement Total Weighting Factor: 6%	5 - Enhances operation of the facility identified as a major freight route	Is the roadway on a regional freight mobility corridor, freight distribution route, or connects to a freight activity center as outlined in the 2040 LRTP? Yes = 5; No = 0	6
6. Increase the Safety of Transportation System Users Total Weighting Factor: 10%	6A - Enhances safety of transportation system users	Does project implement a recommendation from a safety plan (for example, safe routes to school, protected bike lanes, etc.)? Yes = 5; No = 0	2
	6B - Improves facility or intersection identified as having a high crash occurrence or a fatality	High crash location or segment? Yes = 5; No = 0	4
	6C – Promotes traffic calming	Does the project improve safety by calming traffic (for example, gateway treatments, roundabouts, reduced width and turning	2

Table 3-1. 2045 LRTP Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
		radii)? Are vehicular speeds appropriate to context and facility type? Yes = 5; No = 0	
	6D - Reduces vehicular conflicts with bicyclists, pedestrians, and other vulnerable road users	High crash location or segment for bicycle and pedestrian conflicts? Yes = 5; No = 0	2
7. Promote Multimodal Solutions Total Weighting Factor: 10%	7A - Provides for trail improvements that implement the Bicycle and Pedestrian Master Plan	New or improved trail/greenways = 5 No new or improved trail = 0	2
	7B - Provides multimodal improvement near affordable housing, centers of employment, multi-family housing, health care, educational, recreational, or cultural centers	Improvement within 0.25 miles = 5 No improvement within 0.25 mile = 0	2
	7C - Provides multimodal improvements for environmental justice communities and underserved neighborhoods, and connects these neighborhoods to centers of employment and important destinations for transit-dependent households	Improvement within 0.25 miles = 5 No improvement within 0.25 miles = 0	2
	7D - Improves transit (frequency and reliability) within existing or future TSAs or within a CRA; improves access to park-and-ride facilities; provides for BRT	Project along an existing or planned bus route within an existing or future TSA = 5 Project along an existing or planned bus route inside a CRA = 5 Improves access to park-and-ride facility = 5 Provides for BRT = 5	1

Table 3-1. 2045 LRTP Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
		No improvement = 0	
	7E - Improves bicycle or pedestrian access to transit	Improve Access = 5; No improvement = 0	2
	7F – Improves safety and access for people of all ages and abilities; improves safety for people walking, biking, and using mobility devices	Improvement = 5 No improvement = 0	1
8. Promote the Integrated Planning of Transportation and Land Use Total Weighting Factor: 10%	8A - Improves access to regional travel (for example, interstates, airports, ports, and SIS facilities)	Improves access = 5 Does not improve access = 0	4
	8B - Improves access to tourist destinations	Improves access = 5 Does not improve access = 0	2
	8C - Supports targeted redevelopments or CRAs (multimodal or vehicle improvements)	Yes = 5 No = 0	2
	8D - Identified in partner agency (city, transit, county, MPO, etc.) as a priority	Connections to other municipalities or counties? Yes = 5 No = 0	1
	8E - Improves vehicle or freight movement to an intermodal facility	Does the project improve vehicle or freight movement to intermodal facilities (for example, airport, bus transfer station, freight center, park-and-ride, etc.)? Yes = 5 No = 0	1

Table 3-1. 2045 LRTP Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
9. Promote Sustainability in the Planning of Transportation and Land Use Total Weighting Factor: 8%	9A - Benefits low-income areas and improves sustainability through increased housing choices and reduced automobile dependency	Does the project bring better mobility to a low-income areas and CRAs (for example, bike/ped improvements along a bus route or stop, etc.)? Project in target area=5 Project not in target area=0	8
10. Consider Climate Change Vulnerability and Risk in Transportation Decision-Making Total Weighting Factor: 4%	10A - Promotes transportation infrastructure resiliency in the face of climate change and sea level rise	Within 0.25 miles of NOAA 1 ft Sea Level Rise Flooding Area =5 Within 0.25 miles of NOAA 1 ft Sea Level Rise Low Lying Area = 3 Not in high risk area = 0	4
11. Consider Connected and Autonomous Vehicles (CAV) Technology in the Future Total Weighting Factor: 4%	11A - Utilizes technological improvements (ITS, Transit Signal Priority, etc.)	Yes = 5 No = 0	4

An aerial photograph of a road intersection. A large white semi-truck is stopped at a crosswalk, facing away from the camera. The road has white lane markings and a yellow curb. There are palm trees and a 'Publix' sign in the background.

4

2045 Needs Plan

- 4-1** Needs Plan Overview
- 4-2** Roadway Needs
- 4-3** Bicycle and Pedestrian Needs
- 4-4** Transit Needs
- 4-5** Air Transportation Needs

Chapter 4 2045 Needs Plan

4-1 Needs Plan Overview

The 2045 LRTP Needs Plan identifies the multimodal transportation projects needed to address existing and future transportation network deficiencies within the MPO's jurisdiction without considering funding limitations. Developing the Needs Plan is the starting point for understanding and prioritizing the region's overall transportation needs. However, once the applicable transportation revenues available to the Collier MPO are applied to the Needs Plan, the number of projects that can be constructed to address the needs becomes significantly reduced. Projects in the Needs Plan are evaluated by scoring each project using defined goals and objectives, and the evaluation criteria described in Chapter 3. The projects that rank the highest are focused on when selecting which projects to include in the Cost Feasible Plan. This process is explained further in the Cost Feasible Plan section of this document.

While the projects shown as transportation needs are not fiscally constrained, associated policy and environmental constraints exist. The following policy constraints are noted in the CCGMP Transportation Element (Collier County Planning and Zoning Department 2017) amended June 13, 2017:

- All future roadway capacity improvements shall include provisions for both bicycles and pedestrians.
- County facilities are to be maintained at a level of service (LOS) standard "D" or "E" as measured on a peak hour basis; LOS calculations are to be based on traffic experienced for 10 months of the year with peak seasonal and tourist months of February and March omitted.
- County roadways are constrained to a maximum of six lanes or when intensive land use development is immediately adjacent to roads. Roadways identified as constrained shall be subject to growth restrictions to not further degrade their LOS.
- The County will provide for the protection and acquisition of existing and future right-of-way (ROW). Sufficient ROW shall be acquired to facilitate arterial and collector roads as appropriate to meet the needs of the LRTP or other adopted transportation studies, plans or programs, appropriate turn lanes, medians, bicycle and pedestrian facilities, drainage canals, a shoulder sufficient for pull offs, and landscaping areas.
- The County is considering the viability of a Thoroughfare Corridor Protection Plan ordinance to preserve ROW for corridors or projects listed in the LRTP. This policy includes adoption of Corridor Preservation Maps and Tables and Critical Intersection Maps and Tables; and limits land uses within the corridors to direct incompatible land uses away from environmentally sensitive resources.
- Reduce vehicle miles traveled (VMT) and greenhouse gas emissions by providing for the safe movement of nonmotorized vehicles in new construction and reconstruction of roadways.

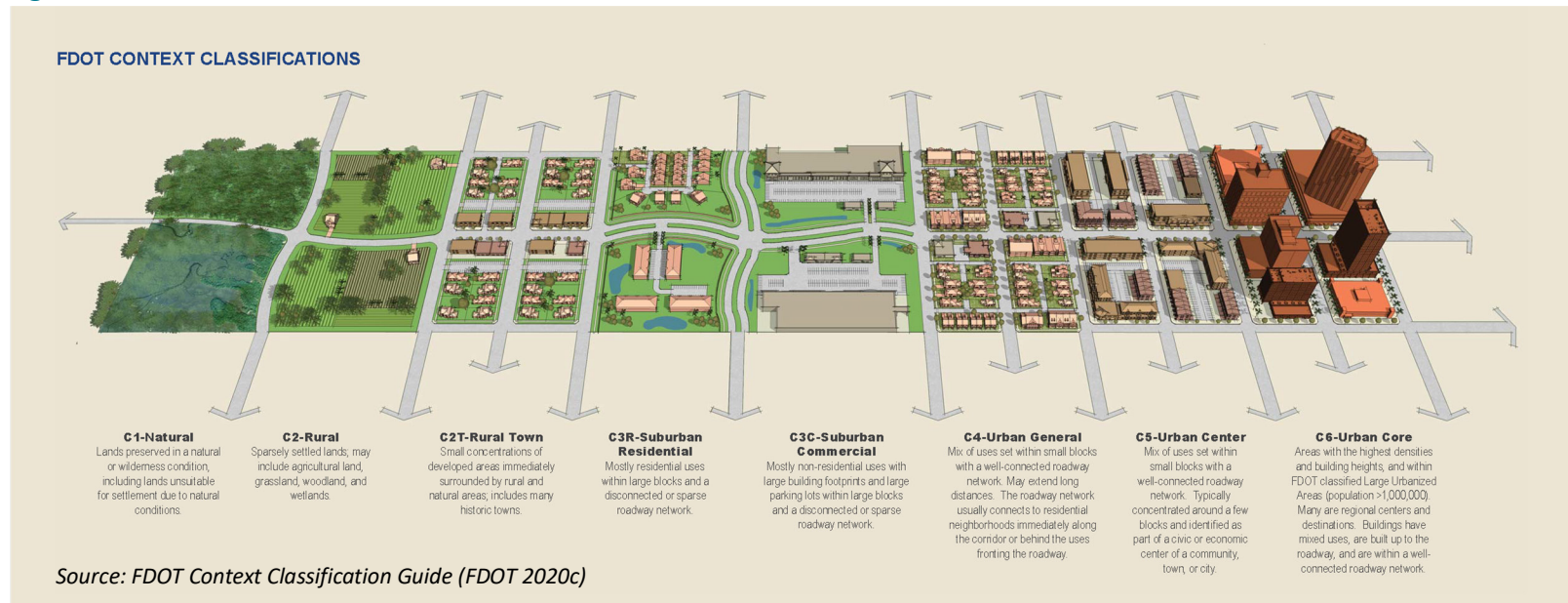
- Establish an integrated and connected road network to provide multiple, viable alternative travel modes or routes for common trips within the Northwest Transportation Concurrency Management Area (TCMA) and the East Central TCMA. Maintain 85 percent of the roadways within the TCMA at or above the County LOS standard.
- Transportation projects are to be pursued in a manner consistent with the findings of the County Annual Update and Inventory Report (AUIR).
- Encourage safe and efficient mobility for people traveling in rural areas that is compatible with the character of the County's rural areas. Examine the maintenance and operational needs of the rural roadway system, addressing the mobility needs of rural residents to include availability of roads for rural-to-urban travel, travel within the rural area, and for emergency evacuation purposes.
- Improve transit services for the transportation-disadvantaged in rural areas.
- Encourage the efficient use of transit services now and, in the future, consider intergovernmental efforts to coordinate public transit service between Naples and Bonita Springs in Lee County.

In September 2014, FDOT adopted the Statewide Complete Streets Policy (Topic No. 000-625-017-a). Additionally, the City of Naples and the Collier County Board of County Commissioners (BCC) approved Complete Streets Resolutions in November 2015 and January 2019, respectively. Complete Streets serve the transportation needs of users of all ages and abilities, including pedestrians, bicyclists, transit riders, motorists, and freight handlers. A transportation system based on Complete Streets principles can help to promote safety, quality of life, and economic development.

Complete Streets are context-sensitive, and the approach provides transportation system design that considers local land development patterns. Roadways are to be planned and designed to support the safety, comfort, and mobility of all users based on the unique context of each roadway. The FDOT context classification system broadly identifies the various built environments existing in Florida. Identifying the context classification is a preliminary step in planning and design, as different context classifications will have different design criteria.

The context classification of each roadway must be considered, along with its transportation characteristics and the built form to understand who uses or could use it, the regional and local travel demand of the roadway, and the challenges and opportunities of each roadway user. As shown on [Figure 4-1](#), FDOT defined eight context classifications that identify various built environments in Florida.

Figure 4-1. FDOT Context Classifications



The following policy constraints are noted in the *City of Naples Comprehensive Plan Transportation Element* (City of Naples 2010) amended October 20, 2010:

- Evaluate proposed street improvements in Naples that may potentially increase through traffic volumes to protect residential neighborhoods.
- Maintain LOS C as a goal for the arterials and all major collectors, except for Fifth Avenue South between U.S. 41 and Gulf Shore Boulevard.
- Naples shall not permit construction of vehicle road overpasses or flyovers in favor of feasible alternative planning solutions that will improve the long-term traffic circulation patterns in the City.
- Evaluate programs to modify peak hour travel demand and reduce the number of VMT per capita.
- Assist the Southwest Florida Land Preservation Trust in acquiring necessary easements and funding for the design and construction of a greenway bicycle/pedestrian pathway.
- Maintain or reduce hurricane evacuation times.
- Enhance the safety, connectivity, and mobility of existing and future pedestrian and bicycle pathways.
- Continue to coordinate with the Collier MPO to evaluate the potential for developing an efficient public transportation system and mechanisms to reduce the reliance on private motor vehicles.

- Establish a transportation mobility program to identify and implement strategies to reduce greenhouse gas emissions. Focus on programs, policies, and code adoptions that have a net impact of reduced travel delays, reduced vehicular trips, reduced vehicle trip length, and measures to improve the efficiency of travel.

Additionally, on November 7, 2014, the City of Naples adopted a resolution to support the Southwest Florida Blue Zones Project. The Southwest Florida Blue Zones Project works with community leaders to inspire positive sustainable changes to policy and the built-environment to improve the well-being among the community. Such infrastructure as sidewalks and bike lanes improve the ability of community members to move naturally, connect socially, and access healthy food.

The following policy constraints are noted in the *City of Marco Island Comprehensive Plan* (City of Marco Island 2000) Transportation Element amended December 7, 2009:

- Maintain designated LOS for arterial, collector, and local roads on Marco Island. Marco Island’s adopted LOS reflect generalized maximum daily volumes as derived from peak hour traffic conditions:
 - Arterials: LOS D (except County Road [CR] 951 from the Jolley Bridge to CR 92—LOS C)
 - Collectors: LOS D
 - Local Roads: LOS D

Finally, environmental constraints include conservation lands in the northeastern and southeastern parts of the County, wetlands, threatened and endangered species habitat, and primary and secondary canal systems throughout the County.

The 2045 Needs Plan incorporates all transportation modes, including roadway needs for motorists and freight, transit,

bicycle, and walking or using a mobility device. The following sections detail the County needs for projects related to these transportation modes as well as technologies, such as ITS and CAV. This chapter breaks down the 2045 Needs Plan by Roadway Needs, Bicycle and Pedestrian Needs, and Transit Needs.

4-2 Roadway Needs

The initial approach to developing the list of roadway project needs included a review of the following plans:

- *Collier MPO 2040 Long Range Transportation Plan*, Amended May 25, 2018, and September 9, 2016
- *Collier MPO Transportation Improvement Program FY 2021 – FY 2025* (Adopted June 12, 2020)
- *Collier MPO Transportation System Performance Report & Action Plan Draft Baseline Report* (2020)
- *Collier MPO Transportation System Performance Report & Action Plan Draft Action Plan* (2020)
- *Collier MPO Congestion Management Process 2017 Update*
- *Collier 2040 LRTP Freight Congestion Considerations Technical Memorandum*
- *Collier MPO 2040 Long Range Transit Element*, November 2015
- *Collier MPO Local Road Safety Plan*, 2020
- *Collier MPO Transit Development Plan Major Update*, 2020
- *Collier Area Transit (CAT) Transit Development Plan FY 2019 Annual Progress Report*

- *Collier MPO and CAT Park-and-Ride Study, 2020*
- *Collier County Annual Update & Inventory Report/Capital Improvement Element Schedule Update on Public Facilities, November 2019*
- *Collier County Community Housing Plan, October 24, 2017*
- National Oceanic and Atmospheric Administration Sea Level Rise Viewer
- *Adaptation of Coastal Urban and Natural Ecosystems (ACUNE) (pending)*
- *Collier County Transportation Capital Improvement Program, 2019*
- *Collier County Airport Authority Immokalee Regional Airport, Airport Layout Plan Update, August 2017*
- *City of Naples Airport Authority, Naples Airport Master Plan, February 29, 2020*
- *FDOT Five Year Work Program 2021 – 2025 (Adopted July 1, 2020)*
- *FDOT Resilience Quick Guide: Incorporating Reliance in the MPO Long Range Transportation Plan, January 2020*
- *FDOT Strategic Intermodal System 2029 – 2045 Long Range Cost Feasible Plan*
- *FDOT Strategic Intermodal System Funding Strategy First Five Year Plan Multi-Modal FY 2020/2021 through FY 2024/2025*
- *FDOT Strategic Intermodal System Funding Strategy Second Five Year Plan Multi-Modal FY 2025/2026 through FY 2029/2030*
- *FDOT Freight Mobility and Trade Plan, April 2020*
- *FDOT Florida Transportation Plan Policy Elements update (draft), 2020*
- *FDOT Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicles, September 2018*
- *FDOT Highway Safety Plan, Fiscal Year 2020*
- *FDOT Strategic Highway Safety Plan, October 2016*
- *University of South Florida Center for Urban Transportation Research (CUTR) Autonomous Vehicle (AV) and Alternative Fuel Vehicle (AFV) Florida Market Penetration Rate and VMT Assessment Study, October 2019.*
- *U.S. Department of Transportation Preparing for the Future of Transportation: Automated Vehicles 3.0, October 2018*
- *U.S. Army Corps of Engineers Draft Integrated Feasibility Study and Environmental Impact Statement, Collier County Coastal Storm Risk Management Study, July 31, 2020.*

Additional approaches to developing the Needs Plan included collaboration with regional partners including the Lee County MPO for consistency between long-range plans and the District 1 travel model, coordination with the Collier County Growth Management Department, Capital Project Planning, Impact Fees & Program Management Division, Collier County Traffic Operations Department, scenario planning analysis, travel demand modeling, tribal coordination, and soliciting and incorporating public input. Further, several coordination meetings with the TAC and CAC were held during the development of the Needs Plan.

Existing Plus Committed Projects

As described in Chapter 2, the initial list of project needs was developed by first modeling the E+C travel network. The E+C network includes all new road or capacity projects that have been implemented since 2015 (existing), plus all projects that have construction funded through Fiscal Year 2023. The E+C characterizes the transportation network expected to be in place by the year 2023 (constructed or funded for construction). **Table 4-1** and **Figure 4-2** present the E+C roadway projects in tabular and graphic formats, respectively.

FDOT modeled the E+C travel network using the D1RPM travel demand model and the 2045 socioeconomic data discussed in Chapter 2. The modeling result helped identify deficiencies in the roadway network and showed which roadway segments were expected to be congested in 2045 if no further improvements were made to the surrounding network.

Congestion was measured using the ratio of the forecasted traffic volume in Average Annual Daily Traffic (AADT) to the capacity of the roadway segment (at LOS D), referred to as the volume-to-capacity (V/C) ratio. A roadway is considered over capacity if the V/C ratio is greater than 1.0.

Figure 4-3 presents the anticipated roadway congestion in 2045 if no improvements to the network are made beyond the E+C projects. The roadway facilities predicted to experience high ($V/C = 1.15$ to 1.5) and significant ($V/C > 1.5$) levels of congestion in 2045 are listed in the following text.

2045 Facilities with High Degree of Congestion ($V/C = 1.15$ to 1.5)

- US 41 north of Immokalee Road
- Immokalee Road east of Airport Road N
- Immokalee Road east of I-75
- Immokalee Road west of I-75

- Immokalee Road east of Collier Boulevard to Randall Boulevard
- Immokalee Road north of Stockade Road
- Immokalee Road from SR 29 to Camp Keas Road
- Randall Boulevard east of 8th Street NE
- Oil Well Road between Everglades Boulevard and Oil Well Grade Road
- SR 29 north of Westclox Road
- Everglades Boulevard north of Oil Well Road
- Pine Ridge Road east of Livingston Road
- Old 41 Road east of US 41/Tamiami Trail to Lee County
- Vanderbilt Beach Road west of US 41
- Intersection at Collier Boulevard and Golden Gate Parkway
- Collier Boulevard north of Golden Gate Parkway
- Santa Barbara Boulevard north of Rattlesnake Hammock Road
- Park Shore Drive west of Clayton Road
- I-75 north of Immokalee Road
- Intersection at I-75 and Immokalee Road
- Intersection at I-75 and Pine Ridge Road
- Intersection at I-75 and Golden Gate Parkway

2045 Facilities with a Significant Degree of Congestion ($V/C > 1.5$)

- Collier Boulevard north of Pine Ridge Road
- Golden Gate Boulevard from east of 16th Street SE to Everglades Boulevard
- SR 29 (N 15th Street) at the intersection of Westclox Road

Table 4-1. 2045 Existing Plus Committed (E+C) Roadway Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2021-2025 TIP?
Existing (2015–2019)						
19	I-75	North of SR 951	Golden Gate Pkwy	Widen from Four to Six Lanes	FDOT FPN: 406313-4	N/A
20	SR 951	Manatee Road	North of Tower Rd	Widen from Two to Four Lanes	FDOT FPN: 435111-2	N/A
21	City Gate Blvd. Extension	White Lake Blvd.	East of Brennan Dr	New Four-Lane Facility	Collier County	N/A
22	Golden Gate Blvd.	Wilson Blvd.	Everglades Blvd.	Widen from Two to Four Lanes	Collier County	N/A
23	Logan Blvd.	North of Immokalee Rd.	Lee County Line	New Two-Lane Facility	Collier County	N/A
24	Massey St./Woodcrest Dr.	Calusa Pines Dr.	Immokalee Rd.	New Two-Lane Facility	Collier County	N/A
25	Pristine Dr.	Wolfe Rd.	Vanderbilt Beach Rd	New Two-Lane Facility	Collier County	N/A
26	Tree Farm Rd.	Davila St	Massey St	New Two-Lane Facility	Collier County	N/A
51	I-75	Golden Gate Parkway SB Off Ramp	-	Interchange Improvements	FDOT FPN: 429907-1	N/A
53	SR 29	Jefferson Avenue	9th Street	Add Turn Lanes	FDOT FPN: 431390-2	N/A
54	SR 82	Corkscrew Road	-	Add Turn Lanes	FDOT FPN: 433175-1	N/A
55	Airport Pulling Rd.	North Horseshoe Dr.	-	Intersection Improvements	Collier County	N/A
56	Golden Gate Pkwy.	Livingston Rd.	-	Intersection Improvements	Collier County	N/A
57	Pine Ridge Rd.	US 41	-	Intersection Improvements	Collier County	N/A
70	8th Street Bridge			New Bridge	Collier County	N/A
79	Vanderbilt Beach Rd.	Gulf Pavilion Dr.	US 41 (SR 90) (Tamiami Trail E)	Constrained to Four Lanes	Collier County	N/A

Table 4-1. 2045 Existing Plus Committed (E+C) Roadway Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2021-2025 TIP?
Committed (2019–2023)						
29	Airport Pulling Rd. ^a	Vanderbilt Beach Rd.	Immokalee Rd.	Widen from Four to Six Lanes	Collier County	Yes
30	Randall Blvd.	Immokalee Rd.	8th St.	Widen from Two to Four Lanes	Collier County	Yes
32	Vanderbilt Beach Rd. Extension ^a	Collier Blvd.	Curry Canal	Widen from Two to Six Lanes	Collier County	Yes
33	Veterans Memorial Blvd.	Old US 41	Secoya Reserve Cir	New Four-Lane Facility	Collier County	Yes
34	Veterans Memorial Blvd.	Secoya Reserve Cir	Strand Blvd.	Widen from Two to Four Lanes	Collier County	Yes
35	Whippoorwill Lane	Pine Ridge Rd.	Stratford Ln.	Widen from Two to Four Lanes	Collier County	Yes
36	SR 82	Gator Slough Lane	SR 29	Widen from Two to Four Lanes	FDOT FPN: 430849-1	Yes
37	Vanderbilt Beach Rd. Extension ^a	Curry Canal	Wilson Blvd.	New Four-Lane Facility	Collier County	Yes
38	Vanderbilt Beach Rd. Extension ^a	Wilson Blvd.	16th St.	New Two-Lane Facility Expandable to Four Lanes	Collier County	Yes
58	US 41	Oasis Visitor Center	-	Add Left-Turn Lane	FDOT FPN: 441975-1	Yes
59	Immokalee Rd.	Woodcrest Dr.	-	Intersection Improvements	Collier County	Yes
60	Pine Ridge Rd. ^a	Livingston Rd.	-	Intersection Improvements	Collier County	Yes
61	Randall Blvd. ^a	Immokalee Rd.	-	Intersection Improvements	Collier County	Yes
62	Triangle Blvd. ^a	Celeste Dr.	-	Roundabout Implementation	Collier County	Yes

Table 4-1. 2045 Existing Plus Committed (E+C) Roadway Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2021-2025 TIP?
63	10th St.	5th Ave North	-	Roundabout Implementation	City of Naples	Yes
64	3rd Ave. South	8th St. South	-	Roundabout Implementation	City of Naples	Yes
67	Mooring Line Dr.	Crayton Rd.	-	Roundabout Implementation	City of Naples	Yes
71	16th Street Bridge	16th St.	16th St.	New Bridge	Collier County	Yes
73	Crayton Rd.	Harbour Dr.	-	Roundabout Implementation	City of Naples	Yes
75	Price St. ^a	Waterford Dr.	-	Roundabout Implementation	Collier County	Yes
100	Wilson Blvd.	Golden Gate Blvd.	Immokalee Rd.	Widen from Two to Four Lanes	Collier County	Yes
101	I-75	Pine Ridge Rd.		Interchange Improvement	FDOT FPN: 445296-2	Yes
102	Corkscrew Rd. N.	Wildcat Dr.	E. of Wildcat Dr.	Widen and Resurface	Collier County	Yes
103	Santa Barbara Blvd.	Green Blvd.		Minor Intersection Improvement	Collier County	Yes
104	I-75	Collier Blvd. (SR 951)		Interchange Improvement	FDOT FPN: 4258432	Yes
105	Whippoorwill Lane Marbella Lakes Drive Connection	Stratford Ln.	Marbella Lakes Dr.	New Two-Lane Facility	Collier County	Yes
106	SR 82	Hendry/Collier County Line	Gator Slough Ln.	Widen from Two-Lanes to Four-Lanes	FDOT FPN: 4308481	Yes

Sources: FDOT Collier County Five Year Work Program FY 2019-2023, Collier County AUIR Five Year Work Program FY 2019-2023, Collier County One-Cent Sales Surtax Website

^a Collier One-Cent Sales Surtax Transportation Project

Note:

FPN = Financial Project Number

Figure 4-2. 2045 Existing Plus Committed (E+C) Project Map

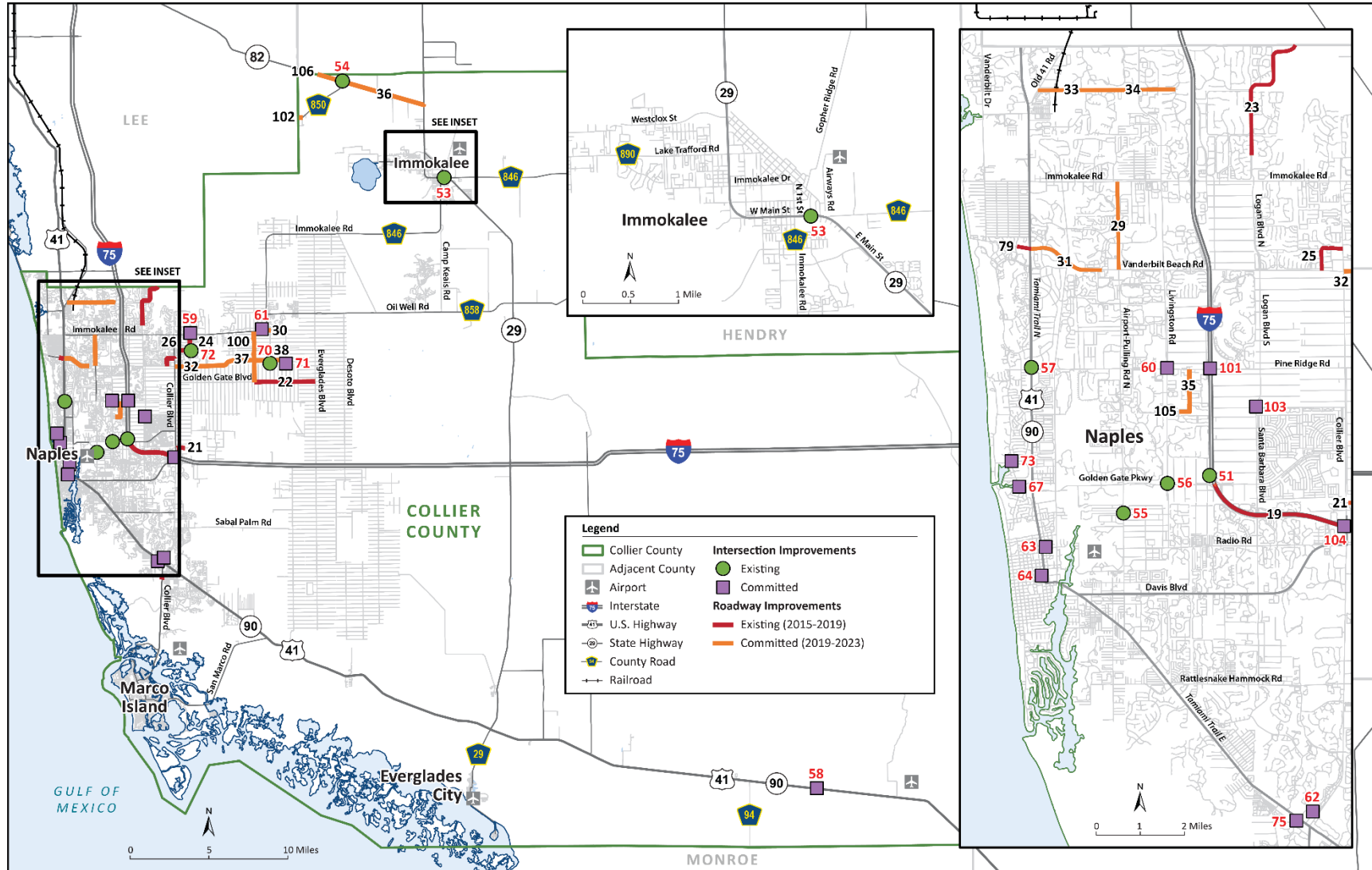
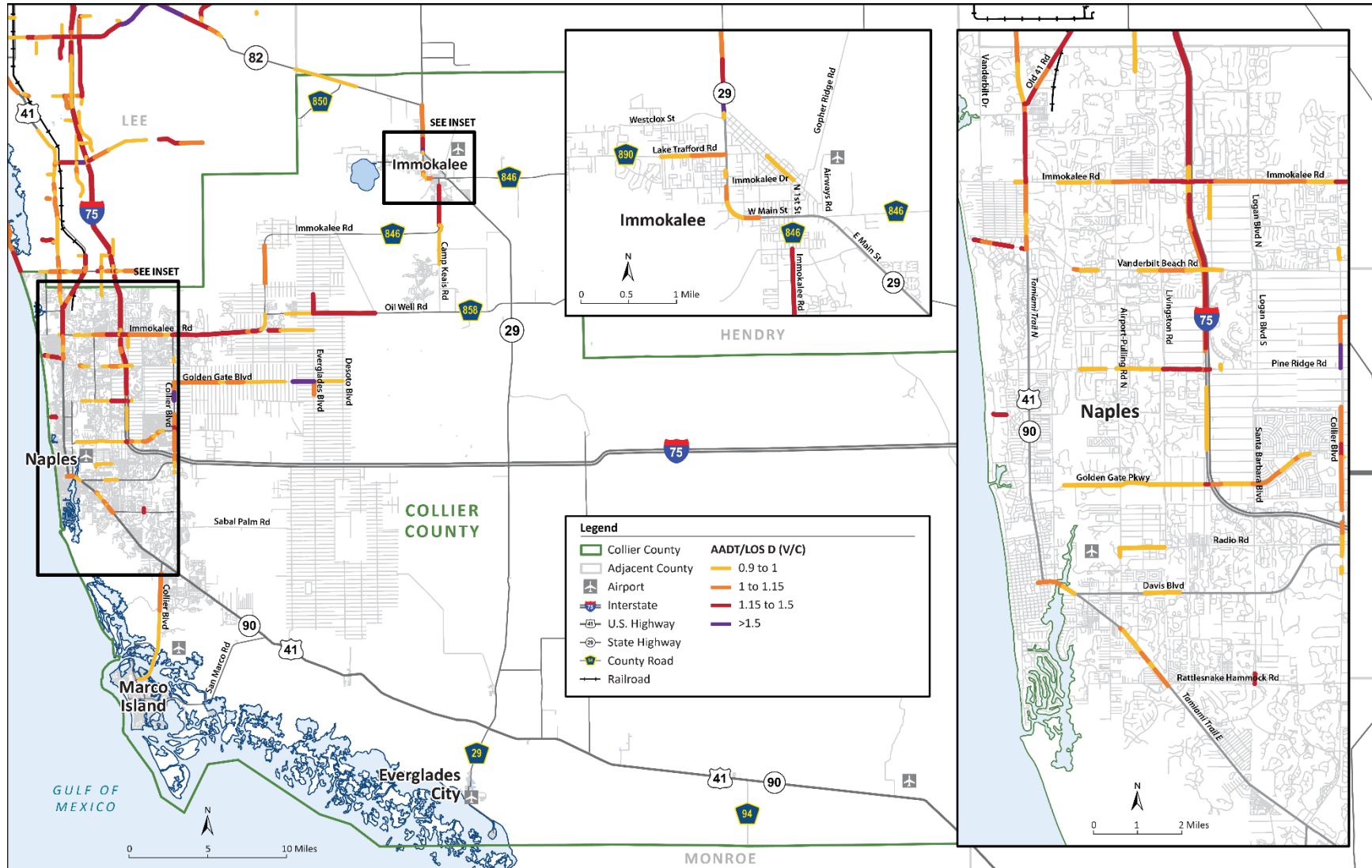


Figure 4-3. 2045 E+C Travel Network Congestion Map



Other Roadway Needs Considerations

Once the initial list of roadway projects needs was developed based on the E+C roadway deficiency modeling, other roadway-related needs data were evaluated to develop a more comprehensive project needs list. Considerations included review of existing planning studies, freight needs, and congestion management strategies, which included safety issues and Transportation Systems Management and Operations (TSM&O).

Existing Planning Studies

The MPO reviewed the existing County planning studies described below to identify potential projects eligible for the roadway Needs Plan. These studies were recently completed or are currently underway.

Randall Boulevard/Oil Well Road Study Area

The County completed a corridor study to evaluate potential roadway network improvements near Randall Boulevard and Oil Well Road. The study evaluated several corridor alternatives to enhance traffic operations and safety conditions based on current and future travel demands. On May 14, 2019, the Collier BCC voted to approve the staff recommendation to expand Randall Boulevard (between 8th Street and Everglades Boulevard) to six lanes, Randall Boulevard (between Everglades Boulevard and Desoto Boulevard) to four lanes, and Everglades Boulevard (between Oil Well Road and Randall Boulevard) to four lanes.

CR 951 Congestion Relief Study

This study is intended to identify an alternative travel route to the existing CR 951 (Collier Boulevard) corridor because of forecasted high congestion levels by 2045. The preliminary study area extends east of CR 951 from City Gate Boulevard North at its northern limit to Benfield Road on its eastern limit

and to US 41 at its southern limits. Potential alternative solutions include multiple travel routes, improvements to CR 951, a no-build option, and evaluation of other alternative planning strategies to alleviate future congestion on CR 951.

Immokalee Road Corridor Congestion Study

The Immokalee Road (CR 846) Corridor Congestion Study is evaluating the future levels of congestion along the Immokalee Road Corridor between Livingston Road and Logan Boulevard. Potential improvements will be considered at the main intersections along the corridor which include:

- Conventional “At-Grade” Improvements (widening)
- Continuous Flow Intersections
- Jug Handle
- Single Point Urban Interchange
- Restricted Crossing U-Turn
- Diverging Diamond Interchange at I-75

The study is expected to be completed in the spring of 2021.

East of CR 951 Bridge Reevaluation Study

In August 2008, the County conducted the East of CR 951 Infrastructure and Services Horizon Study to evaluate missing bridge connections based on system-wide infrastructure needs that considered transportation circulation, access management, schools, parks, law enforcement, emergency services, fire, libraries, storm water management, and public utilities. The study’s stakeholders identified 12 preferred canal crossing locations and ranked the bridges based on criteria related to mobility, service efficiency, and emergency response. The new bridges would be strategically located throughout the Golden Gate Estates area to reduce trip lengths and travel demand on already congested collector roadways and to provide the greatest opportunity to reduce response time for first responders. In 2018, County voters approved a 1-cent

infrastructure surtax that included specifically earmarked funding for constructing the new bridges.

In 2019, the County completed construction of a new bridge on 8th Street with funding from FDOT. The County has also programmed construction of a new bridge on 16th Street in the Five Year Work Program with funds from the infrastructure surtax proceeds. The surtax funds will be available to construct the remaining 10 bridges within the next 7 years.

The remaining 10 bridges are the subject of the 2020 East of CR 951 Bridge Reevaluation Study, which is being performed to reconfirm the validity of the remaining 10 recommended bridge locations before moving the remaining bridge projects into production. **Table 4-2** presents the bridge locations.

Table 4-2. East of CR 951 Bridge Reevaluation Study Bridges

Map ID ^a	New Bridge Projects
81	47th Ave. NE (between Immokalee Rd. & Everglades Blvd.)
82	Wilson Blvd. N (south of 33rd Ave NE)
83	18th Ave. NE (between Wilson Ave & 8th St. NE)
84	18th Ave. NE (between 8th St. NE & 16th St. NE)
85	North End of 13th St. NW (north of Golden Gate Blvd.)
86	16th St. SE (south of Golden Gate Blvd.)
87	10th Ave. SE (between Everglades Blvd. and Desoto Blvd.)
88	Wilson Blvd. S (south of Golden Gate Blvd.)
89	62nd Ave. NE (between Everglades Blvd. and 40th St. NE)
115	23rd St. SW (south of Golden Gate Blvd.)

^a Refer to Figure 4-9

Freight

The Collier Freight Network is defined in the Collier MPO 2040 LRTP Freight Congestion Considerations Technical

Memorandum (Renaissance Planning 2015) as including limited-access facilities, regional freight mobility corridors, and freight distribution routes.

Collier County's freight transportation network system consists of numerous freight mobility corridors and freight distribution routes that support the state and regional economy. Rail access to the County is limited to a 1-mile section of the Seminole Gulf Railway in the far northwest corner of the County. In addition to providing traditional rail freight transportation, the rail line supplies regional trucking and logistical services, as well as warehousing and distribution from its distribution center located in North Fort Myers.

Review of truck traffic volumes in the FDOT Florida Traffic Online site (FDOT 2020g) reveals that volumes are greatest along the portion of I-75 north of Immokalee Road where trucks comprise more than 8 percent of total AADT. Truck traffic volumes show that this section has daily truck volumes exceeding 8,500 per day. The portion of I-75 between Pine Ridge Road and north of Immokalee Road has truck volumes exceeding 7,500 per day and trucks make up between 8 to 10 percent of the total AADT. The highest daily truck traffic along SR 29 is just north of Immokalee (Westclox Street) at 2,108 AADT, which makes up approximately 16 percent of the total AADT. Along New Market Road in Immokalee from SR 29 to Westclox Street, truck traffic makes up approximately 13 percent of the total AADT.

Limited-Access Facilities

I-75 is the only limited-access facility within the County and is a major element of the Florida SIS. It serves as the primary transportation facility connecting Collier County with its immediate neighboring counties, the rest of Florida, and the NHS. It also serves as a major commuter corridor.

Regional Freight Mobility Corridors

The regional freight mobility corridors function as connectors between limited-access facilities and regional freight activity centers.

Within the County, the regional freight mobility corridors consist of:

- SR 29 (I-75 to Hendry County Line)
- SR 82 (SR 29 to Hendry County Line)
- SR 84/Davis Boulevard (US 41 to I-75)
- US 41 (SR 84/Davis Boulevard to Lee County Line)

Freight Distribution Routes

Freight distribution routes serve to distribute truck traffic to local delivery areas. These include state roadways and other local roadways designated in local truck route ordinances at the county and municipal levels. The freight distribution routes within the County consist of:

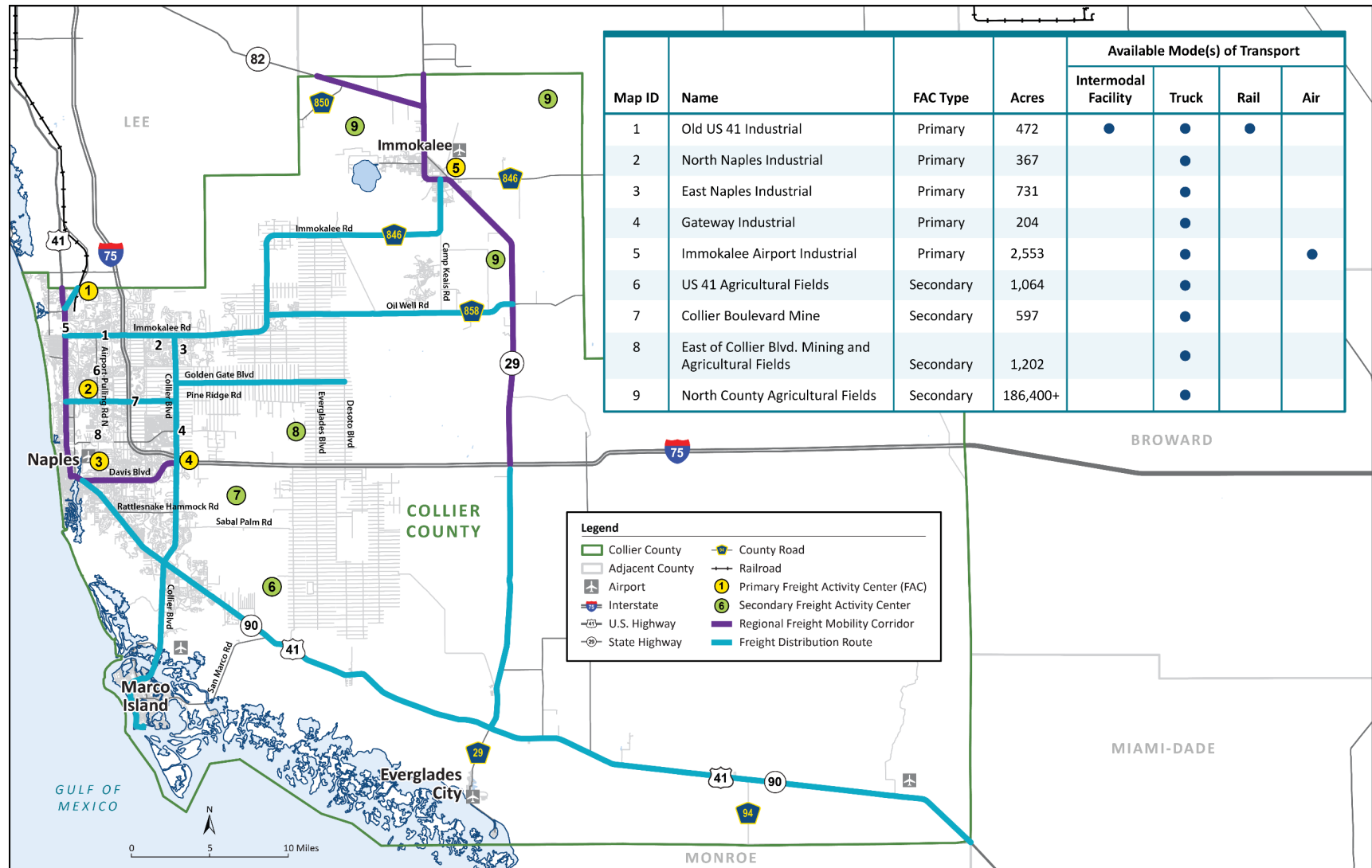
- SR 29 (US 41 to I-75)
- CR 951/Collier Boulevard (Marco Island to US 41)
- CR 951/Collier Boulevard (US 41 to CR 846/Immokalee Road)

- CR 858/Oil Well Road (CR 846/Immokalee Road to SR 29)
- CR 846/Immokalee Road (US 41 to SR 29)
- Golden Gate Boulevard (CR 951/Collier Boulevard to DeSoto Boulevard)
- CR 896/Pine Ridge Road (US 41 to CR 951/Collier Boulevard)
- US 41 (SR 84/Davis Boulevard to Dade County Line)
- Old US 41 (US 41 to Lee County Line)

Freight Activity Centers

The northwestern portion of the County has been identified in the FDOT *Freight Mobility and Trade Plan* (FDOT 2020b) as a low to medium freight activity hotspot within Florida. These hotspots distribute or attract large amounts of freight activities and have a significant impact on Florida's transportation system and economy. There are two types of freight activity centers (FACs) located in the County: primary and secondary (refer to **Figure 4-4**). Primary FACs are large industrial and manufacturing areas that send or receive freight in large quantities or for further distribution to the consumer market. Secondary FACs include significant mining and agricultural operations, which sometimes have intermittent or seasonal demands. There are five primary and four secondary FACs within the County.

Figure 4-4. Freight Network and Activity Centers



While the Old US 41 Industrial area has limited rail service, it is the only FAC in the County with the potential for intermodal rail activities and should be preserved for future freight-related development as economic conditions warrant.

Additionally, a 60-acre zone in and around the Immokalee Airport is designated as a Foreign Trade Zone (Collier County 2020b). With convenient access to SIS facilities including SR 29, SR 82, and I-75, the Immokalee Airport is well-suited for existing and future intermodal air-cargo/truck activities. SR 29 and New Market Road in Immokalee are the main corridors for regional and local truck traffic. New Market Road provides direct access to and from agribusiness/commercial areas of Immokalee and the State Farmer's Market. Consequently, truck traffic through downtown Immokalee via SR 29 and through the residential area along New Market Road has had a negative impact on the community. FDOT's proposed improvements along SR 29 from Oil Well Road to SR 82 (FPID 417540) include an alternative route for regional truck traffic to not only enhance the livability of downtown Immokalee and improve access for local traffic, but to improve the circulation of freight in the area.

Congestion Management

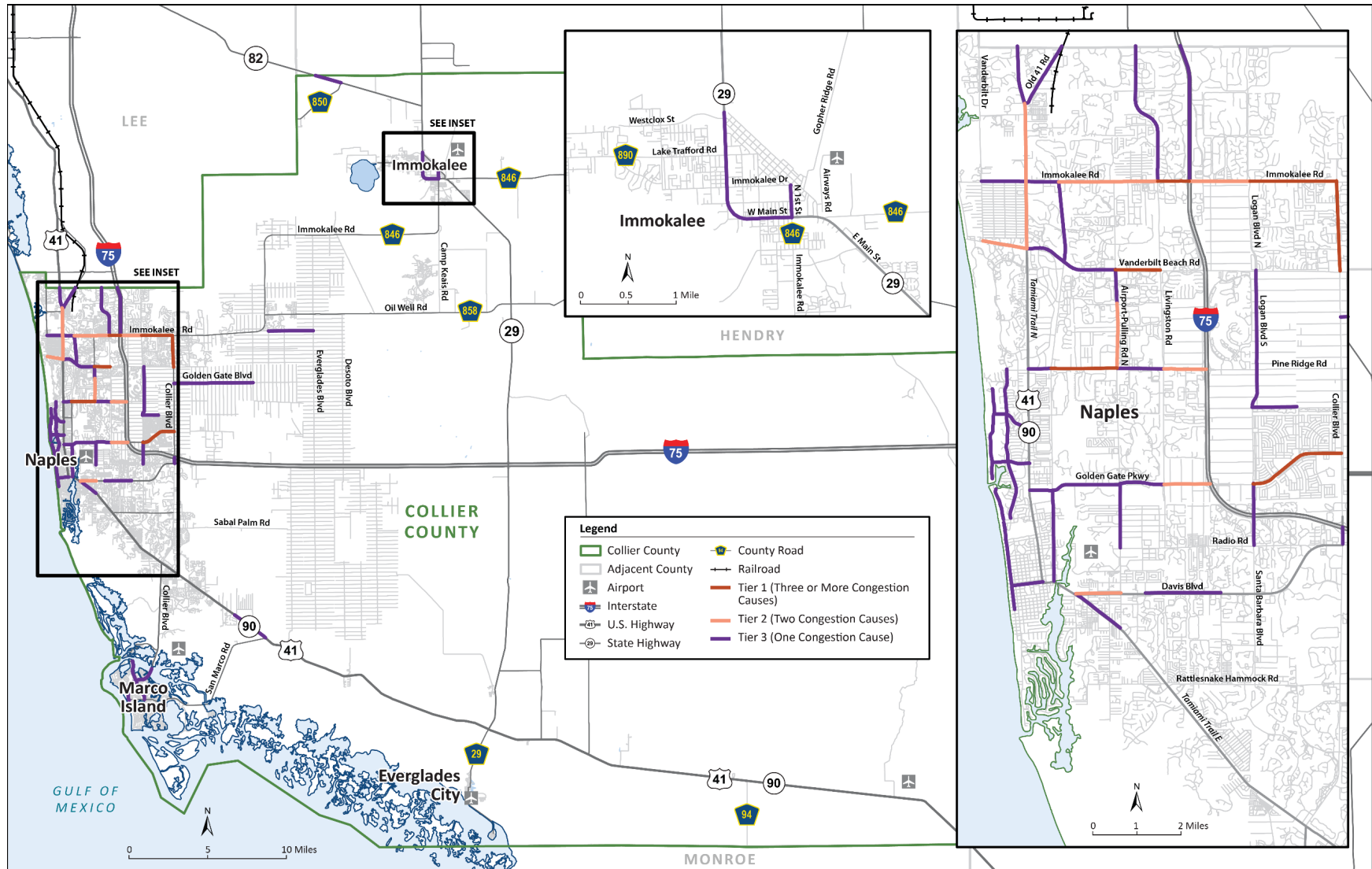
The Collier MPO is federally mandated to implement a Congestion Management Process (FHWA 2020). A CMP is developed to improve traffic flow and safety conditions. As discussed in Chapter 1, the Collier MPO CMC is responsible for creating and amending the CMP and for prioritizing candidate congestion management projects to be funded with federal and state funding. As presented on [Figure 4-5](#), the CMP is a detailed eight-step process that an urban area follows to improve the performance of its transportation system by reducing the negative impacts of traffic congestion.

The Collier MPO *Transportation System Performance Report (TSPR) and Action Plan Baseline Condition Report* (Collier MPO 2020a) provides an evaluation of existing and future congestion issues in the County and associated municipalities. [Figure 4-6](#) presents congestion hot spot locations in the County that were assessed for congestion management strategies in the TSPR. The hot spot locations were sorted into three tiers to identify which of the hot spot locations had the most causes of congestion.

Figure 4-5. Congestion Management Process Eight-Step Framework



Figure 4-6. TSPR Congestion Hot Spot Locations



Tier 1 represents road segments influenced by three or more congestion causes, Tier 2 represents road segments influenced by two congestion causes, and Tier 3 in represents road segments influenced by one congestion cause. Sources of congestion included school congestion, safety, V/C ratio, speed, and public comments.

Safety Issues

The Collier MPO *TSPR and Action Plan Baseline Condition Report*, along with the Collier MPO *Local Road Safety Plan* companion study, further identified the top intersection and roadway segment crash locations that were based on an analysis of the top 20 highest frequency and 20 highest rate locations of crashes between 2014 and 2018. **Table 4-3** presents the top roadway segments crash locations. During the development of the TSPR, new CMP strategies were identified and added to the existing strategies list based on the analysis conducted in the *TSPR Baseline Condition Report*, which identified causes and locations of congested corridors, and the *TSPR and Action Plan, Action Plan* (Collier MPO 2020b), which analyzed and identified congestion mitigation strategies for the specific corridors. A major addition to these congestion mitigation strategies involved safety strategies that included:

- Signage and pavement markings (e.g., special emphasis crosswalks, yield/stop for pedestrian signs, advanced street signs)

- Visibility and sightline improvements
- New and upgraded street lighting
- Traffic control devices (for example, left-turn signals, variable message signs, pedestrian hybrid beacons)
- New and upgraded existing bicycle and pedestrian crossings

The mapping analysis of crash data from 2014 to 2018 for the LRTP update is presented in **Appendix C**. The map presents total crash locations between 2014 to 2018, as well as crash locations where a fatality by vehicle, including a pedestrian, or bicyclist occurred.



Table 4-3. TSPR Top Road Segment Crash Locations (2014–2018)

On Street	From Street	To Street	Total Crashes	Length (miles)	AADT	Crash Rate ^a	Top 20 Crash Frequency ^b or Rate Location
Golden Gate Pkwy	Santa Barbara Blvd.	Collier Blvd.	559	2.21	27,496	5.048	Both
I 75	Broward County Line	SR 29	470	29.13	22,000	0.402	Frequency
Airport Rd.	Pine Ridge Rd.	Orange Blossom Dr.	455	1.45	34,686	4.943	Both
Tamiami Trail East	Airport Rd.	Rattlesnake Hammock Rd.	453	1.69	47,814	3.074	Frequency
Airport Rd.	Radio Rd.	Golden Gate Pkwy.	405	1.43	44,008	3.534	Both
Immokalee Rd.	I 75	Logan Blvd.	402	1.37	38,245	4.210	Both
Tamiami Trail North	Immokalee Rd.	Vanderbilt Beach Rd.	396	1.51	35,925	4.005	Both
Golden Gate Blvd.	Collier Blvd.	Wilson Blvd.	381	5.03	25,481	1.630	Frequency
I 75	SR 29	SR 951	366	21.23	24,970	0.378	Frequency
Immokalee Rd.	Livingston Rd.	I 75	355	0.71	46,874	5.886	Both
Pine Ridge Rd.	Livingston Rd.	I 75	351	0.95	52,322	3.869	Both
I 75	Pine Ridge Rd.	Immokalee Rd.	331	4.27	35,295	1.203	Frequency
Immokalee Rd	Logan Blvd.	Collier Blvd.	331	1.94	89,362	1.048	Frequency
Golden Gate Pkwy.	Livingston Rd.	I 75	293	2.05	42,756	1.835	Frequency
Davis Blvd.	Lakewood Blvd.	County Barn Rd.	291	1.68	28,243	3.359	Frequency
Airport Rd	Golden Gate Pkwy.	Pine Ridge Rd.	290	2.59	46,556	1.316	Frequency
Tamiami Trail East	Rattlesnake Hammock Rd.	Treetops Dr.	280	2.45	37,428	1.674	Frequency
I 75	Immokalee Rd.	Lee County Line	278	3.06	99,582	0.501	Frequency

Table 4-3. TSPR Top Road Segment Crash Locations (2014–2018)

On Street	From Street	To Street	Total Crashes	Length (miles)	AADT	Crash Rate ^a	Top 20 Crash Frequency ^b or Rate Location
Immokalee Rd.	Collier Blvd.	Wilson Blvd.	271	5.10	29,259	0.995	Frequency
Tamiami Trail North	12th Ave N	Goodlette-Frank Rd. S	269	1.66	51,500	1.727	Frequency
Radio Rd.	Livingston Rd.	Santa Barbara Blvd.	250	1.99	18,398	3.742	Rate
Santa Barbara Blvd.	Golden Gate Pkwy.	Green Blvd.	215	1.71	20,314	3.391	Rate
Airport Rd.	Davis Blvd.	North Rd.	198	0.52	43,551	4.819	Rate
Collier Blvd.	Golden Gate Pkwy.	Green Blvd.	177	1.04	27,271	3.420	Rate
Pine Ridge Rd.	Goodlette-Frank Road	Shirley St.	165	0.67	36,418	3.733	Rate
Immokalee Rd.	Stockade Rd.	SR 29	157	1.52	6,949	8.155	Rate
Lake Trafford Rd.	Carson Rd.	SR 29	93	1.00	8,650	5.874	Rate
Immokalee Drive	N 29th St.	Charlotte St.	91	1.97	6,200	4.074	Rate

^a Crash rate expressed as the number of crashes per 100 million vehicle miles of travel (AADT x Length) for the 5-year reporting period.

^b Frequency is defined as the number of crashes occurring within a specific jurisdiction, on a roadway segment, or at an intersection.

Transportation System Management and Operations

The combination of technology and operational strategies is called TSM&O. These multimodal strategies are designed to maximize the efficiency, safety and use of existing and planned transportation infrastructure. TSM&O include Transportation System Management (TSM) approaches and ITS technologies that are noted in the Collier MPO *Congestion Management Process 2017 Update* (Adopted October 13, 2017) (Collier MPO 2017) as effective strategies to mitigate congestion. TSM strategies are a low-cost but effective way to reduce congestion particularly for:

- Intersection and signal improvements
- Special events management strategies
- Incident management

ITS projects are effective in maximizing a transportation system's efficiency. Based on the Collier MPO *CMP 2017 Update*, candidate ITS projects in Collier County include:

- Those which are consistent with FDOT's current ITS Regional Architecture
- Updates to existing equipment and software deployed in the region
- Improved incident management
- Enhancements to City of Naples, Collier County Traffic Operations/Management Centers (TOCs), including studies and implementing their recommendations
- Improved use of social media and public information technologies

Further, the 2017 CMP Update noted the following ITS performance measures:

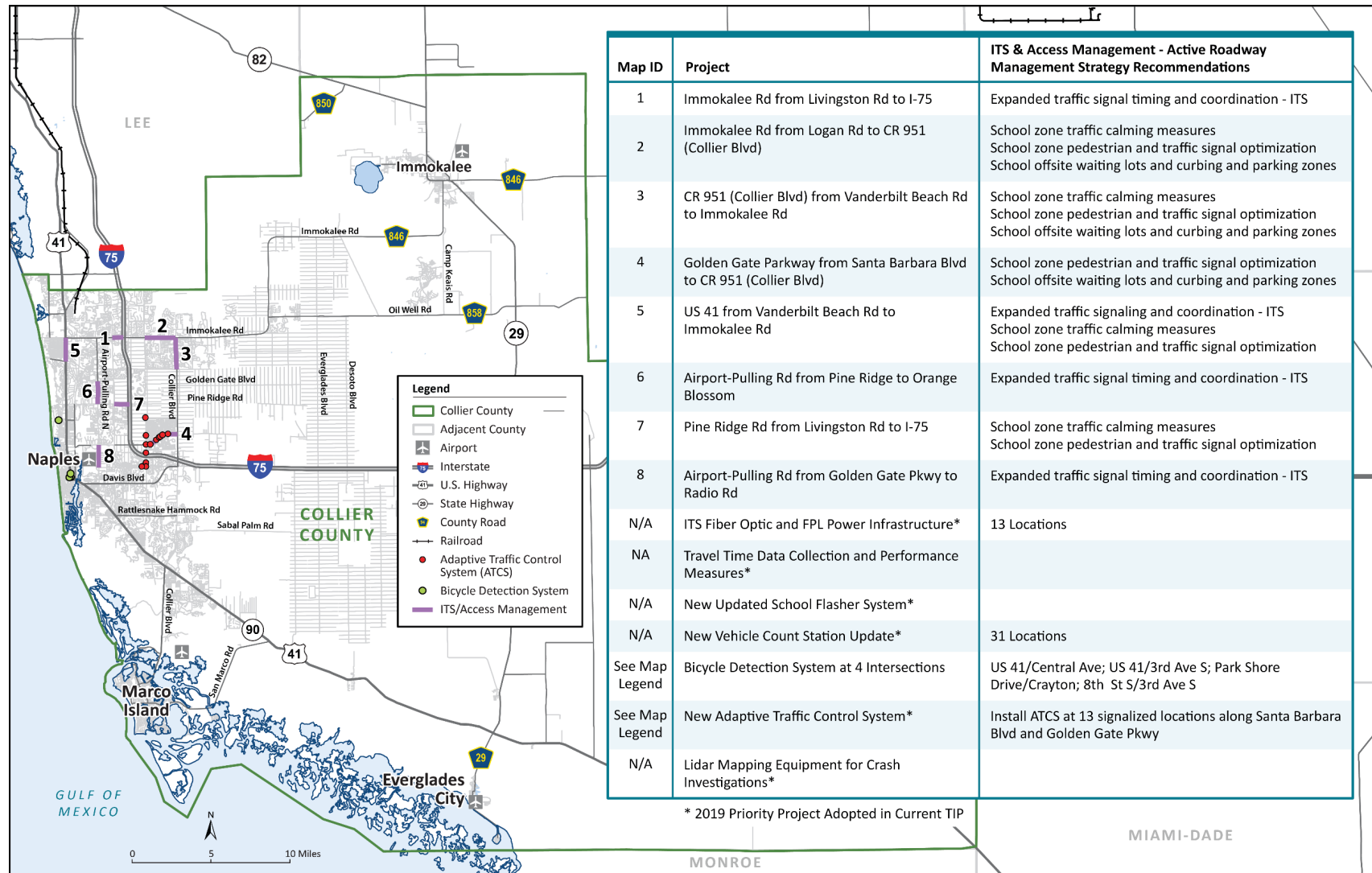
- Maintaining concurrency with FDOT Regional ITS Architecture and technological advances in TOC equipment and operations
- Increased number of signalized intersections connected to ITS
- Improved Travel Time Reliability

Within Collier MPO's jurisdiction, both the City of Naples and Collier County manage TOCs in close coordination with each other and with FDOT to remain in full compliance with the FDOT Statewide ITS architecture.

The TSPR identified several roadway facilities as candidates for ITS and active roadway management strategies. **Figure 4-7** summarizes the projects and associated recommendations along with projects adopted in the FY 2021–FY 2025 TIP (refer to **Appendix D**).

While these projects are part of the roadway needs, the LRTP-level modeling software (D1RPM) is not sensitive enough to determine if congestion is relieved through implementation of these strategies. Evaluation and prioritization of these projects is conducted by the MPO CMC using Strategy Evaluation Criteria that are used to screen project submittals for consistency with CMP goals, strategies, and congestion hotspots identified in the TSPR *Baseline Condition Report* (refer to Figure 4-6).

Figure 4-7. 2019 and 2020 CMP ITS/Active Roadway Management Projects



Both the CMP and the bicycle/pedestrian planning process strongly consider crash data as an important component of the project identification and selection process. As improvements are made to these facilities, special attention is placed on identifying solutions that enhance safety for motorists, pedestrians, and bicyclists. Traffic crashes are highly correlated with intersection locations, and consideration of operational and ITS improvements to major and minor intersections will address many of the high crash locations. Input from the LRTP into those continuing processes provides valuable guidance in the identification of safety-related improvements.

Ranking the Roadway Needs

Once a comprehensive list of the roadway project needs was developed, they were evaluated by scoring each project using defined goals and objectives, and the evaluation criteria described in Chapter 3. The evaluation provided a score for each project that was used to rank the needs projects from highest to lowest. During the process, adjustments were made to the rankings as more testing was done, or as information about projects schedules and commitments became known. Several projects were removed from the needs list and moved to the E+C category based on agency expectations that projects would be completed before the 2023–2045 planning timeframe. Projects were deleted if modeling indicated that they would not be beneficial.

The following subsections provide further details on the evaluation criteria scoring presented in Chapter 3. Additionally, it describes other considerations when evaluating the projects including natural environment impacts and mitigation strategies, risks to the transportation system due to

climate change, and future technology impacts to the transportation system including CAV.

Environmental Considerations



Transportation projects can significantly impact many aspects of the natural environment including wildlife and their habitats, wetlands, and groundwater resources. Where impacts cannot be completely avoided, impacts minimization, mitigation or conservation efforts are

required. The Collier MPO is committed to principles of environmental stewardship and carefully examines potential impacts and mitigation efforts for each project under consideration. Environmental mitigation for transportation projects in the Collier Metropolitan Area is completed through a partnership between the Collier MPO, its member jurisdictions, FDOT, state and federal environmental resource and regulatory agencies, and environmental preservation organizations.

Environmental mitigation is the process of addressing damage to the environment caused by transportation projects or programs. The process of mitigation is best accomplished through enhancement, restoration, creation, or preservation projects that help offset unavoidable environmental impacts. These activities are directed through Section 373, F.S., which establishes the requirements for mitigation planning as well as the requirements for permitting, mitigation banking, and mitigation requirements for habitat impacts. Impacts to habitat can be mitigated through a variety of options, which include mitigation banks and mitigation through the Water Management District(s) and the Florida Department of Environmental Protection (FDEP).

Table 4-4 lists environmental mitigation strategies that are considered when addressing environmental impacts from future projects.

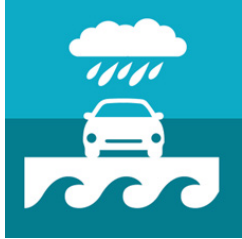
Table 4-4. Mitigation Strategies

Resource/Impacts	Potential Mitigation Strategy
Wetlands and Water Resources	<ul style="list-style-type: none"> • Restore degraded wetlands • Create new wetland habitats • Enhance or preserve existing wetlands • Improve stormwater management • Purchase credits from a mitigation bank
Forested and Natural Areas	<ul style="list-style-type: none"> • Use selective cutting and clearing • Replace or restore forested areas • Preserve existing vegetation
Habitats	<ul style="list-style-type: none"> • Construct underpasses, such as culverts • Implement other design measures to minimize potential fragmenting of animal habitats
Streams	<ul style="list-style-type: none"> • Perform stream restoration • Create vegetative buffer zones • Enforce strict erosion and sedimentation control measures
Threatened or Endangered Species	<ul style="list-style-type: none"> • Preservation • Enhance or restore degraded habitat • Create new habitats • Establish buffer areas around existing habitat

As part of the ranking process, an evaluation of the potential impacts to wildlife, habitat, and wetlands was conducted for each project in the needs network. The U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory database and their panther habitat maps served as a source to estimate the amount of environmental impacts for each project. Impacts to habitat and wetlands were reflected by giving a negative score for each impact, ranging from -1 (least negative impact) to -5 (most negative impact). Projects were scored based on their degree of impact to panther habitat and wetland impacts. The Collier MPO 2045 LRTP Update *Project Cost Development Methodology Technical Memorandum* (provided under separate cover) details how panther habitat and wetland impacts were estimated as well as the costs associated with potential mitigation.

In addition to the process outlined in the Florida Statutes and implemented by the MPO and its partner agencies, the FDOT Efficient Transportation Decision Making (ETDM) process is used to seek input on individual qualifying long-range transportation projects allowing for more specific commentary. This ensures that mitigation opportunities are identified, considered, and available as the LRTP is developed and projects are advanced. The ETDM screening process was applied to two qualifying projects identified in the 2045 LRTP Cost Feasible Plan, which further provided opportunity to engage on any sociocultural impacts as well. The two projects were added to the Environmental Screening Tool through coordination with the FDOT District One ETDM Coordinator in November 2020, and include Project No. 55 (SR 84 from Airport Pulling Road to Santa Barbara Boulevard) and Project No. 60 (US 41 from Immokalee Road to Old US 41).

Climate Change Vulnerability and Risks



Southwest Florida contains the largest area of tidally influenced public lands in the Gulf of Mexico and the fastest growing urban landscape in Florida. Both the human and natural components of the ecosystem are under increasing risk because of the threats of a growing

human population, sea level rise (SLR), and tropical cyclones. While all MPOs in Florida will be challenged with extreme change in weather events, each MPO's challenge is unique. Changing conditions can include increased inland flooding, SLR, increased frequency of severe storms with high winds and greater rainfall, increased duration of droughts and rapidly spreading fires, and economic recessions. These conditions will lead to more rapid degradation and decreased functional operability (or lifespan) of transportation facilities. The Collier MPO along with its partnering agencies are considering the unique challenges they face to better plan for ways to protect and preserve their infrastructure. Federal Regulation 23 CFR 450.306(b)(9) requires MPOs, in cooperation with the state and public transportation operators, to "improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation" in the long-range transportation planning process. Planning for resilience involves considering objectives and strategies in other planning areas, as shown on **Figure 4-8**.

Figure 4-8. Resiliency Planning Considerations



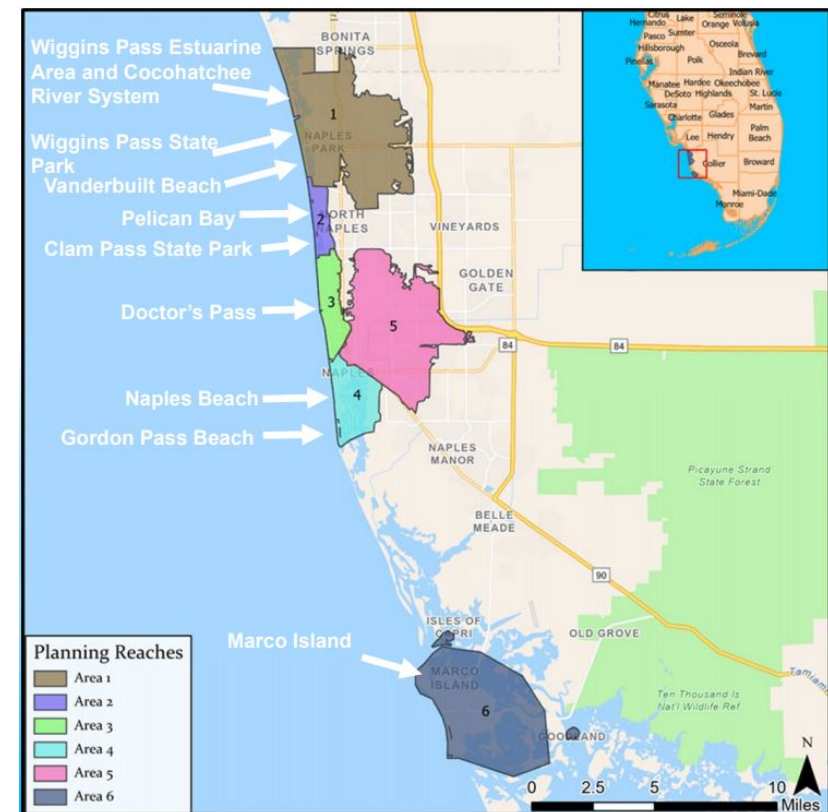
Source: FDOT 2020a

To better understand planning needs and potential actions to mitigate SLR, the County, City of Naples, City of Marco Island, and City of Everglades teamed with Florida Gulf Coast University and the University of Florida to sponsor a grant application from the National Centers for Coastal Ocean Science [a subsidiary of National Oceanic and Atmospheric Administration (NOAA)] for a 3-year study and modeling exercise related to the impacts of SLR and storm surge on Collier County. The Board approved a Resolution of Support for the project on September 13, 2016, and the NOAA grant was awarded. The ACUNE project (NOAA 2020b) began in June 2017 to develop a decision-support tool to aid resource managers, municipalities, and agencies in Collier County with decisions related to the preservation and restoration of

mangrove, marsh, and beach habitats; water management; and coastal planning, zoning, and land acquisition. However, the study was delayed because of the COVID-19 pandemic. A future LRTP update will include the results of the study and adjustments to the needs or cost feasible projects will be made as necessary.

The U.S. Army Corps of Engineers (USACE) Collier County Coastal Storm Risk Management Feasibility Study (USACE 2020), which began in October 2018 and is expected to be complete by September 2021, is developing, analyzing, and evaluating coastal storm risk management alternatives for the North Collier County (including Naples) and Marco Island study areas (covering both Gulf-facing shorelines and inland bay areas). The study divided the County into 6 primary planning reaches based on hydrologic boundaries and existing County project limits (reference [Figure 4-9](#)). The USACE study estimates that relative SLR in the study area will be between approximately 0.45 feet and 1.54 feet by 2045. The draft report was released on July 31, 2020, and presented a tentative resilience plan called a Tentatively Selected Plan that includes structural and nonstructural measures to reduce coastal storm risk and damage to the coastal areas of the County. Structural measures include six surge-barrier systems (miter and/or sluice gates), three tide gates (sluice gates), and three floodwalls, as well as approximately 9.5 miles of beach and dune fill. Nonstructural measures include acquisition and elevation of residential structures and floodproofing of commercial structures and critical infrastructure. The total project cost is estimated at \$4.8 billion and would take 50 years to complete.

Figure 4-9. USACE Collier County Coastal Storm Risk Management Feasibility Study Planning Reaches



Source: USACE 2020

For the purposes of the Collier MPO 2045 LRTP update, the NOAA Sea Level Rise Viewer (version 3.0.0)¹ tool was used to evaluate potential climate impacts to the Collier Metropolitan Area transportation network. The viewer provides a preliminary look at SLR and coastal flooding impacts. The tool is for screening-level evaluations and uses best-available, nationally consistent data sets and analyses. The SLR viewer

¹ <https://coast.noaa.gov/slr/#/layer/slr>

can be used at several scales to help estimate impacts and prioritize actions for different scenarios. While the data and maps provided by the tool illustrate the scale of potential flooding, the exact location of SLR and flooding is an estimate.

One area already experiencing the impacts of SLR is Goodland Drive (CR 92A) between Goodland and the City of Marco Island. Because of its low elevation, the existing roadway is frequently flooded during peak tides and storms, cutting off access to Goodland and damaging the pavement. Current mitigation strategies employed by the County include road raising and the addition of cross-drain pipes to allow tidal and storm flows to more easily pass from one side of the road to the other.

For the Collier MPO 2045 LRTP update, an intermediate high scenario was used to estimate SLR by 2045. [Appendix C](#) provides a map of potential SLR and coastal flooding by 2045. Projects that promote transportation infrastructure resiliency in the face of climate change and SLR were given a score of 5 if they were within 0.25 miles of potential 2045 flooding area and a score of 3 if they within 0.25 miles of a potential low lying area.

The *Collier MPO 2045 LRTP Transportation Network's Vulnerability to Climate Change White Paper* (provided under separate cover) presents further details on climate change vulnerability and risk, estimation of SLR impacts, and possible mitigation strategies.

Future Technology Considerations



The *FDOT Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use (ACES) Vehicles* (FDOT 2018a) notes that Florida MPOs are dealing with an unprecedented amount of potential change as they plan for their

transportation needs between now and 2045. Within their next planning horizon, MPOs need to decide how best to address the increasing deployment of ACES vehicles and complementary technologies.

The Society of Automotive Engineers developed framework for Levels of Automation as well as definitions for terms related to driving automation systems. Automation Levels range from Level 0 to Level 5. Level 1 through Level 3 require a human driver, but have some varying degree of automation, such as adaptive cruise control or lane assist. Levels 4 and 5 do not require a human driver and are fully automated.

Because emerging technologies have the potential to completely transform conventional transportation practices, it is important to understand the potential benefits and drawbacks of the various technologies. The key benefit to these emerging technologies is the potential to improve safety by reducing injuries and fatalities resulting from human error and distractions. However, ACES technologies also introduce a great deal of unknowns, such as costs, social inequities, and new planning requirements that make navigating policy difficult. [Table 4-5](#) presents potential positive and negative effects from these emerging technologies as noted in the FDOT ACES Guidance.

Table 4-5. Potential Positive and Negative Effects Resulting from ACES Technologies

Technology	Potential Negative Effect(s)	Potential Positive Effect(s)
Automated Vehicles	<ul style="list-style-type: none"> • Potential increase in VMT from empty vehicles • Changes in land use or urban form 	<ul style="list-style-type: none"> • Increased mobility for children, elderly or the disabled at potentially lower costs • Reduced parking demand • Changes in land use or urban form
Connected Vehicles	<ul style="list-style-type: none"> • Potential hacking of a transportation network 	<ul style="list-style-type: none"> • Potential increase in roadway capacities • New safety features • Improved congestion management
Electric Vehicles	<ul style="list-style-type: none"> • Decrease in transportation funding sources from reduction in motor fuel tax revenues 	<ul style="list-style-type: none"> • Potential reduction in air emissions (depending on energy sources used to generate electricity)
Shared-Use Vehicles	<ul style="list-style-type: none"> • Complete Street design challenges because of competition for limited curb space in urban areas 	<ul style="list-style-type: none"> • Opportunities for mobility hubs and new funding sources

The Florida Connected Vehicle Initiative includes multiple planning, design/implementation, and operational connected vehicle projects throughout the state (FDOT 2019d). While there are currently no projects or initiatives in Collier County, there is one project in neighboring Lee County: US 41 Florida's Regional Advanced Mobility Elements. The project is in the initial phases. The overall goal is to improve efficient operations of the traffic signals along the corridor, thereby improving mobility as well as provide information for connected vehicles. The project covers approximately 30 miles and 71 traffic signals and includes the following initiatives:

- Traffic signal controllers/cabinets upgrades
- Connected Vehicle Road Side Units deployment
- Pedestrian detection using LIDAR² detectors
- Deployment of Automated Traffic Signal Performance Measures

The 2045 LRTP includes multiple intersection projects along US 41 including at Immokalee Road, Goodlette-Frank Road, Collier Boulevard, Pine Ridge Road, and Golden Gate Parkway. Additionally, project no. 60 includes a study along a constrained portion of US 41 from Immokalee Road to Old US 41. All of these projects will benefit from lessons learned during the design and implementation of the FDOT-funded project to the north.

For the Collier MPO 2045 LRTP update, one CAV planning scenario was modeled by FDOT. As noted in FDOT's *Implementation of CAV into the D1RPM in Development of 2045 LRTP Updates White Paper* (FDOT 2020h), vehicles with Level 3 automation may represent 30 to 60 percent of the vehicle fleet by 2035 (refer to [Figure 4-10](#)). The FDOT D1RPM

² Light Detection and Ranging

Model Network included special-use lanes and ramps on I-75 in Lee and Collier counties. The CAV planning scenario assumed 35 percent of the vehicles on the MPO network were CAV and vehicle trips were separated into CAV and non-CAV trips. CAV trips were coded with special-use lanes that were used exclusively by CAV. The CAV scenario model output resulted in minor capacity improvements to the overall network in the Collier County area.

Projects that consider CAV technology in the future and included technologies, such as ITS, Transit Signal Priority, etc.,

were given a score of 5. If they did not include technological improvements, they were scored 0.

The *Collier MPO 2045 LRTP ACES White Paper* (provided under separate cover) presents further details on the future of CAV.

2045 Roadway Needs Results

Table 4-6 and **Figure 4-11** identify the 2045 roadway needs projects in tabular and graphical format, respectively. Roadway needs projects total to more than \$2.4 billion. The evaluation matrix for the ranking of the needs is presented in **Appendix E**.

Figure 4-10. SAE Automation Levels

Source: USDOT (2018)

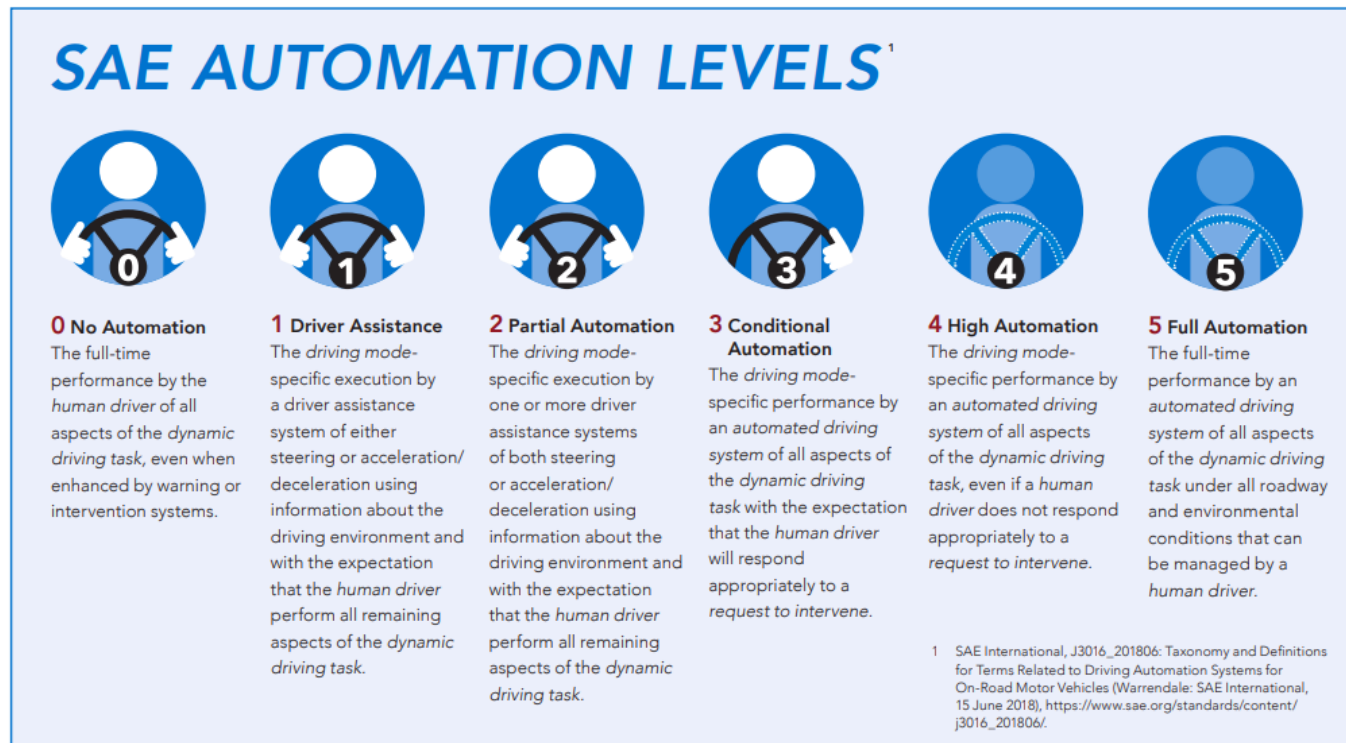


Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
1	51	Benfield Rd. Extension	The Lords Way	City Gate Blvd. N	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
2	41	Benfield Rd.	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake Hammock Extension	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
3	72	Big Cypress Pkwy.	Green Blvd.	Golden Gate Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
4	70	Big Cypress Pkwy.	Golden Gate Blvd.	Vanderbilt Beach Road Ext.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
5	71	Big Cypress Pkwy.	Vanderbilt Beach Rd. Extension	Oil Well Rd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
6	82	Big Cypress Pkwy.	Oil Well Rd.	Immokalee Rd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
7	62	Camp Keais Rd.	Pope John Paul Blvd.	Oil Well Rd.	Roadway Capacity	Widen from Two to Four Lanes
8	80	Camp Keais Rd.	Immokalee Rd.	Pope John Paul Blvd.	Roadway Capacity	Widen from Two to Four Lanes
9	1	Collier Blvd. (CR 951)	Golden Gate Main Canal	Green Blvd.	Roadway Capacity	Widen from Four to Six Lanes
10	21	CR 951 Extension	Collier Blvd. (CR 951) (northern terminus)	Lee/Collier County Line	Roadway Capacity	New 2-Lane Road
11	34	Everglades Blvd.	Randall Blvd.	South of Oil Well Road	Roadway Capacity	Widen from Two to Four Lanes
12	35	Everglades Blvd.	Vanderbilt Beach Rd. Extension	Randall Blvd.	Roadway Capacity	Widen from Two to Four Lanes

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
C1	54	Connector Roadway from I-75 Interchange (New)	Golden Gate Blvd.	Vanderbilt Beach Rd. Extension	Roadway Capacity	Four-Lane Connector Roadway from New Interchange (Further Study Required)
C2	63	Connector Roadway from I-75 Interchange (New)	I-75 (SR-93)	Golden Gate Blvd.	Roadway Capacity	Four-Lane Connector Roadway from New Interchange (Further Study Required)
15	37	Golden Gate Blvd.	Everglades Blvd.	Desoto Blvd.	Roadway Capacity	Widen from Two to Four Lanes
16	58	Golden Gate Blvd. Extension	Desoto Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Four-Lane Road
17	31	Goodlette-Frank Rd.	Vanderbilt Beach Rd.	Immokalee Rd.	Roadway Capacity	Widen from Two to Four Lanes
18	66	Green Blvd.	Santa Barbara Blvd./ Logan Blvd.	Sunshine Blvd.	Roadway Capacity	Widen from Two to Four Lanes
19	27	Green Boulevard Extension (16th Ave. SW)	23rd St. SW	Wilson Blvd. Extension	Roadway Capacity	New Two-Lane (Future Study Area)
20	33	Green Boulevard Extension (16th Ave. SW)	Collier Blvd. (CR 951)	23rd St. SW	Roadway Capacity	New Four-Lane (Future Study Area)
21	42	Green Boulevard Extension (16th Ave. SW)	Wilson Blvd. Ext	Everglades Blvd.	Roadway Capacity	New Two-Lane Road
22	60	I-75 (SR-93) Interchange	Everglades Blvd.		Interchange	New Interchange

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
23	8	I-75 (SR-93) Interchange (modified)	Golden Gate Pkwy.		Interchange	Interchange Improvement
25	22	I-75 (SR-93) Interchange (modified)	Immokalee Rd.		Interchange	Interchange improvement (DDI proposed)
27	40	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd.		Interchange	New Interchange - Partial (to/from the north)
29	5	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd. (CR 951)	Collier/Lee County Line	Roadway Capacity	New Ten-Lane Express (Toll) Lanes
30	7	Immokalee Rd. (CR 846)	Camp Keais Rd.	Carver St.	Roadway Capacity	Widen from Two to Four Lanes
31	23	CR 846 E	SR 29	Airpark Blvd.	Roadway Capacity	Widen from Two to Four Lanes
32	81	Keane Ave.	Inez Rd.	Wilson Blvd. Extension	Roadway Capacity	New Two-Lane Road (Future Study Area)
33	50	Little League Rd. Extension	SR 82	Westclox St.	Roadway Capacity	New Two-Lane Road
34	65	Logan Blvd.	Green Blvd.	Pine Ridge Rd.	Roadway Capacity	Widen from Four to Six Lanes
35	52	Logan Blvd.	Vanderbilt Beach Rd.	Immokalee Rd.	Roadway Capacity	Widen from Two to Four Lanes
36	67	Logan Blvd.	Pine Ridge Rd.	Vanderbilt Beach Rd.	Roadway Capacity	Widen from Two to Four Lanes
37	38	Oil Well Road/CR 858	Everglades Blvd.	Oil Well Grade Rd.	Roadway Capacity	Widen from Two to Six Lanes

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
38	46	Oil Well Road/CR 858	Ave Maria Entrance	Camp Keais Rd.	Roadway Capacity	Widen from Two to Six Lanes
39	10	Old US 41	US 41 (Tamiami Trail E)	Lee/Collier County Line	Roadway Capacity	Widen from Two to Four Lanes
40	45	Orange Blossom Drive	Airport Pulling Rd.	Livingston Rd.	Roadway Capacity	Widen from Two to Four Lanes
41A	19	Randall Blvd. Intersection (flyover)	Immokalee Rd.		Interchange	Ultimate Intersection Improvement: Overpass
42	39	Randall Blvd.	8th St. NE	Everglades Blvd.	Roadway Capacity	Widen from Two to Six Lanes
43	59	Randall Blvd.	Everglades Blvd.	Desoto Blvd.	Roadway Capacity	Widen from Two to Four Lanes
44	61	Randall Blvd.	Desoto Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Four-Lane Road
45	44	Santa Barbara Blvd.	Painted Leaf Ln.	Green Blvd.	Roadway Capacity	Widen from Four to Six Lanes
46	56	SR 29	SR 82	Collier/Hendry Line	Roadway Capacity	Widen from Two to Four Lanes
48	49	SR 29	I-75 (SR 93)	Oil Well Rd.	Roadway Capacity	Widen from Two to Four Lanes
50	24	SR 29	New Market Road North/Westclox Street	North of SR 82	Roadway Capacity	Widen from Two to Four Lanes
51	13	SR 29/New Market Rd. W (New Road)	CR 846 E	New Market Rd. N	Roadway Capacity	New Four-Lane Road

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
52	3	SR 29	Agriculture Way	CR 846 E	Roadway Capacity	Widen from Two to Four Lanes
53	15	SR 29	Sunniland Nursery Rd.	Agriculture Way	Roadway Capacity	Widen from Two to Four Lanes
54	16	SR 29	Oil Well Rd.	Sunniland Nursery Rd.	Roadway Capacity	Widen from Two to Four Lanes
55	6	SR 84 (Davis Blvd.)	Airport Pulling Rd.	Santa Barbara Blvd.	Roadway Capacity	Widen from Four to Six Lanes
56	9	Collier Blvd. (SR 951)	South of Manatee Rd.	North of Tower Rd.	Roadway Capacity	Widen from Four to Six Lanes
57	4	US 41 (SR 90) (Tamiami Trail E) intersection	Goodlette-Frank Rd.		Major Intersection Improvement	Major Intersection Improvement
58	12	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd.	6 L Farm Rd	Roadway Capacity	Widen from Two to Four Lanes
59	11	US 41 (SR 90) (Tamiami Trail E) intersection	Collier Blvd. (SR 951)		Major Intersection Improvement	Major Intersection Improvement
60	14	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd.	Old US 41	Corridor Study	Further Study Required
62A	73	Vanderbilt Beach Rd. Extension	16th St.	Everglades Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
62B	73	Vanderbilt Beach Rd. Extension	Everglades Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
63	53	Westclox Street Extension	Little League Rd.	West of Carson Rd.	Roadway Capacity	New Two-Lane Road
65	32	Wilson Blvd.	Keane Ave.	Golden Gate Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
66	17	Immokalee Rd. (Intersection)	Livingston Rd.		Major Intersection Improvement	Major Intersection Improvement
67	57	Veterans Memorial Blvd. Extension	Strand Blvd.	I-75	Roadway Capacity	New Four-Lane Road
68	83	Big Cypress Pkwy. Intersection (new)	Oil Well Grade Rd.		Minor Intersection Improvement	New At-Grade Intersection
69	40B	Everglades Blvd.	Oil Well Rd. / CR 858	Immokalee Rd.	Roadway Capacity	Widen from Two to Four Lanes
70	68	Green Blvd. Extension	Everglades Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Two-Lane Road
73	20	Immokalee Rd. (CR 846) Intersection	Collier Blvd. (CR 951)		Major Intersection Improvement	Major Intersection Improvement
74	28	Immokalee Rd. (CR 846) Intersection	Wilson Blvd.		Major Intersection Improvement	Major Intersection Improvement
75	55	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd.		Interchange	New Partial Interchange
76	43	Vanderbilt Dr.	Immokalee Rd.	Woods Edge Pkwy.	Roadway Capacity	Widen from Two to Four Lanes

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
78	29	Golden Gate Pkwy. Intersection	Livingston Rd.		Major Intersection Improvement	Major Intersection Improvement
81	74	Bridge @ 47th Ave NE	West of Everglades Blvd.		New Bridge Project	New Bridge over Canal
82	75	Bridge @ Wilson Blvd.	South of 33rd Avenue NE		New Bridge Project	New Bridge over Canal
83	69	Bridge @ 18th Ave. NE	Between Wilson Blvd. N and 8th St. NE		New Bridge Project	New Bridge over Canal
84	76	Bridge @ 18th Ave NE	Between 8th St. NE and 16th St. NE		New Bridge Project	New Bridge over Canal
85	64	Bridge @ 13th St. NW	North Terminus at Vanderbilt Beach Rd. Extension		New Bridge Project	New Bridge over Canal
86	77	Bridge @ 16th St. SE	South Terminus		New Bridge Project	New Bridge over Canal
87	77	Bridge @ Location TBD - between 10th Ave. SE and 20th Ave. SE	East of Everglades Blvd.		New Bridge Project	New Bridge over Canal
88	48	Bridge @ Wilson Blvd. S	South Terminus		New Bridge Project	New Bridge over Canal
89	79	Bridge @ 62nd Ave NE	West of 40th St NE		New Bridge Project	New Bridge over Canal
115	N/A	Bridge @ 23rd St. SW	South of Golden Gate Blvd.		New Bridge Project	New Bridge over Canal

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
90	26	Pine Ridge Rd.	Logan Blvd.	Collier Blvd.	Roadway Capacity	Widen from Four to Six Lanes
93	32	Immokalee Rd.	Shady Hollow Blvd. E	Rural Village Rd. (new)	Roadway Capacity	Widen from Two Four Lanes
94	57	Rural Village Rd. (new)	Immokalee Rd.	Immokalee Rd.	Roadway Capacity	New Four-Lane Road
95	N/A	Golden Gate Pkwy. (Intersection)	Goodlette-Frank Rd.		Major Intersection Improvement	Major Intersection Improvement
96	N/A	Pine Ridge Rd. (Intersection)	Airport Pulling Rd.		Minor Intersection Improvement	Minor intersection improvements
97	N/A	Immokalee Rd. (Intersection)	Logan Blvd.		Major Intersection Improvement	Major Intersection Improvement
98	N/A	Vanderbilt Beach Rd. (Intersection)	Livingston Rd.		Minor Intersection Improvement	Minor intersection improvements
99	N/A	Vanderbilt Beach Rd. (Intersection)	Logan Blvd.		Minor Intersection Improvement	Minor intersection improvements
100	N/A	Collier Blvd. (Intersection)	Pine Ridge Rd.		Major Intersection Improvement	Major Intersection Improvement
101	N/A	Pine Ridge Rd. (Intersection)	Goodlette-Frank Rd.		Minor Intersection Improvement	Minor intersection improvements

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
102	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Vanderbilt Beach Rd.		Major Intersection Improvement	Major Intersection Improvement
103	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Pine Ridge Rd.		Major Intersection Improvement	Major Intersection Improvement
104	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Golden Gate Pkwy.		Major Intersection Improvement	Major Intersection Improvement
107	N/A	Golden Gate Pkwy.	Collier Blvd.		Major Intersection Improvement	Major Intersection Improvement
108	N/A	Vanderbilt Beach Rd.	Airport Pulling Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements
109	N/A	Immokalee Rd.	Goodlette-Frank Rd.		Major Intersection Improvement	Intersection Innovation/Improvements
110	N/A	Immokalee Rd.	Airport Pulling Rd.		Major Intersection Improvement	Intersection Innovation/Improvements
111	N/A	US 41	Immokalee Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements
112	N/A	Airport Pulling Rd.	Orange Blossom Dr.		Minor Intersection Improvement	Intersection Innovation/Improvements

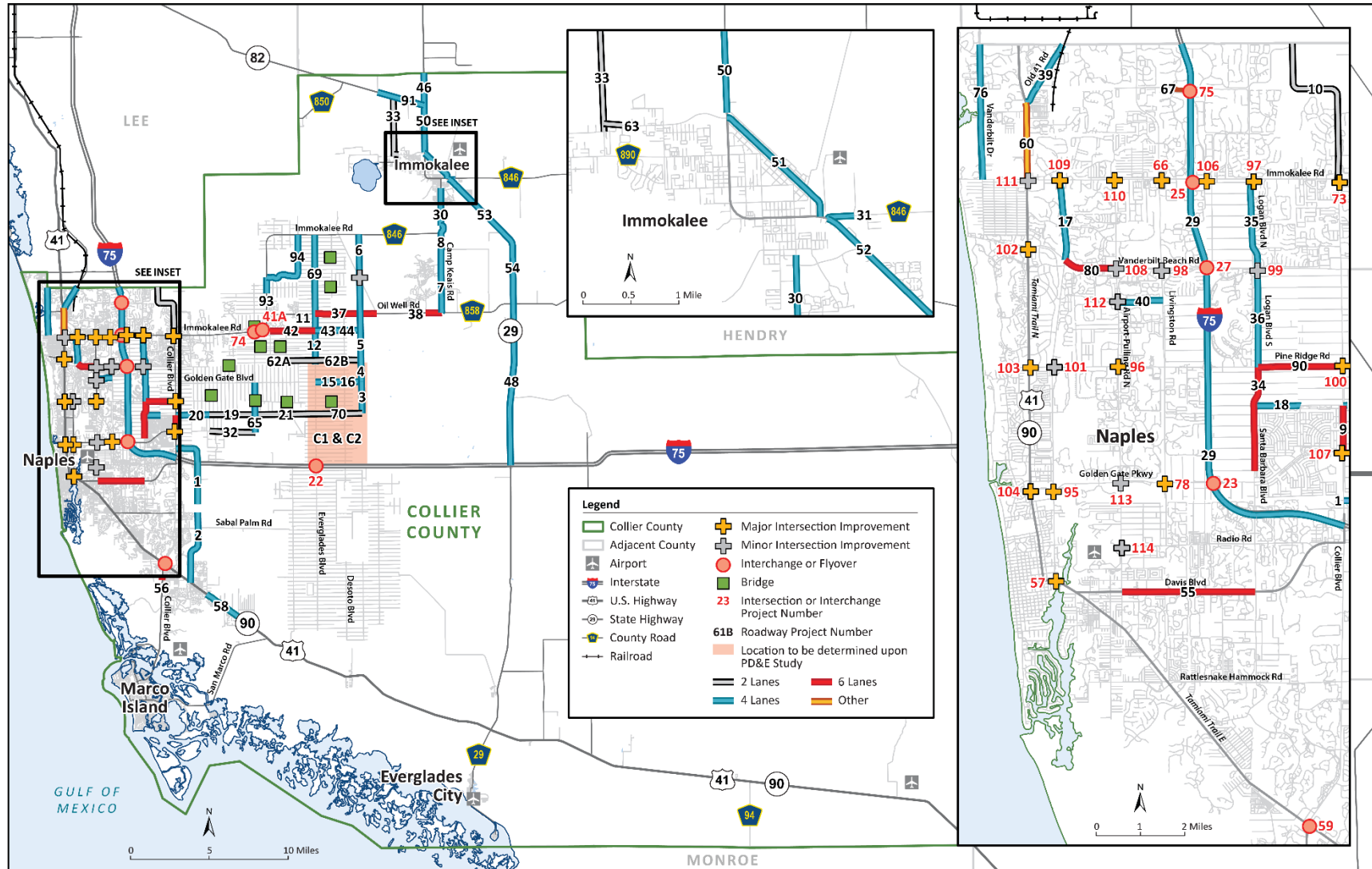
Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
113	N/A	Airport Pulling Rd.	Golden Gate Pkwy.		Minor Intersection Improvement	Intersection Innovation/Improvements
114	N/A	Airport Pulling Rd.	Radio Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements

Note:

DDI = diverging diamond interchange

Figure 4-11. 2045 Needs Plan Project Map



4-3 Bicycle and Pedestrian Needs

Pathways that consist of pedestrian and bicycle facilities are an important part of the County's transportation network. They facilitate access to public transportation and provide alternative mobility choices. In 2019, the Collier MPO and BPAC developed a *Bicycle/Pedestrian Master Plan* (BPMP) that addresses pedestrian and bicycle needs (Collier MPO 2019a). The BPMP is incorporated in the LRTP by reference.

The BPMP establishes policies for including bicycle and pedestrian facilities along all collector and arterial roads, formalizes the applicability of the Design Guidelines, adopts FDOT's Complete Streets policy, identifies high priority Complete Streets Corridors, and establishes MPO priorities for funding improvements. The policies also commit MPO staff to reporting to the MPO Board on performance measures and targets on an annual basis.

Vision, Goals, and Objectives

The BPMP's Vision, Goals, Objectives, and Strategies were developed with input from the MPO's advisory committees, the BPMP stakeholders group, Collier MPO staff, and the consultant, and were vetted by the MPO Board. The Vision combines an emphasis on safety with creating a network for the community to use and enjoy:

"To provide a safe and comprehensive bicycle and pedestrian network that promotes and encourages community use and enjoyment."

Goals and Strategies were developed by reviewing local, state, and national best practices and goals in similar plans including the Collier MPO 2012 *Comprehensive Pathways Plan* (RWA, Inc. 2012). The 2019 BPMP is similar to the 2012 *Comprehensive Pathways Plan* but places greater emphasis on

safety, equity, and community health. The goals became the basis for the development of strategies, policies, and project prioritization criteria and are as follows:

- **Safety.** Increase safety for people who walk and bicycle in the County.
- **Connectivity.** Create a network of efficient, convenient bicycle and pedestrian facilities in the County.
- **Equity/Livability.** Increase transportation choice and community livability through development of an integrated multimodal system.
- **Health.** Increase total miles of bicycle and pedestrian facilities and encourage local governments to incorporate Complete Streets principles in road planning, design, and operations.
- **Economy.** Promote tourism and economic opportunities by developing a safe, connected network of biking and walking facilities.
- **Environment.** Protect the environment by promoting walking and bicycling for transportation to reduce congestion, reduce the need for costly expansion of road and highway systems, and reduce our nation's dependence on foreign energy sources.

To address the issue of equity in terms of providing equal access to bicycle and pedestrian facilities countywide, the MPO's previous identification of Environmental Justice (EJ) communities was updated. The EJ criteria used for the BPMP were minority status, poverty, no access to a vehicle, and limited ability to speak English. EJ community areas were defined as areas where the criteria were 10 percent greater than the County average. The areas were ranked "Low", "Medium", "High", or "Very High" based on how many EJ

factors overlapped within them. **Appendix C** presents the EJ Community Area map.

Identification of Network Needs

The BPMP developed bicycle and pedestrian priorities by first identifying gaps and needs on collector and arterial roads in the region using the following six-step identification process:

1. **Plans Review** – Review of local plans and documents that address bicycle and pedestrian issues and opportunities. Locally adopted plans and formal studies are incorporated by reference into the BPMP so that the projects identified within them are eligible for MPO funding. Examples include the *City of Naples Downtown Circulation and Connectivity Plan*, the *Marco Island Bike Path Master Plan*, and two plans currently in process: the Everglades City Bicycle and Pedestrian Master Plan and the City of Naples Pedestrian and Bicycle Master Plan update.
2. **Inventories** – The Collier MPO entered into an agreement with the Naples Pathway Coalition (NPC) during the development of the BPMP to develop a joint bicycle facilities map in partnership with NPC and the City of Naples Community Services Department. Additionally, the Collier MPO's 2017 bicycle and pedestrian facilities inventory maps were reviewed and commented on by local agencies, stakeholders, and the community through an extensive public outreach effort, resulting in multiple revisions of the map. The joint map was completed and published in November 2018. Going forward, NPC agreed to serve as the recipient of comments regarding the joint map's accuracy, and the Collier MPO agreed to maintain and update the associated geographic information system (GIS) files on an as-needed basis.
3. **Public Input** - The Collier MPO posted an interactive map on its website that generated nearly 400 comments. Comments were used to develop an overlay map for project review.
4. **Crash and EJ Community Data** – An analysis of crash data indicated concentrated bicycle and pedestrian crashes near land uses related to tourism and services or in relation to EJ community areas. The combination of these two factors—bicycle and pedestrian crash clusters and EJ communities—proved to be a useful marker for the needs of low-income, minority, and immigrant populations.
5. **Network Configuration** - Collier MPO staff worked closely with the MPO advisory committees and agency staff and considered public comment in the process of articulating design and planning policies related to roadways.
6. **Gap and Needs Analysis** - Using GIS data, the needs analysis included overlaying the collected data, public input, and draft policies to identify missing links and segment deficiencies in the bicycle/pedestrian network. Throughout the process, monthly updates on the needs were provided to the advisory committees and stakeholders beginning in the fall 2018, which led to further refinement of the prioritization criteria, network gaps, facility needs, and priority projects.

The needs analysis identified 74 miles of roadway lacking any type of bicycle or pedestrian facility and 150 miles of roadway lacking sufficient bicycle facilities. **Table 4-7** lists the bicycle and pedestrian network gaps and facility needs. **Appendix C** includes a map from the BPMP showing bicycle and pedestrian facility gaps overlapped with public comments.

Prioritized Bicycle and Pedestrian Facilities

Once the needs were identified, the BPMP's goals and objectives served as the prioritization criteria to develop a list

of prioritized bicycle and pedestrian facilities. The Needs Analysis in the BPMP is comprehensive and inclusive of many attributes. For example, **Table 4-8** identifies road segments that are prioritized for Complete Streets – Safety Corridor Studies resulting from an analysis of high crash locations on arterial and collector roads overlapping with EJ communities and transit corridors. **Table 4-9** lists the bicycle and pedestrian priorities based on technical need (gap analysis) and public comments. The segments identified totaled 66 miles.

Table 4-7. Network Gaps/Facility Needs

Source: Collier MPO BPMP

Type of Gap in Bicycle Network	Mileage of Missing Facilities			
	All Gaps on Collector & Arterial Roadways	Gaps Meeting Equity Criterion ^a	Gaps Meeting Safety Criterion	Gaps Meeting Equity and Safety Criteria
No facility	73.9	22.9	2.4	0.0
Insufficient facility	150.3	44.5	13.1	5.8
Paved shoulder ^b	85.3	26.0	1.7	1.3
Connector sidewalk ^b	65.0	18.5	11.4	4.5
Total miles	224.2	67.4	15.5	5.8

^a Equity criterion established as block groups receiving a medium, high, or very high ranking from the Composite Equity Analysis.

^b Paved shoulder/ connector sidewalk are sub-categories of Insufficient Facility total.

Table 4-8. Complete Streets – Safety Corridor Studies

Source: Collier MPO BPMP

Rank	Road Name	From	To	Project Description
1	US-41 Tamiami Trail	Commercial Dr./ Palm St.	Guilford Rd.	Review, adopt and implement FDOT Road Safety Audit recommendations
	Airport Rd.	US-41 Tamiami Trail	Estey Ave.	
2	Airport Rd.	Estey Ave.	Golden Gate Pkwy.	Corridor Study
3	US41 Tamiami Trail	Commercial Dr./ Palm St.	9th Ave.	Corridor Study
4	Goodlette-Frank Rd.	US-41 Tamiami Trail	Golden Gate Pkwy.	Corridor Study
5	Davis Blvd.	US-41 Tamiami Trail	Airport Rd.	Corridor Study
6	Golden Gate Pkwy.	Santa Barbara Blvd.	Collier Blvd.	Corridor Study



Table 4-9. Prioritized Bicycle and Pedestrian Facilities*Source: Collier MPO BPMP*

Road	From	To	Distance	Agency	Facility Type
111th Ave. N	Vanderbilt Dr.	Tamiami Trl. N	1.0	Collier County	Bike Lane/Path
Airport Rd. N	Pine Ridge Rd.	Immokalee Rd.	4.2	Collier County	Bike Lane/Path
Airport Rd. N	S Horseshoe Dr.	Pinewoods Cir.	2.5	Collier County	Bike Lane/Path
Airport Rd. S	Seagrape Ave.	Davis Blvd.	0.5	Collier County	Bike Lane/Path
Airport Rd. S	Davis Blvd.	Tamiami Trl. E	0.8	Collier County	Safety
Bluebill Ave.	Bluebill Ave.	Vanderbilt Dr.	0.4	Collier County	Bike Lane/Path
Bonita Beach Rd.	Vanderbilt Dr.		1.7	Collier County	Bike Lane/Path
Castaways St.	Saturn Ct.	Amazon Ct.	0.2	Marco Island	Marco Master Plan
Collier Blvd.	17th Ave. SW	City Gate Blvd. N	2.0	Collier County	Bike Lane/Path
Collier Blvd.	N End Jolley Bridge	Fiddlers Creek Pkwy.	3.6	Collier County	Bike Lane/Path
Copeland Ave. S	Broadway	Oyster Bar Ln.	0.7	Everglades City	Pathway
Davis Blvd.	Tamiami Trl.	Airport Rd. S	1.0	Collier County	Bike Lane/Path
Everglades Blvd.	Oil Well Rd.	58TH AVE NE	3.1	Collier County	Sidewalk
Golden Gate Pkwy.	9th St. N	Estuary Blvd.	1.6	Naples	Bike Lane/Path
Greenbrier St.	Manor Ter.	Saturn Ct.	0.2	Marco Island	Marco Master Plan
Immokalee Rd.	Tamiami Trl.	Northbrooke Dr.	4.0	Collier County	Bike Lane/Path
Logan Blvd. N	Logan Blvd.	Vanderbilt Beach Rd.	1.1	Collier County	Bike Lane/Path
Logan Blvd. S	Logan Blvd.	Green Blvd.	2.0	Collier County	Bike Lane/Path
Oil Well Rd.	Everglades Blvd. N	Oil Well Grade Rd.	3.9	Collier County	Bike Lane/Path
Oil Well Rd.	Ave Maria Blvd.	SR 29	5.7	Collier County	Bike Lane/Path
Old US 41 N	Tamiami Trl.	Performance Way	1.5	Collier County	Pathway
Peru St.		Seagrape Dr.	0.1	Marco Island	Marco Master Plan
Pine Ridge Rd.	Tamiami Trl.	Logan Blvd. S	5.1	Collier County	Bike Lane/Path
Randall Blvd.	Randall Blvd.	Approach Blvd.	1.5	Collier County	Bike Lane/Path
Rattlesnake H Rd.	Valley Stream Dr.	Collier Blvd.	3.5	Collier County	Bike Lane/Path
San Marco Rd.	Goodland Dr.	Tamiami Trl. E	6.5	Collier County	Pathway
Santa Barbara Blvd.	Green Blvd.	17th Ave. SW	0.2	Collier County	Bike Lane/Path
Saturn Ct.	Castaways St.	Greenbrier St.	0.1	Marco Island	Marco Master Plan
Seagrape Dr.	Peru St.	Swallow Ave.	0.7	Marco Island	Marco Master Plan
Tamiami Trl. E	Greenway Rd.	Six LS Farm Rd.	2.5	Collier County	Pathway
Vanderbilt Beach Rd.	Gulfshore Dr.	Vanderbilt Dr.	0.4	Collier County	Bike Lane/Path
Wiggins Pass Rd.	Vanderbilt Dr.	Tamiami Trl. N	1.0	Collier County	Bike Lane/Path
Wilson Blvd. N	Golden Gate Blvd	24th Ave. NE	3.0	Collier County	Pathway
Total Miles			66.3		

Shared-Use Nonmotorized (SUN) Trail Alignments and Spine Pathway Corridors

Managed by the FDEP Office of Greenways and Trails, the SUN Trail program funds nonmotorized, paved, shared-use trails that are part of the Florida Greenways and Trails System Priority Trail. **Appendix C** includes the SUN Trail Alignments and Spine Pathway Corridors map, which shows the two SUN Trail alignments and other interconnected spine pathway corridors within Collier County that form an integrated, high-priority pathway network.

The BPMP identified the following as priority projects to complete the SUN Trail (FDOT 2016) and Spine Trail network. Further details on each project is provided in the BPMP.

- SUN Trail Alignments
- Florida Power & Light (FPL) Easement/Livingston/Rich King Greenway Alignment
- Gordon River Greenway Connections
- Golden Gate Canal Greenway (Proposed)
- Golden Gate Parkway between Santa Barbara and Collier Boulevards
- SR 29 and SR 82

Existing Plus Proposed Facilities

Additional needs analysis included examining the 2040 LRTP roadway projects, as roadway enhancement projects provide an excellent opportunity to cost-effectively expand the bicycle and pedestrian network. **Appendix C** includes the Existing Plus Proposed Facilities map, which provides a visual summary of the project priorities for major roadways and the combined SUN Trail/Spine Trail network.

Local and Residential Roads

Since the 2040 LRTP update, the Collier MPO completed the Golden Gate City Walkable Community Study to develop a prioritized list of sidewalk and pedestrian amenity projects that would promote and enhance walkability, bicycle use, transit use, and social equity throughout the community. Projects were scored based on proximity to crashes, schools, commercial destinations, parks, and transit, and public input. Projects were then ranked in tiers based on their current condition and greatest value to the public:

- Tier 1 Projects were given the highest priority based on their benefit to the community
- Tier 2 Projects are instrumental in completing a continuous sidewalk network throughout the community.
- Tier 3 Projects will enhance overall walkability within the community

The results of the study demonstrated a significant need for sidewalk infrastructure in Golden Gate City. The Collier MPO has completed a total of four walkable community studies, including Immokalee, Bayshore and Naples Manor in addition to Golden Gate City. A fifth study completed for Naples Park was never officially approved by the MPO because of unresolved differences of opinion within the community.

Local Agency Priorities on Local Roads

Adopted local agency plans are incorporated into the BPMP by reference. Key priorities are summarized as follows.

Naples

The *Naples Downtown Circulation and Connectivity Plan* identifies bicycle and pedestrian improvements to the Gordon River Bridge (5th Avenue S) as a priority for the region as it is

the hub of the SUN Trail and Spine Corridor Network. The project design calls for narrowing the existing travel lanes, eliminating the shoulder, and moving the existing barrier to provide a 14-foot-wide shared-use path on each side of the bridge.

Everglades City

Everglades City identified four sidewalks projects (along Copeland Avenue, Datura Street, Broadway, and Collier Avenue) as part of their priority needs in response to the MPO's call for projects in 2017. A second call for projects issued in 2018 resulted in the identification of segments of Copeland, Hibiscus, and Broadway as priority needs for sidewalks or bike lanes. Everglades City adopted its first Bicycle/Pedestrian Master Plan in October 2020.

Immokalee Urban Area

The Immokalee Walkable Community Study served as the basis for a \$13 million TIGER Grant application, which the County was awarded in 2018. The BPMP identifies SR 29 and SR 82 as critical components of the Spine Trail Network for Collier County. Additionally, the Immokalee CRA requested to extend bicycle and pedestrian facilities along Lake Trafford Road to the lake as part of the Spine Trail priority.

Marco Island

Top priorities from Marco Island's 2019 *Bike Path Master Plan* include:

- Collier Boulevard – alternate bike lanes (Landmark extension)
- Bald Eagle Drive – bike lanes (Collier to San Marco)

Future updates to the Marco Island *Bike Path Master Plan* are automatically incorporated by reference into the BPMP.

4-4 Transit Needs

This section summarizes the needs and improvements identified in the Collier County *Ten-Year Transit Development Plan 2021-2030* (TDP) (Collier MPO 2020c), which is incorporated by reference into this LRTP and was developed by CAT in coordination with the Collier MPO. The TDP is a 10-year horizon plan to support the development of an effective multimodal transportation system within a specific jurisdiction. TDPs are required to be a transit provider's planning, development, and operational guidance document – creating a crucial link between a transit system and the livability and equity in the communities that it serves. Transit agencies are required to do major updates to their TDPs every 5 years and provide annual progress reports in the interim years as a prerequisite to receive State Block Grant funds. Transit needs information identified in this document was used to assess transit needs for the County and its municipalities through 2045.

Goals and Objectives

CAT has established seven goals to help fulfill their vision and mission for the County and its municipalities. These goals guide the transit needs and improvement development process.

- Goal 1: Operate reliable, convenient, and cost-effective mobility services that safely and efficiently meet the mobility needs of Collier County's workers, residents and visitors.
- Goal 2: Increase the resiliency of Collier County, protecting our man-made and natural resources, by providing attractive and convenient mobility alternatives

that will reduce adverse carbon and environmental impacts within our communities.

- Goal 3: Build meaningful partnerships that increase awareness and education of and about mobility options and increase the viability of mobility services to promote livability and enhance economic and social well-being.
- Goal 4: Coordinate the development and provision of mobility services with local, regional, state planning efforts and through public and private partnerships.
- Goal 5: Use technologies and innovations in service delivery to improve productivity, efficiency, reliability, and cost-effectiveness of mobility services and operations.
- Goal 6: Monitor and improve mobility service quality and service standards.
- Goal 7: Maximize the use of all funding sources available, including through partnerships with businesses, employers, and other institutions to increase and improve access to mobility services and mobility for workers, residents, visitors.

Development of Transit Needs

The development of transit needs was guided by a review of existing plans and studies, baseline conditions, existing transit performance, public input, regional coordination, and the development of a transit demand analysis, which includes market assessments and transit modeling to identify gaps in the system.

Existing Plans and Studies

The initial process for developing the list of transit needs included a review of local, regional, state, and federal planning documents, as noted in the TDP.

Public Outreach

Public outreach occurred throughout the development of the TDP to ensure that public input guided the development of needs and potential improvements. Collier community members, elected officials, and other stakeholders were all invited to engage with the TDP planning team through surveys made available on CAT bus routes, online public surveys, stakeholder interviews, discussion workshops, public transit advisory committee, project group meetings, and public workshops.

Existing Transit Evaluation

The existing transit evaluation process consisted of three elements – identifying existing transit service in the County and its municipalities, comparing CAT transit performance against similarly sized peer transit agencies, and developing a trend analysis that summarizes the results from the peer review analysis.

Existing Transit Service

CAT operates a fleet of 29 buses that provide service on 19 fixed-route bus lines to the public 7 days per week from 3:55 a.m. to 8:48 p.m. CAT also provides complementary paratransit service through CAT Connect for people with a qualifying disability that are not otherwise able to access the fixed-route buses. CAT operates out of the County-owned Radio Road Transit facility. This facility offers connections for pedestrians, bicyclists, drop-off passengers, and nearby park-and-ride passengers at its Intermodal Transfer Station .

Peer and Trend Analysis

The peer comparison and trend analysis examine CAT transit system performance and compared services to peer agencies. The peer comparison and trend analysis provided a starting point for understanding CAT's transit system operating environment over time when compared to other similarly sized transit systems. Key trends between 2013 and 2018 included:

- CAT increased vehicle miles, revenue miles, vehicle hours and route miles, and vehicle miles per capita. CAT was above the peer average for passenger miles, vehicle miles, revenue miles, and route miles.
- Passenger trips and passenger miles declined, as did passenger trips per capita, passenger trips per revenue mile, and passenger trips per revenue hour. CAT was 19 percent below the peer average for passenger trips and 20 percent above the peer average for passenger miles.
- Total operating expenses increased 6 percent. CAT operating expense per passenger mile and operating expense per revenue mile was below the peer average.
- The share of operating expenses funded by passenger fares decreased 34 percent, which was near the peer average.

Transit Demand Analysis

The transit demand analysis for MPO boundary area included an evaluation from two different customer types, described below. The discretionary market refers to people who may choose to ride transit but who have other mobility options. Previous studies have shown most CAT riders are not discretionary riders. The analysis was based primarily on

population and employment density to identify these markets. While much of the area falls under the "Low" category, the density threshold assessment indicated that there are employment-based areas that have "High" or "Very High" transit-investment potential east of Naples Airport, north of Pine Ridge Road, and along the Tamiami Trail. Household unit-based areas with "High" transit-investment potential are located along Naples Beach, south of Pine Ridge Road, and in Immokalee east of Sunshine Boulevard.

Traditional Market Assessment

As part of the transit market assessment, socioeconomic and demographic characteristics were studied among people that are more likely to use transit because they have limited mobility options and depend on public transit for most transportation. Demographic factors including population density, older adults, youth, and households below the federal poverty level helped identify where people are likely to rely on transit the most. CAT serves areas with traditional transit markets, such as north of downtown Naples and near Lee County. Areas in Immokalee also have strong traditional transit markets.

Ridership Projections

Transit demand and mobility needs were evaluated for the CAT fixed-route system using the FTA's ridership forecasting tool T-BEST. The model was based on the assumption that population and employment, travel demand, technology, and transit routes are the same as today. **Table 4-10** provides the ridership forecast by route in the years 2021 and 2030. The model projected a 17-percent increase in transit ridership for all routes by 2030, particularly for Routes 21, 27, and 121. The transit plan suggests the highest ridership increases are possible by expanding service in areas with high population density and growth.

Table 4-10. Ridership and Growth Rates with No Improvements, 2021–2030^a

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

^a Based on T-BEST modelSource: Collier County *Ten-Year Transit Development Plan*

Gap Overview

The gap analysis compares existing service coverage to transit market analysis results. The goal was to identify gaps in public transit where travel demand is high but where transit service is less than predicted demand, and where transit stops may have barriers.

The gap analysis from the TDP revealed that the areas that have 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.

Transit Needs Results

The evaluation baseline conditions, existing transit performance, public input, regional coordination, and transit demand and gap analysis helped identify a set of transit needs for the County and its municipalities.

Once the transit needs were identified, a quantitative/qualitative methodology was developed to evaluate and prioritize them based on weighing the benefits of each service improvement against the others. Three categories were identified for determining the criteria for evaluation: public outreach, transit markets, and productivity and efficiency. **Table 4-11** presents the criteria, measure of effectiveness, and weighting used to rank the needs.

Table 4-11. Transit Needs 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%

Source: Collier MPO TDP, 2020

There is a need to extend current bus routes to reach more riders, realign routes to create more efficient service, increase how often buses provide service, and provide new service to underserved areas. While transit needs continue to include operation and maintenance of existing routes, **Table 4-12** lists new transit needs identified in the TDP through 2045, which are illustrated on **Figure 4-12**.

Table 4-12 also presents the ranking for transit operations needs identified. The needs listed are organized by type of improvement: route network and new service, frequency improvements, span improvements, and capital

infrastructure. The needs identified are intended to address specific mobility, parking, congestion concerns as well as pilot and test the application of new technologies and emerging mobility concepts. Capital infrastructure needs include continued rehabilitation of public transportation facilities (such as bus shelters) and replacement of bus and service vehicles. However, new capital needs include studies for future services, modernization of the system through improvements in technology, and addition of a series of park-and-ride lots that would improve access to transit.

Additionally, the TDP noted program recommendations that include policy considerations and other improvements for CAT's transit service:

- Pursuit of public-private partnerships with Marriott and other hotels in Marco Island to support Routes 21 and 121 and pilot Mobility-On-Demand (MOD) service.
- A more detailed review of the existing CAT routes and network, particularly in Immokalee and potential connections to the UF/IFAS satellite campus and Lehigh Acres is needed. Potential service along I-75 and Santa Barbara Boulevard also require further study. A study that explores the Everglades City vanpooling program as well as a transit hub along Immokalee Road is also recommended.

- A fare study is recommended.
- A MOD demand and operations requirements study is recommended.
- Marketing and branding to increase awareness of and use of CAT services, such as branded beach buses, express routes, and neighborhood and MOD services.
- Creation of a transfer station along the urbanized area of Immokalee Road to facilitate passenger transfers and provide a place for vehicle staging and for driver relief.

More details on route descriptions and benefits are provided in the TDP.



Table 4-12. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Route Network and New Service		
Route 22 and 23 Realignment	1	<p>Realign to streamline circulation in Immokalee, reduce duplication with Route 23, reduce the need for transfers between Routes 22 and 23, and extend service east along Main Street and to the various packing houses that employ approximately 20,000 employees.</p> <p>Realign Route 23 to provide direct connections to the westernmost residential cluster on Lake Trafford Road, the County Health Department, several packing houses along New Harvest Road, and the easternmost residential cluster on Farm Workers Way.</p>
Route 11 Extension	2	Minor extension of the north to connect to the Walmart on Tamiami Trail and Immokalee Rd. or consider connecting to the LinC at the Walmart.
Route 14 Realignment	3	Realign Routes 13 and 14 from a one-way pair to two bidirectional routes, with Route 14 operating along Goodlette-Frank Rd.
Routes 17/18 Realignment	4	Realign to combine the two routes along the portion from Government Center along Tamiami Trail to Rattlesnake Hammock Road to Collier Blvd. to the Super Walmart at Tamiami Trail; remove service along Tamiami Trail.
Route 13 Realignment	4	Realign Routes 13 and 14 from a one-way pair to two bidirectional routes, with Route 13 operating along 9th Street/Tamiami Trail.
Routes 19/28 Realignment	6	Realign by eliminating unproductive segments of Route 19 and combining the service hours into Route 28 with increased frequency.
Route 12 Extension	7	Minor extension west into Walmart and other shopping plazas at the intersection of Tamiami Trail and Immokalee Rd.
Route 25 NS	8	Split and extend the north-south alignment north to Immokalee Rd.
Route 20/26 Realignment	9	Combine Routes 20 and 26 to improve frequency and streamline service.
New I-75 Premium Express	9	Would operate as an express commuter service beginning at the Government Center and ending at the Florida Gulf Coast Town Center. Route would require one vehicle to provide 90-minute headway service from 6 a.m. to 8 p.m.

Table 4-12. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Route 21 (Marco Island Express)	11	Provide express service to the Walmart Supercenter on Collier Blvd. and Tamiami Trail and potentially to the Government Center.
Route 27 EW	12	Extend the east-west alignment east to provide service along Immokalee Rd. to the Publix shopping center at Immokalee Rd. and Oil Well Rd.
Route 25 EW	13	Split and keep east-west alignment the same while changing the north-south alignment.
New Bayshore Shuttle	13	Would operate as a fixed-route electric shuttle with free hop-on/hop-off service. The route would require one vehicle to provide 15-minute headway service from Weeks Ave. to the Naples Botanical Garden from 11:00 a.m. to 9:00 p.m.
Route 27 NS	15	Extend the north-south alignment south along Collier Boulevard to Tamiami Trail.
New Island Trolley	15	Would travel along Collier Blvd. on Marco Island as a fixed-route and connect to the realigned Route 21 Marco Island Express route. Would be a 'hop-on/hop-off' type, fare-free service using two vehicles with 30-minute headways.
Frequency Improvements		
Route 121	1	Add one morning and one evening trips during peak periods.
Route 15	2	Reduce headway time from 90 minutes to 45 minutes.
Route 11	3	Reduce headway time from 30-minutes to 20-minutes.
Route 12	3	Reduce headway time from 25- to 90-minutes to 30-minute peak headway and a 60-minute off-peak headway.
Route 16	5	Reduce headway time from 90 minutes to 45 minutes.
Route 13	6	Reduce headway time from 40 minutes to 30 minutes.
Route 14	6	Reduce headway time from 60 minutes 30 minutes.
Route 24	6	Reduce headway time from 85 minutes to 60 minutes.

Table 4-12. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Proposed Span Improvements		
Route 11	1	Extend service to 10:00 p.m.
Route 13	1	Extend service to 10:00 p.m.
Route 14	1	Extend service to 10:00 p.m.
Route 19	4	Extend service to 10:00 p.m.
Route 24	4	Extend service to 10:00 p.m.
Route 17/18	6	Extend service to 10:00 p.m.
Capital Infrastructure Needs Identified but Not Ranked		
New UF/IFAS and Lehigh Acres Route	-	Would connect Immokalee to the University of Florida/IFAS satellite campus and Lehigh Acres. Further study is recommended due to the roadway constraints for transit vehicles entering/exiting UF/IFAS campus.
Downtown Autonomous Circulator	-	Would address the parking shortage in downtown and would begin on S. 4th Ave. from S. 9th St. to S. 3rd St. and go south along S. 3rd St. to S. 13th Ave. Further Study is recommended
Naples Pier Electric Shuttle	-	The downtown autonomous circulator would alleviate parking demand in downtown. It would begin at Naples Pier and run along Broad Avenue with a stop at Crayton Cove, before going north along S. 8th St. to S. 6th Ave. Further study is recommended.
Mobility-On-Demand	-	Uses on-demand information, real-time data, and predictive analytics that provides travelers the best transportation choice for their needs. Service can be requested via a mobile app, website, or by calling CAT. Helps solve the 'first/last mile' problem associated with limited access to transit. Four MOD Zones identified: Golden Gate, North Naples, Naples Zone, and Marco Island. Further study is recommended.
Vanpooling (Everglades City)	-	Indicated by FDOT District 1 as a workable solution for rural communities, such as Everglades City. The proposed program could connect commuters from Everglades City to the Government Center. Further study is recommended.

Table 4-12. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Regionwide Technology	-	The technology needs outlined in the TDP's Situation Appraisal includes implementing or upgrading transit scheduling and dispatching software, installing automatic passenger count and vehicle announcement systems for fixed-route vehicles, updating fare collection systems, and enhancing on-board safety measures.
Park-and-Ride Lots	-	Improve transit access through the development of park-and-ride lots.
Bus Stop Infrastructure	-	Continue to improve and add additional benches, shelters, bicycle storage facilities, and other infrastructure at bus stops to enhance the rider experience and potentially attract new riders.
Improve Americans with Disabilities Act (ADA) Accessibility	-	Improve bus stop safety and ADA accessibility throughout the entire system for all riders.
Replace and Add New Vehicles	-	Continue to replace existing fleet and add new vehicles to provide new service.

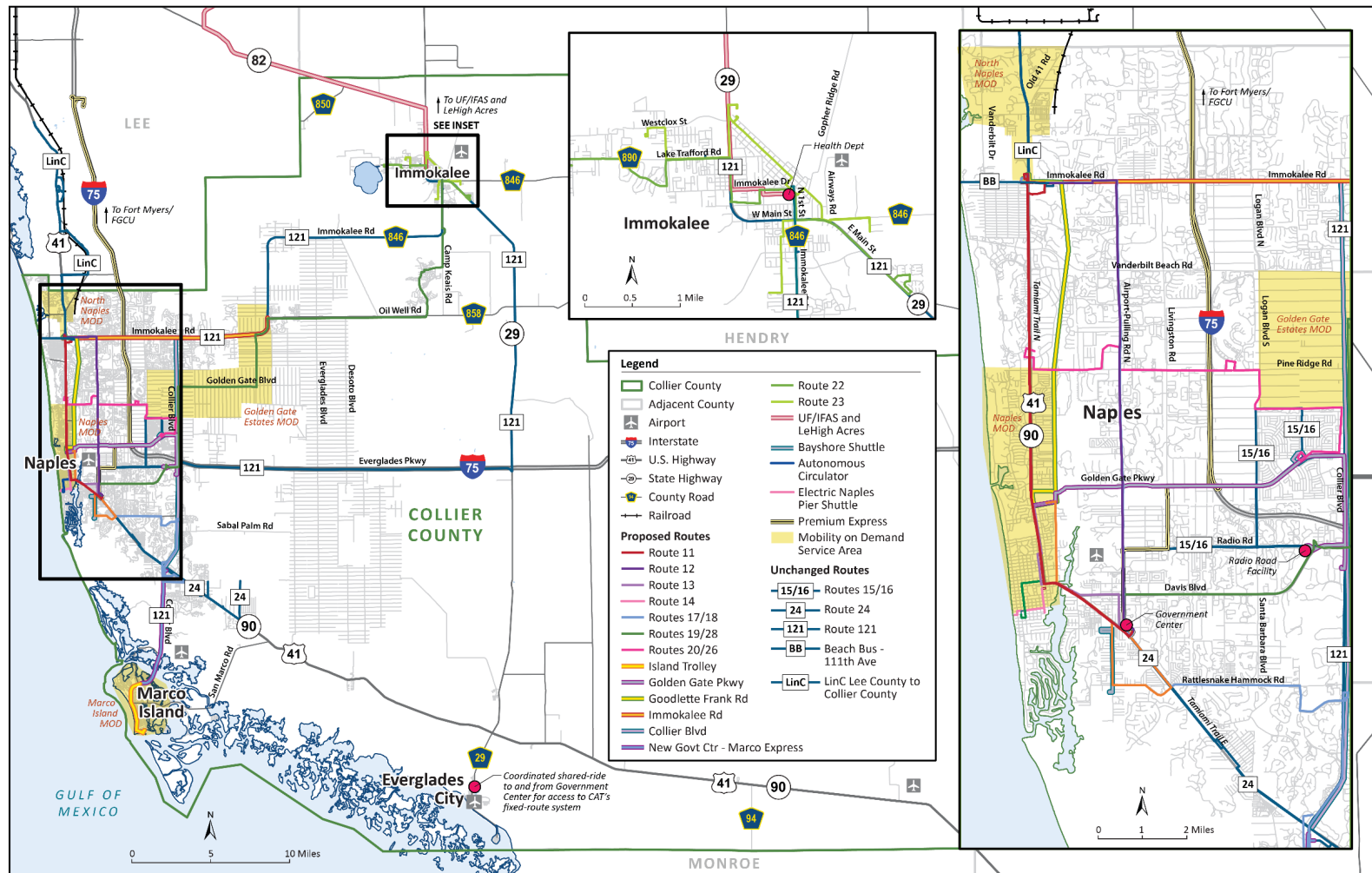
Other improvements and policy recommendations for transit service needs include:

- Pursue public-private partnerships local hotels in Marco Island to support Route 21, the proposed new service - Island Trolley and MOD.
- Brand buses on the beach and those associated with proposed MOD services.
- Conduct a comprehensive analysis of the existing CAT network, routes, and further study proposed new service.
- Create a transfer hub along the urbanized area of Immokalee Road to provide passenger transfers, vehicle staging, and driver relief.
- Establish a coordinating committee with the region's local planning departments to review transportation needs and

ensure funding and strategies are in place for implementation.

- Establish transit service policies to adopt in Collier County's land development regulations.
- Modify the Land Development Code and Development Review processes to include recommendations from the transit impact study by coordinating with Collier County and local municipalities.
- Begin coordination with LeeTran to explore a seamless fare system between LeeTran and CAT.
- Further study a new CAT and LeeTran route that connects Immokalee to the University of Florida/IFAS satellite campus and Lehigh Acres. The study will include roadway constraints, determining final alignment, endpoint, and stop locations.

Figure 4-12. Transit Network Service Needs



4-5 Air Transportation Needs

Within the Collier MPO jurisdiction are four publicly owned airports:

- Naples Municipal Airport
- Immokalee Regional Airport
- Marco Island Executive Airport
- Everglades Airpark

The Collier County Airport Authority, which is a branch of the local government overseen by the Collier County BCC, oversees the development and management of the airports in Immokalee, Marco Island, and Everglades City. The City of Naples Airport Authority is charged with the operation, development, and improvements of the Naples Airport. The closest international airport to the Collier County area is the Southwest Florida International Airport, which is located to the north in Fort Myers in Lee County.

Naples Airport

Naples Airport is located in the City of Naples and is bounded by Corporate Flight Drive to the north, North Road to the south, Airport Pulling Road to the east, and the Gordon River to the west. Public access to the airport is at the intersection of Radio Road and Airport Pulling Road. In Fiscal Year 2019, there were 112,800 takeoffs and landings. The airport typically houses 308 aircraft, which significantly increases during the seasonal months (Naples Airport Authority 2020). There is no regularly scheduled passenger service at this airport. However, it maintains a Title 14 CFR, Part 139 Airport Operating Certificate to accommodate both scheduled and unscheduled operations. According to the *Naples Airport Master Plan* (ESA 2020), in 2017 the airport operated at

56 percent capacity and is forecasted to operate at 84 percent capacity by 2038. The airport master plan includes capital improvements through 2039. There are no plans to expand the airport. The roadway project needs include intersection improvements at Airport Pulling Road and Radio Road to accommodate future airport operations.

Immokalee Regional Airport

The Immokalee Regional Airport is situated on 1,333 acres and is bordered by Immokalee Road to the south and Airway Road to the west. Airpark Boulevard provides public access to the airport. As discussed earlier, this airport has been designated for a 60-acre Foreign Trade Zone, which includes portions of the Florida Tradeport Industrial Park. The industrial park covers 400 acres and is accessed by Airpark Boulevard. The airport also includes the Immokalee Regional Raceway (International Hot Rod Association Drag Strip) and is used for aerial firefighting and crop dusting operations. The *Immokalee Regional Airport, Airport Layout Plan Update* (Collier County Airport Authority 2017) notes that the airport operations are expected to grow through 2037 requiring some airfield improvements. The roadway project needs include widening Immokalee Road from SR 29 to Airpark Boulevard to accommodate future airport operations.

Marco Island Executive Airport

The Marco Island Executive airport is located 12 miles south of downtown Naples and has one runway that measures 5,000 feet. The airport can accommodate smaller general aviation aircraft as well as business jets.

Everglades Airpark

The Everglades Airpark is situated on 29 acres and is located immediately southwest of the Big Cypress National Preserve and is surrounded on three sides by the waters of the Everglades National Park. The Fakahatchee Strand State Preserve and Collier Seminole Park are to the north. The airpark primarily supports recreational flying, environmental patrol, and flight training. It includes one 2,400-foot-long runway and is considered Collier County's Eco-tourism Airport.

Dade-Collier Training and Transition Airport

Located just west of the Collier and Miami-Dade County line, the Dade-Collier Training and Transition Airport provides a precision-instrument landing and training facility in South Florida for commercial pilots, private training, and small military operations. Originally named the Everglades Jetport,



the airport includes one 10,499-foot-long runway and is operated by the Miami-Dade Aviation Department. The airport is situated within a 24,960-acre property and has approximately 900 acres of developed and operational land. The remaining area is managed and operated by the Florida Game and Freshwater Fish Commission.



5

Financial Resources

- 5-1** Overview
- 5-2** Roadway and Transit Revenue Projections
- 5-3** Roadway and Transit Federal/ State Funding
- 5-4** Local Revenue Projections and Sources
- 5-5** Bicycle and Pedestrian Funding Sources

Chapter 5 Financial Resources

The Collier 2045 LRTP financial plan establishes the basis for determining how many Needs Assessment projects can be included in the Cost Feasible Plan. The financial plan recognizes all revenues by source that can reasonably be expected to be available during the planning period. The available revenues and planning-level cost estimates are applied to each project from the Needs Assessment to develop the Cost Feasible Plan.

5-1 Overview

Ensuring that the financial resources will be available to fund the multimodal transportation projects by 2045 is an important element of the Collier MPO 2045 LRTP. The premise of the long-range revenue forecast is rooted in federal regulation originally required by the Intermodal Surface Transportation Efficiency Act of 1991. All transportation acts since that time have continued the requirement for a financial plan. Consistent with the most recent requirements of 23 USC §134, the revenues identified for this LRTP update are

reasonably expected to be available to implement the adopted 2045 LRTP. This chapter summarizes transportation revenues available to fund multimodal transportation projects within the County and its municipalities through 2045. This chapter further documents the assumptions used to develop the future revenues.

In accordance with federal statutes, FDOT in coordination with the Florida Metropolitan Planning Organization Advisory Council (MPOAC)¹ provides long-range revenue forecasts to assist Florida MPOs. These forecasts help MPOs comply with federal requirements for developing cost feasible transportation plans and demonstrate a coordinated planning effort for transportation facilities and services in Florida.

As shown on **Figure 5-1**, financial planning for statewide and metropolitan transportation plans is typically required for three periods: long range (20 or more years), intermediate range (10 to 15 years), and short range (5 years). As noted in the FDOT *Revenue Forecasting Guidebook* (FDOT 2018b), long-range revenue and program forecasts are general in nature to encourage a variety of approaches and technologies to meet the goals and objectives.

Figure 5-1. Planning Periods Summary (Revenue Bands)

Collier 2045 Long Range Transportation Plan				
Funding Document	TIP	LRTP Cost Feasible Plan		
Time Period	Present–2025	2026–2030 (5 Years)	2031–2035 (5 Years)	2036–2045 (10 Years)

¹ <https://www.mpoac.org/>

The revenues and ultimately the cost feasible project costs in this LRTP update are shown in year of expenditure (YOE) dollars to reflect inflation. Federal guidance [23 CFR 450.324(F)(11)] notes that revenue and cost estimates must use an inflation rate to reflect the YOE dollars. The YOE represents the value of money at the time it will be collected. The YOE dollars is based on reasonable financial principles and information, and is developed in cooperation between the MPO, state, and public transportation operator(s).

The Collier MPO 2045 LRTP *Revenue Projections Technical Memorandum* (provided under separate cover) describes each revenue source, revenue forecasting assumptions, and the methodology for developing statewide estimates of federal and state revenues.

5-2 Roadway and Transit Revenue Projections

Revenue projections include federal, state, and county sources. The County and its municipalities have historically funded transportation projects using local sources, such as fuel taxes, impact fees, and General Fund transfers (ad valorem) in addition to federal and state revenues. Except for General Fund transfers (which are projected to only support operations and maintenance), it is assumed that the County and its municipalities will continue to use these revenue sources to fund transportation projects from 2026 through 2045. [Table 5-1](#) summarizes the total projected revenues in YOE dollars that are anticipated to be available for the 2045 LRTP.

² MAP-21 is the Moving Ahead for Progress in the 21st Century Act, which was signed into law on July 6, 2012, by President Obama.

5-3 Roadway and Transit Federal/State Funding

Projections of federal and state roadway and transit revenues for use in LRTPs are developed by FDOT.

FDOT's 2045 *Revenue Forecast for the Collier MPO* provides federal and state funds for the Collier MPO to use in developing its forecasted revenues. These revenues are for capacity and non-capacity programs consistent with statewide priorities. [Table 5-2](#) highlights these revenue amounts in YOE format as required by MAP-21.² The following provides a brief description of each revenue source.

- **Transportation Management Area:** Additional federal funds are distributed to an urban area that has a population greater than 200,000 (known as a TMA), as designated by the U.S. Census Bureau following the 2010 Census.
- **Transportation Alternatives Program:** Created as a new funding program under current federal transportation legislation (MAP-21), the Transportation Alternatives Program combines three previous programs—Transportation Enhancements, Safe Routes to School, and Recreational Trails Program.
- **Strategic Intermodal System:** The SIS capacity program provides funds for construction, improvements, and associated ROW acquisition on the State Highway System (SHS) roadways that are designated as part of SIS.

Table 5-1. 2045 LRTP Revenue Projections

Jurisdiction	Funding Source	Total 2026–2045 (YOE)
Revenues Dedicated to Transit Operations		
Federal	Transit Operations	\$50,770,000
State	Transit Operations	\$30,414,000
Local	Transit Operations	\$177,500,000
Fares	Transit Operations	\$23,821,000
Local	Transportation Disadvantaged	\$24,454,000
	Subtotal for Transit Operations	\$306,959,000
Revenues Dedicated to Transit Capital Projects		
Federal	Transit Capital	\$81,966,000
Federal & State	Transit Capital	\$281,000
State	Transit Capital	\$0
Local	Transit Capital	\$17,186,000
	Subtotal for Transit Capital Projects	\$99,433,000
Total Transit Revenues		\$406,392,000
Revenues Dedicated to Operations and Maintenance (Roadway)		
County	General Fund (Ad Valorem)	\$240,000,000
County	Fuel Tax	\$180,254,000
Total Operations and Maintenance (Roadway)		\$420,254,000
Revenues Remaining for Collier MPO 2045 LRTP Projects (Roadway)		
Federal	Transportation Alternatives Program	\$6,760,000
Federal	Transportation Management Area	\$100,360,000
State	Strategic Intermodal System	\$329,142,000
State	Other Arterial (including ROW and construction)	\$443,200,000
State	Other Arterial (pre-engineering including study and design)	\$97,504,000
Local	Transportation Impact Fees	\$346,275,700
County	Fuel Tax	\$195,275,300
Total for Collier MPO 2045 LRTP Projects (Roadway)		\$1,518,517,000

Table 5-2. Federal and State Revenue Projections (YOE)

Jurisdiction	Funding Source	2026–2030	2031–2035	2036–2045	Total 2026–2045
Federal	Transportation Alternatives (Urban Area)	\$1,690,000	\$1,690,000	\$3,380,000	\$6,760,000
Federal	Transportation Management Area	\$25,090,000	\$25,090,000	\$50,180,000	\$100,360,000
State and Federal	Other Arterial/Construction & ROW	\$100,620,000	\$110,540,000	\$232,040,000	\$443,200,000
State	Transportation Regional Incentive Program	\$3,924,000	\$4,368,000	\$8,952,000	\$17,244,000
State and Federal	Transit	\$33,016,000	\$39,662,000	\$90,761,000	\$163,439,000
Total Revenues		\$164,340,000	\$181,350,000	\$385,313,000	\$731,003,000
Jurisdiction	Funding Source	2026–2030	2031–2045	Total 2026–2045	
Federal	Strategic Intermodal System	\$30,360,000	\$298,782,000	\$329,142,000	

- **Other Arterial Construction/ROW:** This capacity program provides funds for construction, improvements, and associated ROW acquisition on SHS roadways that are not designated as part of SIS.
- **Transportation Regional Incentive Program:** TRIP was established as part of the state’s major growth management legislation enacted with Senate Bill 360. The program is intended to encourage regional planning by

providing matching funds for improvements to regionally significant transportation facilities identified and prioritized by regional partners.

- **Federal and State Transit Revenues:** Estimates of federal and state transit revenues are based on information provided in the FDOT Revenue Forecasting Guidebook.

5-4 Local Revenue Projections and Sources

In addition to federal and state funding, local revenue sources help build and maintain the transportation network within the County and its municipalities.

By creating a partnership between local jurisdictions and FDOT that combines local revenues such as impact fees and other non-traditional transportation funding sources (for example, TRIP, sales tax initiatives, and others) with FDOT Funds, the MPO, FDOT, and the local governments have the potential to fund a significant number of local and state capacity projects that support safety, growth, economic enhancements, and development. This also allows the MPO to invest more on citizen priorities like Complete Streets initiatives, transit, and sidewalk/bike path facilities.

The following text briefly describes each County funding element.

- **Transportation Impact Fees:** Transportation impact fees provide revenue for financing the addition and expansion of roadway facilities needed to accommodate specific new growth and development.
- **Fuel Taxes:** Fuel taxes represent a major portion of Collier County's local transportation revenues. Fuel tax revenue is dedicated to both transportation capacity expansion and maintenance and operations. Fuel taxes collected by the cities within the County were not considered during the LRTP.
- **General Fund/Ad Valorem:** In the past, the County has used General Fund revenues to help fund capacity expansion and debt service, but with recent constraints placed on this fund, fuel taxes have been shifted into that role. While taxable values help stabilize the revenues, the

County will continue to assign General Fund revenues to non-capacity roadway improvements.

- **Sales Tax:** A 2018 1-cent infrastructure sales surtax that is assigned to a variety of projects including transportation infrastructure.

5-5 Bicycle and Pedestrian Funding Sources

Similar to roadway and transit funding sources, there are multiple funding sources for bicycle and pedestrian projects. The primary funding sources available for bicycle and pedestrian projects presented in the BPMP are through federal programs, as discussed in the following text.

- **National Highway Performance Program:** These funds were established under MAP-21 and provide support for projects or program projects that are on an eligible facility or an eligible activity that supports national performance goals. Bicycle and pedestrian improvements associated with an NHS facility are eligible.
- **Surface Transportation Block Grant (STBG) Program:** The STBG Program provides the most flexible funding among all federal-aid transportation programs. Specifically, the STBG-Transportation Alternatives provides funding for programs and projects defined as transportation alternatives.
- **Highway Safety Improvement Program (HSIP):** This program provides funds to reduce traffic fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands and can be used for pedestrian and bicycle safety improvements. States may obligate funds under HSIP to carry out any highway safety improvement project on any public road

or publicly owned bicycle or pedestrian pathway or trails.

- **Recreational Trails Program:** This federally funded competitive grant program provides financial assistance to city, county, state, or federal governments; organizations approved by the state; or state- and federally recognized Indian tribal governments, for the development of recreational trails, trailheads, and trailside facilities.
- **Federal Transit Administration Funds:** Some FTA funds may be used to fund the design, construction, and maintenance of pedestrian and bicycle projects that enhance or are related to public transportation facilities.
- **National Highway Traffic Safety Administration (NHTSA) Funds:** NHTSA provides funding to states for implementing priority area programs and activities to improve traffic safety and reduce crashes, serious injuries, and fatalities. Emphasis areas under the pedestrian and bicycle safety program include:
 - Increasing awareness and understanding of safety issues and compliance with traffic laws
 - Development and use of a systematic approach to identify locations and behaviors prone to bicycle and pedestrian crashes and implementing multidisciplinary countermeasures
 - Creating urban and rural built environments that support and encourage safe walking and biking

- **SUN Trail Network Funds:** SUN Trail funds are managed by the FDEP Office of Greenways and Trails. The Southwest Coast Connector Trail Alignment noted in the Needs Plan (Chapter 4) is eligible to receive SUN Trail funding.

Not all funding for bicycle and pedestrian projects is done through traditional funding programs. Alternative funding sources include the following:

- Collier County and its associated municipalities have jurisdictional authority over land use and zoning and can, therefore, work with developers to address gaps in bicycle and pedestrian infrastructure and make connections as new homes, communities, and shopping areas are constructed.
- The MPO can form partnerships with other agencies to implement projects.
- Bicycle and pedestrian improvements can be incorporated into roadway construction projects or funded independently. For example, Collier County typically funds transportation improvements that incorporate bicycle and pedestrian facilities using local funds on County-owned roads.
- The County and its municipalities can apply for funding related to state and federal grant programs, Safe Routes to Schools Programs, NHTSA, and the Better Utilizing Investments to Leverage Development Transportation Discretionary Grant program (formerly the Transportation Investment Generating Economy Recovery Grant program).

5-6 Airport Funding

The primary funding mechanisms for airports include federal grants through the Federal Aviation Authority's (FAA) Airport Improvement Program, Passenger Facility Charge local user fee, and tenant rents and fees (ACI-NA 2020). The following text details funding sources for the major airports within the Collier Metropolitan Area. **Table 5-3** presents the projected airport capital revenues.


Based on the *Naples Airport Master Plan* (ESA 2020), a financial analysis was conducted to assess what projects in its proposed development program could be funded in the short-

term planning period (FY 2020 through FY 2024). The analysis identified revenues from airport operations (\$37.5 million), FAA Entitlement (\$0.81 million) and Discretionary (\$0.5 million) Grants, and FDOT Grants (\$1.64 million).

The Collier County Airport Authority oversees the development and management of the Immokalee Regional Airport, Everglades Airpark, and Marco Island Executive Airport. The Airport Authority is a branch of the Collier County government and is overseen by the BCC. The projected capital revenues for each airport was determined through coordination with the Airport Authority in October 2020.

Table 5-3. Airport Capital Revenue Projections

Airport	Funding Source	2020-2024	2026-2030	2031-2035	2036-2045	TOTAL
Collier County Airport Authority						
Immokalee Regional Airport	FAA, FDOT, Local		\$8,400,000	\$15,000,000	\$38,800,000	\$62,200,000
Everglades Airpark	FAA, FDOT, Local		\$2,000,000	\$3,000,000	\$5,100,000	\$10,100,000
Marco Island Executive Airport	FAA, FDOT, Local		\$ 4,100,000	\$5,000,000	\$9,250,000	\$18,350,000
City of Naples						
Naples Airport	FAA, FDOT	\$39,950,000				\$39,950,000

An aerial photograph of a suburban neighborhood. A large, calm lake occupies the left and center of the frame, with several small islands and peninsulas. Houses with red-tiled roofs and manicled lawns are scattered along the shoreline. A paved road curves through the foreground, with a few cars visible. The sky is filled with soft, white clouds, suggesting a bright but slightly hazy day.

6

Cost Feasible Plan

- 6-1** Roadway Cost Feasible Projects
- 6-2** Bicycle and Pedestrian Projects
- 6-3** Transit Cost Feasible Projects
- 6-4** Freight Network Projects
- 6-5** Airport Transportation Projects

Chapter 6 Cost Feasible Plan

This chapter summarizes the development of the 2045 LRTP Cost Feasible Plan, which identifies the multimodal transportation projects that can be funded through 2045 based on the estimated revenues presented in Chapter 5.

6-1 Roadway Cost Feasible Projects

Development of the cost feasible roadway projects began by estimating the costs associated with each project in the roadway needs. As detailed in the Collier MPO 2045 LRTP Update *Project Cost Development Methodology Technical Memorandum*, planning-level costs were developed for each project phase including PD&E Study, preliminary engineering/design (PE), ROW, construction (CST), and environmental mitigation. The project phase costs were developed using the FDOT 2045 LRTP Cost Estimation Tool and recent roadway project costs within the County. The cost components were applied to individual roadway projects from the Needs Plan to develop the roadway cost feasible projects for the LRTP. Once projects were prioritized, the FDOT present-day cost inflation factors were applied to develop YOE costs for each project.

Roadway Projects Prioritization

As noted in Chapter 2, six alternative network scenarios were modeled using the D1RPM travel model. The first two network scenarios were not financially constrained and helped refine and develop the list of project needs. Alternative Network Scenarios 3 through 6 were modeled using an iterative process on a financially constrained list of projects to test travel demand and congestion throughout the network. The results of each network scenario test were shared with both the County and TAC/CAC during advisory meetings for input on projects to be included in the next model run. The Collier

MPO 2045 LRTP update *Scenario Network Modeling Technical Memorandum* presents more details on the results of each network scenario modeled (provided under separate cover).

Projects were also prioritized based on the project ranking in the Needs Plan, traffic modeling results, team collaboration, and public input. Using the WikiMapping online interactive tool, the public selected their top five projects from the roadway needs and cost feasible projects and provided comments. Further details on this public outreach is presented in Chapter 2-4.

The Collier MPO TIP and FDOT Work Program are updated annually and extend to 2025. The cost feasible projects presented herein are consistent with the TIP and FDOT Work Program. Should funding for a project phase be identified sooner than anticipated in this LRTP, an amendment of this LRTP is required to reflect the consistency with the updated TIP.

The roadway projects selected for inclusion in the Cost Feasible Plan are illustrated in the following maps and tables. As noted in Chapter 5, financial planning for statewide and metropolitan transportation plans is typically required for three periods: short range, intermediate range, and long range. Therefore, the cost feasible projects are presented in three multi-year planning periods: Fiscal Years (FY) 2026 to 2030, FY2031 to FY2035, and FY2036 to FY2045. **Table 6-1** presents the SIS roadway cost feasible projects by planning year and project phase. **Figure 6-1** presents a map of the projects and a distribution of the costs by phase. **Table 6-2** presents the FDOT Other Roads Projects and Local Roadway Projects by planning year and project phase. **Figures 6-2, 6-3, and 6-4** present these projects by planning years including the distribution of costs by phase. **Table 6-3** presents the partially funded projects within the FDOT Other Roads Projects and Local Roadway Projects, and **Figure 6-5** presents a map of these projects for the entire planning period (FY2026 to FY2045).

Table 6-1. Collier MPO 2045 LRTP SIS Cost Feasible Plan Projects

Draft 11/12/2020 (in millions \$)

Map ID	Facility (FPID No.)	Limits From	Limits To	Description	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045
						PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	
29	I-75 (SR-93) Managed (Toll) Lanes [4425192]	E of Collier Blvd (SR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes (10-lanes)	\$0.03	0.02						63.25				145.43		\$208.67
46	SR 29 [4178784]	SR 82	Hendry County Line	Widen from 2-Lanes to 4-Lanes	\$1.37	0.05	1.32											\$0.00
48	SR 29 [4344901]	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	\$0.02	0.02						4.33						\$4.33
50	SR 29 [4175406]	New Market Rd North	North of SR 82	Widen from 2-Lanes to 4-Lanes (with center turn lane)	\$1.52	0.43	1.09				30.36							\$30.36
51	SR 29/New Market Rd W (New) [4175405]	Immokalee Rd (CR 846)	New Market Rd N	New 4-Lane Road	\$6.82	1.05	5.77										49.91	\$49.91
52	SR 29 [4175404]	Agriculture Way	CR 846 E	Widen from 2-Lanes to 4-Lanes	\$0.30	0.30							5.63				23.32	\$28.95
53	SR 29 (SEGMENT D) [4175403]	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lanes to 4-Lanes	\$0.50	0.50							2.38					\$2.38
54	SR 29 (SEGMENT E) [4175402]	Oil Well Rd	Sunniland Nursery Rd	Widen from 2-Lanes to 4-Lanes	\$8.33	8.33							4.55					\$4.55
				Totals	\$17.47	\$10.70	\$8.18	\$0.00	\$0.00	\$0.00	\$30.36	\$67.58	\$12.55	\$0.00	\$0.00	\$145.43	\$73.22	\$329.14
						\$18.88			30.36			80.13			218.65			
PRE-ENG	PRE-ENG includes PD&E and Design																	
PDC	Present Day Cost																	
ROW	Right-of-Way																	
CST	Construction																	

Figure 6-1. Collier MPO 2045 LRTP SIS Cost Feasible Plan Projects

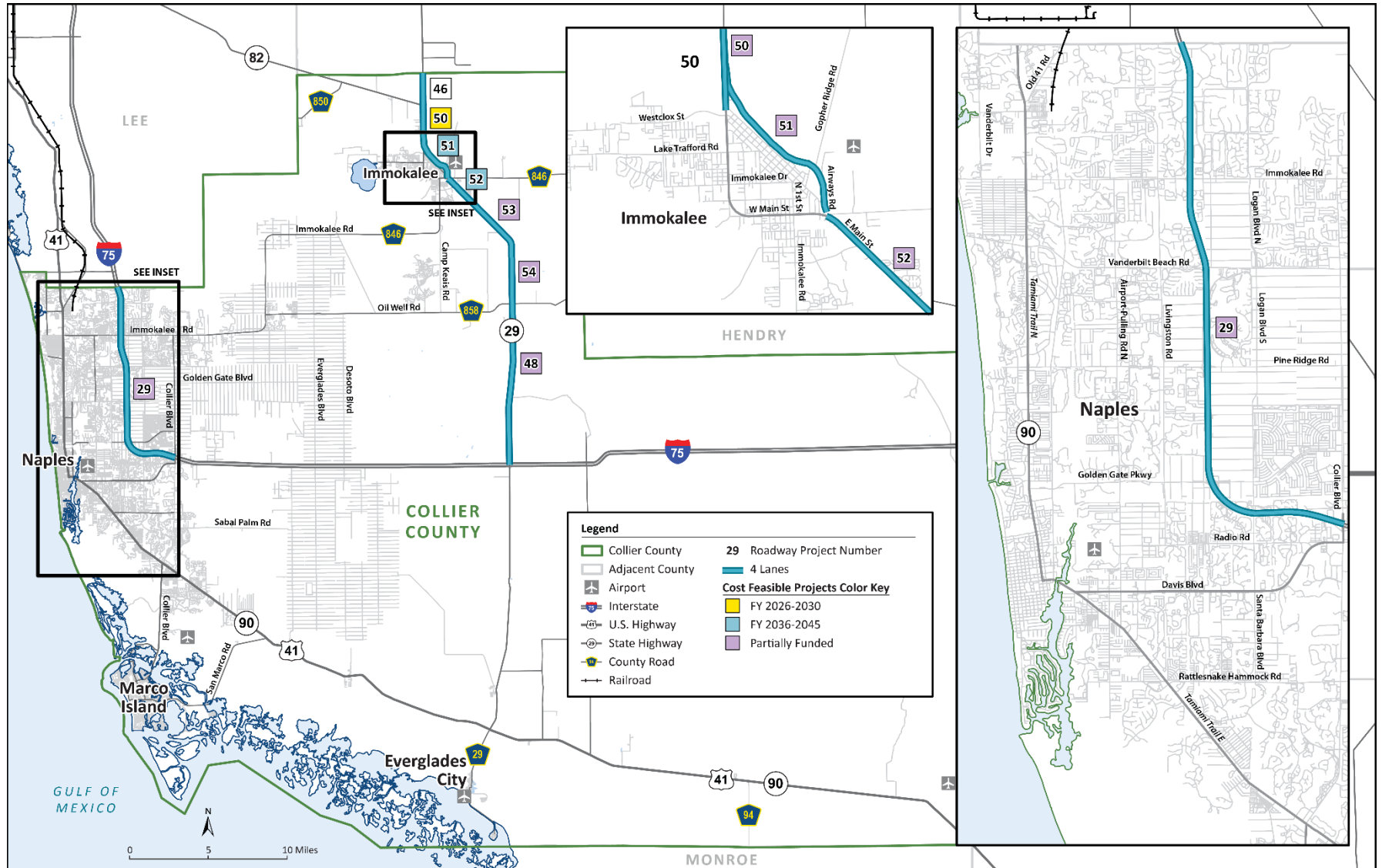


Table 6-2. Collier MPO 2045 LRTP Cost Feasible Plan Projects – FDOT Other Roads Projects and Local Roadway Projects

Draft 11/12/2020 (in millions \$)

Map ID	Facility	Limits from	Limits to	Description	Total Project Cost (PDC 2019 \$)	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045 (YOE \$ without SIS)	Total SIS Costs	County	OA PRE-ENG	OA ROW and CST	Funding Source
							PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST						
PLAN PERIOD 2 CONSTRUCTION FUNDED PROJECTS																								
12	Everglades Blvd	Vanderbilt Bch Rd Ext.	Randall Blvd	Widen from 2-Lanes to 4-Lanes	\$32.80					\$5.59	\$2.38	\$35.31							\$43.27		\$43.27			County
23	I-75 (SR-93) Interchange (new)	Golden Gate Pkwy		Interchange Improvement	\$9.59					\$0.58		\$12.24							\$12.81			\$0.58	\$12.24	OA
25	I-75 (SR-93)	Immokalee Rd		Interchange Improvement (DDI proposed)	\$9.59					\$0.58		\$12.24							\$12.81			\$0.58	\$12.24	OA
37	Oil Well Road / CR 858 [60144]	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	\$36.78	\$1.81	\$0.91		\$0.90	\$6.73		\$42.11							\$48.83		\$48.83			County
57	US 41 (SR 90) (Tamiami Trail E)	Goodlette-Frank Rd		Major Intersection Improvement	\$13.00					\$0.63	\$2.97	\$13.41							\$17.01			\$0.63	\$16.38	OA
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4 Lanes	\$31.88					\$3.91	\$4.46	\$33.53							\$41.90			\$3.91	\$37.98	OA
66	Immokalee Rd	Livingston Rd		Major Intersection Improvement	\$24.50							\$26.82							\$26.82		\$26.82			County
78	Golden Gate Pkwy (Intersection)	Livingston Rd		Major Intersection Improvement	\$24.50					\$5.63		\$26.82							\$32.45		\$32.45			County
111	US 41	Immokalee Rd		Intersection Innovation /Improvements	\$17.50					\$3.13		\$20.12							\$23.24			\$3.13	\$20.12	OA
PLAN PERIOD 3 CONSTRUCTION FUNDED PROJECTS																								
39	Old US 41	US 41	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	\$22.59					\$3.85	\$1.70					\$30.06			\$35.61			\$3.85	\$31.76	OA
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	\$51.57					\$7.29	\$5.35					\$65.04			\$77.67		\$77.67			County
59	US 41	Collier Blvd		Major Intersection Improvement	\$17.25					\$2.81						\$23.66			\$26.47			\$2.81	\$23.66	OA
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Further Study Required (Complete Streets Study for TSM&O Improvements	\$17.25					\$0.46			\$2.00			\$23.66			\$26.12			\$2.46	\$23.66	OA
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes	\$21.72					\$1.99				\$4.52	\$25.00				\$31.51		\$31.51			County

 PRE-ENG includes PD&E and Design  Present Day Cost  Right-of-Way  Construction YOE Year of Expenditure

Table 6-2. Collier MPO 2045 LRTP Cost Feasible Plan Projects – FDOT Other Roads Projects and Local Roadway Projects (continued)

Draft 11/12/2020 (in millions \$)

Map ID	Facility	Limits from	Limits to	Description	Total Project Cost (PDC 2019 \$)	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045 (YOE \$ without SIS)	Total SIS Costs	County	OA PRE-ENG	OA ROW and CST	Funding Source	
							PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST							
PLAN PERIOD 4 CONSTRUCTION FUNDED PROJECTS																									
11	Everglades Blvd	Randall Blvd	South of Oil Well Rd	Widen from 2-Lanes to 4-Lanes	\$16.42								\$3.00	\$1.53				\$24.65	\$29.18		\$29.18				County
22	I-75 (SR-93) Interchange (new)	Vicinity of Everglades Blvd		New Interchange	\$42.26				\$3.76				\$5.30	\$8.32				\$55.65	\$73.03			\$9.07	\$63.97		OA
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	\$3.90											\$0.77	\$0.55	\$5.88	\$7.20		\$7.20				County
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes	\$22.23				\$3.40					\$3.16				\$32.31	\$38.87		\$38.87				County
63	Westclox Street Ext.	Little League Rd	West of Carson Rd	New 2-Lane Road	\$3.01								\$0.51				\$0.55	\$4.45	\$5.51		\$5.51				County
65	Wilson Blvd	Keane Ave.	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	\$36.15								\$8.82	\$4.23				\$50.29	\$63.35		\$63.35				County
97	Immokalee Rd (Intersection)	Logan Blvd		Major Intersection Improvement	\$11.50								\$2.12					\$18.55	\$20.67		\$20.67				County
99	Vanderbilt Beach Rd (Intersection)	Logan Blvd		Minor Intersection Improvement	\$11.50								\$2.12					\$18.55	\$20.67		\$20.67				County
101	Pine Ridge Rd	Goodlette-Frank Rd		Minor Intersection Improvement	\$5.75											\$1.20		\$9.28	\$10.48		\$10.48				County
C1	Connector Roadway from I-75 Interchange (New)	Golden Gate Blvd	Vanderbilt Beach Rd	4-Lane Connector Roadway from New Interchange (Specific Location TBD During Interchange PD&E	\$17.57				\$0.44				\$2.80	\$1.62				\$26.29	\$31.14			\$3.24	\$27.90		OA
C2	Connector Roadway from I-75 Interchange (New)	I-75 (SR-93)	Golden Gate Blvd	4-Lane Connector Roadway from New Interchange (Specific Location TBD During Interchange PD&E Study)	\$80.59				\$2.00				\$13.28	\$7.41				\$120.02	\$142.70			\$15.28	\$127.43		OA

PRE-ENG includes PD&E and Design Present Day Cost Right-of-Way Construction YOE Year of Expenditure

Figure 6-2. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2026–FY2030)

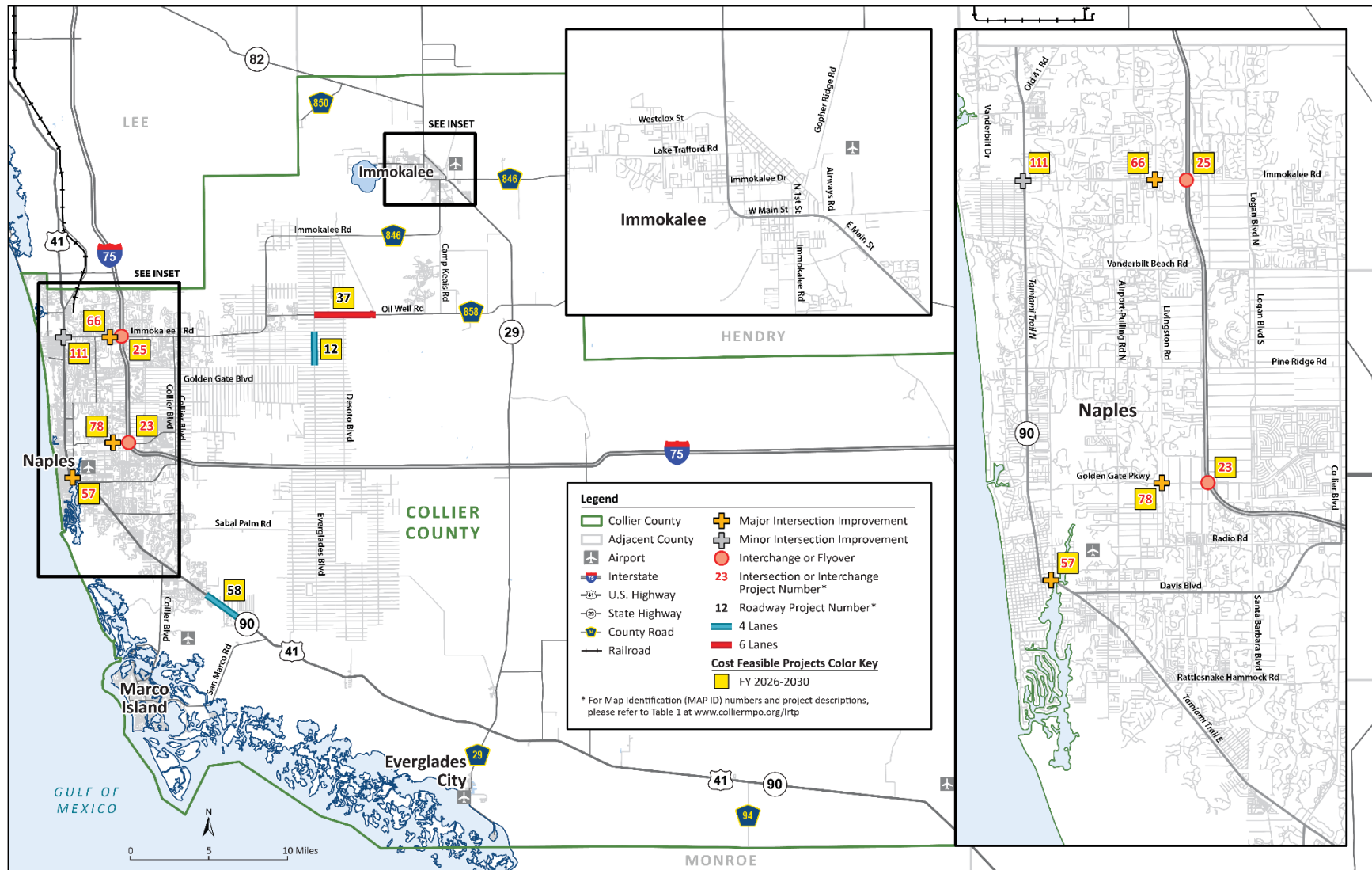


Figure 6-3. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2031–FY2035)

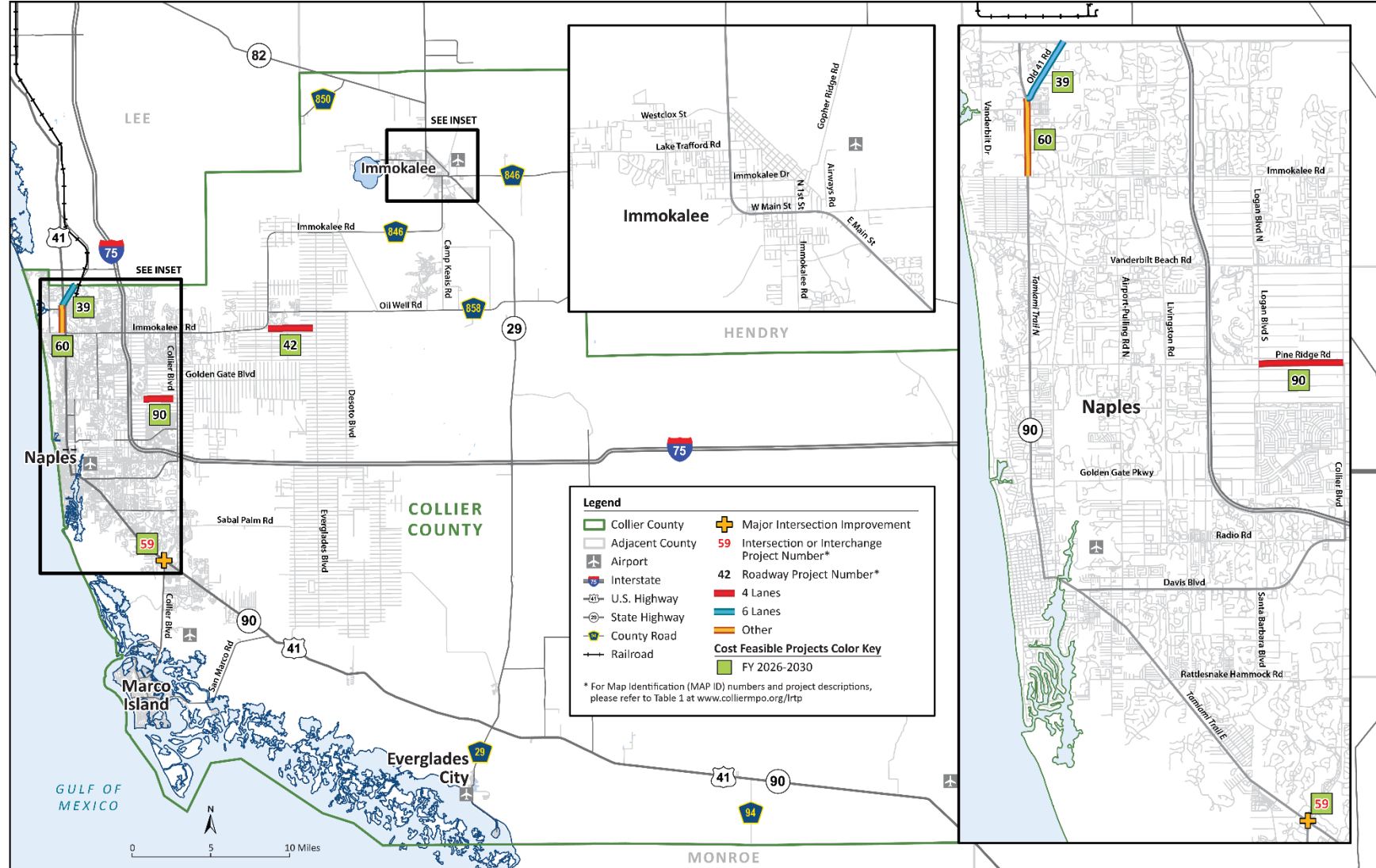


Figure 6-4. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2036–FY2045)

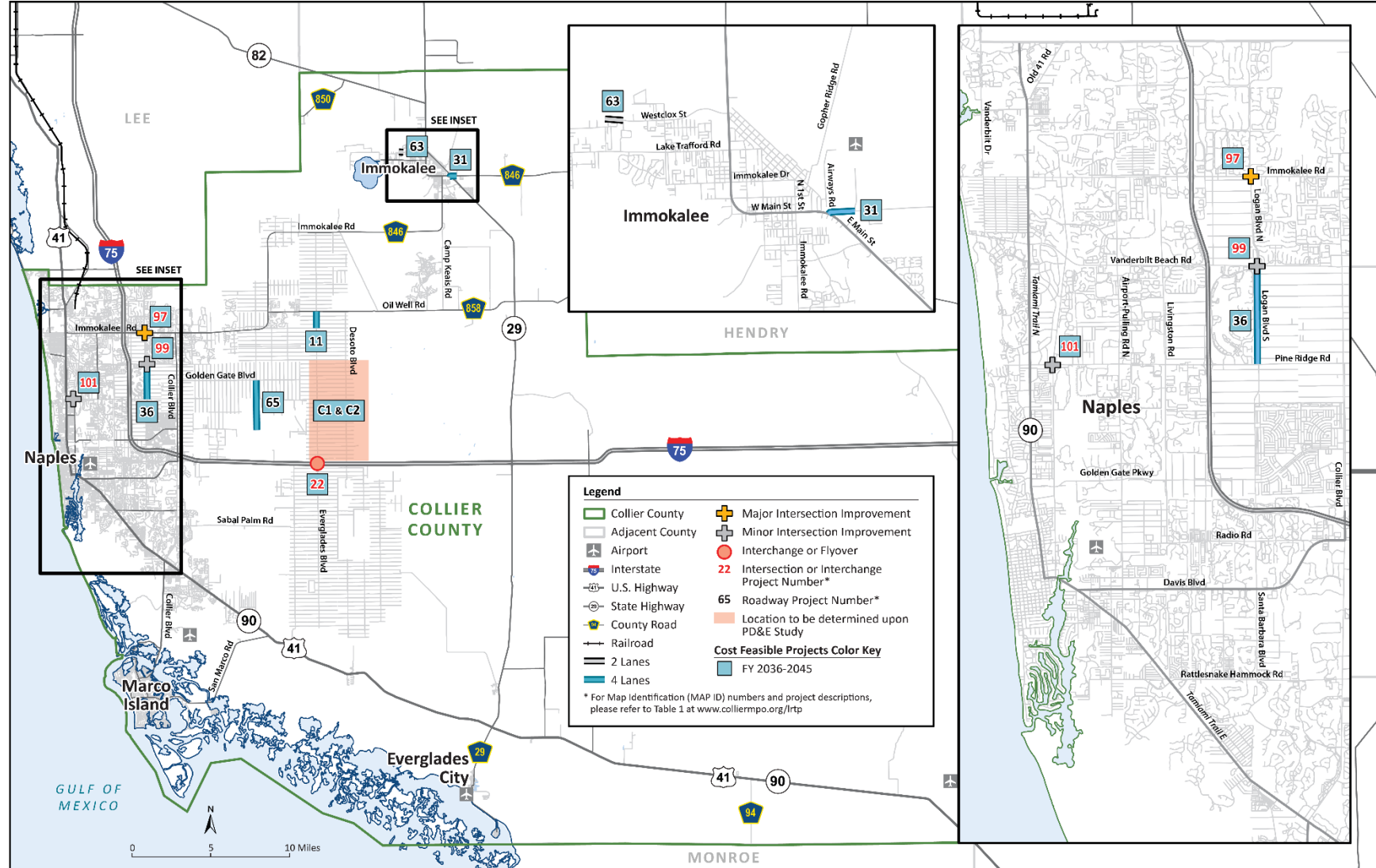


Table 6-3. Collier MPO 2045 LRTP Cost Feasible Plan Projects – Partially Funded Projects (FY2026–FY2045)
Draft 11/12/2020 (in millions \$)

Map ID	Facility	Limits from	Limits to	Description	Total Project Cost (PDC 2019 \$)	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045 (YOE \$ without SIS)	Total SIS Costs	County	OA PRE-ENG	OA ROW and CST	Funding Source
							PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST						
PARTIALLY FUNDED PROJECTS																								
1	Benfield Rd (New) [60129]	The Lords Way	City Gate Blvd N	New 2-Lane Road (Expandable to 4-	\$37.31	\$11.00	\$0.00	\$4.00	\$7.00		\$4.00			\$5.00				\$9.00		\$9.00				County
5	Big Cypress Pkwy	Vanderbilt Beach Rd Ext.	Oil Well Rd	New 2-Lane Road (Expandable to 4-	\$37.31										\$7.70	\$4.04		\$11.74		\$11.74				County
30	Immokalee Rd (CR 846)	Camp Keiss Rd	Eustis Ave	Further Study Required (Immokalee Rd Planning Study)	\$2.00					\$2.00								\$2.00		\$2.00				County
33	Little League Rd Ext.	SR 82	Westclox St.	New 2-Lane Road	\$40.99										\$8.48	\$7.33		\$15.81		\$15.81				County
41A	Randall Blvd (flyover) [60147]	Immokalee Rd		Ultimate Intersection Improvement: Overpass	\$35.66	\$9.75	\$0.95		\$8.80						\$9.46			\$9.46			\$9.46	\$0.00		OA
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6-Lanes	\$40.26							\$0.94			\$9.01		\$45.88	\$55.83			\$9.95	\$45.88		OA
62B	Vanderbilt Beach Rd Ext.	Everglades Blvd	Big Cypress Pkwy	New 2-Lane Road (Expandable to 4	\$41.17										\$8.38	\$16.07		\$24.46		\$24.46				County
69	Everglades Blvd	Oil Well Rd / CR 858	Immokalee Rd	Widen 2 to 4 Lanes	\$72.75					\$3.12	\$5.00							\$8.12		\$8.12				County
74	Immokalee Rd (CR 846) intersection	Wilson Blvd		Major Intersection Improvement	\$17.25										\$6.60			\$6.60			\$6.60	\$0.00		OA
93	Immokalee Rd	43rd Ave/Shady Hollow Blvd E	North of 47th Ave. NE	Widen from 2-Lanes to 4-Lanes	\$9.79										\$2.26	\$0.48		\$2.74		\$2.74				County
94	Rural Village Blvd	Immokalee Rd	Immokalee Rd	New 4-Lane Road	\$23.41										\$5.84	\$2.96		\$8.80		\$8.80				County
98	Vanderbilt Beach Rd	Livingston Rd		Minor Intersection Improvement	\$21.50										\$2.40			\$2.40		\$2.40				County
102	US 41 (SR 90) (Tamiami Trail E)	Vanderbilt Beach Rd		Major Intersection Improvement	\$2.50										\$4.90			\$4.90			\$4.90	\$0.00		OA
103	US 41 (SR 90) (Tamiami Trail E)	Pine Ridge Rd		Major Intersection Improvement	\$2.50										\$4.90			\$4.90			\$4.90	\$0.00		OA
104	US 41 (SR 90) (Tamiami Trail E) [4464511]	Golden Gate Pkwy		Major Intersection Improvement	\$3.50	\$0.50	\$0.27	\$0.23							\$4.40			\$4.40			\$4.40	\$0.00		OA

Notes:

Partially funded for construction

PRE-ENG includes PD&E and Design

Present Day Cost

Right-of-Way

Construction

YOE Year of Expenditure

Figure 6-5. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map – Partially Funded (FY2026–FY2045)

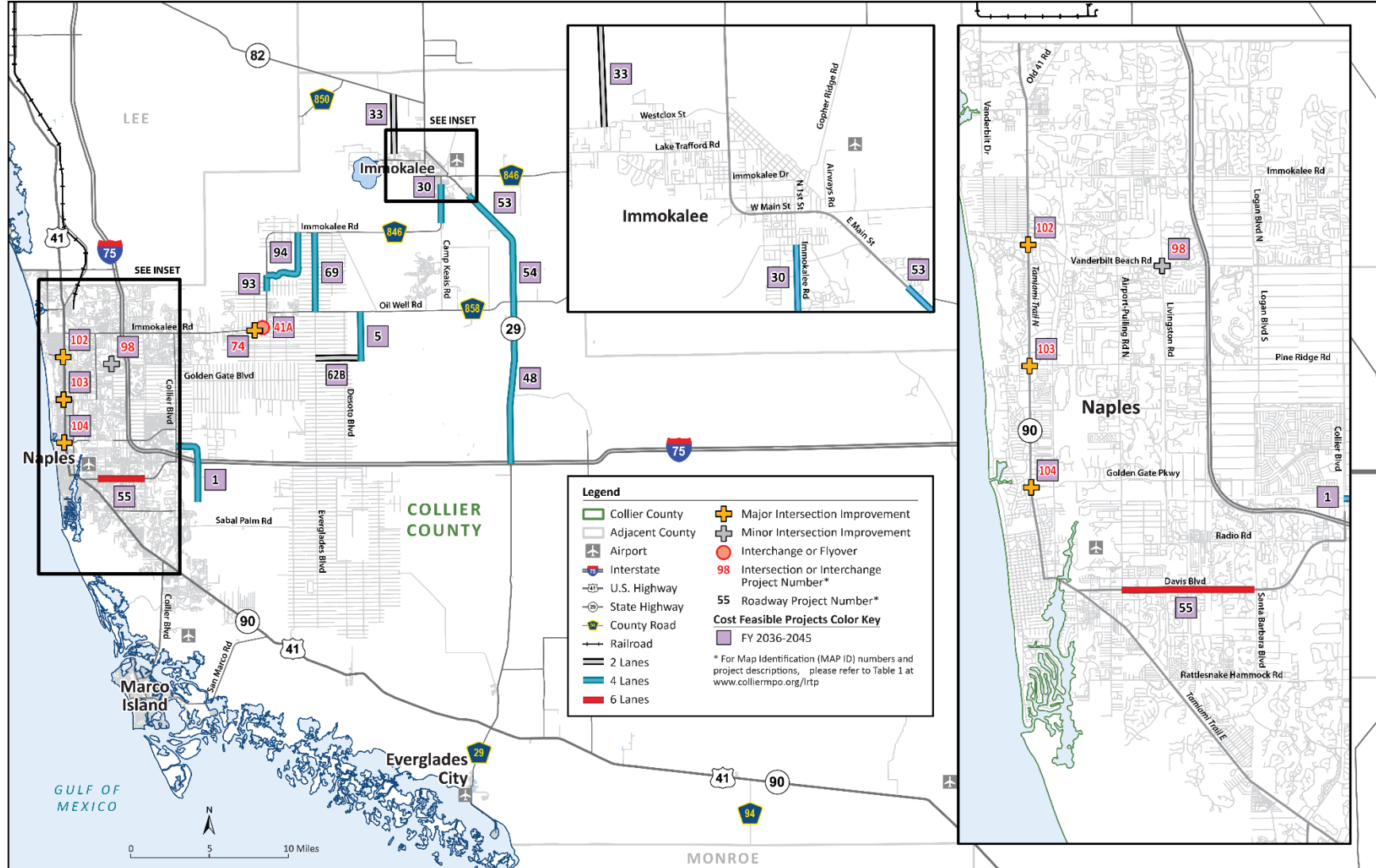


Figure 6-6 presents the total costs by project phase for the SIS cost feasible projects for this 2045 LRTP update. Figures 6-7 and 6-8 present the total costs by project phase and funding source, respectively, for the FDOT Other Roads and Local Roads cost feasible projects for this 2045 LRTP update.

Figure 6-6. Total Costs by Project Phase SIS Funded Projects 2026–2045 (YOE \$ in millions)

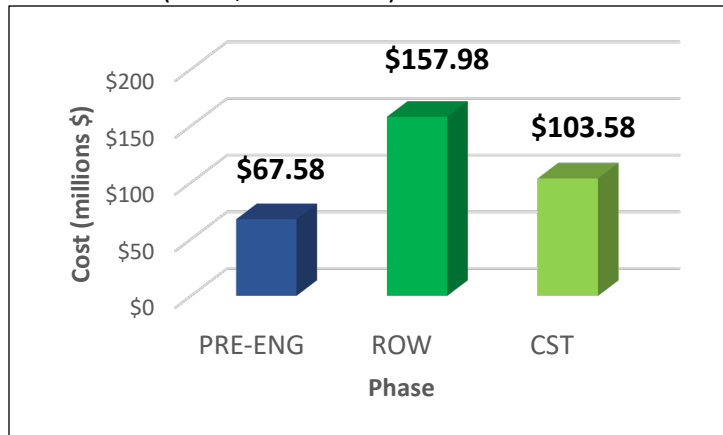


Figure 6-7. Total Costs by Project Phase for FDOT Other Roads and Local Roads Funded Projects 2026–2045 (YOE \$ in millions)

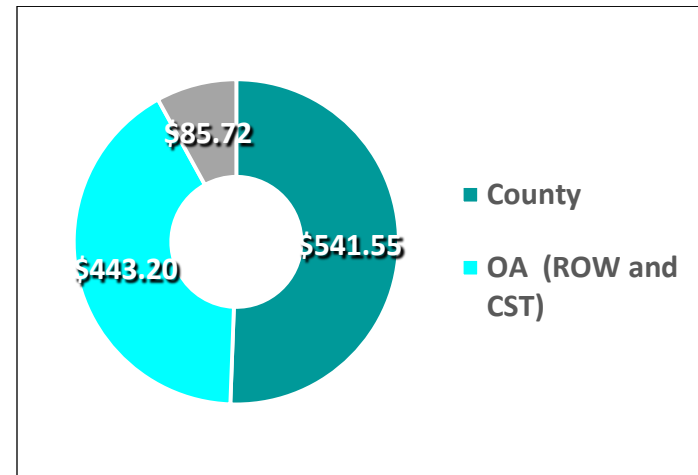
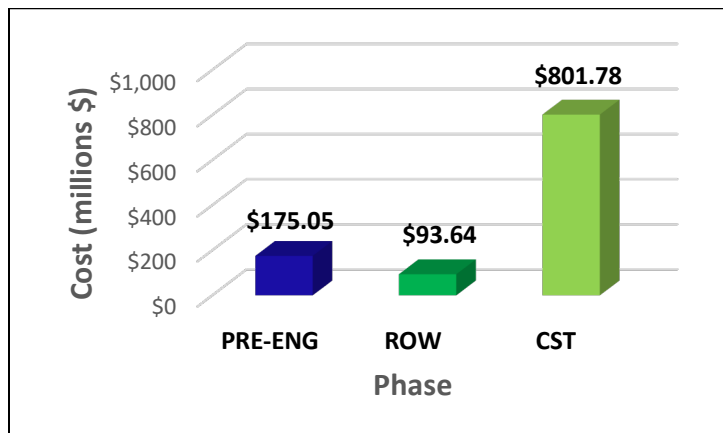


Figure 6-8. Total Costs by Funding Source 2026–2045 (YOE \$ in millions)

Funding of Other Roadway Needs

East of CR 951 Bridges

As noted in Chapter 4, there are 10 proposed canal crossing bridges that are the subject of the 2020 East of CR 951 Bridge Reevaluation Study. A 1-cent infrastructure surtax with specific funding earmarked for constructing these new bridges will be available within the next 7 years. A total of \$19.7 million in TMA (or SU) Funds is dedicated for bridge projects in the 2045 LRTP update:

- Planning Period 2026 to 2030: \$4.96 million for CST
- Planning Period 2031 to 2035: \$4.94 million for CST
- Planning Period 2036 to 2045: \$9.8 million for CST

Congestion Management Projects

Congestion management and ITS projects are generally short-term and immediate action projects. Therefore, their role in the LRTP process is modest and are more thoroughly addressed in the CMP. The current TIP includes several

improvements to the traffic management center, arterial monitoring cameras, and other traffic equipment improvements that address safety, active roadway management, and bicycle and pedestrian facilities. **Table 6-4** presents congestion management projects funded for construction in the 2021–2025 TIP.

The Collier MPO identified congestion management priorities resulting from the TSPR and the Local Road Safety Plan (Collier MPO 2020e). **Tables 6-5** and **6-6** present infrastructure and non-infrastructure multimodal strategies, respectively, that contribute to the MPO’s project selection process.

Table 6-4. Congestion Management Projects Funded in TIP

ITS Projects	Funded Amount	TIP/CIP Year
Bicycle Detection – City of Naples (refer to Figure 4-7 in Chapter 4)	\$66,429	CST 2024/25
ITS Fiber Optic and FPL Power Infrastructure at 13 locations	\$272,725	CST 2024/25
Travel Time Data Collection and Performance Measures	\$700,000	CST 2020/21
New Updated School Flasher System	\$353,250	CST 2024/25
New Vehicle Count Station Update (refer to Figure 4-7 in Chapter 4)	\$311,562	CST 2023/24
New Adaptive Traffic Control System at 13 signalized locations along Santa Barbara Boulevard and Golden Gate Parkway (refer to Figure 4-7 in Chapter 4)	\$893,000	PE 2023/24 CST 2024/25

Source: Collier MPO 2020 Transportation System Performance Report & Action Plan

Future congestion management projects will be prioritized through the MPO’s congestion management process. A total of \$40.45 million in TMA (or SU) Funds is dedicated for future congestion management projects in the 2045 LRTP update:

- Planning Period 2026 to 2030: \$10.17 million for CST
- Planning Period 2031 to 2035: \$10.13 million for CST
- Planning Period 2036 to 2045: \$20.15 million for CST

Other Consideration for SU Funds

In addition to congestion management and bridge projects, the MPO allocates its TMA SU funds to planning, bicycle/pedestrian facilities, and safety projects. These five categories are often referred to as “SU Box” funds by the MPO. The Planning SU Box funds are used to supplement the MPO’s federal Planning (PL) funds to cover costs associated with updating the LRTP every 5 years. The MPO may also use SU Box funds to update the Bicycle and Pedestrian Master Plan, Transportation System Performance Report, Local Roads Safety Plan (LRSP), freight studies, and other plans and studies that are integral to updating the LRTP.

The MPO sets aside SU Box funds allocated to safety projects to implement the LRSP. The LRSP identifies priority projects that include engineering, enforcement, education, and emergency response. Safety projects will be vetted by the Congestion Management Committee, BPAC, TAC, and CAC before going to the MPO Board for adoption. The MPO may also choose to use Safety Box funds to supplement FDOT funding on safety projects that address the MPO’s and FDOT’s shared Vision Zero Safety Performance Targets. **Table 6-7** presents the presents the SU funds by planning year and project phase. **Figure 6-9** presents a summary of the allocation of SU Funds through 2045.

Table 6-5. Infrastructure Strategies Matrix

Infrastructure Strategies	Non-Motorized	Intersection	Lane Departure	Same Direction
Speed Management	X	X	X	X
Alternative Intersections (Intersection Control Evaluation Process)	X	X		X
Intersection Design Best Practices for Pedestrians	X			
Median Restrictions/Access Management		X		X
Right Turn Lanes	?			X
Signal Coordination	?			X
Rural Road Strategies Including:				
• Paved shoulder	X		X	
• Safety Edge			X	
• Curve geometry, delineation, and warning			X	
• Bridge/culvert widening/attenuation			X	
• Guard Rail/ditch regrading/tree clearing			X	
• Isolated intersection conspicuity/geometry		X		
Shared-Use Pathways, Sidewalk Improvements	X			
Mid-Block Crossings & Median Refuge	X			
Intersection Lighting Enhancements	X	X	X	
Autonomous vehicles (longer term)	TBD	X	X	X

Source: Collier MPO Local Road Safety Plan (Collier MPO 2020e)

Notes:

X = Applicable Strategy

? = Possible Contra-indications

Table 6-6. Non-Infrastructure Strategies Matrix

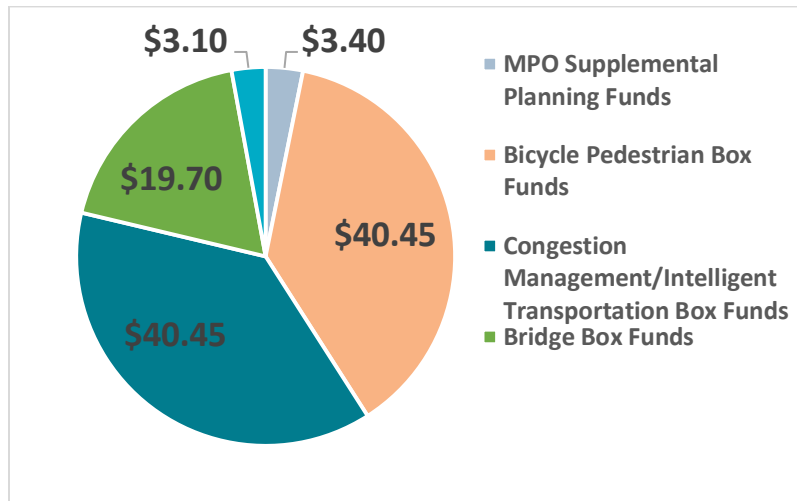
Infrastructure Strategies	Intersection	Lane Departure	Nonmotorized	Rear End/ Sideswipe
Traffic Enforcement				
Targeted Speed Enforcement	X	X	X	X
Red Light Running Enforcement	X		X	
Automated Enforcement	X			?
Pedestrian Safety Enforcement			X	
Bike Light and Retroreflective Material Give-Away			X	
Young Driver Education	X	X	X	X
WalkWise/BikeSmart or Similar Campaign			X	
Continuing Education	X	X	X	X
Safety Issue Reporting	X	X	X	X
Vision Zero Policy	X	X	X	X

Source: Collier MPO Local Road Safety Plan (Collier MPO 2020e)

Table 6-7. SU Box Funds by Planning Year and Project Phase

Allocation Type	Plan Period 2: 2026-2030			Plan Period 3: 2031-2035			Plan Period 4: 2036-2045			Total Cost 2026- 2045
	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	
MPO Supplemental Planning Funds	\$0.70			\$0.80			\$1.90			\$3.40
Bicycle Pedestrian Box Funds			\$10.17			\$10.13			\$20.15	\$40.45
Congestion Management/Intelligent Transportation Box Funds			\$10.17			\$10.13			\$20.15	\$40.45
Bridge Box Funds			\$4.96			\$4.94			\$9.80	\$19.70
Safety			\$0.80			\$0.80			\$1.50	\$3.10

Figure 6-9. SU Fund Allocation Through 2045



Maintenance

Maintenance of the state roadways within the County and its associated municipalities is not included in this LRTP update. As noted in the FDOT's 2045 *Revenue Forecast for the Collier MPO*, FDOT has included sufficient funding to meet the following statewide objectives and policies:

- Resurfacing program: Ensure that 80 percent of SHS pavement meets FDOT standards
- Bridge program: Ensure that 90 percent of FDOT-maintained bridges meet Department standards while keeping all FDOT-maintained bridges open to the public safe
- Operations and maintenance program: Achieve 100 percent of acceptable maintenance condition standard on the SHS
- Product Support: Reserve funds for product support required to construct improvements (funded with the forecast's capacity funds) in each FDOT district and metropolitan area
- Administration: Administer the state transportation program

Maintenance of County and its associated municipality's roadways is funded primarily through fuel taxes and General Fund revenues. The maintenance programs primarily address routine maintenance operations that are preventive or corrective in nature and that address safety concerns.

Unfunded Roadway Needs

While the projects included in the roadway Cost Feasible Plan will address many of the congestion, safety, and capacity issues forecasted for 2045, financial resources are limited. Therefore, a number of unfunded projects in the 2045 roadway Needs Plan are not addressed in this Cost Feasible Plan. **Table 6-8** presents a comparison of total costs for the unfunded roadway needs versus the cost feasible roadway projects. Given the total revenue estimated through 2045, approximately 50 percent of the identified roadway needs can be funded. **Table 6-9** summarizes projects included in the roadway Needs Plan that are unfunded in this 2045 LRTP update.

Table 6-8. Summary of Funded vs. Unfunded Roadway Projects

Roadway (SIS not included)	2045 (in Million \$)
Unfunded Roadways Needs (Present Day Costs)	\$954
Cost Feasible Roadway Projects (Present Day Costs)	\$969.3

Table 6-9. Collier County 2045 LRTP - Unfunded Roadway Needs Projects

Map ID	Project	From	To	Project Description
2	Benfield Rd.	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake Hammock Extension	New 2-Lane Road (Expandable to 4-Lanes)
3	Big Cypress Parkway	North of I-75	Golden Gate Blvd.	New 2-Lane Road (Expandable to 4-Lanes)
4	Big Cypress Parkway	Golden Gate Blvd.	Vanderbilt Beach Road Extension	New 2-Lane Road (Expandable to 4-Lanes)
6	Big Cypress Parkway	Oil Well Rd.	Immokalee Rd.	New 2-Lane Road (Expandable to 4-Lanes)
7	Camp Keais Rd.	Pope John Paul Blvd.	Oil Well Road	Widen from 2 Lanes to 4 Lanes
8	Camp Keais Rd.	Immokalee Rd.	Pope John Paul Blvd.	Widen from 2 Lanes to 4 Lanes
10	CR 951 Extension	Collier Blvd. (CR 951) (northern terminus)	Lee/Collier County Line	New 2-Lane Road
15	Golden Gate Blvd.	Everglades Blvd.	Desoto Blvd.	Widen from 2 Lanes to 4 Lanes
16	Golden Gate Blvd. Extension	Desoto Blvd.	Big Cypress Parkway	New 4-Lane Road
18	Green Blvd.	Santa Barbara/Logan Blvd.	Sunshine Blvd.	Widen from 2 Lanes to 4 Lanes
19	Green Boulevard Extension (16th Ave. SW)	23rd St. SW	Wilson Blvd. Extension (Corridor Study)	New 2-Lane (Future Study Area)
20	Green Boulevard Extension (16th Ave. SW)	CR 951	23rd St. SW (Corridor Study)	New 4-Lane (Future Study Area)
21	Green Boulevard Extension (16th Ave. SW)	Wilson Blvd. Ext	Everglades Blvd. (Corridor Study)	New 2-Lane Road
27	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd.		New Interchange - Partial (to/from the North)
32	Keane Ave.	Inez Rd.	Wilson Blvd. Extension	New 2-Lane Road (Future Study Area)
34	Logan Blvd.	Green Blvd.	Pine Ridge Rd.	Widen from 4 Lanes to 6 Lanes
35	Logan Blvd.	Vanderbilt Beach Rd.	Immokalee Rd.	Widen from 2 Lanes to 4 Lanes
38	Oil Well Road/CR 858	Ave Maria Entrance	Camp Keais Rd.	Widen from 2 Lanes to 6 Lanes
40	Orange Blossom Dr.	Airport Pulling Rd.	Livingston Rd.	Widen from 2 Lanes to 4 Lanes
43	Randall Blvd.	Everglades Blvd.	Desoto Blvd.	Widen from 2 Lanes to 4 Lanes
44	Randall Blvd.	Desoto Blvd.	Big Cypress Parkway	New 4-Lane Road

Table 6-9. Collier County 2045 LRTP - Unfunded Roadway Needs Projects

Map ID	Project	From	To	Project Description
45	Santa Barbara Blvd.	Painted Leaf Ln.	Green Blvd.	Widen from 4 Lanes to 6 Lanes
67	Veterans Memorial Blvd. Extension	Strand Blvd.	I-75	New 4-Lane Road
68	Big Cypress Parkway Intersection (new)	Oil Well Grade Rd.		New At-Grade Intersection
70	Green Blvd. Extension	Everglades Blvd.	Big Cypress Parkway	New 2-Lane Road
73	Immokalee Rd. (CR 846) Intersection	Collier Blvd. (CR 951)		Major Intersection Improvement
75	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd.		New Partial Interchange
76	Vanderbilt Dr.	Immokalee Rd.	Woods Edge Parkway	Widen from 2 Lanes to 4 Lanes
95	Golden Gate Parkway (Intersection)	Goodlette-Frank Rd.		Major Intersection Improvement
96	Pine Ridge Road (Intersection)	Airport Pulling Rd.		Major Intersection Improvement
100	Collier Boulevard (Intersection)	Pine Ridge Rd.		Major Intersection Improvement
107	Golden Gate Pkwy.	Collier Blvd.		Major Intersection Improvement
108	Vanderbilt Beach Rd.	Airport Pulling Rd.		Intersection Innovation/Improvements
109	Immokalee Rd.	Goodlette-Frank Rd.		Intersection Innovation/Improvements
110	Immokalee Rd.	Airport Pulling Rd.		Intersection Innovation/Improvements
112	Airport Pulling Rd.	Orange Blossom		Intersection Innovation/Improvements
113	Airport Pulling Rd.	Golden Gate Pkwy.		Intersection Innovation/Improvements
114	Airport Pulling Rd.	Radio Rd.		Intersection Innovation/Improvements

6-2 Bicycle and Pedestrian Projects

The BPMP noted in Chapter 4 is a systems plan that focuses on identifying the needs and a policy framework for prioritization and implementation of bicycle and pedestrian projects. Further, it provides maximum flexibility in bringing projects forward for funding and offers design guidelines based on best practices that implementing agencies may use as guidance. Therefore, implementation of these projects is more thoroughly addressed through the individual agencies and the MPO bicycle and pedestrian advisory process.

The BPMP provided planning-level project costs for the bicycle and pedestrian projects presented in Chapter 4. These costs did not include costs for ROW or drainage. An engineering cost estimate would be required for submission of a project for prioritization consideration.

Table 6-10 lists the costs associated with priority projects presented in Chapter 4 (Table 4-9) and the figure in Appendix C (Existing + Proposed). These costs are by order of magnitude and are for constructing different combinations of bicycle and pedestrian facilities on the road segments associated with the bicycle and pedestrian priority projects. It is anticipated that this process will be continued throughout the period of the long-range transportation plan, with an annual updating of priorities for inclusion in the TIP by the BPAC.

A total of \$40.45 million in TMA/TA (or SU/TALU) Funds is dedicated for future pedestrian and bicycle projects in the 2045 LRTP update:

- Planning Period 2026 to 2030 - \$10.17 Million for CST
- Planning Period 2031 to 2035 - \$10.13 Million for CST
- Planning Period 2036 to 2045 - \$20.15 Million for CST

Table 6-10. Costs of Priority Bicycle and Pedestrian Projects by Mileage Totals

Component	Mileage	Cost Per Mile	Total Cost
Shared-use paths and bike lanes on both sides of roadway	122	\$1,104,000	\$135 million
Bicycle lanes on both sides; shared-use path on one side, sidewalk on the other	122	\$972,000	\$119 million
Bicycle lanes and sidewalks on both sides of roadway	122	\$840,000	\$103 million
Bicycle lanes on both sides; shared-use path on one side	122	\$818,000	\$100 million
Bike lanes on both sides, sidewalk on one side	122	\$686,000	\$84 million

Source: Collier MPO 2020 Bicycle and Pedestrian Master Plan

6-3 Transit Cost Feasible Projects

Similar to the development of roadway cost feasible projects, the cost feasible transit projects were developed by estimating the costs associated with each project in the transit needs.

Transit Cost Assumptions

Numerous cost assumptions were made to forecast transit costs for 2021 through 2045. Costs include annual service and technology/capital improvements that are programmed for implementation within the plan period. The following

subsections summarize assumptions for capital and operating costs noted in the TDP.

Operating Cost Assumptions

Operating cost assumptions are based on a variety of factors, including service performance data from CAT and information from the recent Collier MPO TDP. These assumptions are summarized as follows:

- Annual operating costs for fixed-route and paratransit services are based on the most recent validated National Transit Database data.
- An annual inflation rate of 1.8 percent was used for all operating cost projections based on the average Consumer Price Index historical data from 2009-2019.
- The Collier MPO projected transit revenues and expenses using a 1.8 percent annual inflation rate, starting from TDP year 2030. The MPO assumed FTA 5307 funds would be added in year 2031 equal to the costs of new transit service added in year 2029.
- Annual operating costs for future service enhancements are based on the projected annual service hours and cost per revenue hour of \$82.32 for fixed-route service and \$63.91 for paratransit service (both in 2018 dollars). The operating cost per hour figures are inflated annually using a 1.8 percent factor
- Implementing the new route alignments represents increased levels of service in such improvements as Route 14, 19/28, and Route 23 with no additional costs.
- As ADA paratransit service is not required for express routes or MOD, it is assumed that any express, and MOD would not require complementary ADA paratransit services if implemented.

Capital Cost Assumptions

Service assumptions were also developed to estimate the costs for capital needs described in Chapter 4 and are summarized as follows:

- New vehicles planned to be purchased include those necessary to replace vehicles within the existing fleet that have reached the end of their useful life and vehicles to implement the new service.
- Vehicles are assumed to cost \$495,000 for fixed-route bus and \$71,217 for paratransit vehicles. Twenty-nine fixed-route vehicles and 58 paratransit vehicles will need to be purchased between 2020 and 2030, while 49 fixed-route and 109 paratransit vehicles will be needed between 2031 and 2045.
- An annual growth rate of 1.8 percent was used for capital cost projections.
- A 20-percent spare ratio was factored into the vehicle replacement and expansion schedule.
- A useful life for bus and paratransit vehicle replacement is 12 years and 7 years, respectively.
- Bus shelter expenses were assumed at the FY 2021 Collier County Government Requested Budget for the first fiscal year but thereafter based on the cost to construct 10 shelters annually to be consistent with the ADA Assessment Plan, with an annual inflation rate of 1.8%.
- Technology costs were obtained from the draft budget for FY2020 Federal Transit Authority Section 5307 and 5339 Program of Projects Draft budget.

Based on the funding availability and prioritized results, the transit cost feasible projects are summarized in [Table 6-11](#) and illustrated in [Figure 6-10](#).

Table 6-11. 2045 Transit Cost Feasible Summary

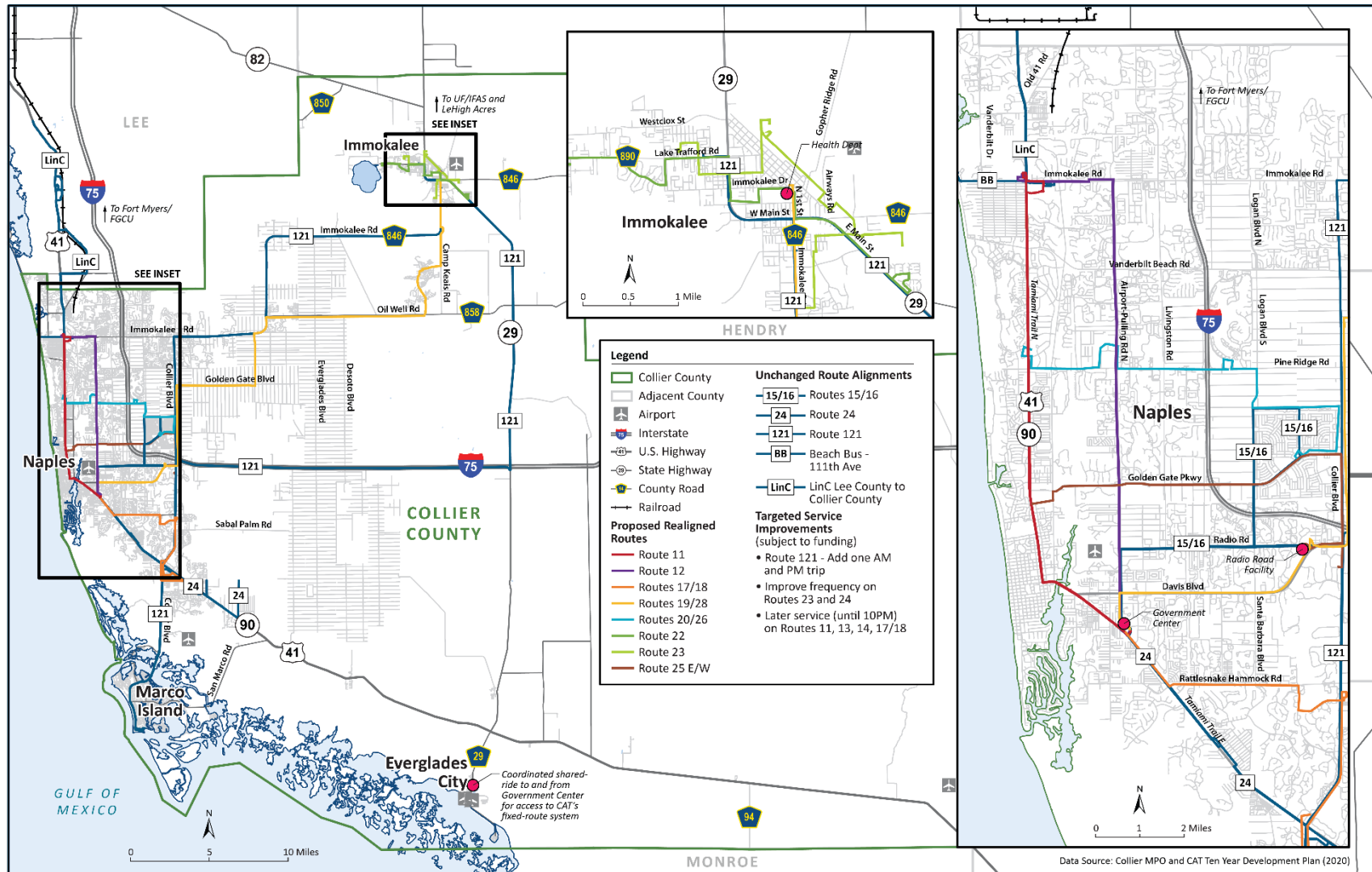
Funded Need	Plan Period 1: 2021–2025 (YOE)	Plan Period 2: 2026–2030 (YOE)	Plan Period 3: 2031–2035 (YOE)	Plan Period 4: 2036–2045 (YOE)	Total Costs 2026–2045 (YOE)
OPERATING					
Maintain Existing Fixed Route	\$32,840,000	\$35,984,000	\$39,179,000	\$89,662,000	\$164,825,000
Maintain Existing Paratransit	\$23,484,000	\$25,640,000	\$28,018,000	\$59,121,000	\$112,779,000
Route 22 - Realigned	\$0	\$0	\$0	\$0	\$0
Route 23 – Realigned + Frequency Improvement	\$1,618,000	\$2,188,000	\$2,391,000	\$5,471,000	\$10,050,000
Route 121 – Add Additional a.m./p.m. Stop	\$694,000	\$938,000	\$1,026,000	\$2,347,000	\$4,311,000
Route 24 – Improve Frequency	\$869,000	\$1,176,000	\$1,285,000	\$2,941,000	\$5,402,000
Route 11 – Increase Service Span to 10 p.m.	\$0	\$257,000	\$684,000	\$1,564,000	\$2,505,000
Route 13 – Increase Service Span to 10 p.m.	\$0	\$175,000	\$465,000	\$1,063,000	\$1,703,000
Route 14 – Increase Service Span to 10 p.m.	\$0	\$175,000	\$465,000	\$1,063,000	\$1,703,000
Route 17/18 – Increase Service Span to 10 p.m.	\$0	\$317,000	\$842,000	\$1,928,000	\$3,087,000
Total Operating Costs	\$59,505,000	\$66,848,000	\$74,354,000	\$170,166,000	\$306,365,000
CAPITAL					
Vehicles					
Replacement of Fixed Route Vehicles	\$7,307,000	\$8,557,000	\$8,223,000	\$18,817,000	\$35,597,000
Replacement of Paratransit Vehicles	\$2,147,000	\$2,344,000	\$2,327,000	\$5,328,000	\$9,999,000
Replacement of Administrative Vehicles	\$92,000	\$100,000	\$107,000	\$245,000	\$452,000
Preventative Maintenance	\$908,000	\$1,122,000	\$1,130,000	\$2,586,000	\$4,838,000
Spare Vehicles	\$504,000	\$590,000	\$0	\$718,999	\$1,308,000
Route 23 Realignment + Frequency Improvements	\$504,000	\$0	\$0	\$0	\$0
Routes 24 and 121 Frequency Improvements	\$1,008,000	\$0	\$0	\$0	\$0
Total Vehicle Capital Costs	\$12,470,000	\$12,713,000	\$11,787,000	\$27,694,000	\$52,194,000

Table 6-11. 2045 Transit Cost Feasible Summary

Funded Need	Plan Period 1: 2021–2025 (YOE)	Plan Period 2: 2026–2030 (YOE)	Plan Period 3: 2031–2035 (YOE)	Plan Period 4: 2036–2045 (YOE)	Total Costs 2026–2045 (YOE)
<i>Other Capital Needs</i>					
Bus Shelters	\$4,286,000	\$2,781,000	\$3,037,000	\$6,951,000	\$12,769,000
Safety/Security	\$538,000	\$586,000	\$642,000	\$1,468,000	\$2,696,000
Driver Protection Barriers	\$82,000	\$0	\$0	\$0	\$0
Technology	\$2,585,000	\$50,000	\$265,000	\$605,000	\$920,000
Study: Santa Barbara	\$25,000	\$0	\$0	\$0	\$0
Study: SUF/IFAS	\$25,000	\$0	\$0	\$0	\$0
Study: I-75	\$25,000	\$0	\$0	\$0	\$0
Study: Everglades City	\$25,000	\$0	\$0	\$0	\$0
Study: Fares	\$50,000	\$0	\$0	\$0	\$0
Study: MoD	\$50,000	\$0	\$0	\$0	\$0
CAT Bus and Maintenance Building ^a	\$7,065,497	\$0	\$0	\$0	\$0
<i>Total Other Capital Costs</i>	\$14,756,500	\$3,417,000	\$3,944,000	\$9,024,000	\$16,385,000
<i>Total Capital Costs</i>	\$27,226,500	\$16,129,000	\$15,713,000	\$36,720,000	\$68,579,000

^a FY 2020/21 through FY 2024/25 TIP Amendment – FTA Grant Award (5339B Funding)

Figure 6-10. 2045 Transit Cost Feasible Plan Projects Map



6-4 Freight Network Projects

FDOT updated its Freight Mobility and Trade Plan (FMTP) in April 2020 (FDOT 2020b). The FMTP is a comprehensive plan that identifies freight transportation facilities critical to the state's economic growth and guides multimodal freight investments in the state. The FMTP identified freight hotspots as presented in **Figure 6-11**. Collier County has low to medium freight activity along the I-75 corridor. According to the data from the FMTP, there are two Freight Intensive Areas in the County: East Naples Industrial area and the Immokalee Airport Industrial area. A Freight Intensive Area is a cluster or group of freight facilities that generates, distributes, or attracts large amounts of freight activities and has a significant impact on Florida's transportation system and economy. Out of 70 Freight Intensive Areas within the state, the East Naples and Immokalee Airport areas ranked 42nd and 43rd, respectively, by total freight parcel floor area.

The FMTP *Technical Memorandum 6, Project Prioritization and Selection* (FDOT 2020b) presents the methodology and the freight project selection and prioritization process. Noted on the list of prioritized projects in the FMTP as a low priority were the I-75 at CR 846 (Immokalee Road) and I-75 at Pine Ridge Road interchange modification projects. All projects listed in Table 6-1, 2045 SIS Cost Feasible Projects, are part of the Regional Freight Mobility Corridors within the Collier MPO boundary (refer to Figure 4-4 in Chapter 4). A total of 20 of the cost feasible projects identified in this 2045 LRTP update are on the freight network within Collier MPO boundary.

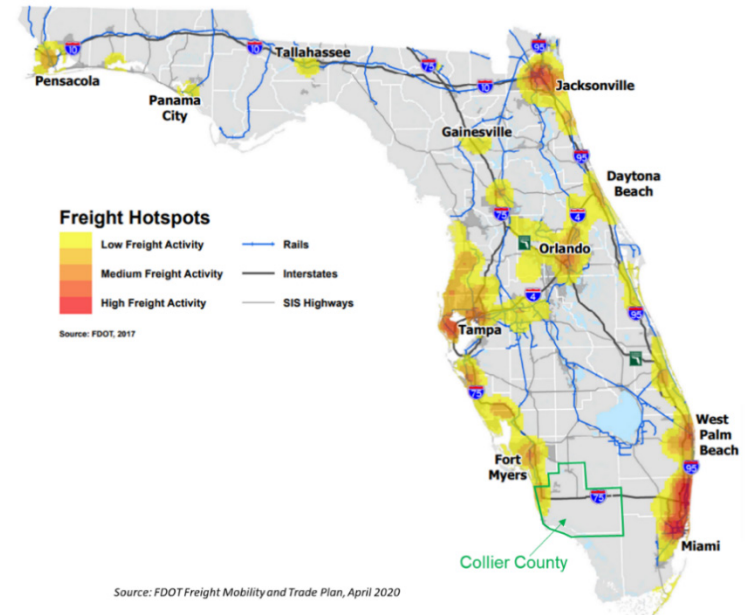


Figure 6-11. Freight Hotspot Locations

6-5 Airport Transportation Projects

As noted in Chapter 4, two off-airport transportation projects were identified in the roadway Needs Plan to improve access to Naples Airport and Immokalee Regional Airport. Project no. 31, Immokalee Road from Airpark Boulevard to SR 29, has been identified as cost feasible for construction in FY2036 to FY2045. The project includes widening Immokalee Road from two to four lanes and will improve traffic operations and access to the industrial warehouses within the property of the Immokalee Regional Airport. Approximately \$7.2 million has been dedicated to this off-airport roadway project in the Cost Feasible Plan using County funds.

Project no. 114 in the roadway Needs Plan includes innovative intersection improvements at Radio Road and Airport Pulling Road. This intersection provides access to the entrance of the Naples Airport. While the project is not part of the Cost Feasible Plan, it will remain on Needs Plan. Naples Airport

estimates their development costs for airport operations at \$56.8 million for short term (2020–2024), \$67 million for intermediate (2025–2029), and \$83 million for long-term (2030–2039) expenses, for a total of \$206.9 million.



Implementation

- 7-1 Implementation Framework
- 7-2 2045 LRTP Performance Measures and Targets
- 7-3 Planning Programs

Chapter 7 Implementation

The Collier MPO is responsible for implementing the investments and strategies included in this LRTP. This chapter describes how the MPO will implement the LRTP investments in coordination with federal, state, and local partners. Major planning partners for the Collier MPO 2045 LRTP update include the Collier MPO Board and committees; Collier County, the cities of Naples, Marco Island, and Everglades City; FDOT; MPO Adviser Network; local tribal governments; and Lee County (through the Lee County MPO Interlocal Agreement).

7-1 Implementation Framework

The LRTP reflects and guides Collier MPO's commitment to ensuring the priority projects, programs, and policies are carried out successfully, while complying with transportation planning and requirements as described in federal authorizing legislation. As noted in Chapter 1, the FAST Act requires a *Continuing*, *Cooperative*, and *Comprehensive* long-range planning process. As part of this process, FHWA and FTA jointly issued a Planning Rule¹ requiring MPOs to establish targets for federally developed performance measures to evaluate the regional transportation system presented in their LRTPs. Performance-based planning ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes related to the seven national goals outlined in Chapter 1.

Under this framework, the three FHWA performance measures (PMs) rules and the FTA transit asset management

and transit safety rules established various performance measures to assess roadway safety (PM1), pavement and bridge condition (PM2), system performance and freight movement (PM3), transit asset management, and transit safety. The Planning Rule and the PM rules also specify how MPOs should set targets, report performance, and integrate performance management into their LRTP and TIP.

Table 7-1 presents the federal PMs and the targets adopted by the Collier MPO Board.

System Performance Report

FHWA requires that MPOs prepare a System Performance Report (SPR) every 5 years and include the report with the LRTP. The SPR includes PMs required for all MPOs across the country, which allows for clear and consistent comparisons across planning areas. In response, FDOT developed an SPR template for each Florida MPO. The SPR evaluates the condition and performance of the transportation system with respect to required performance targets, and reports on progress achieved in meeting the targets in comparison with baseline data and previous reports.

The SPR includes five categories of system performance. These measures are focused largely on the highway and major roadway network receiving the majority of federal transportation funding. These categories include:

- Highway Safety
- Bridge and Pavement
- System Performance
- Transit Asset Management
- Transit Safety (planning only)

¹ The Final Rule modified 23 CFR Part 450 and 49 CFR Part 613.

Table 7-1. Collier MPO Adopted Performance Measures and Targets

	Measure	Target
Safety (PM1)	Fatalities	0
	Serious Injurious	0
	Fatality Rate	0
	Injury Rate	0
	Nonmotorized Fatalities & Serious Injuries	0
Pavement (PM2)	Condition of NHS Interstate Pavements	≥60% in <i>good</i> condition in 4 years
		<5% in <i>poor</i> condition in 4 years
	Condition of NHS Non-Interstate Pavement	≥40% in <i>good</i> condition in 2 & 4 years
		<5% in <i>poor</i> condition in 2 & 4 years
Bridge (PM2)	NHS Bridge Deck Area Condition	≥50% in <i>good</i> condition in 2 & 4 years
		<10% in <i>poor</i> condition in 2 & 4 years
System Performance (PM3)	% of Person-Miles on the Interstate that are reliable	≥75% in 2 years ≥70% in 4 years
	% Person-Miles on Non-Interstate NHS that are reliable	N/A in 2 years ≥50% in 4 years
	Truck Travel Time Reliability Index	≤1.75 in 2 years ≤2.0 in 4 years

	Measure	Target	
Transit Asset Management	Transit Rolling Stock	10% have met or exceeded ULB	
	Transit Equipment	≤25% have met or exceeded ULB	
	Transit Facilities	25% of facilities <3.0 on FTA's Transit Economic Requirements Model scale (1 [Poor] to 5 [Excellent])	
Transit Safety Performance	Safety Performance Target Category	Motor Bus (Fixed Route)	Demand Response (Paratransit)
	Total No. of Fatalities	0.0	0.0
	Fatality Rate/100,000 Vehicle Revenue Miles (VRM)	0.0	0.0
	Total No. of Injuries	3.0	1.0
	Injury Rate/100,000 VRM	0.0	0.0
	Total No. of Safety Events	2.0	1.0
	Safety Event Rate/100,000 VRM	0.0	0.0
	Total No. of Major Mechanical System Failures	20.0	20.0
	Vehicle Failures/100,000 VRM	2.0	2.0
	Annual VRM	1,200,000	1,200,000

Notes:

NHS = National Highway System

ULB = Useful Life Benchmark

MPO partners and constituents can review current and past SPRs by visiting the respective MPO website and by attending public MPO meetings in which the reports are reviewed and adopted.

The first Collier MPO 2020 SPR is included in this 2045 LRTP update as [Appendix F](#). The SPR is comparable to the Collier MPO *Fiscal Year 2019 Annual Report*, which also presents ongoing improvements and monitoring.

Federal Planning Factor Consistency

The LRTP goals and objectives discussed in Chapter 3 incorporate the federal planning factors required for all MPOs to address through planning. [Table 7-2](#) illustrates which 2045 LRTP goals meet the federal planning factor requirements.

The Collier MPO added a new transit priority project in 2019 to purchase a replacement bus for the CAT system, contributing \$500,000 in MPO funds specifically to address the Transit Asset Management Performance Plan target for rolling stock. The MPO included the same amount in its newly adopted transit priorities for 2020.

7-2 Planning Programs

The Collier MPO implements the LRTP through short- and long-term transportation plans and through programs and projects, which is done in partnership with the County and associated municipalities that design, develop, and deliver policies, programs, and infrastructure projects identified in the LRTP.

As noted earlier, this LRTP update incorporates other plans by reference including the BPMP, TDP, CMP, TSPR, and LRSP. Each plan creates foundations for the LRTP by containing in-depth analysis and public processes from which the long-range planning builds a comprehensive and coordinated regional, multimodal vision. The LRTP reflects the needs and prioritized strategies identified in these plans in the needs and cost feasible project lists. Planning partners will look to these plans for implementation analysis and guidance. [Figure 7-1](#) presents the plans that are incorporated by reference into the LRTP, their update cycle, and how they ultimately inform the TIP and UPWP. Figure 7-1 also presents a timeline of Collier MPO's programs and plans from the 2045 LRTP adoption to the 2050 LRTP update and adoption.

Table 7-2. LRTP Goals and Federal Planning Factors











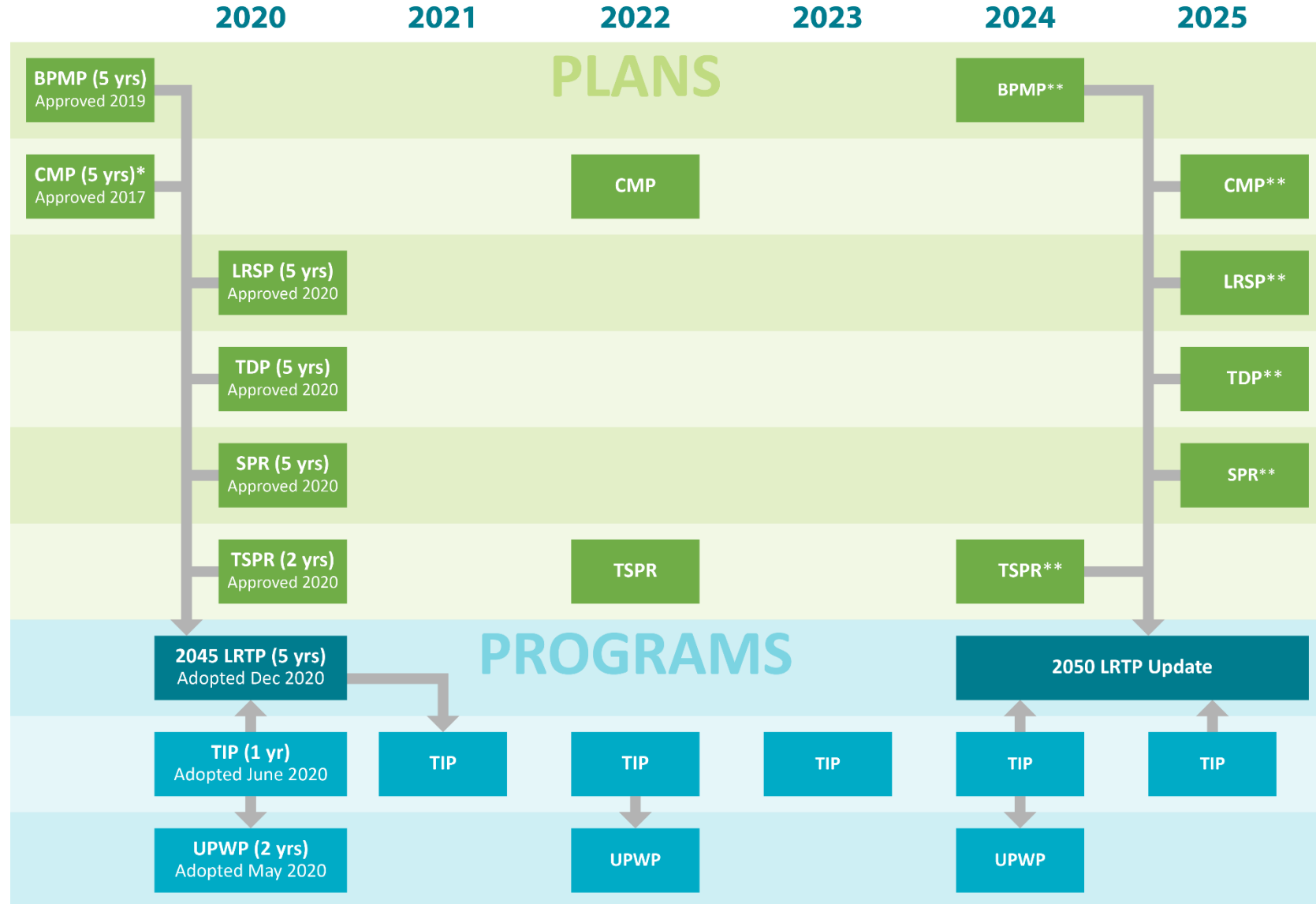
Federal Planning Factors	 Goal 1 Ensure the Security of the Transportation System for Users	 Goal 2: Protect Environmental Resources	 Goal 3: Improve System Continuity and Connectivity	 Goal 4: Reduce Roadway Congestion	 Goal 5: Promote Freight Movement	 Goal 6: Increase the Safety of the Transportation System for Users	 Goal 7: Promote Multimodal Solutions	 Goal 8: Promote the Integrated Planning of Transportation and Land Use	 Goal 9: Promote Sustainability in the Planning of Transportation and Land Use	 Goal 10: Consider Climate Change Vulnerability and Risk in Transportation Decision-Making
Safety						✓				
Security	✓									
Accessibility & Mobility			✓	✓			✓	✓		
Multimodal Connectivity			✓				✓		✓	
System Preservation										✓
Economic Vitality					✓		✓			
Environmental Quality		✓							✓	
System Efficiency				✓	✓			✓		
Resiliency & Reliability	✓			✓						✓
Transit & Tourism							✓	✓		

Figure 7-1. Collier MPO Plans and Programs Timeline



(X yrs) = Update Cycle

* Since the TSPR is updated every 2 years, it could trigger a more frequent update of the CMP.

** Approval should be at least 6 months prior to LRTP adoption.

Other Implementing Programs

Collier MPO provides six programs to implement planning and development strategies identified in the LRTP. These programs typically result in the plans that are incorporated by reference into the LRTP, but may also include funding grant programs, initiatives, data collection, public information, and other activities and resources for local and partner agencies. Each is described briefly as follows.

Traffic Safety

Collier MPO leads initiatives and planning processes to continually improve motorized and nonmotorized transportation safety on federal, state, and local facilities. The MPO produced the LRSP that prioritized safety improvements on locally owned roadways and includes input from the FDOT Community Traffic Safety Team, law enforcement agencies, FDOT, and other state and federal planning partners.

Bicycle and Pedestrian

In addition to developing the BPMP, the Collier MPO along with Blue Zones installed a bicycle/pedestrian counter to aid in bicycle and pedestrian data collection on Bayshore Drive for the Bayshore Drive CRA. The MPO also has completed multiple walkable community studies as well as the Pedestrian and Bicycle Safety Study that analyzed travel trends and crashes to better plan for future investments. Critical information gathered during the course of these studies is shared with its planning partners.

Congestion Management

Collier MPO convenes the CMC to oversee implementation of the CMP and related planning activities. The CMP along with the TSPR inform multimodal traffic safety concerns within the County and its municipalities. The MPO coordinates with state

partners to update data and modeling tools to better understand traffic demand and safety conditions.

Transit

Collier MPO works with the County to ensure that CAT plans are coordinated with partner agencies' plans and comply with federal and state requirements that ensure sustainable operations and maintains compliance with state and federal funding program requirements. The MPO also coordinates with CAT to produce transit-related plans and studies, including comprehensive operational analyses, transit impact analyses, Public Transit-Human Service Transportation Plan (referenced as the Collier MPO Transportation Disadvantaged Service Plan), a park-and-ride study, and the TDP.

Freight

Collier MPO works to enhance the integration and connectivity of transportation systems and the movement of goods and commodities through freight. The Collier MPO staff participate in regional meetings with freight industry representatives hosted by the FDOT District One Freight Coordinator. The *FDOT District One Freight Mobility & Trade Plan* (FDOT 2020b) notes that Collier County's top import and export commodity flow is the bulk movement of boxcars with more than 1.1 million tons imported and more than 650,000 tons imported. Additionally, Collier County is one of the top three counties in District One for vegetables, tomatoes, and watermelons harvested by acreage.

Aviation

As noted in Chapter 4, five public airports serve the Collier MPO planning area. With the exception of the Dade-Collier Training and Transition Airport (just west of the Miami-Dade County line), the Collier MPO coordinates with the airport authorities for off-airport transportation needs. Further, the

Naples and Collier County Airport Authorities submit annual aviation project priorities to the MPO via Joint Automated Capital Improvement Programs for each airport within the Collier MPO's planning area.

Other Collier Metropolitan Area Projects

The Collier MPO also implements plans by participating and contributing to major projects in the region. They include regionally significant plans, studies, and project development and delivery tasks. Several ongoing efforts are described as follows.

Lee County MPO Rail Feasibility

In October 2013, the Lee County MPO finalized the *Lee County Rail Corridor Feasibility Study* (David Plummer & Associates et al. 2013) to analyze multimodal transportation options in the existing rail corridor in Lee and northern Collier County. Transportation alternatives included freight service, commuter or light rail transit, BRT, and/or multi-use paths. The Lee MPO is coordinating with Collier County Transportation Planning and the Collier MPO throughout the study.

The Lee County MPO is currently embarking on a detailed trail feasibility study for the Lee County portion of this trail northward as far as Alico Road. The Seminole Gulf Railway, which terminates in northern Collier County, purchased the ROW from CSX in 2018, after 30 years of leasing the corridor from them. A trail along the rail corridor from Bonita Beach Road north is now part of Florida's SunTrail Network. The trail is planned to run east of the railroad along Bonita Beach Road, then south along the Livingston Road corridor into Collier County.

Multi-use Corridors of Regional Economic Significance (M-CORES)

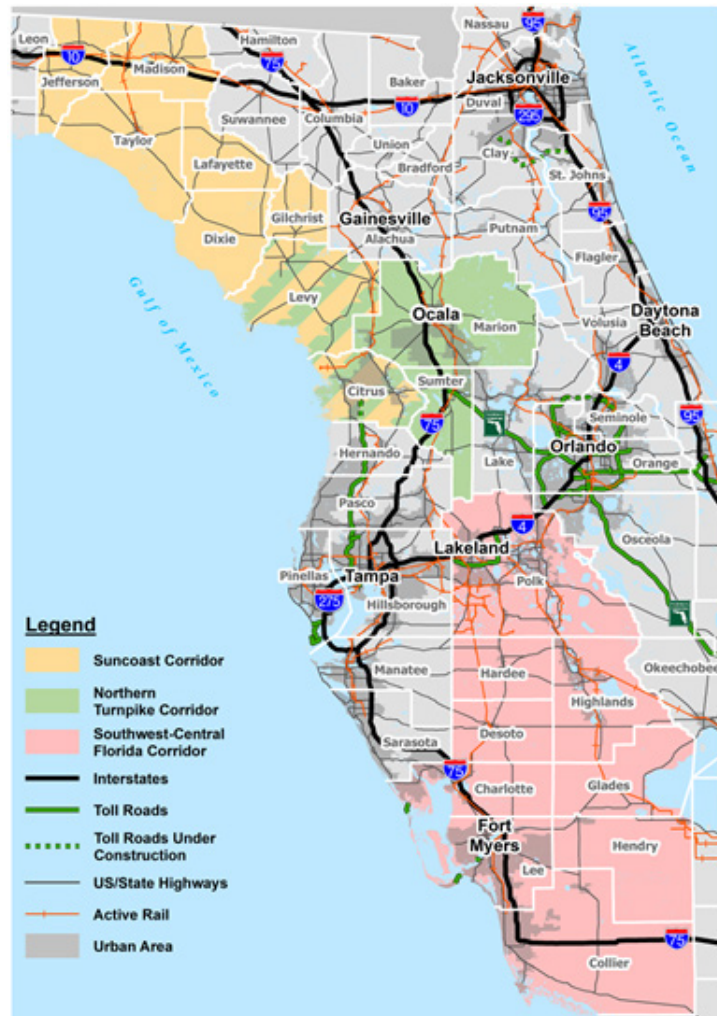
Created by Section 338.2278, F.S., the M-CORES Program seeks to revitalize rural communities, encourage job creation, and provide regional connectivity while leveraging technology, enhancing quality of life and public safety, and protecting the environment and natural resources. FDOT is responsible for organizing task forces to study three specific corridors detailed as follows and presented on **Figure 7-2**:

- The Suncoast Corridor (from Citrus County to Jefferson County)
- The Northern Turnpike Corridor (from the northern terminus of Florida's Turnpike northwest to the Suncoast Parkway)
- The Southwest-Central Florida Corridor (from Collier County to Polk County)

The goal of the M-CORES Program involves advancing the construction of regional corridors that accommodate multiple modes of transportation and multiple types of infrastructure. The Southwest-Central Florida Corridor study area spans nine counties, from Collier County to Polk County, as shown on Figure 7-2. The Collier MPO area is part of the Southwest-Central Florida Corridor study area.

M-CORES projects are projects of regional significance and, therefore, must be included in the LRTP, TIP, and the State Transportation Improvement Program (STIP) [per 23 CFR Part 450.324(d) and Section 339.175(7), F.S.]. The 2045 LRTP update did not include any M-CORES projects as none has been developed as of the publication of this document.

Figure 7-2. M-CORES Study Area



MPOs and transportation planning organizations within an M-CORES study area are responsible for actively involving all affected parties in an open, cooperative, and collaborative process when developing LRTPs and TIPs. Regional coordination is required because M-CORES projects affect

multiple MPOs. Public participation required for the development of LRTP and TIP is neither affected nor replaced by the public engagement activities conducted as part of the M-CORES corridor development process.

Collier MPO will use travel demand forecasts generated by the Florida Turnpike Statewide Model for M-CORES projects. As such, Collier MPO will coordinate all M-CORES-related analyses with FDOT for consistency purposes.

The proposed projects in the Southwest-Central Florida Corridor will be tolled facilities and will be part of the Florida's Turnpike system and the SIS. The projects will be included in the LRTP and TIP/STIP in accordance with guidance provided in the FDOT *MPO Program Management Handbook* (FDOT 2019c). FDOT is working with the Southwest-Central Florida Corridor Task Force to develop purpose and need, guiding principles, and potential paths/courses. The Collier MPO is a member of the Southwest-Central Florida Corridor Task Force and is actively engaged in pertinent aspects of planning and corridor analysis through the Task Force activities. The Task Force submitted its evaluation report to the governor, the president of the senate, and the speaker of the house of representatives on November 15, 2020. As the program progresses to PD&E, design, and construction phases, FDOT will identify projects, prepare cost estimates, and coordinate with Collier MPO to add identified projects into the LRTP and TIP. Subject to the economic and environmental feasibility statement requirements of Section 337.25, F.S., projects may be funded through Turnpike revenue bonds or ROW and bridge construction bonds or financing by the Florida Department of Transportation Financing Corporation; by advances from the State Transportation Trust Fund; with funds obtained through the creation of public-private partnerships; or any combination thereof. FDOT also may accept donations of land for use as transportation ROW or to

secure or use transportation ROW for such projects in accordance with Section 337.25, F.S. To the maximum extent feasible, construction of the M-CORES projects will begin no later than December 31, 2022, and the corridors will be open to traffic no later than December 31, 2030.

I-75 Connect (South Corridor) Study

FDOT is embarking on a program that will lead to the long-term build-out of the interstate corridors in southwest Florida, first envisioned by prior planning studies. This capacity improvement project involves the potential construction of managed lanes in each direction on I-75, from east of Collier Boulevard (SR 951) in Collier County to Bayshore Road (SR 78) in Lee County. Additional general-use lanes, collector-distributor roadways, and auxiliary lanes, as well as interchange operational improvements, are also being considered. As such, up to a 12-lane typical section is being explored.

There are opportunities to operate reliable, efficient transit service within the managed lanes, as well as provide connections to park-and-ride or kiss-and-ride lots located within the project area. Further, there is opportunity to provide improved or new bicycle and pedestrian accommodations as well as landscaping/streetscaping treatments on roadways connecting to or passing under the interstate to enhance bicycle and pedestrian circulation and access to area transit service.

While the proposed improvements are anticipated to be constructed primarily within the existing ROW, some additional ROW may be required, particularly around the interchanges. Specific ROW requirements will be determined during the PD&E study phase. Within the Collier MPO planning area, the interchanges at Immokalee Road, Pine Ridge Road, Golden Gate Parkway, and Collier Boulevard are being studied. The study is expected to be complete by the fourth quarter of 2022.



8

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COLLIER MPO

2045

LONG RANGE TRANSPORTATION PLAN

APPENDICES

DECEMBER 2020

Final Draft 11-19-20



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Appendix A

Federal and State LRTP Requirements



Table A-1. Federal Requirements from January 2018 FHWA Expectations Letter

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
Stakeholder Coordination and Input	
<p>Specific Public Involvement Strategies: Develop a written plan to document the procedures, strategies, and outcomes of stakeholder involvement in the planning process for all MPO products and processes, including but not limited to, public/stakeholder input on the LRTP and its amendments.</p>	<p>-Chapter 2 – Plan Process, Section 2-4</p> <p>-<i>Public Information Summary Report</i> (prepared under separate cover)</p> <p>-<i>Public Involvement Plan</i> (prepared under separate cover)</p> <p>-<i>Social Media Outreach Strategy</i></p>
<p>Public Involvement/Tribal/Resource Agency Consultation: Consultation on the MPO’s planning products (including the LRTP) with the appropriate Indian Tribal governments and Federal land management agencies (when the planning area includes such lands) is required to be documented. State and local agencies (including Tribal government resource agencies) responsible for land use management are required to be consulted during the development of the LRTP. The consultation process is required to be documented.</p>	<p>-Chapter 2 – Plan Process, Section 2-4</p> <p>-<i>Public Information Summary Report</i> (prepared under separate cover)</p>
<p>Measures of Effectiveness: MPOs are required to periodically review the effectiveness of the procedures and strategies described within the public participation plan (PPP). The PPP is also required to contain the specific measures used, the timing of, and the process used to evaluate the MPO’s outreach and PPP strategies. Ideally, once the LRTP is developed, the outreach is evaluated, and then any needed changes to the outreach process are incorporated and documented in the PPP prior to the next LRTP update.</p>	<p>The Collier MPO Public Participation Plan includes process for evaluating public participation effectiveness.</p>
Fiscal Constraint	
<p>Project Phases: Projects in LRTPs are required to be described in enough detail to develop cost estimates in the LRTP financial plan that show how the projects will be implemented. For a project in the cost feasible plan, the phase(s) being funded and the cost must be documented. Additionally, the source of funding for each phase must be documented in the first 10 years of the LRTP. The phases to be shown in LRTPs include Preliminary Engineering (PE), Right of Way (ROW) and Construction. PE includes both the Project Development and Environment (PD&E) and Design phases.</p>	<p>-Chapter 5 – Financial Resources</p> <p>-Chapter 6 – Cost Feasible Plan, Table 6-2</p>
<p>Full Time Span of LRTP (1st 5 Years): Plans are required to have at least a 20-year horizon. As such, the MPO is required to have an LRTP that includes projects from the date of adoption projected out at least 20 years from that date.</p>	<p>Chapter 6 – Cost Feasible Plan, Table 6-2</p>

Table A-1. Federal Requirements from January 2018 FHWA Expectations Letter

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
Technical Topics	
<p>SHSP Consistency: The goals, objectives, performance measures and targets of the Highway Safety Improvement Program (HSIP), which includes the Strategic Highway Safety Plan (SHSP), is required to be integrated into the LRTPs either directly or by reference.</p>	<p>Chapter 3 – 2045 LRTP Goals and Objectives</p>
<p>Freight: Changes to the planning requirements now also encourage the consultation of agencies and officials planning for freight movements. With the National Highway Freight Program a core funding category of federal funds, having a solid basis for incorporating freight needs and projecting the freight demands will be key to the LRTP’s success for meeting its regional vision for the goods movement throughout the area. Additionally, the planning regulations now require the goals, objectives performance measures and targets of the State Freight Plan to be integrated into the LRTPs either directly or by reference.</p>	<p>-Chapter 4 – 2045 Needs Plan, Section 4-2</p> <p>-Chapter 6 – Cost Feasible Plan, Section 6-4</p> <p>-Chapter 7 – Implementation, Section 7-2</p>
<p>Environmental Mitigation/Consultation: For highway projects, the LRTP must include a discussion on the types of potential environmental mitigation activities and potential areas to carry out these activities. The environmental mitigation discussion in the LRTP must be developed in consultation with Federal, State and Tribal wildlife, land management and regulatory agencies.</p>	<p>Chapter 4 – 2045 Needs Plan, Section 4-2</p>
<p>Congestion Management Process: The MPO must demonstrate that the congestion management process is incorporated into the planning process. The process the MPO uses can be documented separately or in conjunction with the LRTP. The process is required to: 1) provide for the safe and effective integrated management and operations of the transportation network; 2) identify the acceptable level of performance; 3) identify methods to monitor and evaluate performance; 4) define objectives; 5) establish a coordinated data collection program; 6) identify and evaluate strategy benefits; 7) identity an implementation schedule; and 8) periodically assess the effectiveness of the strategies. The congestion management process should result in multimodal system measures and strategies that are reflected in the LRTP and TIP. The new planning requirements provide for the optional development of a Congestion Management Plan (CMP) that includes projects and strategies that will be considered in the TIP.</p>	<p>The Congestion Management Process was incorporated into the LRTP by reference. Chapter 6 – Cost Feasible Plan, Section 6-1 (Funding of Other Roadway Needs) includes projects identified as a result of the CMP.</p>

Table A-1. Federal Requirements from January 2018 FHWA Expectations Letter

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
<p>Americans with Disabilities Act (ADA) Transition Plans: Government agencies with 50 or more employees that have control over pedestrian rights of way (PROW) must have transition plans for ADA. MPOs that are a part of a public agency that has these responsibilities need to have a heightened awareness for these responsibilities and plans. MPOs that are a part of a public agency that has these responsibilities need to have a heightened awareness for these responsibilities and plans. All MPOs should at a minimum, serve as a resource for information and technical assistance in local government compliance with ADA.</p>	<p>It is the policy of the MPO to comply with all federal and state authorities requiring nondiscrimination, including but not limited to Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA), the Age Discrimination Act of 1975 and Executive Order 12898 (Environmental Justice) and 13166 (Limited English Proficiency). The MPO does not and will not exclude from participation in; deny the benefits of; or subject anyone to discrimination on the basis of race, color, national origin, sex, age, disability or income. In addition, the MPO complies with the Florida Civil Rights Act, and does not permit discrimination on the basis of religion or family status in its programs, services or activities.</p>

Table A-1. Federal Requirements from January 2018 FHWA Expectations Letter

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
Administrative Topics	
<p>LRTP Documentation/Final Board Approval: The date the MPO Board adopts the LRTP is the effective date of the plan. The contents of the product that the MPO adopts on that date includes at a minimum: 1) the current and projected demand of persons and goods; 2) existing and proposed facilities that serve transportation functions; 3) a description of performance measures and targets; 4) a system performance report; 5) operational and management strategies; 6) consideration of the results of the congestion management process; 7) assessment of capital investment and other strategies to preserve existing and future infrastructure; 8) transportation and transit enhancement activities; 9) description of proposed improvements in sufficient detail to develop cost estimates; 10) discussion of potential environmental mitigation strategies and areas to carry out the activities; 11) a cost feasible financial plan that demonstrates how the proposed projects can be implemented and includes system level operation and maintenance revenues and costs; and 12) pedestrian walkway and bicycle transportation facilities which are required to be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted. The final document(s) should be posted online and available through the MPO office no later than 90 days after adoption date.</p>	<ol style="list-style-type: none"> 1. Chapter 2 – Plan Process, Section 2-3 2. Chapter 4 – 2045 Needs Plan, Table 4-1 and Figure 4-3 3. Chapter 3 – 2045 LRTP Goals and Objectives, Table 3-1 and Chapter 7– Implementation, Table 7-1 4. Chapter 7 – Implementation, Section 7-1 and Appendix F 5. Chapter 6 – Cost Feasible Plan, Section 6-1, Funding of Other Roadway Needs 6. Chapter 6 – Cost Feasible Plan, Section 6-1, Funding of Other Roadway Needs, Tables 6-4, 6-5, and 6-6 7. Chapter 5 – Financial Resources 8. Chapter 6 – Cost Feasible Plan, Section 6-3 9. Chapter 4 – 2045 Needs Plan, Table 4-6 and Table 4-12 10. Chapter 4 – 2045 Needs Plan, Section 4-2 11. Chapter 6 – Cost Feasible Plan 12. Chapter 6 – Cost Feasible Plan, Section 6-2
<p>LRTP & STIP/TIP Consistency: The STIP and TIPs must be consistent with the relevant LRTPs as they are developed. When STIP/TIP amendments are received by FHWA and FTA, they will be reviewed for consistency with the applicable LRTP. Projects with inconsistencies between the STIP/TIP and the respective LRTP will not be approved for use of federal funds or federal action until the issue is addressed.</p>	<p>The 2045 LRTP is consistent with the STIP and Collier MPO FY2021-2025 TIP (adopted June 2020), the current TIP at the time of adoption.</p>
New Requirements	
<p>New Planning Factors: The MPO is required to address several planning factors as a part of its planning processes. There are two new planning factors that need to be considered in the next LRTPs: 1) improving the resiliency and reliability of the transportation system and reducing or mitigating stormwater impacts of surface transportation; and 2) enhancing travel and tourism. Florida has a strong history of proactively addressing these transportation areas.</p>	<p>Chapter 3 – 2045 LRTP Goals and Objectives</p>

Table A-1. Federal Requirements from January 2018 FHWA Expectations Letter

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
<p>Transportation Performance Management: As funding for transportation capacity projects becomes more limited, increasing emphasis will be placed on maximizing the efficiency and effectiveness of our current transportation system and the resources that build and maintain the system. As such, a performance-based approach to transportation decision making will be required for the FDOT and MPOs. The next LRTPs (when updated or amended after May 27, 2018) will be required to describe the performance measures and the targets the MPO has selected for assessing the performance of the transportation system.</p> <p>A system performance report will also be required to be included in the LRTPs. Depending on the timing of the LRTP, the date of the target setting, and length of the evaluation cycle, the LRTPs initially amended/updated after May 27, 2018 may not have a full cycle of specific information to include. However, the LRTPs need to include the data that is available and discuss how the MPO plans to use the full information once it does become available. Depending on the timing of the LRTP, the date of the target setting, and length of the evaluation cycle, the LRTPs initially amended/updated after May 27, 2018 may not have a full cycle of specific information to include. However, the LRTPs need to include the data that is available and discuss how the MPO plans to use the full information once it does become available.</p>	Chapter 7 – Implementation and Appendix F
<p>Multimodal Feasibility: The transportation plan shall include both long-range and short-range strategies/actions that provide for the development of an integrated multimodal transportation system (including accessible pedestrian walkways and bicycle transportation facilities) to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.</p>	Chapter 6 – Cost Feasible Plan, Sections 6-2 and 6-3
<p>Transit Asset Management: The MPO is required to set performance targets for each performance measure, per 23 CFR 450.306(d). Those performance targets must be established 180 days after the transit agency established their performance targets. Transit agencies are required to set their performance targets by January 1, 2017. If there are multiple asset classes offered in the metropolitan planning area, the MPO should set targets for each asset class.</p>	Chapter 7 – Implementation and Appendix F

Table A-1. Federal Requirements from January 2018 FHWA Expectations Letter

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
Emerging Issues (Not Required)	
<p>Mobility on Demand (MOD): Rapid advances in Mobility on Demand (MOD) technologies mean that these types of systems may be coming on line during the horizon of the next LRTPs. While these technologies when fully implemented will provide more opportunities to operate the transportation system better, the infrastructure needed to do so and the transition time for implementation is an area that the MPO can start to address in this next round of LRTP updates.</p>	Chapter 4 – 2045 Needs Plan, Table 4-12
<p>New Consultation: There are two new types of agencies that the MPO should consult with when developing the LRTPs: agencies that are responsible for tourism and those that are responsible for natural disaster risk reduction.</p>	The Collier MPO Adviser Network includes the Tourist Development Council Collier County and the South Florida Water Management District which plans for regional resilience to natural disasters.
<p>Summary of Public Involvement Strategies: The public involvement summary should be supported by more detailed information, such as the specific strategies used, feedback received and feedback responses, findings, etc. The detailed information should then be referenced and included in the form of a technical memorandum or report that can be appended to the LRTP, or included in a separate, standalone document that is also available for public review in support of the LRTP.</p>	<p>-Chapter 2 – Plan Process, Section 2-4</p> <p>-Public Information Summary Report (prepared under separate cover)</p>
<p>Impact Analysis/Data Validation: In accordance with Title VI, MPOs need to have and document a proactive, effective public involvement process that includes outreach to low income, minorities and traditionally underserved populations, as well as all other citizens of the metropolitan area, throughout the transportation planning process. Using this process, the LRTP needs to document the overall transportation needs of the metropolitan area and be able to demonstrate how public feedback and input helped shape the resulting plan.</p>	<p>-Chapter 2 – Plan Process, Section 2-4</p> <p>-Public Information Summary Report (prepared under separate cover)</p>
<p>FDOT Revenue Forecast: To help stakeholders understand the financial information and analysis that goes into identifying the revenues for the MPO, we recommend the MPO include FDOT’s Revenue Forecast in the appendices that support the LRTP.</p>	The FDOT Revenue Forecast is included as an attachment in the <i>Project Cost Development Methodology Technical Memorandum</i> (prepared under separate cover).

Table A-1. Federal Requirements from January 2018 FHWA Expectations Letter

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
<p>Sustainability and Livability in Context: We encourage the MPO to implement strategies that contribute to comprehensive livability programs and advance projects with multimodal connectivity. The MPOs are encouraged to identify and suggest contextual solutions for appropriate transportation corridors within their area and utilize the flexibilities provided in the federal funding programs to improve the transportation network for all users.</p>	<p>Chapter 4 – 2045 Needs Plan, Section 4-1</p>
<p>Scenario Planning: The new planning requirements describe using multiple scenarios for consideration by the MPO in the development of the LRTP. If the MPO chooses to develop these scenarios, they are encouraged to consider a number of factors including potential regional investment strategies, assumed distribution of population and employment, a scenario that maintains baseline conditions for identified performance measures, a scenario that improves the baseline conditions, revenue constrained scenarios, and include estimated costs and potential revenue available to support each scenario.</p>	<p>The <i>Scenario Network Modeling Technical Memorandum</i> (prepared under separate cover) details the revenue constrained scenarios.</p>

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the L RTP
<p>Projects in the L RTP - Recently we have been responding to several questions regarding types of projects that need to be included in the L RTP. As stated in 23 CFR 450.322(f), the L RTP is required to include the projected transportation demand in the planning area, the existing and proposed transportation facilities that function as an integrated system, operational and management strategies, consideration of the results of the Congestion Management Plan, strategies to preserve the existing and projected future transportation infrastructure, pedestrian and bicycle facilities, and transportation and transit enhancement activities.</p> <p>As noted in 23 CFR 450.104, a regionally significant project means a transportation project (other than projects that may be grouped in the TIP and/or STIP or exempt projects as defined in EPA's transportation conformity regulation (40 CFR part 93.126, 127 and 128)) that is on a facility which serves regional transportation needs (such as access to and from the area outside the region; major activity centers in the region; major planned developments such as new retail malls, sports complexes, or employment centers; or transportation terminals) and would normally be included in the modeling of the metropolitan area's transportation network. At a minimum, this includes all principal arterial highways and all fixed guideway transit facilities that offer a significant alternative to regional highway travel.</p> <p>If a project meets the definition of regionally significant, then the project must be included in the Cost Feasible L RTP regardless of the project's activities (i.e. construction, facility widening, ITS installations, etc.).</p>	<p>Regionally significant projects include those listed in Chapter 6 – Cost Feasible Plan, Table 6-1. Additionally, projects resulting from M-CORES referenced in Chapter 7 – Implementation will have regional significance.</p>
<p>Grouped Projects in the L RTP - Federal regulations allow a specifically defined type of project(s) to be grouped in the TIP. Similar groupings in the L RTP would be permissible. However, the ability to group project(s) depends on the regional significance of the project(s). Grouped projects in the TIP are typically ones that are not of an appropriate scale to be individually identified and can be combined with other projects which are similar in function, work type, and/or geographic area. Classifications of these grouped project types are listed under 23 CFR 771.117(c) and (d) and/or 40 CFR part 93. Examples are: activities which do not involve or lead directly to construction (such as planning and technical studies or grants for training and research programs); construction of non-regionally significant bicycle and pedestrian lanes, paths, and facilities; landscaping; installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur; rest areas and truck weigh stations; ridesharing activities; and highway safety or traffic operations improvement projects. Therefore, if grouping projects in the L RTP, the groups need to be specific enough to determine consistency between the L RTP and the TIP.</p>	<p>Group projects in the L RTP include the congestion management projects listed on Table 6-4 which will be funded with TMA Funds; and the bicycle/pedestrian projects listed on Table 6-7 which will be funded with TMA/TA Funds.</p>

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the L RTP
Fiscal Constraint	
<p>Operations & Maintenance - L RTP cost estimates need to be provided for the Operations and Maintenance (O&M) activities for the entire timeframe of the L RTP. System level estimates for O&M costs may be shown for each of the five-year cost bands or may be provided as a total estimate for the full L RTP timeframe. System level is interpreted to mean the system within the MPO planning boundaries. Local agencies, working with the MPO, need to provide cost estimates for locally-maintained facilities covered in the Plan. FDOT, working with the MPO, needs to provide cost estimates for the state-maintained facilities covered in the Plan. System level estimates at the FDOT District level are acceptable for the state-maintained facilities. The L RTP will also need to identify the general source of funding for the O&M activities. Since O&M costs and related revenues are not available to balance the fiscal constraint of capital investment projects, a clear separation of costs for operations and maintenance activities from other grouped and/or regionally significant projects will need to be shown in order to demonstrate fiscal constraint. (23 CFR 450.322(f)(10)(i)).</p>	Chapter 6 – Cost Feasible Plan
<p>Total Project Costs - For total project costs, all phases of a project must be described in sufficient detail to estimate and provide an estimated total project cost and explain how the project is expected to be implemented. Any project which will go beyond the horizon year of the L RTP must include an explanation of the project elements beyond the horizon year and what phases/work will be performed beyond the horizon year of the plan. The costs of work and phases beyond the horizon year of the plan must be estimated using Year of Expenditure (YOE) methodologies and the estimated completion date may be described as a band (i.e. Construction expected 2040-2050, \$40M). If there is more than one phase remaining to be funded, these may be shown as a combined line item for the project (i.e. ROW/Construction expected 2040-2050, \$50M). FHWA does not expect that this paragraph will apply to routine system preservation or maintenance activities. Total project costs will be shown for capacity expansion projects and for regionally significant projects. (23 CFR 450.322(f)).</p>	Chapter 6 – Cost Feasible Plan
<p>Cost Feasible Plan - Revenues to support the costs associated with the work/phase must be demonstrated. For a project to be included in the cost feasible plan, an estimate of the cost and source of funding for each phase of the project being funded (including the Project Development and Environment (PD&E) phase) must be included. The phases to be shown in L RTPs include Preliminary Engineering, ROW and Construction (FHWA and FTA support the option of combining PD&E and Design phases into “Preliminary Engineering”). Boxed funds can be utilized as appropriate to finance projects. However, the individual projects utilizing the box need to be listed, or at a minimum, described in bulk in the L RTP (i.e. PD&E for projects in Years 2016-2020). (23 CFR 450.322(f)(10)).</p>	Chapter 6 – Cost Feasible Plan

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
<p>New Revenue Sources - If the LRTP assumes a new revenue source as part of the cost feasible plan, the source must be clearly explained, why it is considered to be reasonably available, when it will be available, what actions would need to be taken for the revenue to be available, and what would happen with projects if the revenue source was not available. If, for example, the most recent action of a governing body or a referendum of the public defeated a similar revenue source, then the new revenue source may not be included in the Cost Feasible LRTP unless the MPO can justify the revenue source and explain the difference between the action that failed and the action being proposed (for further details, please see FHWA Guidance Financial Planning and Fiscal Constraint for Transportation Plans and Programs issued by Gloria Shepherd, Associate Administrator for Planning, Environment and Realty on April 17, 2009). This applies to all revenue sources in the LRTP (i.e. federal, state, local, private, etc.)</p>	<p>Chapter 5 – Financial Resources</p>
<p>Federal Revenue Sources - Federal and state participation on projects in the Cost Feasible LRTP can be shown as a combined source for the cost feasible projects. Projects within the first ten years of the Plan must be notated or flagged to identify which projects are planned to be implemented with federal funds. Beyond the first ten year period, the specific federal funding notation is not expected. The project funding, however, must be clearly labeled as a combined Federal/State source in the Cost Feasible LRTP. (23 CFR 450.322(10)f(iii))</p> <p>For FTA funded projects, MAP-21 has repealed eight programs from SAFETEA-LU and shifted many of the eligible activities to formula programs. Repealed programs (or uses consolidated in other formula programs) include Clean Fuels (5308), Fixed Guideway Modernization (5309), Bus and Bus Facilities (5309), JARC (5316), New Freedom (5317), Paul Sarbanes Transit in the Parks (5320), Alternatives Analysis (5339) and Over the Road Bus (3038). Formula programs now include Metropolitan Planning and State Planning (5305); Urbanized Area Formula (5307); Enhanced Mobility of Seniors and Persons with Disability (5310); Rural Area Formula (5311) and RTAP (5311); Formula Grants for Public Transportation on Indian Reservations (5311); Research and Development, Demonstration and Deployment (5312), State of Good Repair (5337), Bus and Bus Facilities Formula Grants (5339). Eligible new uses which are notable include Safety Programs and Transit Asset Management, Operations in areas with 200,000 or more population with up to 100 buses; Transit Oriented Development Planning and Bus Rapid Transit demonstration projects; Core Capacity Improvements and several others.</p> <p>Discretionary awards that have been repealed under MAP-21 however, may have unspent funds awarded under SAFETEA-LU in the repealed programs that still must be shown in the LRTP, TIP and STIP to obligate the funds in FTA’s TEAM system. Hence, project categories such as Bus Livability, Clean Fuels, Alternatives Analysis, Transit in the Parks, etc.) may still need to be described and/or pursued by the transit grantee within the LRTP for FFY 2011 and FFY 2012 funds remaining. However, MAP-21 greatly reduced the number and type of discretionary awards through FTA. As such, the MPO and the transit grantee may no longer need to consider how to account for the possibility of placing a discretionary transit</p>	<p>Chapter 5 – Financial Resources</p>

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
<p>project through a competitive award (as well as formula funds) as part of the cost feasible LRTP except for New Starts, Small Starts, Core Capacity, Bus Rapid Transit Demonstration or Transit Oriented Development Demonstration Planning programs.</p> <p>The purpose, need and perceived benefit of the transit project as well as geographic distribution of funds may play a role in project selection. As such, a transit needs plan with projects which may be unfunded when the LRTP is prepared may need to be considered, especially for major New Start/Small Start and other capital projects like the new Core Capacity program which must eventually be placed within the cost feasible LRTP to have funds awarded. Regardless, discretionary awards if any must also be eventually listed within the cost feasible LRTP for FTA to obligate the awarded funds in a grant to a transit grantee.</p>	
<p>Full Timespan of the LRTP - The LRTP is a document that has a planning horizon of at least 20 years. The LRTP is based upon the region's visioning of the future within the bounds of the financial resources that are available to the region during that timeframe. The LRTP is not a programming document, but rather a planning document that describes how the implementation of projects will help achieve the vision. Therefore, the MPOs will need to show all the projects and project funding for the entire time period covered by the LRTP, from the base year to the horizon year. (23 CFR 450.322(a))</p>	<p>Chapter 6 – Cost Feasible Plan</p>
<p>Environmental Mitigation - For highway projects, the LRTP must include a discussion on the types of potential environmental mitigation activities and opportunities which are developed in consultation with Federal, State and Tribal wildlife, land management and regulatory agencies. This discussion should occur at more of a system-wide level to identify areas where mitigation may be undertaken (perhaps illustrated on a map) and what kinds of mitigation strategies, policies and/or programs may be used. This discussion in the LRTP would identify broader environmental mitigation needs and opportunities that individual transportation projects might later take advantage of. MPOs should be aware that the use of ETDM alone is not environmental mitigation. That effort would be considered project screening and is not a system-wide review. Documentation of the consultation with the relevant agencies should be maintained by the MPO.(23 CFR 450.322(f)(7) and (g))</p> <p>For transit capital projects, the environmental class of action is usually considered by FTA regional offices in concert with transit grantees as the projects are analyzed and developed. Transit maintenance and transfer facilities and major capacity projects like light, heavy or commuter rail, BRT, etc. may require a separate National Environmental Policy Act (NEPA) document while acquisition of vehicles, provision of repairs, planning studies, engineering, etc., would not require a document. As such, environmental mitigation issues would tend to be developed as part of the NEPA document for specific projects with a NEPA decision made prior to the award of FTA funds. Likewise, transit environmental benefits like</p>	<p>Chapter 4 – 2045 Needs Plan, Section 4-2</p>

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
<p>reduction in SOV trips and VMT, reduction in greenhouse gases, pedestrian and bicycle linkages, transit oriented/compact development (which is more walkable) may need to be stated within the broad parameters in the LRTP. Most FTA planning studies are required to be listed in the Unified Planning Work Program (UPWP) and not necessarily the TIP and STIP (although many MPO's still list the studies in the TIP and STIP). Preliminary engineering, final design, right of way, utility relocation, construction, etc. for transit capital projects would need to be listed in the LRTP, TIP and STIP.</p>	
<p>Linking Planning and NEPA - Since 2008, prior to FHWA approving an environmental document (Type-2 Categorical Exclusion, Finding of No Significant Impact, or Record of Decision) and thereby granting location design concept approval, the project must be determined to be consistent within the LRTP, the TIP and Statewide Transportation Improvement Program (STIP). The project consistency refers to the description (for example project name, termini and work activity) between the LRTP, the TIP and the STIP (23 CFR 450.216(k), 450.324(g) and 450.216(b)). The NEPA document must also describe how the project is going to be implemented and funded. The project implementation description in the NEPA document needs to be consistent with the implementation schedule in the LRTP and TIP/STIP as well.</p>	<p>Future projects (design and PD&E) listed with FDOT District One in Collier County are included in either the Cost Feasible Plan (Chapter 6) or the Collier MPO FY2021 – 2025 TIP.</p>
<p>LRTP Documentation/Final Board Approval - FHWA and FTA expect that at the time the MPO board adopts the LRTP, a substantial amount of LRTP analysis and documentation will have been completed, and all final documentation will be available for distribution no later than 90 days after the plan's adoption. The Board and its advisory committees, as well as the public should have periodically reviewed and commented on products from interim tasks and reports that culminate into the final Plan. Finalizing the LRTP and its supporting documentation should be the last activity in a lengthy process. All final documents should be posted online and available through the MPO office no later than 90 days after adoption. The MPOs' schedules for this round of LRTP development are expected to allow for the Board to adopt the final LRTP no later than 5 years from the MPOs' adoption of the previous LRTP.</p>	<p>The MPO is committed to make the LRTP documentation available for distribution within 90 days of the adoption of the 2045 LRTP.</p>
<p>Documented LRTP Modification Procedures - If not already in place, MPOs need established written and Board approved procedures that document how modifications to the LRTP are addressed after Board adoption. The procedures should specifically explain what qualifies as a modification as opposed to an amendment as defined in 23 CFR 450.104. These procedures can be included as part of the LRTP, the PPP, or provided elsewhere as appropriate. FHWA is currently beginning work with FDOT and the MPOs on an LRTP amendment process which will include statewide procedures and thresholds, similar to the STIP amendment process. This effort will assist the MPOs in determining when LRTP amendments are required.</p>	<p>LRTP amendment procedures are addressed in the FDOT MPO Program Management Handbook and in the Collier MPO's adopted PPP (adopted June 2020).</p>

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the L RTP
<p>L RTP & STIP/TIP Amendment Consistency - The STIP and TIPs must be consistent with the relevant L RTPs. When amendments to the STIP/TIP are made, the projects must also be consistent with the L RTP from which they are derived. FHWA and FTA staff will be checking for this consistency. Projects with inconsistencies between the STIP/TIP and the respective L RTP will not be approved for use of federal funds or federal action until the issue is addressed. (23 CFR 450.328 and 23 CFR 450.216(b))</p> <p>FHWA and FTA understand that when developing project cost estimates in an L RTP, the cost is an estimate which becomes more refined as a project advances. Projects being refined between plans will not be required to update their costs in the existing L RTP if new, more accurate information regarding project cost becomes available. However, it is expected that upon the next scheduled adoption of the L RTP, the latest project cost estimates shall be used.</p>	<p>The 2045 L RTP is consistent with the STIP and Collier MPO FY2021-2025 TIP (adopted June 2020), the current TIP at the time of adoption.</p>
Transit Projects and Studies	
<p>Major Transit Capital Projects - For L RTP development purposes, federal funding sources for major transit capital projects must be proposed and may not currently be identifiable (or currently allocated) for use in the urbanized area. The Federal Transit Administration funds projects such as New Start rail and BRT, as well as major capital facilities such as administrative buildings or maintenance facilities with formula and/or discretionary program dollars allocated on an annual basis. As mentioned, MAP-21 made changes to and reductions in transit discretionary programs. Therefore in order to plan for a transit “New Start” in the L RTP, the MPO must assume they will be successful in competing for discretionary FTA New Starts program dollars. A reasonable funding mix might be to assume 50% FTA/25% Local/25% State funding, as is currently the norm in Florida. Also, MAP-21 greatly expands the use of TIFIA loans. Grantees may be proposing use of a TIFIA loan or other loan to help bridge the gap in capital financing for a New Start which in some cases for large projects in multiple phases may take up to five years to design and build (per phase).</p> <p>With regard to the planning of a major capital transit facility other than a New Start, the assumption must be made that FTA program funds such as “State of Good Repair” or “Bus and Bus Facilities” will be awarded to the transit system based on formula. As mentioned, large discretionary awards will be fewer under MAP-21. In most cases, a likely funding mix for State of Good Repair or Bus and Bus Facilities might be 80% FTA/20% local, or up to 100% FTA matched with toll revenue credits.</p>	<p>Chapter 6 – Cost Feasible Plan, Section 6-3</p>
<p>Transit Facility - The transit grantee may propose a specific transit maintenance facility, transfer facility, multi-modal station, park n ride lot with transit service or other transit facility for rehabilitation, renovation or new construction. Generally, such facility improvements remain eligible for FTA 5307, 5309, 5337 (new State of Good Repair formula program), 5339 (new bus and bus facility formula program) funds from FTA, or for FLEX funds from FHWA flexed to FTA for the transit use by</p>	<p>Chapter 6 – Cost Feasible Plan, Section 6-3</p>

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the L RTP
the transit grantee. At a minimum, such facilities should be contained within the TIP, STIP and be “consistent with” the L RTP. For example, consistent with the L RTP might mean a general statement, paragraph, line item or section on the specific facilities and their general location if known. Inclusion might also mention feasibility studies, preliminary engineering, appraisals, final design, property acquisition and relocation (if any) and NEPA documents and perhaps the intent to seek local, state or federal funding for same. The award of such funds may require an L RTP amendment to show such funds in the constrained L RTP.	
Transit Service including Fixed Route Bus, Deviated Route, Para-transit, Enhanced or Express Bus - The transit grantee may propose a specific new transit service for a new area or corridor. Generally, such new service is eligible for 5307 or 5310 funds from FTA, or for L230 FLEX funds from FHWA to the transit grantee. At a minimum, such new service should be “consistent with” the L RTP. For example, consistent with the L RTP might mean a general statement, paragraph, line item or section on the specific service improvements to be undertaken (and the general location if known). Inclusion might also mention feasibility studies, operational plans, strategic plans and perhaps the intent to seek local, state or federal funding for same. The award of such funds may require an L RTP amendment to show such funds.	Chapter 6 – Cost Feasible Plan, Section 6-3
Transit Service Including Bus Rapid Transit (BRT), Light Rail Transit (LRT) Heavy Rail Transit (HRT), Commuter Rail Transit (CRT), Streetcar through the New Starts/Small Starts Program - The transit grantee may propose a specific new fixed guideway transit service (like BRT, LRT, HRT, CRT or Streetcar) to serve a new area or corridor as part of FTA’s New Starts/Small Starts or Core Capacity Program. Generally, such new service is eligible for 5307 or 5309 funds from FTA, or for FLEX funds from FHWA to the transit grantee. At a minimum, such new service should be “consistent with” the L RTP. As such service may be a large capital expenditure, the project, termini and cost would need to be specified in the constrained L RTP. Inclusion might also mention feasibility studies, NEPA studies, preliminary engineering and final design, right of way acquisition, operational plans, modeling improvements, strategic plans and perhaps the intent to seek local, state or federal funding for same. The award of such funds would require an L RTP amendment to show such funds in the constrained L RTP.	There are no specific new fixed guideway transit service projects identified in the CFP.
Emerging Issues (Not Required)	
Safety and Transit Asset Management - MAP-21 also includes significant additions to safety planning and transit asset management on the part of transit grantees and the states. Federal Register guidance is expected on transit safety and transit asset management within the near future.	Chapter 6 – Cost Feasible Plan, Tables 6-5 and 6-6
Performance Measurement - FHWA and FTA encourage the MPOs to consider ways to incorporate performance measures/metrics for system-wide operation, as well as more localized measures/metrics into their L RTPs. As funding for	Chapter 7 – Implementation and Appendix F

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the L RTP
<p>transportation capacity projects becomes more limited, increasing emphasis will be placed on maximizing the efficiency and effectiveness of our current transportation system. Consequently, measures to assess the L RTP’s effectiveness in increasing system performance will be needed. Per the recent passage of MAP-21, USDOT will establish performance measures in consultation with State DOTs, MPOs and other stakeholders within 18 months of MAP-21’s enactment. Once performance measures are identified, the States will have up to one year to set state level targets. Once state level targets have been set, MPOs will have up to six-month to set local level targets that support the state targets. The process and schedule for performance measure implementation and L RTP documentation is expected to evolve over the next two years.</p>	
<p>Freight - The planning process is required to address the eight planning factors as described in 23 CFR 450.306(a). The degree to which each factor is addressed will vary depending upon the unique conditions of the MPO areas, but efforts should be made to think through and carefully consider how to address each factor. The importance of freight to the nation’s economic wellbeing and global competitiveness, as well as its support and promotion of job creation and retention has heightened its status at the national and regional level. MPOs should be aware that discussions in MAP-21 have largely included a reference to the increasing importance of freight, including the development of Statewide Freight Plans. While this is part of one of the eight planning factors, special emphasis should be given to the freight factor, as it is anticipated to play a more prominent role in future planning requirements.</p>	<p>Chapter 4 – 2045 Needs Plan, Section 4-2</p>
<p>Sustainable Transportation and Context Sensitive Solutions - The MPOs are encouraged to identify and suggest contextual solutions for appropriate transportation corridors. For example, Context Sensitive Solutions (CSS) may be appropriate for historic parkways, historic districts, town centers, dense “walkable” neighborhood areas, arterial “gateways”, greenway trails and pedestrian ways, environmentally sensitive areas or simply where right of way is not readily available. Under MAP-21, Transportation Alternatives like bicycle and pedestrian improvements and trails remain eligible under the formula programs while transportation enhancement set-asides have been removed and some uses like historic building renovation and scenic easements may be more restrictive. The value of the resources present may suggest the need for alternative or special treatments (or even accepting a level of congestion and lower speeds that respects the resources). In these instances, specific livability principles adopted by the MPO might be employed for improved pedestrian and transit access – especially to schools and even traffic calming.</p> <p>Also, spatial relationships that support public transit like transit oriented development and the “trip not taken” while reducing greenhouse gases might be recognized as characteristics of a town center or mixed use area with public transit access. Other livability planning goals might also need to be recognized like preserving affordable housing, improving/preserving special resources like parks, monuments and tourism areas, increasing floor area ratios and reducing parking</p>	<p>Chapter 4 – 2045 Needs Plan, Section 4-1</p>

Table A-2. Federal Requirements from FHWA/FTA (November 2012)

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
minimums in select corridors to encourage walking trips and public transit, transportation demand management, etc.	
Proactive Improvements (Not Required)	
Linking Planning and NEPA - For highway projects, we are continually looking for strategies that improve the linkage between planning and environmental processes. For the inclusion of regionally significant projects in the Cost Feasible Plan of the LRTP, MPOs should strongly consider including a purpose and need statement for the project in the LRTP. This purpose and need statement will be carried into the National Environmental Policy Act (NEPA) process and will be one way to enhance the linkage between planning and NEPA. For example, this purpose and need statement could briefly provide the rationale as to why the project warranted inclusion in the LRTP. (450.324 (d); 450 Appendix A to Part 450, Section II Substantive Issues, 8)	Future projects (design and PD&E) listed with FDOT District One in Collier County are included in either the Cost Feasible Plan (Chapter 6) or the Collier MPO FY2021 – 2025 TIP.
Climate Change - MPOs may also wish to give consideration to climate change and strategies which minimize impacts from the transportation system. FHWA supports and recognizes the importance of exploring the effects of climate change on transportation, as well as the limited environmental resources and fuel alternatives. State legislation now encourages each MPO to consider strategies that integrate transportation and land use planning in their LRTP to provide for sustainable development and reduce greenhouse gas emissions, as well as include energy considerations in all state, regional and local planning. As a result, MPO LRTP Updates are encouraged to include discussions and strategies aimed at addressing this issue.	Chapter 4 – 2045 Needs Plan, Section 4-2, Climate Change Vulnerability and Risks
Scenario Planning - Pursuant to MAP-21, MPOs may elect to develop multiple scenarios for consideration in the development of the LRTP. If the MPO chooses to develop these scenarios, it is encouraged to consider a number of factors including potential regional investment strategies, assumed distribution of population and employment, a scenario that maintains baseline conditions for identified performance measures, revenue constrained scenarios, and estimated costs and potential revenue available to support each scenario.	Collier MPO 2045 LRTP Scenario Network Modeling Technical Memorandum (prepared under separate cover) explains the revenue constrained scenarios

Table A-3. Federal Requirements from FHWA/FTA (December 2008)

Regulatory Requirement Summary	Where Requirements Are Addressed in the L RTP
<p>Plan Horizon - Plans are required to have at least a 20 year horizon. FHWA and FTA support Florida’s efforts to standardize the horizon year and establish a uniform format to report the transportation needs of each MPO in their next L RTP updates that can also be used to compile and identify the regional and statewide transportation needs of Florida’s metropolitan areas. FDOT and Florida’s MPOs (via the MPOAC) have agreed to use 2035 as the horizon year. The base year for the next L RTP updates will be 2009. These efforts to standardize the MPOs’ plans will provide consistency among plans and allow for better analysis and apples to apples comparisons, so unmet needs can be more accurately quantified and demonstrated. More information on this issue is provided in the “Financial Guidelines for MPO Long Range Plans” paper adopted by the MPOAC.</p>	<p>Plan is through 2045, reference Chapter 4 – 2045 Needs Plan and Chapter 6 – Cost Feasible Plan</p>
<p>Planning Factors - The planning process is required to address the eight planning factors as described in 23 CFR 450.306(a). The degree to which each factor is addressed will vary depending on the unique conditions of the area, but efforts should be made to think through and carefully consider how to address each factor. The Safety factor seems to create challenges for some MPOs as to how safety should be addressed. The L RTP should contain a safety element, as described in 23 CFR 450.322 (h). The planning process needs to be consistent with the State Strategic Highway Safety Plan (SHSP). Consequently, the MPO must be familiar with the Plan in order to identify MPO goals and strategies that would address safety, and integrate SHSP goals and strategies into the activities and planning efforts of the MPO. Suggestions for how this consistency can be accomplished can be obtained through discussions with, and examples provided by, FHWA, FDOT and other MPOs. A safety guide providing a menu of recommendations for MPO actions is being developed by FHWA Florida Division as a result of meetings with FDOT planning and safety personnel and MPO staff members from throughout the state over the past year. A draft document will be circulated for review by December 2008.</p>	<p>Chapter 3 – 2045 L RTP Goals and Objectives</p>
<p>Year of Expenditure - All L RTP Update financial plans shall be in Year of Expenditure (YOE) dollars and shall include estimates of all revenue sources that can reasonably be anticipated over the lifetime of the plan. Revenue and cost estimates for capacity and non-capacity projects and programs, including operations and maintenance costs (state and local) are to be included, consistent with the methodology presented in the financial guidance developed by FDOT in coordination with FHWA and the MPOs. The financial guidance should be included in the appendices of the L RTP. Note: The December 2007 interim YOE Compliance Process guidance previously developed by FDOT/FHWA/FTA to address L RTP amendments and modifications prior to L RTP Updates being completed is no longer applicable once the MPOs have adopted their L RTP Updates.</p>	<p>Chapter 5 – Financial Resources</p>

Table A-3. Federal Requirements from FHWA/FTA (December 2008)

Regulatory Requirement Summary	Where Requirements Are Addressed in the L RTP
<p>Fiscal Constraint - Projects in Long Range Transportation Plans (LRTPs) are required to be described in enough detail to develop cost estimates in the LRTP financial plan that show how the projects will be implemented. These estimates could reflect known costs of mitigation. The LRTP documentation of project costs will enable FHWA/FTA and FDOT to determine fiscal constraint of the document.</p> <p>For a project to be included in the cost feasible plan, the cost of and source of funding for each phase being funded (including the PD&E phase) must be documented. The source of funds for the PD&E phase can be shown as “boxed funds” reserved for “PD&E” in a state or local revenue forecast (e.g., a percentage of state/federal “Product Support” funds estimated to be available during a 5-year planning period) or be individually assigned to each project. Boxed funds should also be reserved for the Final Design phase as well or be individually assigned to each project. A third option is to use boxed funds entitled “PD&E and Final Design”. Regardless of how the boxed funds are titled, the individual projects utilizing the box need to be listed, or at a minimum, described in bulk in the LRTP (i.e. PD&E for projects in Years 2016-2020).</p> <p>Please note that the FHWA guidance refers to Preliminary Engineering (PE). In most states this would include two of Florida phases: PD&E and Final Design. PD&E could also be referred to as “PE for NEPA”.</p>	<p>Chapter 6 – Cost Feasible Plan</p>
<p>NEPA Approvals - Prior to FHWA approving an environmental document (Type-2 CE, EA-FONSI, or FEIS) and thereby granting location design concept approval, the project must be consistent with the LRTP and described in the STIP/TIP. The NEPA document must describe how the project is going to be implemented and funded. That description also needs to be reflected in the LRTP and STIP/TIP. For guidance related to NEPA approvals, see the “Guidance on Consistency Among Metropolitan Long Range Transportation Plans, the State Transportation Improvement Program, Metropolitan Transportation Improvement Programs and NEPA Approvals”.</p>	<p>Future projects (design and PD&E) listed with FDOT District One in Collier County are included in either the Cost Feasible Plan (Chapter 6) or the Collier MPO FY2021 – 2025 TIP.</p>
<p>Environmental Mitigation - The LRTP must include a discussion on environmental mitigation that is developed in consultation with Federal, State and Tribal wildlife, land management and regulatory agencies. This discussion should occur at more of a system-wide level to identify areas where mitigation may be undertaken (perhaps illustrated on a map) and what kinds of mitigation strategies, policies and/or programs may be used. This discussion in the LRTP would identify broader environmental mitigation needs and opportunities that individual transportation projects might later take advantage of. For example, as a result of consultation with resource agencies, the plan might identify an expanse of degraded wetlands associated with a troubled body of water that represents a good candidate for establishing a wetlands bank or habitat bank for wildlife and waterfowl. The plan might identify locations where the purchase of Development rights would assist in preserving a historic battlefield or historic farmstead.</p>	<p>Chapter 4 – 2045 Needs Plan, Section 4-2</p>

Table A-3. Federal Requirements from FHWA/FTA (December 2008)

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
<p>Congestion Management Process - Since the passage of SAFETEA-LU in 2005, the emphasis on congestion management has been on the process, and how that process results in strategies that can be reflected in the LRTP and TIP. The CMP shall be developed, established and implemented as part of the metropolitan transportation planning process and should be integrated into project prioritization and performance evaluation of the multi-modal transportation system.</p>	<p>-Chapter 4 – 2045 Needs Plan, Section 4-2</p> <p>-Chapter 6 – Cost Feasible Plan, Section 6-1</p> <p>Chapter 7 – Implementation, Section 7-2</p>
<p>Environmental/Tribal Consultation - Consultation involving the appropriate Tribal governments, federal and state wildlife, land management and regulatory agencies should be documented in the public participation plan. This consultation shall involve comparisons of state conservation plans/maps, and inventories of natural or historical resources with transportation plans, as appropriate and available. Tribal governments and resource agencies should also be involved in the actual development of the Plan, as well as in the discussions of how their plans may affect the proposed transportation plan. The process for how tribal governments and resource agencies are involved in the planning process needs to be developed in collaboration with those agencies.</p> <p>Public Participation processes should also include the Tribal governments, federal and state wildlife, land management and regulatory agencies and should be documented, along with public participation activities and efforts with the other transportation partners and interested parties as required, in the public participation plan.</p>	<p>-Chapter 2 – Plan Process, Section 2-4</p> <p>-<i>Public Information Summary Report</i> (prepared under separate cover)</p>
<p>LRTP Impact Analysis - In accordance with Title VI, MPOs need to have and document a proactive, effective public involvement process that includes outreach to low income, minorities and traditionally underserved populations, as well as all other citizens of the metropolitan area, throughout the transportation planning process. Using this process, the LRTP needs to document the overall transportation needs of the metropolitan area and be able to demonstrate how public feedback and input helped shape the resulting plan.</p> <p>MPOs may use a variety of strategies to demonstrate that their planning process is consistent with Title VI and other federal anti-discrimination provisions in the development of the LRTP. MPOs need to include this information in summary form in the LRTP. This information should be derived from the MPO's public involvement program elements. The summary of public involvement should be supported by more detailed information, such as the specific strategies used, feedback received and feedback responses, findings, etc. The detailed information should then be referenced and included in the form of a technical memorandum or report that can be appended to the LRTP, or included in a separate, stand-alone document that is also available for public review in support of the LRTP.</p>	<p>-Chapter 2 – Plan Process, Section 2-4</p> <p><i>Public Information Summary Report</i> (prepared under separate cover)</p>

Table A-3. Federal Requirements from FHWA/FTA (December 2008)

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
Emerging Issues (Not Required)	
<p>Indirect and Cumulative Impacts - A discussion of indirect and cumulative effects and an evaluation of the level of effect would be appropriate at the overall plan level, rather than just at the project level. This information could be expanded upon during the project development project phase, but the initial groundwork could be laid during LRTP development.</p>	
<p>Multimodal Feasibility - The analysis for utilizing other modes, particularly evaluating transit on a plan and system wide level, as opposed to project level, could and should be explored to provide more efficient and effective mobility and connectivity of the entire multimodal transportation system. This process is especially relevant given the current situation with limited resources for transportation being a major issue.</p>	Chapter 6 – Cost Feasible Plan, Sections 6-2 and 6-3
<p>Performance Measurement - As funding for transportation capacity projects becomes more limited, increasing emphasis will be placed on maximizing the efficiency and effectiveness of our current transportation system. As congestion management processes and operations strategies are evaluated to determine their effectiveness in improving system performance, it is likely to follow that LRTPs will also need to be evaluated on their ability to improve system performance. As MPOs begin the LRTP update process, performance measures to assess the LRTP’s effectiveness in increasing system performance should be developed.</p>	Chapter 7 – Implementation and Appendix F
<p>Air Quality - Although Florida is currently in attainment for all pollutants, the Environmental Protection Agency (EPA) has recently proposed changes to lower the threshold for ground level ozone which will affect the attainment status of a number of MPO areas within Florida. Although the effects and the exact areas affected are not certain at this time, it is prudent to begin looking at what would be required to meet the new standards if/when they are implemented, which could be in the next few years. This is particularly important for those MPOs in areas that have been identified as potential areas that may not meet new standards. Discussions will be initiated with EPA, the Florida Department of Environmental Protection (DEP), FHWA and FDOT to decide how best address this issue. Training has been requested by FHWA for FDOT and the MPOs on Air Quality and Conformity for the coming year.</p>	The Collier MPO geographic area is a designated attainment area for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act.

Table A-3. Federal Requirements from FHWA/FTA (December 2008)

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
<p>Climate Change - Much attention has been given by all levels of government to the issue of climate change and how it affects all aspects of life, including the transportation system.</p> <p>Legislation was recently passed in Florida that encourages each MPO to consider strategies that integrate transportation and land use planning in their LRTP to provide for sustainable development and reduce greenhouse gas emissions, as well as include energy considerations in all state, regional and local planning. As a result, it is anticipated that the MPO LRTP Updates will include discussions and strategies aimed addressing this issue. FHWA also supports and recognizes the importance of exploring the effects of climate change on transportation, as well as the limited environmental resources and fuel alternatives. FHWA’s recently released report, “Integrating Climate Change Considerations into the Transportation Planning Process” (www.fhwa.dot.gov/hep/index.htm) serves as a good resource on this topic.</p>	<p>Chapter 4 – 2045 Needs Plan, Section 4-2, Climate Change Vulnerability and Risks</p>

Table A-4. Other Federal Law and Requirements the LRTP Shall Include

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
The current and projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan. [23 C.F.R. 450.324(f)(1)]	Chapter 2 – Plan Process, Section 2-3
Emphasis should be given to those existing or proposed transportation facilities that serve important national and regional transportation functions over the period of the transportation plan, including major roadways, public transportation facilities, intercity bus facilities, multimodal and intermodal facilities, non-motorized transportation facilities, and intermodal connectors. Additionally, the locally preferred alternative selected from an Alternative Analysis under the FTA Capital Investment Grant Program needs to be adopted as a part of the plan. [23 C.F.R. 450.324(f)(2)]	Chapter 6 – Cost Feasible Plan
A description of the performance measures and performance targets used in assessing the performance of the transportation system in accordance with the required performance management approach. [23 C.F.R. 450.324(f)(3)]	Chapter 7 – Implementation, Section 7-1
A system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the required performance targets, including progress achieved by the MPO in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data; and, for MPOs that voluntarily elect to develop multiple scenarios, an analysis of how the preferred scenario has improved the conditions and performance of the transportation system, and how changes in local policies and investments have impacted the costs necessary to achieve the identified performance targets. [23 C.F.R. 450.324(f)(4)]	Chapter 7 – Implementation and Appendix F
Operational and management strategies to improve the performance of existing transportation facilities in order to relieve vehicular congestion and maximize the safety and mobility of people and goods. [23 C.F.R. 450.324(f)(5)]	Chapter 6 – Cost Feasible Plan, Section 6-1
Consideration of the results of the congestion management process in Transportation Management Areas (TMA), including the identification of single occupancy vehicle (SOV) projects that result from a congestion management process in TMAs that are nonattainment for ozone or carbon monoxide. [23 C.F.R. 450.324(f)(6)]	Chapter 6 – Cost Feasible Plan, Section 6-1
Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters. May consider projects and strategies that address corridors or areas where congestion threatens the efficient functioning of the MPO’s transportation system. [23 C.F.R. 450.324(f)(7)]	Chapter 6 – Cost Feasible Plan

Table A-4. Other Federal Law and Requirements the LRTP Shall Include

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
Include transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption in a cost-effective manner and strategies and investments that preserve and enhance intercity bus systems. Activities would also include systems that are privately owned and operated. [23 C.F.R. 450.324(f)(8)]	Chapter 6 – Cost Feasible Plan, Section 6-3
Descriptions of proposed improvements in sufficient detail to develop cost estimates (e.g., design concept and design scope descriptions). [23 C.F.R. 450.324(f)(9)]	Chapter 4 – 2045 Needs Plan, Table 4-6 and Table 4-12
A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the LRTP. The discussion may focus on policies, programs, or strategies, rather than at the project level. The MPO shall develop the discussion in consultation with applicable Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation. [23 C.F.R. 450.324(f)(10)]	Chapter 4 – 2045 Needs Plan, Section 4-2
A financial plan that demonstrates how the adopted transportation plan can be implemented. Revenue and cost estimates must use an inflation rate(s) to reflect “year of expenditure dollars,” based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s). For illustrative purposes, the financial plan may include additional projects that would be included in the adopted transportation plan if additional resources beyond those identified in the financial plan were to become available. [23 C.F.R. 450.324(f)(11)]	Chapter 6 – Cost Feasible Plan
Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g). [23 C.F.R. 450.324(f)(12)]	Chapter 6 – Cost Feasible Plan, Section 6-2
The plan shall include both long and short-range strategies/actions that provide for the development of an integrated multimodal transportation system (including accessible pedestrian walkways and bicycle transportation facilities) to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand. [23 C.F.R. 450.324(b)]	Chapter 6 – Cost Feasible Plan
The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the transportation plan. In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The MPO shall approve transportation plan contents and supporting analyses produced by a transportation plan update. [23 C.F.R. 450.324(f)]	Chapter 2 – Plan Process, Section 2-3

Table A-4. Other Federal Law and Requirements the LRTP Shall Include

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
The MPO shall integrate priorities, goals, countermeasures, strategies, or projects for the metropolitan planning area contained in the Highway Safety Improvement Program (HSIP), including the Strategic Highway Safety Plan (SHSP), or an Interim Agency Safety Plan, as in effect until completion of the Public Transportation Agency Safety Plan; and may incorporate or reference applicable emergency relief and disaster preparedness plans and strategies and policies that support homeland security, as appropriate, to safeguard the personal security of all motorized and non-motorized users. [23 C.F.R. 450.324(h)]	Chapter 3 – 2045 LRTP Goals and Objectives

Source: FDOT – MPO Handbook, Chapter 4: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/policy/metrosupport/resources/fdot-mpo-handbook99c4d55af487435394909e5f80818235.pdf?sfvrsn=861c81ff_27

Table A-5. Other State Requirements for the LRTP

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
LRTPs are to identify transportation facilities that should function as an integrated metropolitan transportation system, giving emphasis to facilities that serve important national, state, and regional transportation functions, including facilities on the Strategic Intermodal System (SIS) and facilities for which projects have been identified pursuant to Transportation Regional Incentive Program. [Section 339.175(1), F.S.]	Chapter 6 – Cost Feasible Plan, Section 6-1
The LRTP must address at least a 20-year planning horizon, include both long-range and short-range strategies, and comply with all other State and Federal requirements. The LRTP must also consider these prevailing principles: preserving the existing transportation infrastructure, enhancing Florida’s economic competitiveness, and improving travel choices to ensure mobility. [Section 339.175(7), F.S.]	Chapter 6 – Cost Feasible Plan
The LRTP must be consistent, to the maximum extent feasible, with future land use elements and the goals, objectives, and policies of the approved local government comprehensive plans of the units of local government located within the jurisdiction of the MPO. [Section 339.175(7), F.S.]	Chapter 4 – 2045 Needs Plan, Section 4-1
Each MPO is encouraged to consider strategies that integrate transportation and land use planning in order to provide for sustainable development and reduce greenhouse gas emissions. [Section 339.175(7), F.S]	Chapter 2 – Plan Process, Section 2-2
The approved LRTP must be considered by local governments in the development of the transportation elements in local government comprehensive plans and any amendments thereto. [Section 339.175(7), F.S.]	The 2045 LRTP will be provided to all local governments for development of their comprehensive plans.
The LRTP must identify transportation facilities, including, but not limited to, major roadways, airports, seaports, spaceports, commuter rail systems, transit systems, and intermodal or multimodal terminals that will function as an integrated metropolitan transportation system. [Section 339.175(7)(a), F.S.]	-Chapter 4 – 2045 Needs Plan -Chapter 6 – Cost Feasible Plan -Chapter 7 - Implementation
The LRTP must give emphasis to those transportation facilities that serve national, statewide, or regional functions; and must consider the goals and objectives identified in the Florida Transportation Plan. If a project is located within the boundaries of more than one MPO, the MPOs must coordinate plans regarding the project in their LRTPs. [Section 339.175(7)(a), F.S.]	Table 6-1 in Chapter 6 presents projects that are considered regionally or nationally significant. The Florida Transportation Plan is listed as a referenced document for the LRTP update, in Chapter 4 – 2045 Needs

Table A-5. Other State Requirements for the LRTP

Regulatory Requirement Summary	Where Requirements Are Addressed in the LRTP
	Plan, Section 4-1. The goals and objectives in the FTP were considered and are similar to the goals and objectives identified for the 2045 LRTP update. Coordination with Lee County MPO took place several times throughout the LRTP update.
The LRTP must assess capital investment and other measures necessary to ensure the preservation of the existing metropolitan transportation system, including requirements for the operation, resurfacing, restoration, and rehabilitation of major roadways and requirements for the operation, maintenance, modernization, and rehabilitation of public transportation facilities. [Section 339.175(7)(c)(1), F.S.]	Chapter 6 – Cost Feasible Plan
The LRTP must assess capital investment and other measures necessary to make the most efficient use of existing transportation facilities to relieve vehicular congestion, improve safety, and maximize the mobility of people and goods. Such efforts must include, but are not limited to, consideration of infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as autonomous technology and other developments. [Section 339.175(7)(c)(2), F.S.]	Chapter 6 – Cost Feasible Plan
The LRTP must indicate, as appropriate, proposed transportation enhancement activities, including, but not limited to, pedestrian and bicycle facilities, scenic easements, landscaping, historic preservation, mitigation of water pollution due to highway runoff, and control of outdoor advertising. [Section 339.175(7)(d), F.S.]	At this time, the 2045 LRTP does not specifically address proposed transportation enhancement activities with the exception of pedestrian and bicycle facilities.
The LRTP must be approved by each MPO on a recorded roll-call vote or hand-counted vote of the majority of the MPO membership present. [Section 339.175(13), F.S.]	The Collier MPO is committed to the adoption of the LRTP during a recorded roll call vote or hand-counted vote of the majority of the MPO Board members.

Source: FDOT – MPO Handbook, Chapter 4: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/policy/metrosupport/resources/fdot-mpo-handbook99c4d55af487435394909e5f80818235.pdf?sfvrsn=861c81ff_27

FDOT LRTP Review Checklist

Collier MPO 2045 LRTP

Section A- Federal Requirements		Where and How Addressed
23 C.F.R. Part 450 – Planning Assistance and Standards		
A-1	<p>Does the plan cover a 20-year horizon from the date of adoption?</p> <p>Please see the “Administrative Topics” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(a)</p>	Yes. The plan covers 2025 through 2045.
A-2	<p>Does the plan address the planning factors described in 23 C.F.R. 450.306(b)?</p> <p>Please see the “Fiscal Constraint” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>Please see the “New Requirements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>Risk and Resiliency Does the plan improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation?</p> <p>Travel and Tourism Does that plan enhance travel and tourism?</p> <p>Please see the “Proactive Improvements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(a)</p>	<p>Yes. Reference Chapter 3 – 2045 LRTP Goals and Objectives.</p> <p>Yes. Chapter 3 – LRTP Goals and Objectives, Table 3-1 presents how projects identified in the Needs Plan were scored based on Goal #10.</p> <p>Yes. Chapter 3 – LRTP Goals and Objectives, Table 3-1 presents how projects identified in the Needs Plan were scored based on Goal #3.</p>

Section A- Federal Requirements		Where and How Addressed
A-3	<p>Does the plan include both long-range and short-range strategies/actions that provide for the development of an integrated multimodal transportation system (including accessible pedestrian walkways and bicycle transportation facilities) to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand?</p> <p>Please see the “Technical Topics” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(b)</p>	Yes. Reference Chapter 6 – Cost Feasible Plan.
A-4	<p>Was the requirement to update the plan at least every five years met?</p> <p>Please see the “Administrative Topics” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(c)</p>	Yes. The last approved LRTP was the 2040 LRTP adopted in December 2015.
A-5	<p>Did the MPO coordinate the development of the metropolitan transportation plan with the process for developing transportation control measures (TCMs) in a State Implementation Plan (SIP)?</p> <p>23 C.F.R. 450.324(d)</p>	The Collier MPO geographic area is a designated attainment area for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act.
A-6	<p>Was the plan updated based on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity?</p> <p>Please see the “Proactive Improvements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(e)</p>	Yes. Reference Chapter 2 – Plan Process, Section 2-3.

Section A- Federal Requirements		Where and How Addressed
A-7	<p>Does the plan include the current and projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan?</p> <p>Please see the “Technical Topics” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>Please see the “Administrative Topics” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(1)</p>	Yes. Reference Chapter 2 – Plan Process, Section 2-3.
A-8	<p>Does the plan include existing and proposed transportation facilities (including major roadways, public transportation facilities, intercity bus facilities, multimodal and intermodal facilities, nonmotorized transportation facilities, and intermodal connectors that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the period of the transportation plan?</p> <p>23 C.F.R. 450.324(f)(2)</p>	Yes. Reference Chapter 6 – Cost Feasible Plan.
A-9	<p>Does the plan include a description of the performance measures and performance targets used in assessing the performance of the transportation system in accordance with §450.306(d)?</p> <p>Please see the “New Requirements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(3)</p>	Yes. Reference Chapter 7 – Implementation and Appendix F (System Performance Report).

Section A- Federal Requirements	Where and How Addressed
<p>A-10 Does the plan include a system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets described in §450.306(d), including progress achieved by the metropolitan planning organization in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data?</p> <p>Please see the “New Requirements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(4)(i)</p>	<p>Yes. Reference Chapter 7 – Implementation and Appendix F (System Performance Report).</p>

Section A- Federal Requirements	Where and How Addressed
<p>A-11 Did the MPO integrate in the metropolitan transportation planning process, directly or by reference, the goals, objectives, performance measures, and targets described in other State transportation plans and transportation processes, as well as any plans developed under 49 U.S.C. chapter 53 by providers of public transportation, required as part of a performance-based program including:</p> <p>(i) The State asset management plan for the NHS, as defined in 23 U.S.C. 119(e) and the Transit Asset Management Plan, as discussed in 49 U.S.C. 5326;</p> <p>(ii) Applicable portions of the HSIP, including the SHSP, as specified in 23 U.S.C. 148;</p> <p>(iii) The Public Transportation Agency Safety Plan in 49 U.S.C. 5329(d);</p> <p>(iv) Other safety and security planning and review processes, plans, and programs, as appropriate;</p> <p>(v) The Congestion Mitigation and Air Quality Improvement Program performance plan in 23 U.S.C. 149(l), as applicable;</p> <p>(vi) Appropriate (metropolitan) portions of the State Freight Plan (MAP-21 section 1118);</p> <p>(vii) The congestion management process, as defined in 23 CFR 450.322, if applicable; and</p> <p>(viii) Other State transportation plans and transportation processes required as part of a performance-based program.</p> <p>Please see the “New Requirements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.306 (d)(4)</p>	<p>Yes. Reference Chapter 4 – 2045 Needs Plan, Section 4-2, referenced plans.</p>

Section A- Federal Requirements		Where and How Addressed
A-12	<p>Does the plan include operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods?</p> <p>Please see the "Technical Topics" section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(5)</p>	<p>Yes. Reference the following:</p> <ul style="list-style-type: none"> -Chapter 4 – 2045 Needs Plan, Section 4-2 -Chapter 6 – Cost Feasible Plan, Section 6-1 -Chapter 7 – Implementation, Section 7-2
A-13	<p>Does the plan include consideration of the results of the congestion management process in TMAs, including the identification of SOV projects that result from a congestion management process in TMAs that are nonattainment for ozone or carbon monoxide?</p> <p>Please see the "Technical Topics" section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(6)</p>	<p>Yes. Chapter 6 – Cost Feasible Plan, Section 6-1. No single occupancy vehicle projects were identified as the Collier MPO geographic area is a designated attainment area for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act.</p>
A-14	<p>Does the plan include assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters?</p> <p>23 C.F.R. 450.324(f)(7)</p>	<p>Yes. Reference Chapter 6 – Cost Feasible Plan and Chapter 4 – 2045 Needs Plan (Ranking the Needs).</p>
A-15	<p>Does the plan include transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption in a cost-effective manner and strategies and investments that preserve and enhance intercity bus systems, including systems that are privately owned and operated, and including transportation alternatives, as defined in 23 U.S.C. 101(a), and associated transit improvements, as described in 49 U.S.C. 5302(a)?</p> <p>23 C.F.R. 450.324(f)(8)</p>	<p>Yes. Reference Chapter 6 – Cost Feasible Plan, Section 6-3.</p>

Section A- Federal Requirements		Where and How Addressed
A-16	<p>Does the plan describe all proposed improvements in sufficient detail to develop cost estimates?</p> <p>Please see the “Fiscal Constraint” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(9)</p>	Yes. Reference Chapter 4 – 2045 Needs Plan, Table 4-6 and Table 4-12.
A-17	<p>Does the plan include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan?</p> <p>Please see the “Technical Topics” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(10)</p>	Yes. Chapter 4 – 2045 Needs Plan, Section 4-2
A-18	<p>Does the plan include a financial plan that demonstrates how the adopted transportation plan can be implemented?</p> <p>Please see the “Fiscal Constraint” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(11)</p>	Yes. Reference Chapter 6 – Cost Feasible Plan.
A-19	<p>Does the plan include system-level estimates of costs and revenue sources to adequately operate and maintain Federal-aid highways and public transportation?</p> <p>23 C.F.R. 450.324(f)(11)(i)</p>	Yes. Reference Chapter 5 – Financial Resources and Chapter 6 – Cost Feasible Plan.
A-20	<p>Did the MPO, public transportation operator(s), and State cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under §450.314(a)?</p> <p>Please see the “Proactive Improvements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(f)(11)(ii)</p>	Yes. Reference Chapter 5 – Financial Resources.

Section A- Federal Requirements		Where and How Addressed
A-21	<p>Does the financial plan include recommendations on additional financing strategies to fund projects and programs included in the plan, and, in the case of new funding sources, identify strategies for ensuring their availability?</p> <p>23 C.F.R. 450.324(f)(11)(iii)</p>	Yes. Reference Chapter 5 – Financial Resources
A-22	<p>Does the plan's revenue and cost estimates use inflation rates that reflect year of expenditure dollars, based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s)?</p> <p>23 C.F.R. 450.324(f)(11)(iv)</p>	Yes. Reference Chapter 5 – Financial Resources and Chapter 6 – Cost Feasible Plan.
A-23	<p>Does the financial plan address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP?</p> <p>23 C.F.R. 450.324(f)(11)(vi)</p>	The Collier MPO geographic area is a designated attainment area for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore no specific financial strategies were required to ensure implementation of TCMs.
A-24	<p>Does the plan include pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C.17(g)?</p> <p>23 C.F.R. 450.324(f)(12)</p>	Yes. Reference Chapter 6 – Cost Feasible Plan, Section 6-2.
A-25	<p>Does the plan integrate the priorities, goals, countermeasures, strategies, or projects for the metropolitan planning area contained in the HSIP, including the SHSP, the Public Transportation Agency Safety Plan, or an Interim Agency Safety Plan?</p> <p>Please see the “Technical Topics” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(h)</p>	Yes. Reference Chapter 3 – 2045 LRTP Goals and Objectives.
A-26	<p>Does the plan identify the current and projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan?</p> <p>23 C.F.R. 450.324(g)(1)</p>	Yes. Reference Chapter 2 – Plan Process, Section 2-3.

Section A- Federal Requirements	Where and How Addressed
<p>A-27 Did the MPO provide individuals, affected public agencies, representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cashout program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan using the participation plan developed under §450.316(a)?</p> <p>23 C.F.R. 450.324(j)</p>	<p>Yes. Through coordination with the Collier MPO's committees, plan updates provided to the Collier MPO Advisor Network, and public outreach documented in Chapter 2 and the <i>Public Involvement Summary Report</i> (prepared under separate cover), the MPO provided individuals, affected public agencies, and all other agencies noted (with the exception of public ports), reasonable opportunity to comment on the 2045 LRTP.</p>
<p>A-28 Did the MPO publish or otherwise make readily available the metropolitan transportation plan for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web?</p> <p>Please see the "Stakeholder and Coordination Input" section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>Please see the "Administrative Topics" section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.324(k), 23 C.F.R. 450.316(a)(1)(iv)</p>	<p>Yes. The MPO posted the Draft LRTP and the Final LRTP on their website for public comments.</p>
<p>A-29 Did the MPO provide adequate public notice of public participation activities and time for public review and comment at key decision points, including a reasonable opportunity to comment on the proposed metropolitan transportation plan?</p> <p>Please see the "Stakeholder and Coordination Input" section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R 450.316(a)(1)(i)</p>	<p>Yes. Reference the <i>Public Involvement Summary Report</i> (prepared under separate cover).</p>

Section A- Federal Requirements		Where and How Addressed
A-30	<p>In developing the plan, did the MPO seek out and consider the needs of those traditionally underserved by existing transportation systems such as low-income and minority households?</p> <p>Please see the “Stakeholder and Coordination Input” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>Please see the “Proactive Improvements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R 450.316(a)(1)(vii)</p>	<p>Yes. Reference the <i>Public Involvement Summary Report</i> (prepared under separate cover).</p>
A-31	<p>Has the MPO demonstrated explicit consideration of and response to public input received during development of the plan? If significant written and oral comments were received on the draft plan, is a summary, analysis, and report on the disposition of the comments part of the final plan?</p> <p>Please see the “Stakeholder and Coordination Input” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.316(a)(1)(vi) & 23 C.F.R. 450.316(a)(2)</p>	<p>Yes. Reference the <i>Public Involvement Summary Report</i> (prepared under separate cover), where a summary of comments is presented. No significant comments were received on the draft plan.</p>
A-32	<p>Did the MPO provide an additional opportunity for public comment if the final plan differs significantly from the version that was made available for public comment and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts?</p> <p>Please see the “Stakeholder and Coordination Input” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R 450.316(a)(1)(viii)</p>	<p>The final plan and draft plan were not significantly different.</p>

Section A- Federal Requirements		Where and How Addressed
A-33	<p>Did the MPO consult with agencies and officials responsible for other planning activities within the MPO planning area that are affected by transportation, or coordinate its planning process (to the maximum extent practicable) with such planning activities?</p> <p>Please see the “Proactive Improvements” section of the 2018 FHWA LRTP Expectations Letter for guidance.</p> <p>23 C.F.R. 450.316(b)</p>	Yes. Reference Chapter 2 – Plan Process, Table 2-2.
A-34	<p>If the MPO planning area includes Indian Tribal lands, did the MPO appropriately involve the Indian Tribal government(s) in the development of the plan?</p> <p>23 C.F.R 450.316(c)</p>	Yes. Reference Chapter 2 – Plan Process, Table 2-2.
A-35	<p>If the MPO planning area includes Federal public lands, did the MPO appropriately involve Federal land management agencies in the development of the plan?</p> <p>23 C.F.R 450.316(d)</p>	Yes. The MPO Advisor Network includes the National Park Service (Everglades National Park and Big Cypress National Preserve), US Fish and Wildlife Service (Florida Panther National Wildlife Refuge and Ten Thousand Islands National Wildlife Refuge). The MPO also coordinates with State and non-profit land management agencies.
A-36	<p>In urbanized areas that are served by more than one MPO, is there written agreement among the MPOs, the State, and public transportation operator(s) describing how the metropolitan transportation planning processes will be coordinated to assure the development of consistent plans across the planning area boundaries, particularly in cases in which a proposed transportation investment extends across those boundaries?</p> <p>23 C.F.R. 450.314(e)</p>	<p>Yes. Reference the Interlocal Agreement for Joint Regional Transportation Planning and Coordination Between the Collier and Lee County MPOs.</p> <p>https://www.colliermopo.org/wp-content/uploads/2018/11/Interlocal-Agreement-for-Joint-Regional-Transportation-Planning-and-Coordination-Between-the-Collier-and-Lee-County-MPOs-1.pdf</p>

Section B- State Requirements

Where and How Addressed

Florida Statutes: Title XXVI – Public Transportation, Chapter 339, Section 175

B-1	Are the prevailing principles in s. 334.046(1), F.S. – preserving the existing transportation infrastructure, enhancing Florida’s economic competitiveness, and improving travel choices to ensure mobility – reflected in the plan? ss.339.175(1), (5) and (7), F.S.	Yes. Reference Chapter 3 – Goals and Objectives.
B-2	Does the plan give emphasis to facilities that serve important national, state, and regional transportation functions, including SIS and TRIP facilities? ss.339.175(1) and (7)(a), F.S.	Yes. Reference Chapter 2 – Plan Process and Chapter 3 – Goals and Objectives. The Collier 2045 LRTP is consistent with the local government comprehensive plans.
B-3	Is the plan consistent, to the maximum extent feasible, with future land use elements and the goals, objectives, and policies of the approved comprehensive plans for local governments in the MPO’s metropolitan planning area? ss.339.175(5) and (7), F.S.	Yes. Reference the plan list in Chapter 4.
B-4	Did the MPO consider strategies that integrate transportation and land use planning to provide for sustainable development and reduce greenhouse gas emissions? ss.339.175(1) and (7) F.S.	Yes. Reference Chapter 3 - Goals and Objectives.
B-5	Were the goals and objectives identified in the Florida Transportation Plan considered? s.339.175(7)(a), F.S.	Yes. Reference plans listed in Chapter 4 – 2045 Needs Plan and the goals and objectives identified in Chapter 3 – Goals and Objectives.
B-6	Does the plan assess capital investment and other measures necessary to 1) ensure the preservation of the existing metropolitan transportation system, including requirements for the operation, resurfacing, restoration, and rehabilitation of major roadways and requirements for the operation, maintenance, modernization, and rehabilitation of public transportation facilities; and 2) make the most efficient use of existing transportation facilities to relieve vehicular congestion and maximize the mobility of people and goods? s.339.175(7)(c), F.S.	Yes. Reference Chapter 6 – Cost Feasible Plan.

Section B- State Requirements		Where and How Addressed
B-7	Does the plan indicate, as appropriate, proposed transportation enhancement activities, including, but not limited to, pedestrian and bicycle facilities, scenic easements, landscaping, historic preservation, mitigation of water pollution due to highway runoff, and control of outdoor advertising? s.339.175(7)(d), F.S.	At this time, the 2045 LRTP does not specifically address proposed transportation enhancement activities with the exception of pedestrian and bicycle facilities.
B-8	Was the plan approved on a recorded roll call vote or hand-counted vote of the majority of the membership present? s.339.175(13) F.S.	Yes. The MPO is committed to the adoption of the LRTP during a recorded roll call vote or hand-counted vote of the majority of the MPO Board members.

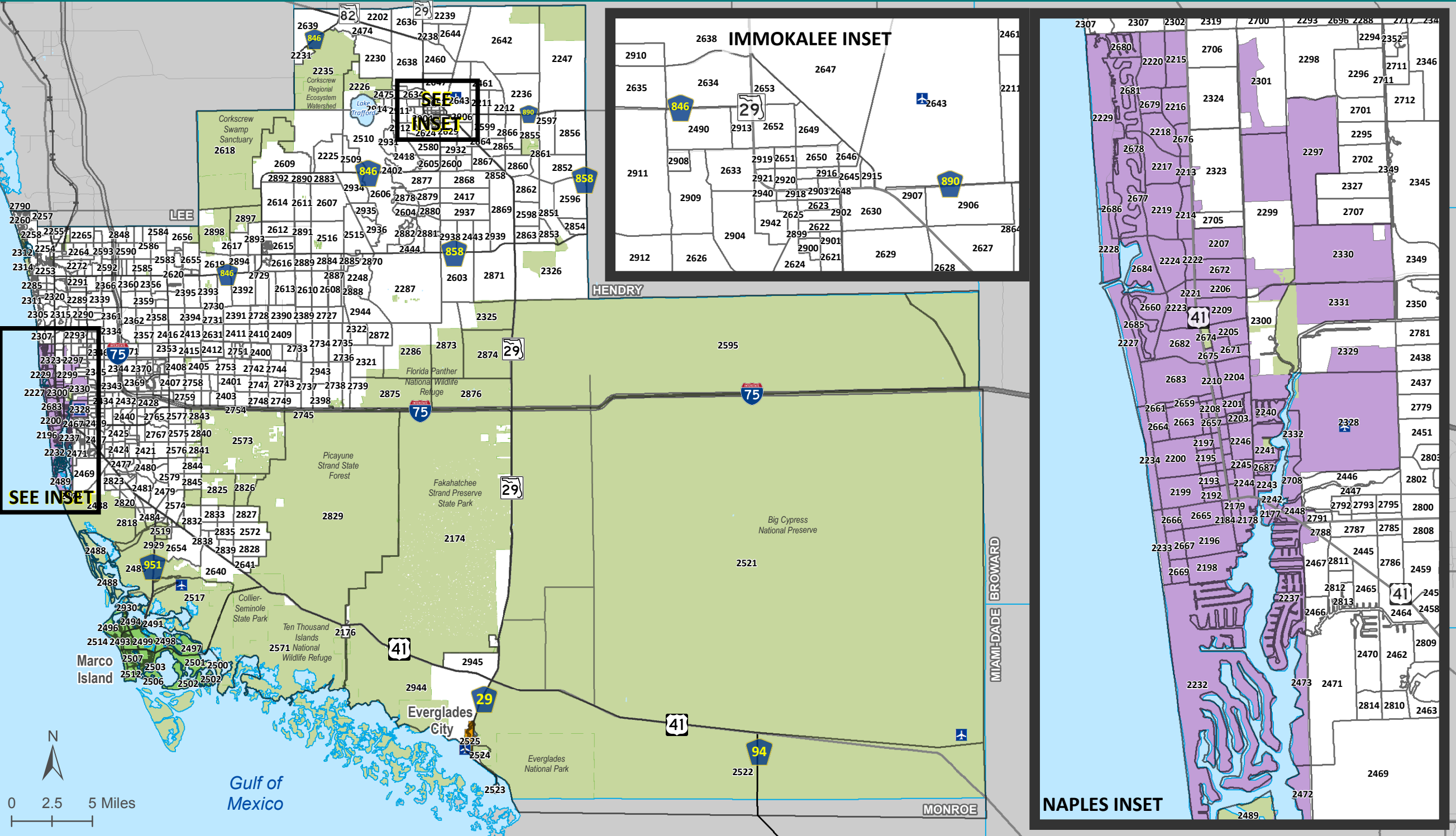
Section C- Proactive Recommendations		Where and How Addressed
C-1	Does the plan attempt to improve the resilience and reliability of the transportation system or mitigate the impacts of stormwater on surface transportation? 23 C.F.R 450.306(b)(9)	Yes. Reference Chapter 3 – Goals and Objectives and Chapter 4 – 2045 Needs Plan.
C-2	Does the plan proactively identify climate adaptation strategies including—but not limited to—assessing specific areas of vulnerability, identifying strategies to reduce emissions by promoting alternative modes of transportation, or devising specific climate adaptation policies to reduce vulnerability?	Yes. Reference the ranking of the needs in Chapter 4 – 2045 Needs Plan.
C-3	Do the plan consider the transportation system’s accessibility, mobility, and availability to better serve an aging population?	Yes. Reference the ranking of the needs in Chapter 4 – 2045 Needs Plan.
C-4	Does the plan consider strategies to promote inter-regional connectivity to accommodate both current and future mobility needs?	Yes. Reference Chapter 6 – Cost Feasible Plan.
C-5	Is the MPO considering the short- and long-term effects of population growth and or shifts on the transportation network?	Yes. Reference Chapter 2 – Plan Process, Section 2-3, Forecasting Growth.

Appendix B

Collier County Traffic Analysis Zones



Traffic Analysis Zones

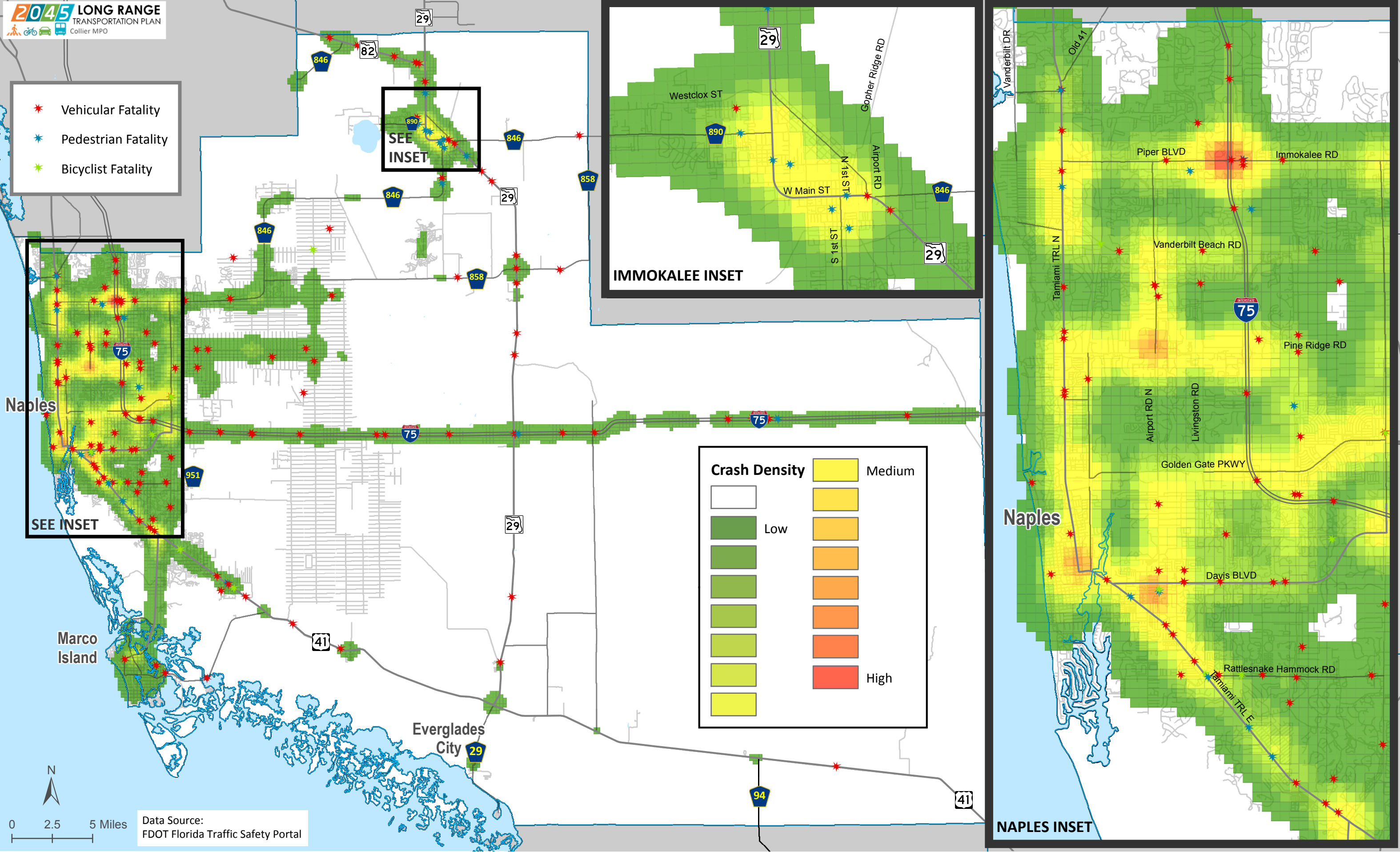


Appendix C

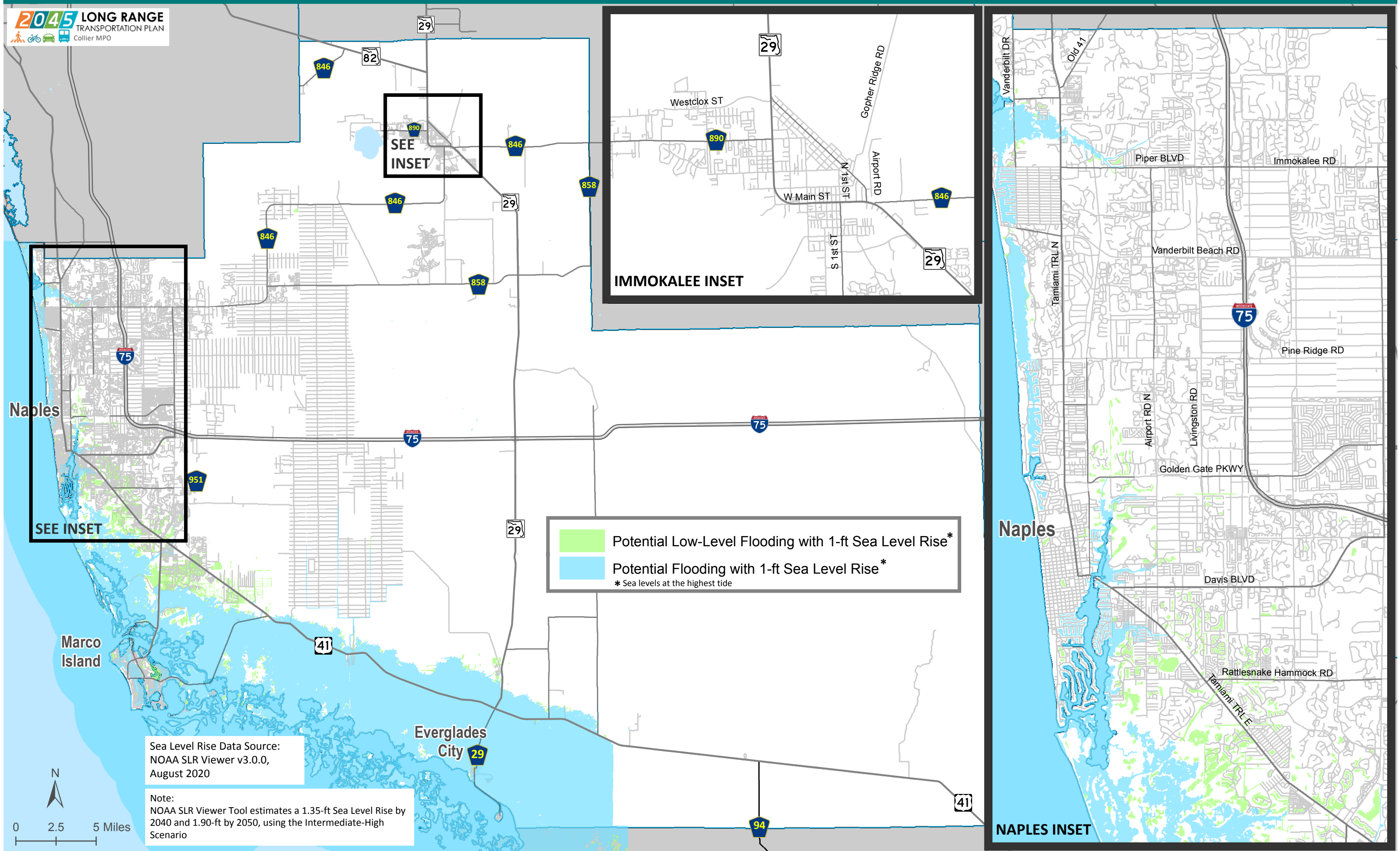
2045 Map Series



- ★ Vehicular Fatality
- ★ Pedestrian Fatality
- ★ Bicyclist Fatality

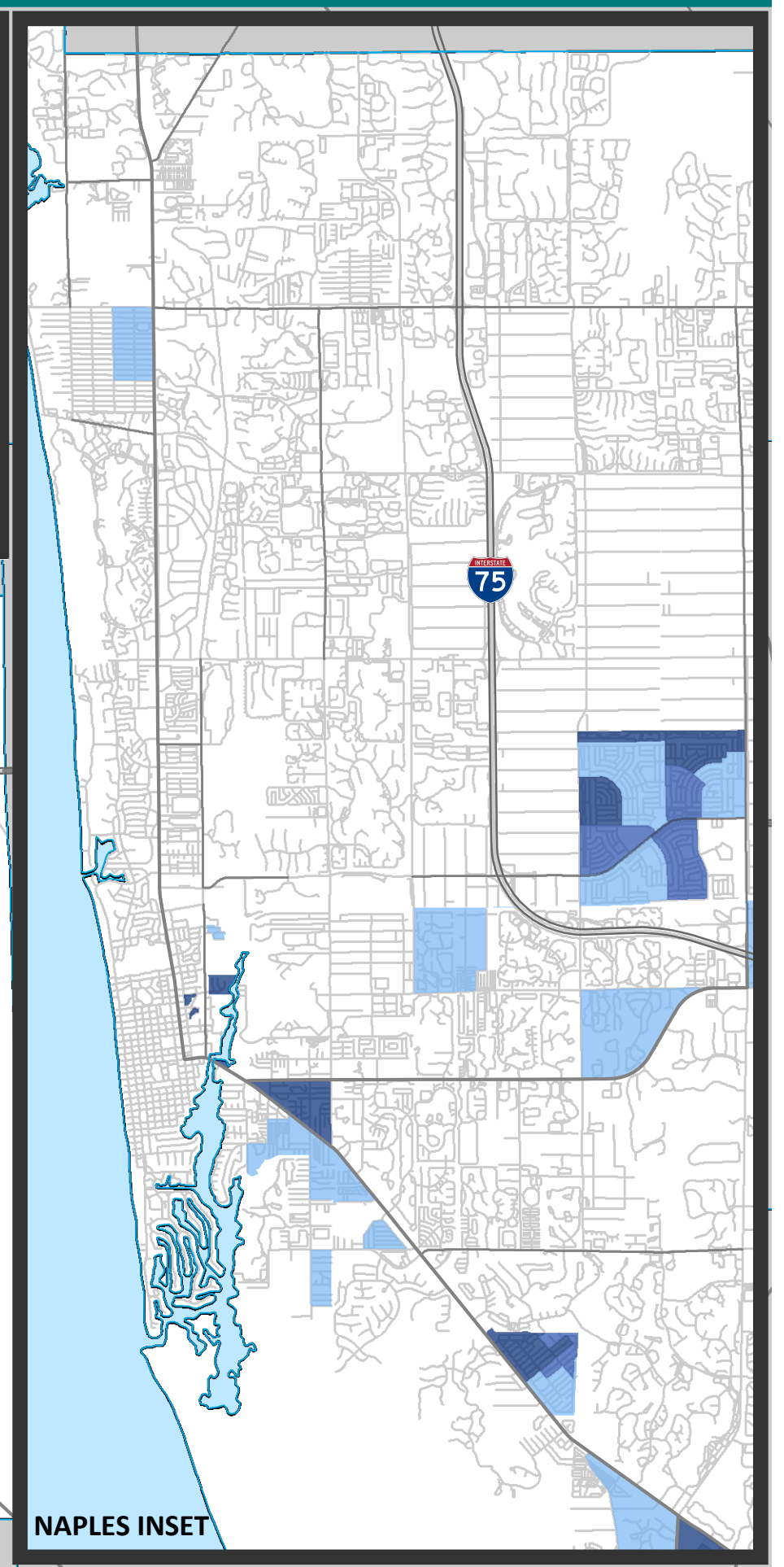
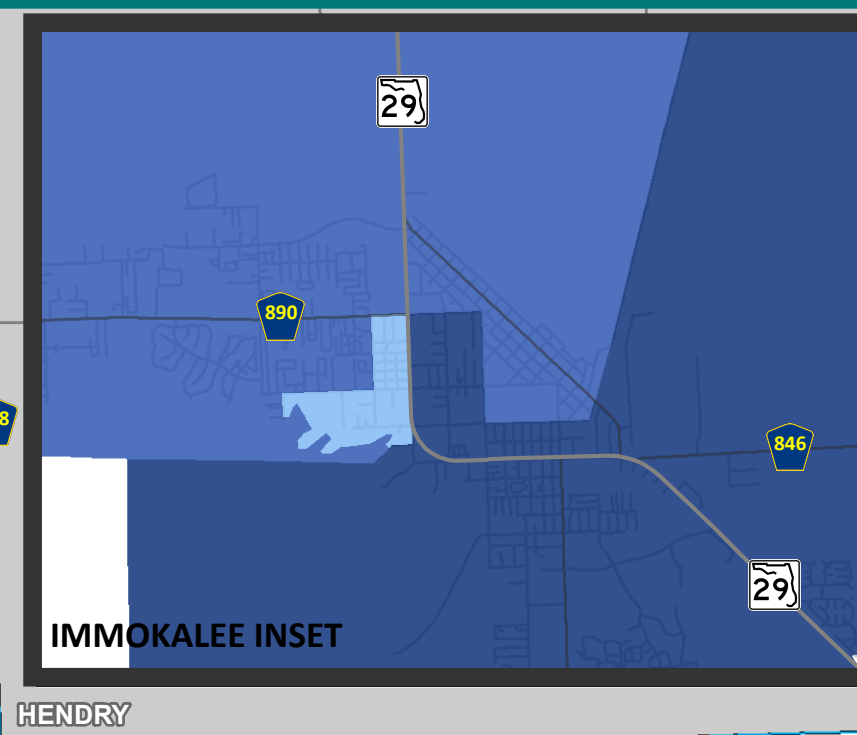
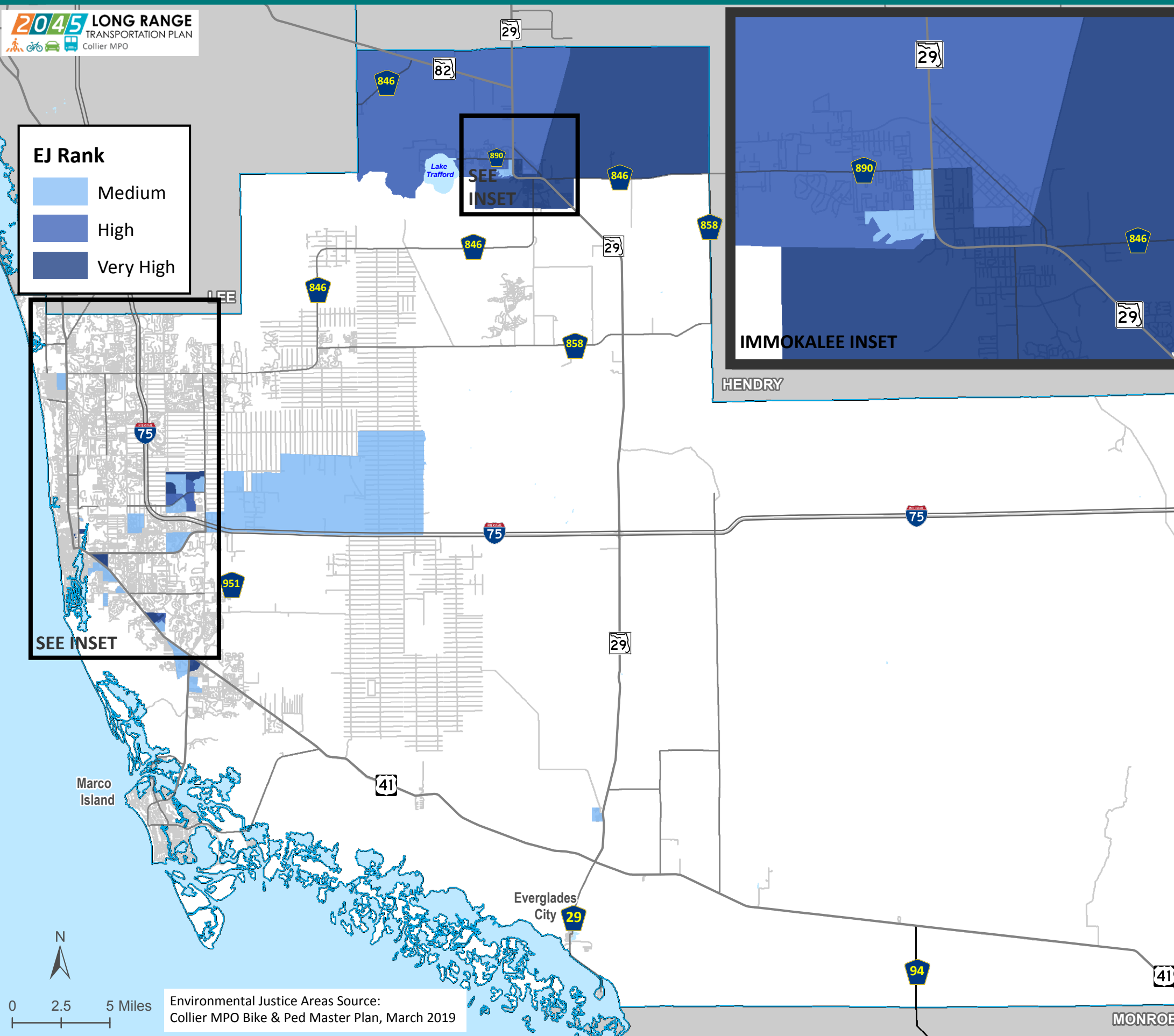


Map of 1-ft Sea Level Rise and Coastal Flooding



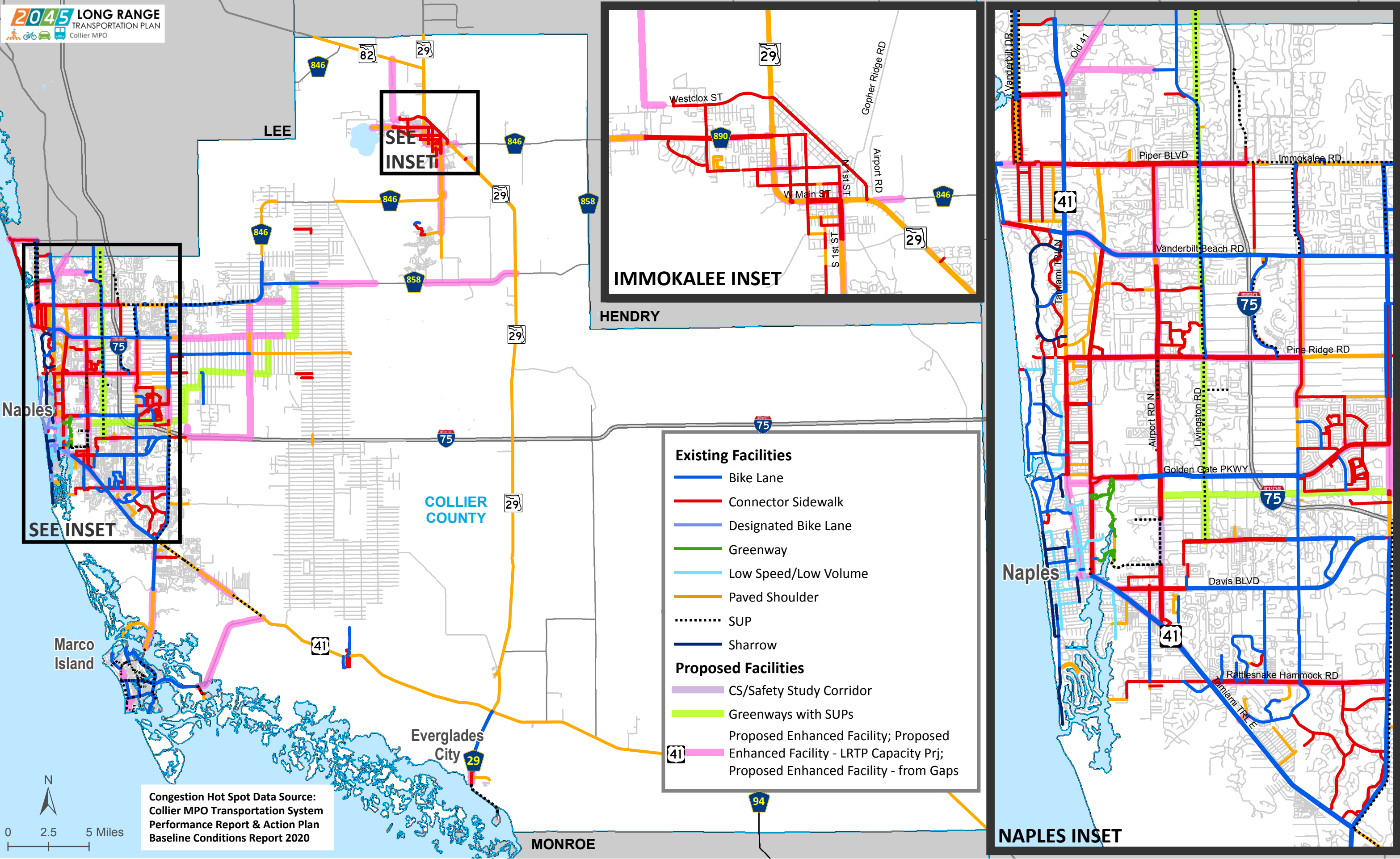
EJ Rank

- Medium
- High
- Very High



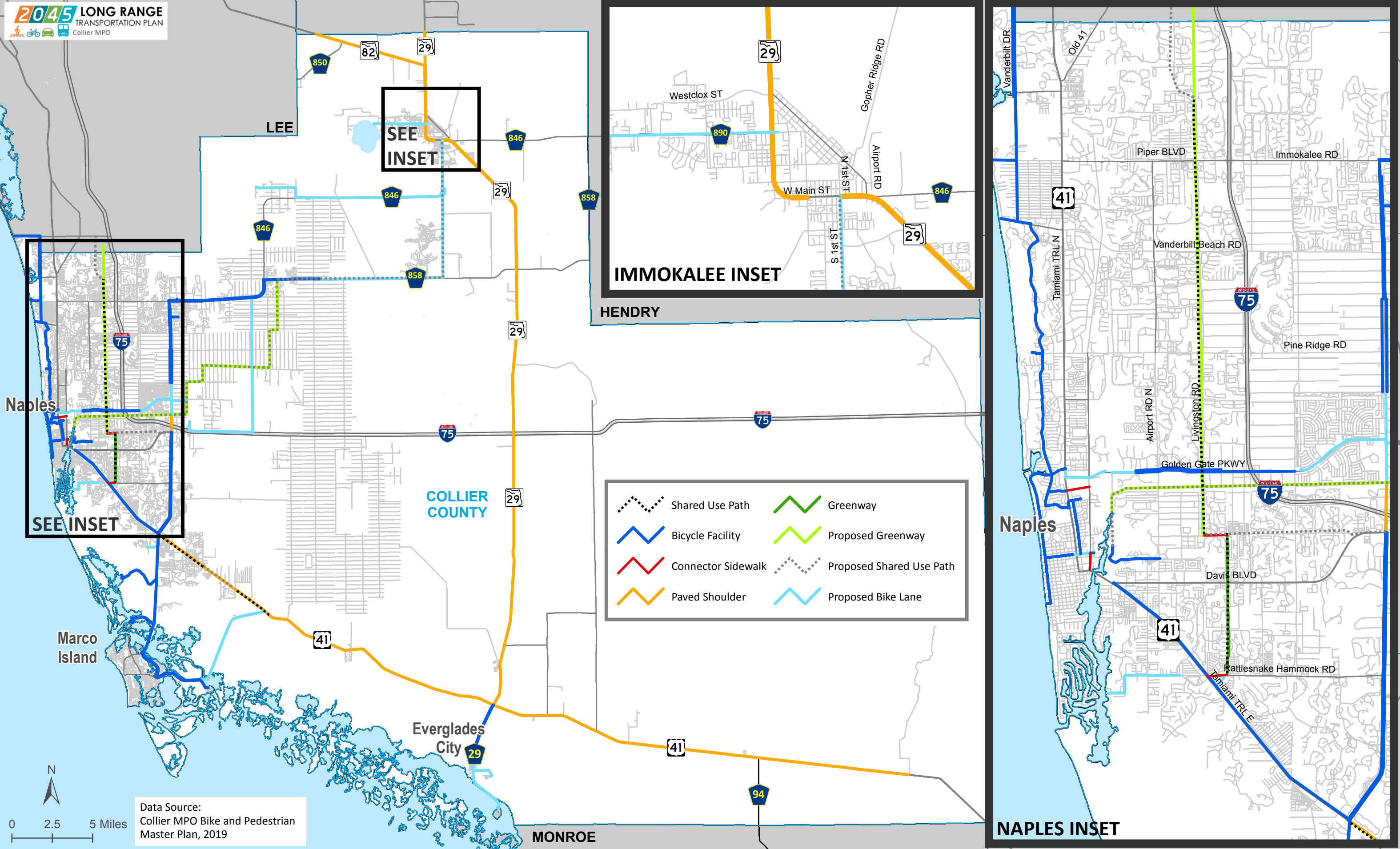
Existing Plus Proposed Facilities

Bicycle and Pedestrian Facilities

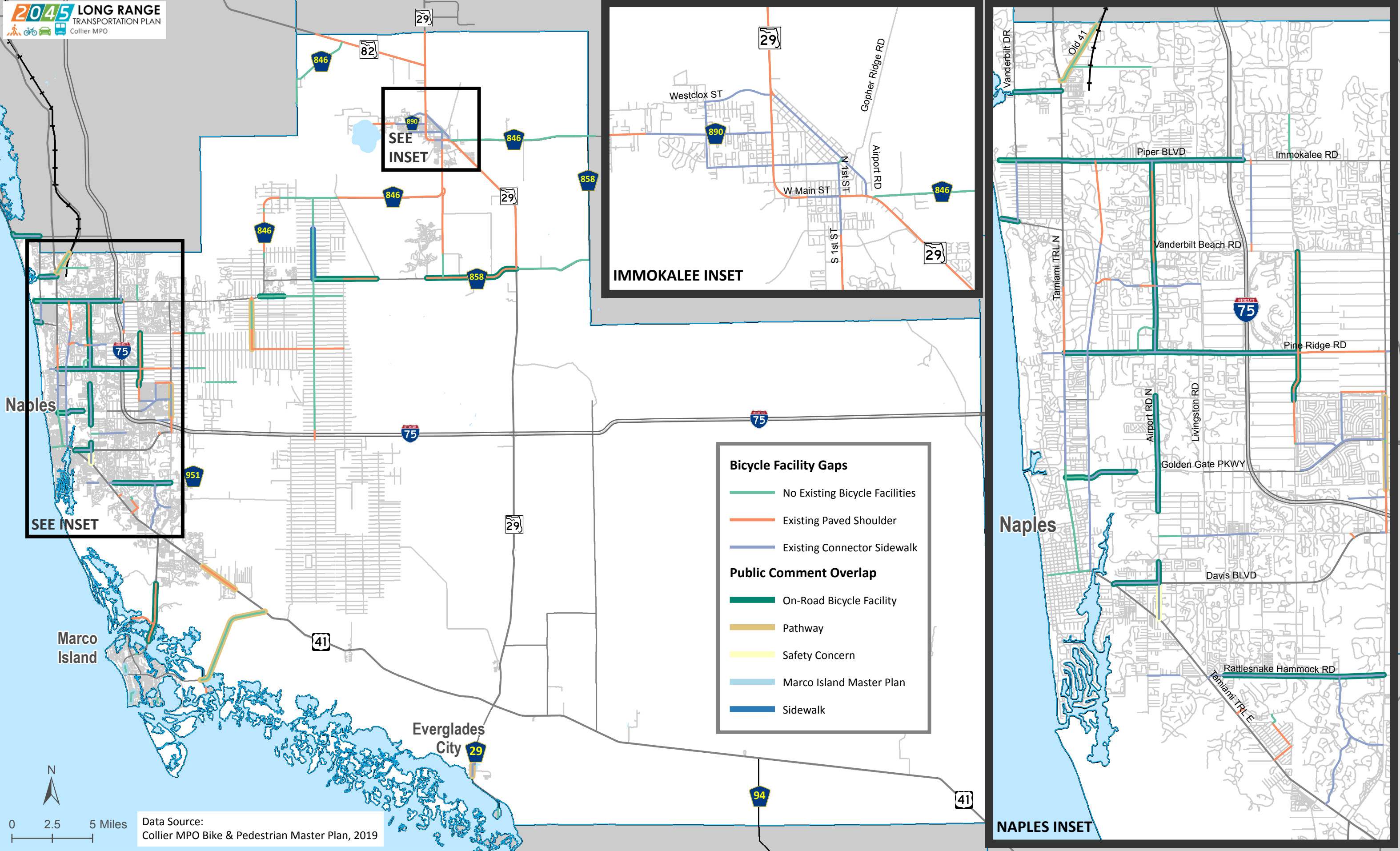


Map of SunTrail Alignments and Spine Pathway Corridors

2045 LONG RANGE
TRANSPORTATION PLAN
Collier MPO



Map of Bicycle and Pedestrian Facility Gaps Overlapped with Public Comment



Appendix D

Collier MPO FY 2021–FY 2025 TIP Summary



in \$ YOY						FY 2020/2021					FY 2021/2022					FY 2022/2023					FY 2023/2024					FY 2024/2025					Total Project Costs	
FPN	Roadway	From	To	Description	Agency	ENV	PD&E	PE	ROW	CST	ENV	PD&E	PE	ROW	CST	ENV	PD&E	PE	ROW	CST	ENV	PD&E	PE	ROW	CST	ENV	PD&E	PE	ROW	CST		
Highway Projects - Roadway																																
4175402	SR 29	Oil Well Rd	Sunniland Nursery Rd	Add lanes and Reconstruct	FDOT																\$885,000		\$7,440,000								8,325,000	
4175403	SR 29	Sunniland Nursery Rd	S of Argicultural Way	Widen 2-4 lanes	FDOT											500,000															500,000	
4175404	SR 29	S of Agricultural Way	CR 846 E	Add lanes and Reconstruct	FDOT											270,000															270,000	
4175405	SR 29	CR 846 E	N of New Markey Rd	New Road CST	FDOT																			\$975,253		\$60,000		\$5,708,149			6,743,402	
4175406	SR 29	N of New Market Rd	SR 82	Add lanes and Reconstruct	FDOT											380,000								\$1,091,754							1,471,754	
4178784	SR 29	SR 82	Hendry C/L	Add lanes and Reconstruct	FDOT	15,000			1,298,542							50,000															1,363,542	
4258432	I-75	SR 951		Ultimate Interchange Impro	FDOT				6,900,638							50,000		870,392			\$100,000			\$45,150					\$96,221,815	104,187,995		
4308481	SR 82	Hendry C/L	Gator Slough Ln	Add lanes and Reconstruct	FDOT				2,118,990		20,000					50,000								\$41,143,813				\$1,400,000			44,732,803	
4351112	SR 951	Manatee Rd	N of Tower Rd	Add lanes and Reconstruct	FDOT				1,956,693															\$15,385,189							17,341,882	
4404411	Airport Pulling Rd	Vanderbilt Bch RD	Immokalee Rd	Add Thru Lanes	Collier			3,000,000													\$9,856,200										12,856,200	
4452962	I-75	Pine Ridge Rd		Interchnage Imporvement	FDOT																\$5,450,000										5,450,000	
4463231	Corkscrew Rd N	Wildcat Dr	E of Wildcat Dr	Widen/Resurface	Collier					1,478,586																					1,478,586	
4463232	Corkscrew Rd S	Lee County Curve	Collier County Curve	Widen/Resurface	Collier																			\$1,321,000							1,321,000	
4463381	Vanderbilt Beach Rd	US 41	E of Goodlette-Frank	Add lanes and Reconstruct	Collier																							\$8,428,876			8,428,876	
4463411	Goodlette Frank Rd	Vanderbilt Bch RD	Immokalee Rd	Add lanes and Reconstruct	Collier																			\$5,500,000							5,500,000	
4464121	CR 951 (Collier Blvd)	Golden Gate Canal	Green Blvd	Widen/Resurface	Collier																		\$3,200,000								3,200,000	
Bridge Projects																																
4318953	16th St Bridge NE	Golden Gate Blvd	Randall Blvd	New Bridge Cst	Collier										4,933,943																4,933,943	
CMS/ITS Projects																																
4463171	Harbour Dr	at Crayton Rd		Roundabout	Naples																			\$892,211							892,211	
4463172	Mooring Line Dr	Crayton Rd		Roundabout	Naples																							\$126,000			126,000	
4464511	US 41	Golden Gate Parkway		Intersection	FDOT / NHS													270,000						\$225,942							495,942	
CIP Projects																																
60168	Vanderbilt Beach Rd	Collier Blvd	16th St	N/A	Collier					75,000,000																					105,000,000	
60201	Pine Ridge Rd	Livingston Blvd	I-75	N/A	Collier																\$10,000,000		\$10,000,000		\$10,000,000						0	
60147	Randall Blvd	at Immokalee Rd		Intersection Improvements	Collier																										8,800,000	
60190	Airport Pulling Rd	Vanderbilt Beach Rd	Immokalee Rd	N/A	Collier																\$14,500,000										14,500,000	
60211	Orange Blossom	Airport Pulling Rd	Livingston	N/A	Collier		200,000																								200,000	
60198	Veterans Memorial			N/A	Collier			1,800,000	1,800,000	8,800,000																					12,400,000	
60199	Vanderbilt Beach Rd	US 41	E of Goodlette	N/A	Collier			250,000	250,000					8,900,000																	9,400,000	
60129	Benfield Ext	Lords Way	City Gate N	N/A	Collier				1,000,000	7,000,000				1,000,000					1,000,000					\$1,000,000							11,000,000	
60144	Oil Well Rd	Everglades	Oil Well Grade	N/A	Collier			908,000							300,000						300,000			\$300,000							1,808,000	
68057	Collier Blvd	Green Blvd	Golden Gate Main Can	N/A	Collier							3,200,000							7,000,000					\$4,900,000							15,100,000	
60065	Randall Blvd	Immokalee Rd	Oil Weell rd	N/A	Collier																			\$1,500,000							1,500,000	
TBD	Immokalee Rd	at Northbrook Dr/Tarpon Bay Dr		N/A	Collier										1,000,000																1,000,000	
TBD	Goodlette Frank Rd	Vanderbilt Bch Rd	Immokalee Rd	N/A	Collier									2,000,000					5,500,000					\$6,750,000							14,250,000	
TBD	Green Blvd	Santa Barbara Blvd	Sunshine	N/A	Collier												500,000														500,000	
60229	Wilson Blvd	Golden Gate Blvd	Immokalee Rd	N/A	Collier				2,000,000				10,000,000								\$10,000,000										22,000,000	
TBD	Vanderbilt Beach Rd	16th St	Everglades	N/A	Collier								2,000,000						11,250,000					\$5,000,000							18,250,000	
TBD	Immokalee Rd	Livingston Blvd	Logan Blvd	N/A	Collier							1,000,000																				1,000,000

236,708,000

Appendix E

Roadway Needs Evaluation Matrix



Collier MPO 2045 Long Range Transportation Plan
Needs Assessment Plan

Table 1B.Draft Evaluation Matrix
DRAFT - July 2020; updated 9/3/2020

2045 Map ID	2045 RANK	2045 Weighted Score	Project	From	To	Description
1	51	126	Benfield Road Extension	The Lords Way	City Gate Boulevard North	New 2-Lane Road (Expandable to 4-Lanes)
2	41	138	Benfield Road	US 41 (SR 90) (Tamiami Trail East)	Rattlesnake-Hammock Ext	New 2-Lane Road (Expandable to 4-Lanes)
3	72	75	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)
4	70	83	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)
5	71	81	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (Expandable to 4-Lanes)
6	82	52	Big Cypress Parkway	Oil Well Road	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)
7	62	100	Camp Keais Road	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes
8	80	74	Camp Keais Road	Immokalee Road	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes
9	1	286	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes
10	21	182	CR 951 Extension (new)	Heritage Bay Entrance (Collier Blvd (CR 951) northern terminus)	Lee/Collier County Line	New 2-Lane Road
11	34	152	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes
12	35	152	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes
13	54	121	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	Widen from 2-Lanes to 4-Lanes
14	63	99	Everglades Boulevard	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes
15	37	147	Golden Gate Boulevard	Everglades Blvd	Desoto Boulevard	Widen from 2-Lanes to 4-Lanes
16	58	105	Golden Gate Boulevard Ext	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road
17	31	161	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes
18	66	91	Green Boulevard	Santa Barbara/ Logan Boulevard	Sunshine Boulevard	Widen from 2-Lane to 4-Lane
19	27	166	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext	New 2-Lane (Future Study Area)
20	33	154	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW	New 4-Lane (Future Study Area)
21	42	138	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard	New 2-Lane Road
22	60	102	Critical Needs Intersection @ I-75	Everglades Blvd		New Interchange
23	8	250	Critical Needs Intersection @ I-75	Golden Gate Parkway @ I-75		Interchange Improvement
24	2	285	Critical Needs Intersection @ I-75	Collier Blvd (SR 951) @ I-75		Interchange Improvement
25	22	180	Critical Needs Intersection @ I-75	Immokalee Rd @ I-75		Interchange Improvement
26	18	190	Critical Needs Intersection @ I-75	Pine Ridge Rd @ I-75		Interchange Improvement
27	40	146	I-75 (SR-93) Interchange (new)(not in SIS)	Vanderbilt Beach Rd		New Interchange - Partial (to / from the North)
29	5	269	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes
30	7	251	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes
31	23	172	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes
32	81	72	Keane Avenue	Inez Rd	Wilson Blvd Ext.	New 2-Lane Road (Future Study Area)
33	50	127	Little League Rd. Ext.	SR-82	Westclox St.	New 2-Lane Road
34	65	92	Logan Boulevard	Green Boulevard	Pine Ridge Road	Widen from 4-Lanes to 6-Lanes
35	52	125	Logan Boulevard	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes
36	67	89	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Widen from 2-Lanes to 4-Lanes
37	38	147	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes
38	46	131	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Road	Widen from 2-Lanes to 4-Lanes
39	10	236	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes
40	45	135	Orange Blossom Drive	Airport Pulling Road	Livingston Road	Widen from 2-Lanes to 6-Lanes
42	39	147	Randall Boulevard	8th St NE	Everglades Blvd	Widen from 2-Lanes to 4-Lanes
43	59	103	Randall Boulevard	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes
44	61	101	Randall Boulevard Ext.	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road
45	44	136	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	Widen from 4-Lanes to 6-Lanes
46	56	112	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes
48	49	128	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes
50	24	172	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane
51	13	212	SR 29/New Market Road W - New Road	Immokalee Rd (CR 846)	New Market Road North	Widen from 2-Lane to 4-Lane
52	3	277	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lane to 4-Lane
53	15	197	SR 29	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lane to 4-Lane
54	16	197	SR 29	Oil Well Road	Sunniland Nursery Rd	Widen from 2-Lane to 4-Lane
55	6	263	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 2-Lane to 4-Lane
56	9	242	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 2-Lane to 4-Lane
57	4	275	Critical Needs Intersection @ US 41	Goodlette Rd @ US 41		Intersection Improvement
58	12	219	US 41	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4-Lane
59	11	232	Critical Needs Intersection @ US 41	Collier Blvd (SR 951) @ US 41		Intersection Improvement
60	14	201	US 41	Immokalee Road	Old US 41	Widen from 2-Lane to 4-Lane
62	73	75	Vanderbilt Beach Road Ext	16th St	Big Cypress Parkway	New 2-Lane Road (Expandable to 4-Lanes)
63	53	122	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road
64	30	162	Wilson Blvd	Golden Gate Boulevard	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
65	32	156	Wilson Blvd	Keane Avenue	Golden Gate Boulevard	New 2-Lane Road (Expandable to 4-Lanes)
66	17	195	Immokalee Rd intersection	Livingston Rd		Intersection Improvement
67	57	106	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road
68	83	45	Big Cypress Parkway intersection (new)	Oil Well Grade Rd		New At-Grade Intersection
69	408	142	Everglades Boulevard	Oil Well Rd / CR 858	Immokalee Rd	Widen from 2-Lane to 4-Lane
70	68	86	Green Boulevard Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road
73	20	190	Immokalee Rd (CR 846) intersection	Collier Blvd (CR 951)		Intersection Improvement
74	28	165	Immokalee Rd (CR 846) intersection	Wilson Blvd		Intersection Improvement
75	55	115	I-75 (SR-93) Interchange (new) (not in SIS)	Veterans Memorial Blvd		New Partial Interchange
76	43	137	Vanderbilt Drive	Immokalee Rd	Woods Edge Parkway	Widen from 2-Lanes to 4-Lanes
77	25	170	Pine Ridge Rd intersection	Livingston Rd		Intersection Improvement
78	29	165	Golden Gate Parkway intersection	Livingston Rd		Intersection Improvement
80	47	131	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Pulling Road	Widen from 4-Lanes to 6-Lanes
81	74	75	Bridge @ 47th Avenue NE	West of Everglades Boulevard		New Bridge over Canal
82	75	75	Bridge @ Wilson Boulevard	South of 33rd Avenue NE		New Bridge over Canal
83	69	85	Bridge @ 18th Ave NE	between Wilson Boulevard N and 8th Street NE		New Bridge over Canal
84	76	75	Bridge @ 18th Ave NE	between 8th Street NE and 16th Street NE		New Bridge over Canal
85	64	95	Bridge @ 13th Street NW	north end at proposed Vanderbilt Beach Road Extension		New Bridge over Canal
86	77	75	Bridge @ 16th Street SE	South end		New Bridge over Canal
87	78	75	Bridge @ Location TBD - Assume 10th Avenue SE	East of Everglades Blvd		New Bridge over Canal
88	48	130	Bridge @Wilson Boulevard South, south end			New Bridge over Canal
89	79	75	Bridge @ 62nd Avenue NE	West of 40th Street NE		New Bridge over Canal
90	26	167	Pine Ridge Rd	Logan Blvd S	Collier Blvd (CR 951)	Widen from 4-Lanes to 6-Lanes
93	32	157	Immokalee Rd (CR 846)	43rd Ave NE/Shady Hollow Blvd E	North of 47th Avenue NE/Immokalee	Widen from 2-Lanes to 4-Lanes
94	57	113	Immokalee Road Rural Village Blvd (new)	Immokalee Rd (CR 846)	Immokalee Rd (CR 846)	New 4-Lane Road
41A	19	190	Critical Needs Intersection @ Immokalee Rd	Oil Well Road @ Randall Blvd		Ultimate Intersection Improvement: Overpass
41B	36	151	Randall Boulevard	Immokalee Road	8th St NE	Widen from 2-Lanes to 6-Lanes

Note: Does not include Critical Needs Intersections [#95 through #114]; it was necessary to rank or prioritize

1.Ensure the Security of Transportation System for Users				2. Protect Environmental Resources							
1A - Improves Evacuation Routes		1B - Provides Enhanced or potential new evacuation routes		2A - Amount of wetland encroachment based on NWI		2B - Proximity to protected natural areas (0.5 mile)		2C - Amount of habitat encroachment based on <u>secondary</u> panther habitat		2D - Amount of habitat encroachment based on <u>primary</u> panther habitat	
Is the roadway a current evacuation route? Yes = 5 No = 0				No impact = 0 0 - 5 acres = -1 6 - 10 acres = -2 11 - 15 = -3 15 - 20 = -4 21 or more = -5 (max)		Within 0.5 miles of Conservation Areas/Preserves lands? Yes = -1 No = 0		No impact = 0 0 - 10 acres = -1 11 - 20 acres = -2 21 - 30 = -3 31 - 40 = -4 40 or more = -5 (max)		No impact = 0 0 - 10 acres = -1 11 - 20 acres = -2 21 - 30 = -3 31 - 40 = -4 40 or more = -5 (max)	
4.00		4.00		4.00		4.00		-		4.00	
Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score
0	-	5	20	-5	(20)	-1	(4)	-1	-	-5	(20)
0	-	5	20	-5	(20)	-1	(4)	-1	-	-5	(20)
0	-	5	20	-2	(8)	0	-	0	-	-3	(12)
0	-	5	20	-1	(4)	0	-	0	-	-2	(8)
0	-	5	20	-2	(8)	0	-	0	-	-4	(16)
0	-	5	20	-4	(16)	0	-	0	-	-3	(12)
0	-	5	20	-3	(12)	0	-	-4	-	-2	(8)
0	-	5	20	-2	(8)	0	-	-4	-	-2	(8)
5	20	0	-	-1	(4)	0	-	0	-	0	-
0	-	5	20	-4	(16)	0	-	0	-	-3	(12)
5	20	0	-	-1	(4)	-1	(4)	-2	-	0	-
5	20	0	-	-2	(8)	0	-	-3	-	0	-
5	20	0	-	-1	(4)	0	-	-2	-	0	-
5	20	0	-	-4	(16)	-1	(4)	-3	-	-4	(16)
0	-	5	20	-1	(4)	0	-	-1	-	-1	(4)
0	-	5	20	-1	(4)	0	-	0	-	-4	(16)
5	20	0	-	0	-	-1	(4)	0	-	0	-
0	-	5	20	-1	(4)	0	-	0	-	0	-
0	-	5	20	-1	(4)	0	-	0	-	0	-
0	-	5	20	-3	(12)	-1	(4)	0	-	0	-
0	-	5	20	-1	(4)	0	-	-1	-	-2	(8)
5	20	0	-	-5	(20)	-1	(4)	-1	-	-1	(4)
5	20	0	-	0	-	0	-	0	-	0	-
5	20	0	-	0	-	0	-	0	-	0	-
5	20	0	-	0	-	0	-	0	-	0	-
5	20	0	-	0	-	0	-	0	-	0	-
5	20	0	-	-1	(4)	0	-	0	-	0	-
5	20	0	-	-2	(8)	0	-	0	-	0	-
5	20	0	-	-1	(4)	0	-	0	-	0	-
0	-	5	20	0	-	0	-	0	-	-2	(8)
0	-	0	-	-2	(8)	0	-	-3	-	0	-
0	-	5	20	-1	(4)	-1	(4)	0	-	0	-
0	-	5	20	-1	(4)	-1	(4)	0	-	0	-
0	-	5	20	0	-	0	-	0	-	0	-
0	-	5	20	0	-	-1	(4)	0	-	-3	(12)
5	20	0	-	-4	(16)	-1	(4)	0	-	-2	(8)
5	20	0	-	-1	(4)	0	-	0	-	0	-
0	-	5	20	0	-	-1	(4)	0	-	0	-
0	-	5	20	0	-	0	-	0	-	0	-
0	-	5	20	-1	(4)	0	-	-1	-	-1	(4)
0	-	5	20	-1	(4)	0	-	0	-	-2	(8)
0	-	5	20	-1	(4)	0	-	0	-	0	-
0	-	5	20	-1	(4)	0	-	0	-	0	-
5	20	0	-	-1	(4)	0	-	-1	-	-1	(4)
5	20	0	-	-1	(4)	-1	(4)	-1	-	-1	(4)
5	20	0	-	-1	(4)	0	-	-1	-	-1	(4)
0	-	5	20	-1	(4)	0	-	-1	-	-1	(4)

Collier MPO 2045 Long Range Transportation Plan
Needs Assessment Plan

3. Improve System Continuity and Connectivity

4. Reduce Roadway Congestion - TBD

Table 1B.Draft Evaluation Matrix
DRAFT - July 2020; updated 9/3/2020

2045 Map ID	2045 RANK	2045 Weighted Score	Project	From	To	Description	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score
1	51	126	Benfield Road Extension	The Lords Way	City Gate Boulevard North	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	25	5	45	0	-
2	41	138	Benfield Road	IUS 41 (SR 90) (Tamiami Trail East)	Rattlesnake-Hammock Ext.	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	25	5	45	0	-
3	72	75	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	25	5	45	0	-
4	70	83	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	25	5	45	0	-
5	71	81	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	25	5	45	0	-
6	82	52	Big Cypress Parkway	Oil Well Road	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	5	45	0	-
7	62	100	Camp Keais Road	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes	5	25	0	-	5	45	0	-
8	80	74	Camp Keais Road	Immokalee Road	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes	0	-	0	-	5	45	0	-
9	1	286	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes	5	25	0	-	5	45	5	45
10	21	182	CR 951 Extension (new)	Heritage Bay Entrance (Collier Blvd (CR 951) northern terminus)	Lee/Collier County Line	New 2-Lane Road	0	-	5	25	5	45	0	-
11	34	152	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	5	45
12	35	152	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	5	45
13	54	121	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	Widen from 2-Lanes to 4-Lanes	0	-	0	-	5	45	5	45
14	63	99	Everglades Boulevard	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	5	45	5	45
15	37	147	Golden Gate Boulevard	Everglades Blvd	Desoto Boulevard	Widen from 2-Lanes to 4-Lanes	0	-	0	-	5	45	5	45
16	58	105	Golden Gate Boulevard Ext	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	0	-	5	25	5	45	0	-
17	31	161	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	5	45	5	45
18	66	91	Green Boulevard	Santa Barbara/ Logan Boulevard	Sunshine Boulevard	Widen from 2-Lane to 4-Lane	0	-	0	-	5	45	0	-
19	27	166	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext	New 2-Lane (Future Study Area)	0	-	5	25	5	45	5	45
20	33	154	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW	New 4-Lane (Future Study Area)	0	-	5	25	5	45	5	45
21	42	138	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard	New 2-Lane Road	0	-	5	25	5	45	5	45
22	60	102	Critical Needs Intersection @ I-75	Everglades Blvd		New Interchange	5	25	0	-	0	-	0	-
23	8	250	Critical Needs Intersection @ I-75	Golden Gate Parkway @ I-75		Interchange Improvement	5	25	0	-	0	-	5	45
24	2	285	Critical Needs Intersection @ I-75	Collier Blvd (SR 951) @ I-75		Interchange Improvement	5	25	0	-	5	45	5	45
25	22	180	Critical Needs Intersection @ I-75	Immokalee Rd @ I-75		Interchange Improvement	0	-	0	-	0	-	0	-
26	18	190	Critical Needs Intersection @ I-75	Pine Ridge Rd @ I-75		Interchange Improvement	0	-	0	-	0	-	0	-
27	40	146	I-75 (SR-93) Interchange (new)(not in SIS)	Vanderbilt Beach Rd		New Interchange - Partial (to / from the North)	0	-	5	25	0	-	0	-
29	5	269	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes	0	-	5	25	5	45	5	45
30	7	251	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes	5	25	0	-	-	-	5	45
31	23	172	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	5	25	0	-	-	-	0	-
32	81	72	Keane Avenue	Inez Rd	Wilson Blvd Ext.	New 2-Lane Road (Future Study Area)	0	-	5	25	5	45	0	-
33	50	127	Little League Rd. Ext.	SR-82	Westclox St.	New 2-Lane Road	0	-	5	25	5	45	0	-
34	65	92	Logan Boulevard	Green Boulevard	Pine Ridge Road	Widen from 4-Lanes to 6-Lanes	0	-	5	25	5	45	0	-
35	52	125	Logan Boulevard	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	0	-
36	67	89	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	0	-
37	38	147	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	5	25	0	-	5	45	5	45
38	46	131	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Road	Widen from 2-Lanes to 6-Lanes	5	25	0	-	5	45	0	-
39	10	236	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	5	45
40	45	135	Orange Blossom Drive	Airport Pulling Road	Livingston Road	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	0	-
42	39	147	Randall Boulevard	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	5	25	0	-	5	45	5	45
43	59	103	Randall Boulevard	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	0	-
44	61	101	Randall Boulevard Ext.	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	0	-	5	25	5	45	0	-
45	44	136	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	Widen from 4-Lanes to 6-Lanes	0	-	5	25	5	45	0	-
46	56	112	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes	5	25	0	-	0	-	-	-
48	49	128	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	5	25	0	-	0	-	0	-
50	24	172	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane	5	25	0	-	0	-	5	45
51	13	212	SR 29/New Market Road W - New Road	Immokalee Rd (CR 846)	New Market Road North	Widen from 2-Lane to 4-Lane	0	-	5	25	5	45	0	-
52	3	277	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lane to 4-Lane	5	25	0	-	5	45	5	45
53	15	197	SR 29	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lane to 4-Lane	5	25	0	-	5	45	5	45
54	16	197	SR 29	Oil Well Road	Sunniland Nursery Rd	Widen from 2-Lane to 4-Lane	5	25	0	-	5	45	5	45
55	6	263	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 2-Lane to 4-Lane	5	25	0	-	5	45	0	-
56	9	242	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 2-Lane to 4-Lane	5	25	0	-	5	45	0	-
57	4	275	Critical Needs Intersection @ US 41	Goodlette Rd @ US 41		Intersection Improvement	5	25	0	-	0	-	5	45
58	12	219	US 41	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4-Lane	5	25	0	-	0	-	5	45
59	11	232	Critical Needs Intersection @ US 41	Collier Blvd (SR 951) @ US 41		Intersection Improvement	0	-	5	25	0	-	5	45
60	14	201	US 41	Immokalee Road	Old US 41	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-	5	45
62	73	75	Vanderbilt Beach Road Ext	16th St	Big Cypress Parkway	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	25	5	45	0	-
63	53	122	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road	0	-	5	25	5	45	0	-
64	30	162	Wilson Blvd	Golden Gate Boulevard	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	5	45
65	32	156	Wilson Blvd	Keane Ave	Golden Gate Boulevard	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	25	5	45	5	45
66	17	195	Immokalee Rd intersection	Livingston Rd		Intersection Improvement	0	-	5	25	0	-	5	45
67	57	106	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road	0	-	5	25	5	45	0	-
68	83	45	Big Cypress Parkway intersection (new)	Oil Well Grade Rd		New At-Grade Intersection	5	25	0	-	0	-	0	-
69	40B	142	Everglades Boulevard	Oil Well Rd / CR 858	Immokalee Rd	Widen from 2-Lane to 4-Lane	5	25	0	-	5	45	0	-
70	68	86	Green Boulevard Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road	0	-	5	25	5	45	0	-
73	20	190	Immokalee Rd (CR 846) intersection	Collier Blvd (CR 951)		Intersection Improvement	0	-	5	25	0	-	5	45
74	28	165	Immokalee Rd (CR 846) intersection	Wilson Blvd		Intersection Improvement	0	-	5	25	0	-	5	45
75	55	115	I-75 (SR-93) Interchange (new) (not in SIS)	Veterans Memorial Blvd		New Partial Interchange	5	25	0	-	0	-	0	-
76	43	137	Vanderbilt Drive	Immokalee Rd	Woods Edge Parkway	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	0	-
77	25	170	Pine Ridge Rd intersection	Livingston Rd		Intersection Improvement	5	25	0	-	0	-	0	-
78	29	165	Golden Gate Parkway intersection	Livingston Rd		Intersection Improvement	0	-	5	25	0	-	5	45
80	47	131	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Pulling Road	Widen from 4-Lanes to 6-Lanes	5	25	0	-	5	45	0	-
81	74	75	Bridge @ 47th Avenue NE	West of Everglades Boulevard		New Bridge over Canal	0	-	5	25	5	45	0	-
82	75	75	Bridge @ Wilson Boulevard	South of 33rd Avenue NE		New Bridge over Canal	0	-	5	25	5	45	0	-
83	69	85	Bridge @ 18th Ave NE	between Wilson Boulevard N and 8th Street NE		New Bridge over Canal	0	-	5	25	5	45	0	-
84	76	75	Bridge @ 18th Ave NE	between 8th Street NE and 16th Street NE		New Bridge over Canal	0	-	5	25	5	45	0	-
85	64	95	Bridge @ 13th Street NW	north end at proposed Vanderbilt Beach Road Extension		New Bridge over Canal	0	-	5	25	5	45	0	-
86	77	75	Bridge @ 16th Street SE	South end		New Bridge over Canal	0	-	5	25	5	45	0	-
87	78	75	Bridge @ Location TBD - Assume 10th Avenue SE	East of Everglades Blvd		New Bridge over Canal	0	-	5	25	5	45	0	-
88	48	130	Bridge @Wilson Boulevard South, south end			New Bridge over Canal	0	-	5	25	5	45	0	-
89	79	75	Bridge @ 62nd Avenue NE	West of 40th Street NE		New Bridge over Canal	0	-	5	25	5	45	0	-
90	26	167	Pine Ridge Rd	Logan Blvd S	Collier Blvd (CR 951)	Widen from 4-Lanes to 6-Lanes	5	25	0	-	5	45	0	-
93	32	157	Immokalee Rd (CR 846)	43rd Ave NE/Shady Hollow Blvd E	North of 47th Avenue NE/Immokalee	Widen from 2-Lanes to 4-Lanes	5	25	0	-	5	45	0	-
94	57	113	Immokalee Road Rural Village Blvd (new)	Immokalee Rd (CR 846)	Immokalee Rd (CR 846)	New 4-Lane Road	0	-	5	25	5	45	0	-
41A	19	190	Critical Needs Intersection @ Immokalee Rd	Immokalee Road @ Randall Blvd		Ultimate Intersection Improvement: Overpass	5	25	0	-	5	45	5	45
41B	36	151	Randall Boulevard	Immokalee Road	8th St NE	Widen from 2-Lanes to 6-Lanes	5	25	0	-	5	45	5	45

Note: Does not include Critical Needs Intersections (#95 through #114); it was necessary to rank or prioritize

Collier MPO 2045 Long Range Transportation Plan Needs Assessment Plan					5. Promote Freight Movement	6. Increase the Safety of Transportation System Users				
Table 1B.Draft Evaluation Matrix DRAFT - July 2020; updated 9/3/2020					5- Project enhances the facility identified as a major freight route	6A - Enhances safety of transportation system users	6B - Improves facility or intersection identified as having a high crash occurrence or a fatality	6C- Traffic calming	6D - Safety improvements that improve or reduce vehicular conflicts with bicycles and pedestrians	

2045 Map ID	2045 RANK	2045 Weighted Score	Project	From	To	Description	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score
1	51	126	Benfield Road Extension	The Lords Way	City Gate Boulevard North	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	10	0	-	0	-	0	-
2	41	138	Benfield Road	US 41 (SR 90) (Tamiami Trail East)	Rattlesnake-Hammock Ext	New 2-Lane Road (Expandable to 4-Lanes)	0	-	5	10	0	-	0	-	0	-
3	72	75	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
4	70	83	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
5	71	81	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
6	82	52	Big Cypress Parkway	Oil Well Road	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
7	62	100	Camp Keais Road	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes	0	-	5	10	0	-	0	-	0	-
8	80	74	Camp Keais Road	Immokalee Road	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes	0	-	5	10	0	-	0	-	0	-
9	1	286	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes	5	30	0	-	5	20	0	-	5	10
10	21	182	CR 951 Extension (new)	Heritage Bay Entrance (Collier Blvd (CR 951) northern terminus)	Lee/Collier County Line	New 2-Lane Road	5	30	0	-	0	-	0	-	0	-
11	34	152	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
12	35	152	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
13	54	121	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
14	63	99	Everglades Boulevard	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
15	37	147	Golden Gate Boulevard	Everglades Blvd	Desoto Boulevard	Widen from 2-Lanes to 4-Lanes	5	30	5	10	0	-	0	-	0	-
16	58	105	Golden Gate Boulevard Ext	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	5	30	0	-	0	-	0	-	0	-
17	31	161	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
18	66	91	Green Boulevard	Santa Barbara/ Logan Boulevard	Sunshine Boulevard	Widen from 2-Lane to 4-Lane	0	-	5	10	0	-	0	-	0	-
19	27	166	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext	New 2-Lane (Future Study Area)	0	-	5	10	0	-	0	-	0	-
20	33	154	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW	New 4-Lane (Future Study Area)	0	-	0	-	0	-	0	-	0	-
21	42	138	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard	New 2-Lane Road	0	-	0	-	0	-	0	-	0	-
22	60	102	Critical Needs Intersection @ I-75	Everglades Blvd		New Interchange	0	-	0	-	5	20	0	-	5	10
23	8	250	Critical Needs Intersection @ I-75	Golden Gate Parkway @ I-75		Interchange Improvement	0	-	5	10	5	20	0	-	0	-
24	2	285	Critical Needs Intersection @ I-75	Collier Blvd (SR 951) @ I-75		Interchange Improvement	5	30	5	10	5	20	0	-	0	-
25	22	180	Critical Needs Intersection @ I-75	Immokalee Rd @ I-75		Interchange Improvement	5	30	5	10	5	20	0	-	0	-
26	18	190	Critical Needs Intersection @ I-75	Pine Ridge Rd @ I-75		Interchange Improvement	5	30	5	10	5	20	0	-	0	-
27	40	146	I-75 (SR-93) Interchange (new)(not in SIS)	Vanderbilt Beach Rd		New Interchange - Partial (to / from the North)	0	-	0	-	0	-	0	-	0	-
29	5	269	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes	5	30	0	-	5	20	0	-	0	-
30	7	251	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes	5	30	5	10	0	-	0	-	0	-
31	23	172	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	0	-	5	10	0	-	0	-	0	-
32	81	72	Keane Avenue	Inez Rd	Wilson Blvd Ext.	New 2-Lane Road (Future Study Area)	0	-	0	-	0	-	0	-	0	-
33	50	127	Little League Rd. Ext.	SR-82	Westclox St.	New 2-Lane Road	0	-	0	-	0	-	0	-	0	-
34	65	92	Logan Boulevard	Green Boulevard	Pine Ridge Road	Widen from 4-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	0	-
35	52	125	Logan Boulevard	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
36	67	89	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
37	38	147	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	5	30	0	-	0	-	0	-	0	-
38	46	131	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Road	Widen from 2-Lanes to 6-Lanes	5	30	0	-	0	-	0	-	0	-
39	10	236	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	5	30	5	10	0	-	0	-	0	-
40	45	135	Orange Blossom Drive	Airport Pulling Road	Livingston Road	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
42	39	147	Randall Boulevard	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	0	-
43	59	103	Randall Boulevard	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
44	61	101	Randall Boulevard Ext.	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	0	-	0	-	0	-	0	-	0	-
45	44	136	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	Widen from 4-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	5	10
46	56	112	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes	5	30	5	10	0	-	0	-	0	-
48	49	128	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	5	30	5	10	0	-	0	-	0	-
50	24	172	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane	5	30	5	10	0	-	0	-	0	-
51	13	212	SR 29/New Market Road W - New Road	Immokalee Rd (CR 846)	New Market Road North	Widen from 2-Lane to 4-Lane	5	30	0	-	5	20	0	-	0	-
52	3	277	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lane to 4-Lane	5	30	5	10	0	-	0	-	0	-
53	15	197	SR 29	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lane to 4-Lane	5	30	5	10	0	-	0	-	0	-
54	16	197	SR 29	Oil Well Road	Sunniland Nursery Rd	Widen from 2-Lane to 4-Lane	5	30	5	10	0	-	0	-	0	-
55	6	263	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 2-Lane to 4-Lane	5	30	0	-	5	20	0	-	5	10
56	9	242	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 2-Lane to 4-Lane	5	30	0	-	0	-	0	-	0	-
57	4	275	Critical Needs Intersection @ US 41	Goodlette Rd @ US 41		Intersection Improvement	0	-	5	10	5	20	0	-	5	10
58	12	219	US 41	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4-Lane	5	30	5	10	0	-	0	-	0	-
59	11	232	Critical Needs Intersection @ US 41	Collier Blvd (SR 951) @ US 41		Intersection Improvement	5	30	0	-	5	20	0	-	0	-
60	14	201	US 41	Immokalee Road	Old US 41	Widen from 2-Lane to 4-Lane	5	30	0	-	5	20	0	-	5	10
62	73	75	Vanderbilt Beach Road Ext	16th St	Big Cypress Parkway	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
63	53	122	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road	0	-	0	-	0	-	0	-	0	-
64	30	162	Wilson Blvd	Golden Gate Boulevard	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
65	32	156	Wilson Blvd	Keane Ave	Golden Gate Boulevard	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
66	17	195	Immokalee Rd intersection	Livingston Rd		Intersection Improvement	5	30	0	-	5	20	0	-	0	-
67	57	106	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road	0	-	0	-	0	-	0	-	0	-
68	83	45	Big Cypress Parkway intersection (new)	Oil Well Grade Rd		New At-Grade Intersection	0	-	0	-	0	-	0	-	0	-
69	40B	142	Everglades Boulevard	Oil Well Rd / CR 858	Immokalee Rd	Widen from 2-Lane to 4-Lane	0	-	5	10	0	-	0	-	0	-
70	68	86	Green Boulevard Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road	0	-	0	-	0	-	0	-	0	-
73	20	190	Immokalee Rd (CR 846) intersection	Collier Blvd (CR 951)		Intersection Improvement	5	30	0	-	5	20	0	-	0	-
74	28	165	Immokalee Rd (CR 846) intersection	Wilson Blvd		Intersection Improvement	5	30	0	-	0	-	0	-	0	-
75	55	115	I-75 (SR-93) Interchange (new) (not in SIS)	Veterans Memorial Blvd		New Partial Interchange	0	-	0	-	0	-	0	-	0	-
76	43	137	Vanderbilt Drive	Immokalee Rd	Woods Edge Parkway	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
77	25	170	Pine Ridge Rd intersection	Livingston Rd		Intersection Improvement	5	30	5	10	5	20	0	-	0	-
78	29	165	Golden Gate Parkway Intersection	Livingston Rd		Intersection Improvement	0	-	0	-	5	20	0	-	0	-
80	47	131	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Pulling Road	Widen from 4-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	0	-
81	74	75	Bridge @ 47th Avenue NE	West of Everglades Boulevard		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
82	75	75	Bridge @ Wilson Boulevard	South of 33rd Avenue NE		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
83	69	85	Bridge @ 18th Ave NE	between Wilson Boulevard N and 8th Street NE		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
84	76	75	Bridge @ 18th Ave NE	between 8th Street NE and 16th Street NE		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
85	64	95	Bridge @ 13th Street NW	north end at proposed Vanderbilt Beach Road Extension		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
86	77	75	Bridge @ 16th Street SE	South end		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
87	78	75	Bridge @ Location TBD - Assume 10th Avenue SE	East of Everglades Blvd		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
88	48	130	Bridge @Wilson Boulevard South, south end			New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
89	79	75	Bridge @ 62nd Avenue NE	West of 40th Street NE		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
90	26	167	Pine Ridge Rd	Logan Blvd S	Collier Blvd (CR 951)	Widen from 4-Lanes to 6-Lanes	5	30	0	-	0	-	0	-	0	-
93	32	157	Immokalee Rd (CR 846)	43rd Ave NE/Shady Hollow Blvd E	North of 47th Avenue NE/Immokalee	Widen from 2-Lanes to 4-Lanes	5	30	5	10	0	-	0	-	0	-
94	57	113	Immokalee Road Rural Village Blvd (new)	Immokalee Rd (CR 846)	Immokalee Rd (CR 846)	New 4-Lane Road	5	30	0	-	0	-	0	-	0	-
41A	19	190	Critical Needs Intersection @ Immokalee Rd	Immokalee Road @ Randall Blvd		Ultimate Intersection Improvement: Overpass	0	-	5	10	0	-	0	-	0	-
41B	36	151	Randall Boulevard	Immokalee Road	8th St NE	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	0	-

Note: Does not include Critical Needs Intersections (#95 through #114); it was necessary to rank or prioritize

Collier MPO 2045 Long Range Transportation Plan
Needs Assessment Plan

Table 1B.Draft Evaluation Matrix
DRAFT - July 2020; updated 9/3/2020

7. Promote Multimodal Solutions					
7A - Trail improvements	7B - Multimodal improvement near health care, educational, recreational, and/or cultural facilities	7C - Multimodal improvement to low socioeconomic neighborhoods (poverty >10%)	7D - Transit improvements outside of current service area(SA) or within a CRA	7E - Bicycle or pedestrian improvement to transit access	7F- Bicycle/pedestrian infrastructure separation from vehicle travel lanes
New or improved trail/greenways = 5 No new or improved trail = 0	Improvement W/ 0.25 miles=5 Improvement not w/ 0.25 mile=0	Improvement W/1=5 No improvement W/1=0	Outside the TSA (bus route) = 5 Inside a CRA = 5 No improvement = 0	Improve Access = 5 No improvement = 0	Improvement = 5 No improvement = 0
2.00	2.00	2.00	1.00	2.00	1.00

2045 Map ID	2045 RANK	2045 Weighted Score	Project	From	To	Description	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score
1	51	126	Benfield Road Extension	The Lords Way	City Gate Boulevard North	New 2-Lane Road (Expandable to 4-Lanes)	5	10	0	-	5	10	5	5	0	-	0	-
2	41	138	Benfield Road	US 41 (SR 90) (Tamiami Trail East)	Rattlesnake-Hammock Ext	New 2-Lane Road (Expandable to 4-Lanes)	5	10	0	-	5	10	5	5	0	-	0	-
3	72	75	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	5	5	0	-	0	-
4	70	83	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	5	5	0	-	0	-
5	71	81	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (Expandable to 4-Lanes)	5	10	0	-	0	-	5	5	0	-	0	-
6	82	52	Big Cypress Parkway	Oil Well Road	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)	5	10	0	-	0	-	5	5	0	-	0	-
7	62	100	Camp Keais Road	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes	5	10	0	-	0	-	5	5	0	-	0	-
8	80	74	Camp Keais Road	Immokalee Road	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes	5	10	0	-	0	-	0	-	0	-	0	-
9	1	286	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes	0	-	0	-	5	10	0	-	5	10	0	-
10	21	182	CR 951 Extension (new)	Heritage Bay Entrance (Collier Blvd (CR 951) northern terminus)	Lee/Collier County Line	New 2-Lane Road	5	10	0	-	5	10	5	5	0	-	0	-
11	34	152	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	5	10	0	-	0	-	5	5	0	-	0	-
12	35	152	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	5	10	0	-	0	-	5	5	0	-	0	-
13	54	121	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	5	5	0	-	0	-
14	63	99	Everglades Boulevard	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	5	5	0	-	0	-
15	37	147	Golden Gate Boulevard	Everglades Blvd	Desoto Boulevard	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	5	5	0	-	0	-
16	58	105	Golden Gate Boulevard Ext	Golden Gate Boulevard Ext	Big Cypress Parkway	New 4-Lane Road	0	-	0	-	0	-	5	5	0	-	0	-
17	31	161	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-	0	-
18	66	91	Green Boulevard	Santa Barbara/ Logan Boulevard	Sunshine Boulevard	Widen from 2-Lane to 4-Lane	0	-	5	10	0	-	0	-	0	-	0	-
19	27	166	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext	New 2-Lane (Future Study Area)	5	10	0	-	0	-	5	5	0	-	0	-
20	33	154	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW	New 4-Lane (Future Study Area)	0	-	5	10	5	10	5	5	0	-	0	-
21	42	138	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard	New 2-Lane Road	5	10	0	-	0	-	5	5	0	-	0	-
22	60	102	Critical Needs Intersection @ I-75	Everglades Blvd		New Interchange	0	-	0	-	5	10	0	-	0	-	0	-
23	8	250	Critical Needs Intersection @ I-75	Golden Gate Parkway @ I-75		Interchange Improvement	5	10	5	10	5	10	0	-	5	10	0	-
24	2	285	Critical Needs Intersection @ I-75	Collier Blvd (SR 951) @ I-75		Interchange Improvement	5	10	0	-	5	10	0	-	5	10	0	-
25	22	180	Critical Needs Intersection @ I-75	Immokalee Rd @ I-75		Interchange Improvement	5	10	5	10	5	10	0	-	5	10	0	-
26	18	190	Critical Needs Intersection @ I-75	Pine Ridge Rd @ I-75		Interchange Improvement	5	10	0	-	0	-	0	-	5	10	0	-
27	40	146	I-75 (SR-93) Interchange (new)(not in SIS)	Vanderbilt Beach Rd		New Interchange - Partial (to / from the North)	5	10	5	10	5	10	5	5	5	10	0	-
29	5	269	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes	5	10	5	10	0	-	0	-	0	-	0	-
30	7	251	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes	5	10	5	10	5	10	5	5	5	10	0	-
31	23	172	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	5	10	5	10	5	10	5	5	0	-	5	5
32	81	72	Keane Avenue	Inez Rd	Wilson Blvd Ext.	New 2-Lane Road (Future Study Area)	5	10	0	-	0	-	0	-	0	-	0	-
33	50	127	Little League Rd. Ext.	SR-82	Westclox St.	New 2-Lane Road	0	-	5	10	5	10	5	5	0	-	0	-
34	65	92	Logan Boulevard	Green Boulevard	Pine Ridge Road	Widen from 4-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	0	-	0	-
35	52	125	Logan Boulevard	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	5	10	5	5	0	-	0	-
36	67	89	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	5	5	0	-	0	-
37	38	147	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	5	10	0	-	0	-	0	-	0	-	0	-
38	46	131	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Road	Widen from 2-Lanes to 6-Lanes	5	10	0	-	0	-	5	5	0	-	0	-
39	10	236	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	5	10	0	-	0	-	5	5	0	-	5	5
40	45	135	Orange Blossom Drive	Airport Pulling Road	Livingston Road	Widen from 2-Lanes to 4-Lanes	5	10	5	10	5	10	5	5	0	-	0	-
42	39	147	Randall Boulevard	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	5	10	0	-	0	-	5	5	0	-	0	-
43	59	103	Randall Boulevard	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	5	10	0	-	0	-	5	5	0	-	0	-
44	61	101	Randall Boulevard Ext.	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	5	10	0	-	0	-	5	5	0	-	0	-
45	44	136	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	Widen from 4-Lanes to 6-Lanes	5	10	5	10	5	10	0	-	0	-	0	-
46	56	112	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes	0	-	0	-	5	10	0	-	0	-	0	-
48	49	128	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	0	-	5	10	5	10	0	-	0	-	0	-
50	24	172	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane	0	-	5	10	5	10	0	-	0	-	0	-
51	13	212	SR 29/New Market Road W - New Road	Immokalee Rd (CR 846)	New Market Road North	Widen from 2-Lane to 4-Lane	5	10	5	10	5	10	5	5	0	-	0	-
52	3	277	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lane to 4-Lane	5	10	5	10	5	10	0	-	0	-	0	-
53	15	197	SR 29	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-	0	-	0	-	0	-
54	16	197	SR 29	Oil Well Road	Sunniland Nursery Rd	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-	5	5	0	-	0	-
55	6	263	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 2-Lane to 4-Lane	5	10	5	10	5	10	0	-	5	10	0	-
56	9	242	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 2-Lane to 4-Lane	5	10	0	-	5	10	0	-	5	10	0	-
57	4	275	Critical Needs Intersection @ US 41	Goodlette Rd @ US 41		Intersection Improvement	0	-	0	-	5	10	0	-	5	10	0	-
58	12	219	US 41	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4-Lane	5	10	0	-	5	10	0	-	0	-	0	-
59	11	232	Critical Needs Intersection @ US 41	Collier Blvd (SR 951) @ US 41		Intersection Improvement	5	10	5	10	5	10	0	-	5	10	0	-
60	14	201	US 41	Immokalee Road	Old US 41	Widen from 2-Lane to 4-Lane	5	10	5	10	0	-	0	-	0	-	0	-
62	73	75	Vanderbilt Beach Road Ext	16th St	Big Cypress Parkway	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	5	5	0	-	0	-
63	53	122	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road	0	-	5	10	5	10	0	-	0	-	0	-
64	30	162	Wilson Blvd	Golden Gate Boulevard	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	5	10	5	10	0	-	0	-	0	-	0	-
65	32	156	Wilson Blvd	Keane Ave	Golden Gate Boulevard	New 2-Lane Road (Expandable to 4-Lanes)	5	10	5	10	0	-	0	-	0	-	0	-
66	17	195	Immokalee Rd intersection	Livingston Rd		Intersection Improvement	5	10	0	-	0	-	0	-	5	10	0	-
67	57	106	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road	5	10	0	-	0	-	0	-	0	-	0	-
68	83	45	Big Cypress Parkway Intersection (new)	Oil Well Grade Rd		New At-Grade Intersection	0	-	0	-	0	-	0	-	0	-	0	

Collier MPO 2045 Long Range Transportation Plan
Needs Assessment Plan

Table 1B.Draft Evaluation Matrix
DRAFT - July 2020; updated 9/3/2020

2045 Map ID	2045 RANK	2045 Weighted Score	Project	From	To	Description	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score
1	51	126	Benfield Road Extension	The Lords Way	City Gate Boulevard North	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	5	5
2	41	138	Benfield Road	US 41 (SR 90) (Tamiami Trail East)	Rattlesnake-Hammock Ext	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	5	5
3	72	75	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
4	70	83	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
5	71	81	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
6	82	52	Big Cypress Parkway	Oil Well Road	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
7	62	100	Camp Keais Road	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes	0	-	0	-	0	-	0	-	5	5
8	80	74	Camp Keais Road	Immokalee Road	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes	0	-	0	-	0	-	0	-	5	5
9	1	286	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes	5	20	5	10	0	-	0	-	5	5
10	21	182	CR 951 Extension (new)	Heritage Bay Entrance (Collier Blvd (CR 951) northern terminus)	Lee/Collier County Line	New 2-Lane Road	5	20	0	-	0	-	5	5	0	-
11	34	152	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	0	-
12	35	152	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	0	-
13	54	121	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	0	-
14	63	99	Everglades Boulevard	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	0	-
15	37	147	Golden Gate Boulevard	Everglades Blvd	Desoto Boulevard	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	0	-
16	58	105	Golden Gate Boulevard Ext	Golden Gate Boulevard Ext	Big Cypress Parkway	New 4-Lane Road	0	-	0	-	0	-	0	-	0	-
17	31	161	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	5	5
18	66	91	Green Boulevard	Santa Barbara/ Logan Boulevard	Sunshine Boulevard	Widen from 2-Lane to 4-Lane	0	-	5	10	0	-	0	-	0	-
19	27	166	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext	New 2-Lane (Future Study Area)	0	-	5	10	0	-	0	-	0	-
20	33	154	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW	New 4-Lane (Future Study Area)	0	-	5	10	0	-	0	-	0	-
21	42	138	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard	New 2-Lane Road	0	-	0	-	0	-	0	-	0	-
22	60	102	Critical Needs Intersection @ I-75	Everglades Blvd		New Interchange	5	20	0	-	0	-	5	5	0	-
23	8	250	Critical Needs Intersection @ I-75	Golden Gate Parkway @ I-75		Interchange Improvement	5	20	0	-	0	-	5	5	5	5
24	2	285	Critical Needs Intersection @ I-75	Collier Blvd (SR 951) @ I-75		Interchange Improvement	5	20	5	10	0	-	5	5	5	5
25	22	180	Critical Needs Intersection @ I-75	Immokalee Rd @ I-75		Interchange Improvement	5	20	5	10	0	-	5	5	5	5
26	18	190	Critical Needs Intersection @ I-75	Pine Ridge Rd @ I-75		Interchange Improvement	5	20	-	0	-	5	5	5	5	5
27	40	146	I-75 (SR-93) Interchange (new)(not in SIS)	Vanderbilt Beach Rd		New Interchange - Partial (to/ from the North)	5	20	5	10	0	-	5	5	5	5
29	5	269	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes	5	20	5	10	0	-	5	5	5	5
30	7	251	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes	5	20	5	10	5	10	0	-	0	-
31	23	172	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	5	20	5	10	5	10	0	-	5	5
32	81	72	Keane Avenue	Inez Rd	Wilson Blvd Ext.	New 2-Lane Road (Future Study Area)	0	-	0	-	0	-	0	-	0	-
33	50	127	Little League Rd. Ext.	SR-82	Westclox St.	New 2-Lane Road	0	-	5	10	5	10	0	-	0	-
34	65	92	Logan Boulevard	Green Boulevard	Pine Ridge Road	Widen from 4-Lanes to 6-Lanes	0	-	5	10	0	-	0	-	0	-
35	52	125	Logan Boulevard	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	0	-	0	-
36	67	89	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	0	-
37	38	147	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	0	-
38	46	131	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Road	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	0	-
39	10	236	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	5	5	0	-
40	45	135	Orange Blossom Drive	Airport Pulling Road	Livingston Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	0	-
42	39	147	Randall Boulevard	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	5	5
43	59	103	Randall Boulevard	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	0	-
44	61	101	Randall Boulevard Ext.	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	0	-	0	-	0	-	0	-	0	-
45	44	136	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	Widen from 4-Lanes to 6-Lanes	0	-	5	10	0	-	0	-	0	-
46	56	112	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes	5	20	0	-	0	-	5	5	0	-
48	49	128	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	5	20	5	10	0	-	5	5	0	-
50	24	172	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane	5	20	0	-	5	10	0	-	0	-
51	13	212	SR 29/New Market Road W - New Road	Immokalee Rd (CR 846)	New Market Road North	Widen from 2-Lane to 4-Lane	5	20	5	10	5	10	0	-	5	5
52	3	277	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lane to 4-Lane	5	20	5	10	5	10	0	-	0	-
53	15	197	SR 29	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lane to 4-Lane	5	20	0	-	5	10	0	-	0	-
54	16	197	SR 29	Oil Well Road	Sunniland Nursery Rd	Widen from 2-Lane to 4-Lane	5	20	0	-	0	-	5	5	0	-
55	6	263	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 2-Lane to 4-Lane	0	-	5	10	5	10	0	-	5	5
56	9	242	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 2-Lane to 4-Lane	5	20	5	10	0	-	5	5	5	5
57	4	275	Critical Needs Intersection @ US 41	Goodlette Rd @ US 41		Intersection Improvement	5	20	5	10	5	10	0	-	5	5
58	12	219	US 41	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4-Lane	5	20	0	-	0	-	0	-	5	5
59	11	232	Critical Needs Intersection @ US 41	Collier Blvd (SR 951) @ US 41		Intersection Improvement	5	20	5	10	0	-	5	5	5	5
60	14	201	US 41	Immokalee Road	Old US 41	Widen from 2-Lane to 4-Lane	5	20	5	10	0	-	5	5	5	5
62	73	75	Vanderbilt Beach Road Ext	16th St	Big Cypress Parkway	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	0	-
63	53	122	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road	0	-	5	10	5	10	0	-	0	-
64	30	162	Wilson Blvd	Golden Gate Boulevard	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-	0	-	5	5
65	32	156	Wilson Blvd	Keane Ave	Golden Gate Boulevard	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-	0	-	5	5
66	17	195	Immokalee Rd intersection	Livingston Rd		Intersection Improvement	5	20	5	10	0	-	0	-	5	5
67	57	106	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road	0	-	5	10	0	-	0	-	0	-
68	83	45	Big Cypress Parkway intersection (new)	Oil Well Grade Rd		New At-Grade Intersection	0	-	0	-	0	-	0	-	0	-
69	40B	142	Everglades Boulevard	Oil Well Rd / CR 858	Immokalee Rd	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-	0	-	0	-
70	68	86	Green Boulevard Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road	0	-	0	-	0	-	0	-	0	-
73	20	190	Immokalee Rd (CR 846) intersection	Collier Blvd (CR 951)		Intersection Improvement	5	20	0	-	0	-	5	5	5	5
74	28	165	Immokalee Rd (CR 846) intersection	Wilson Blvd		Intersection Improvement	5	20	0	-	0	-	0	-	5	5
75	55	115	I-75 (SR-93) Interchange (new) (not in SIS)	Veterans Memorial Blvd		New Partial Interchange	5	20	0	-	0	-	5	5	0	-
76	43	137	Vanderbilt Drive	Immokalee Rd	Woods Edge Parkway	Widen from 2-Lanes to 4-Lanes	0	-	5	10	0	-	5	5	0	-
77	25	170	Pine Ridge Rd intersection	Livingston Rd		Intersection Improvement	5	20	0	-	0	-	5	5	0	-
78	29	165	Golden Gate Parkway Intersection	Livingston Rd		Intersection Improvement	5	20	0	-	0	-	5	5	0	-
80	47	131	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Pulling Road	Widen from 4-Lanes to 6-Lanes	0	-	0	-	0	-	0	-	5	5
81	74	75	Bridge @ 47th Avenue NE	West of Everglades Boulevard		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
82	75	75	Bridge @ Wilson Boulevard	South of 33rd Avenue NE		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
83	69	85	Bridge @ 18th Ave NE	between Wilson Boulevard N and 8th Street NE		New Bridge over Canal	0	-	0	-	0	-	0	-	0	-
84	76</															

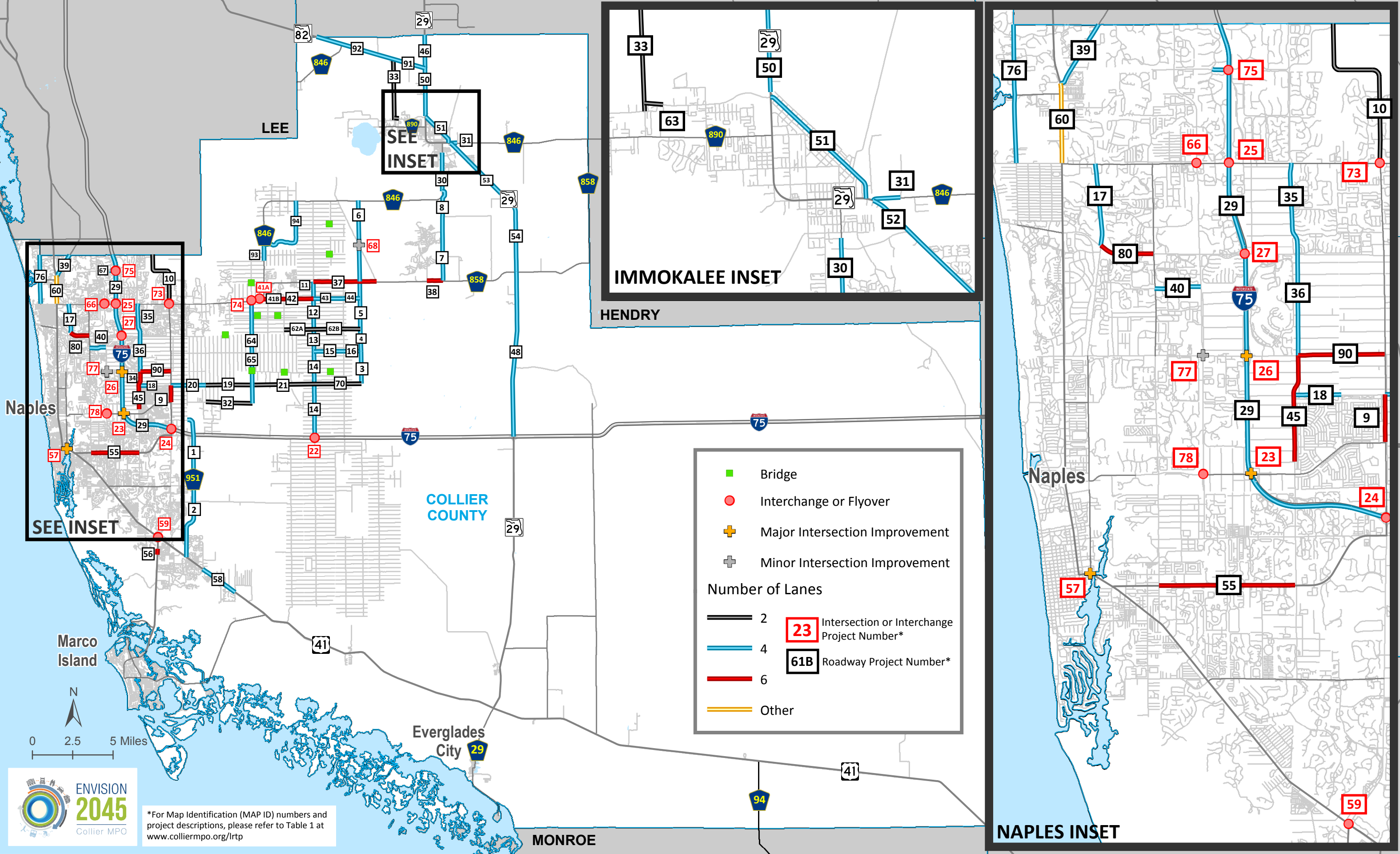
Collier MPO 2045 Long Range Transportation Plan Needs Assessment Plan	9. Promote Sustainability in the Planning of Transportation and Land Use	10. Consider Climate Change Vulnerability and Risk in Transportation Decision Making	11. Consider Autonomous and Connected Vehicles (A/V) Technology in the Future
Table 1B.Draft Evaluation Matrix DRAFT - July 2020; updated 9/3/2020	Project benefits low income areas and improves sustainability and equity through increased housing choices and reduced auto dependency	Project promotes transportation infrastructure resiliency in the face of climate change and sea level rise	Utilize technological improvements (Intelligent Transportation Systems, Transit Signal Priority, etc.)
	Does the project bring better mobility to a low income areas and CRA's (i.e., bike/ped, improvement along a bus route or stop, etc.) Project in target area=5 Project not in target area=0	If project within 0.25 miles of 1 ft SLR Flooding =5 If project within 0.25 miles of 1 ft SLR Low Lying Area = 3 Not in high risk area=0	travel modes improved=5 travel modes not improved=0
	8.00	4.00	4.00

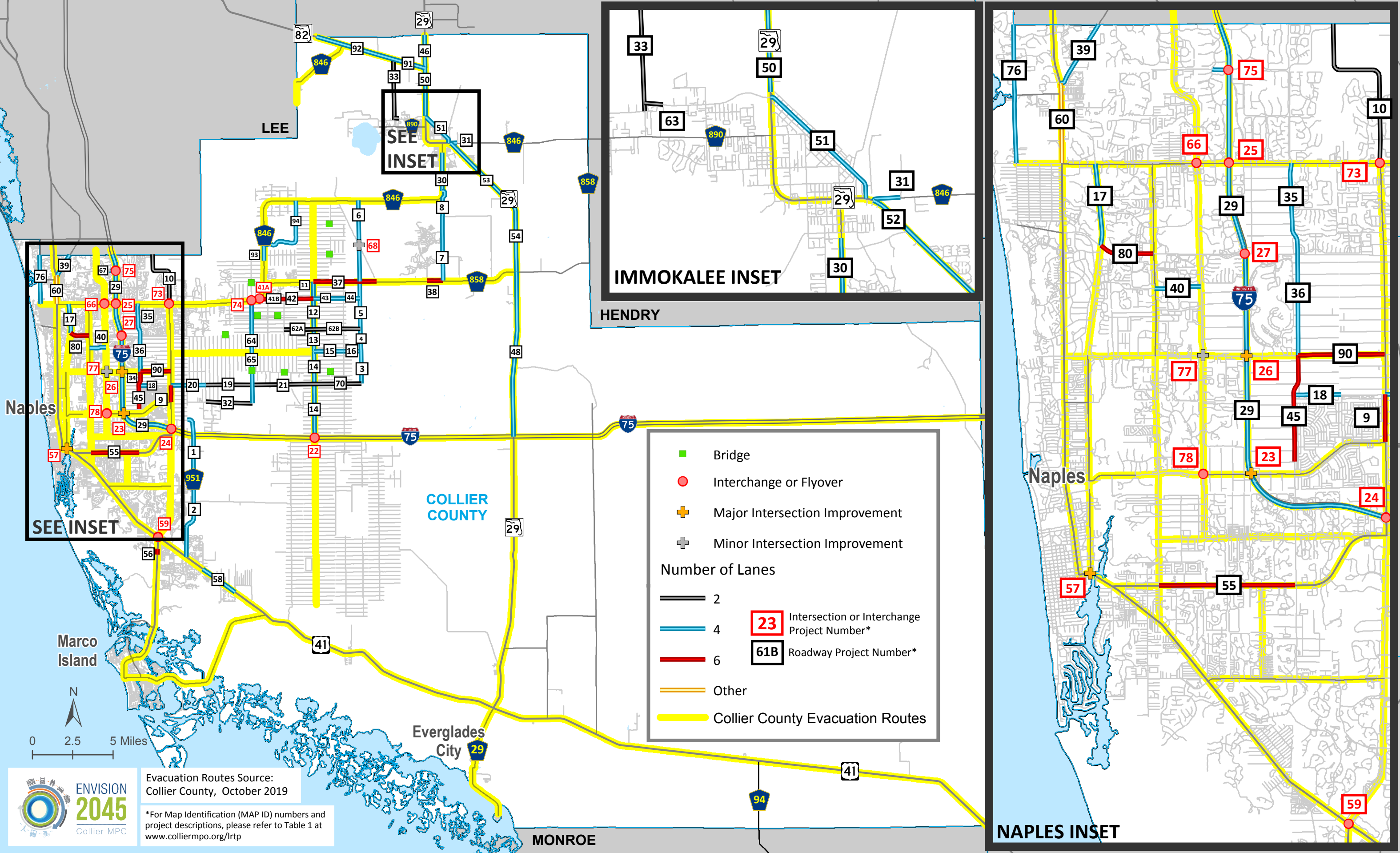
2045 Map ID	2045 RANK	2045 Weighted Score	Project	From	To	Description	Raw Score	Weighted Score	Raw Score	Weighted Score	Raw Score	Weighted Score
1	51	126	Benfield Road Extension	The Lords Way	City Gate Boulevard North	New 2-Lane Road (Expandable to 4-Lanes)	5	40	0	-	0	-
2	41	138	Benfield Road	US 41 (SR 90) (Tamiami Trail East)	Rattlesnake-Hammock Ext	New 2-Lane Road (Expandable to 4-Lanes)	5	40	3	12	0	-
3	72	75	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-
4	70	83	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-
5	71	81	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-
6	82	52	Big Cypress Parkway	Oil Well Road	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-
7	62	100	Camp Keais Road	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes	0	-	0	-	0	-
8	80	74	Camp Keais Road	Immokalee Road	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes	0	-	0	-	0	-
9	1	286	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes	5	40	0	-	0	-
10	21	182	CR 951 Extension (new)	Heritage Bay Entrance (Collier Blvd (CR 951) northern terminus)	Lee/Collier County Line	New 2-Lane Road	5	40	0	-	0	-
11	34	152	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
12	35	152	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
13	54	121	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
14	63	99	Everglades Boulevard	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
15	37	147	Golden Gate Boulevard	Everglades Blvd	Desoto Boulevard	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
16	58	105	Golden Gate Boulevard Ext	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	0	-	0	-	0	-
17	31	161	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	5	20	0	-
18	66	91	Green Boulevard	Santa Barbara/ Logan Boulevard	Sunshine Boulevard	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-
19	27	166	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext	New 2-Lane (Future Study Area)	0	-	0	-	0	-
20	33	154	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW	New 4-Lane (Future Study Area)	0	-	0	-	0	-
21	42	138	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard	New 2-Lane Road	0	-	0	-	0	-
22	60	102	Critical Needs Intersection @ I-75	Everglades Blvd		New Interchange	0	-	0	-	5	20
23	8	250	Critical Needs Intersection @ I-75	Golden Gate Parkway @ I-75		Interchange Improvement	5	40	0	-	5	20
24	2	285	Critical Needs Intersection @ I-75	Collier Blvd (SR 951) @ I-75		Interchange Improvement	0	-	0	-	5	20
25	22	180	Critical Needs Intersection @ I-75	Immokalee Rd @ I-75		Interchange Improvement	0	-	0	-	5	20
26	18	190	Critical Needs Intersection @ I-75	Pine Ridge Rd @ I-75		Interchange Improvement	5	40	0	-	5	20
27	40	146	I-75 (SR-93) Interchange (new)(not in SIS)	Vanderbilt Beach Rd		New Interchange - Partial (to / from the North)	0	-	0	-	5	20
29	5	269	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes	0	-	3	12	5	20
30	7	251	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes	5	40	0	-	0	-
31	23	172	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	5	40	0	-	0	-
32	81	72	Keane Avenue	Inez Rd	Wilson Blvd Ext.	New 2-Lane Road (Future Study Area)	0	-	0	-	0	-
33	50	127	Little League Rd. Ext.	SR-82	Westclox St.	New 2-Lane Road	0	-	0	-	0	-
34	65	92	Logan Boulevard	Green Boulevard	Pine Ridge Road	Widen from 4-Lanes to 6-Lanes	0	-	0	-	0	-
35	52	125	Logan Boulevard	Vanderbilt Beach Road	Immokalee Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
36	67	89	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
37	38	147	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-
38	46	131	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Road	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-
39	10	236	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	5	40	0	-	0	-
40	45	135	Orange Blossom Drive	Airport Pulling Road	Livingston Road	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
42	39	147	Randall Boulevard	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-
43	59	103	Randall Boulevard	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
44	61	101	Randall Boulevard Ext.	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	0	-	0	-	0	-
45	44	136	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	Widen from 4-Lanes to 6-Lanes	0	-	0	-	0	-
46	56	112	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes	0	-	0	-	0	-
48	49	128	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	0	-	0	-	0	-
50	24	172	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-
51	13	212	SR 29/New Market Road W - New Road	Immokalee Rd (CR 846)	New Market Road North	Widen from 2-Lane to 4-Lane	-	-	0	-	0	-
52	3	277	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lane to 4-Lane	5	40	0	-	0	-
53	15	197	SR 29	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-
54	16	197	SR 29	Oil Well Road	Sunniland Nursery Rd	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-
55	6	263	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 2-Lane to 4-Lane	5	40	3	12	0	-
56	9	242	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 2-Lane to 4-Lane	5	40	5	20	0	-
57	4	275	Critical Needs Intersection @ US 41	Goodlette Rd @ US 41		Intersection Improvement	5	40	5	20	5	20
58	12	219	US 41	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4-Lane	5	40	3	12	0	-
59	11	232	Critical Needs Intersection @ US 41	Collier Blvd (SR 951) @ US 41		Intersection Improvement	0	-	3	12	0	-
60	14	201	US 41	Immokalee Road	Old US 41	Widen from 2-Lane to 4-Lane	0	-	5	20	0	-
62	73	75	Vanderbilt Beach Road Ext	16th St	Big Cypress Parkway	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-
63	53	122	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road	0	-	0	-	0	-
64	30	162	Wilson Blvd	Golden Gate Boulevard	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
65	32	156	Wilson Blvd	Keane Ave	Golden Gate Boulevard	New 2-Lane Road (Expandable to 4-Lanes)	0	-	0	-	0	-
66	17	195	Immokalee Rd intersection	Livingston Rd		Intersection Improvement	0	-	0	-	0	-
67	57	106	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road	0	-	0	-	0	-
68	83	45	Big Cypress Parkway intersection (new)	Oil Well Grade Rd		New At-Grade Intersection	0	-	-	-	0	-
69	408	142	Everglades Boulevard	Oil Well Rd / CR 858	Immokalee Rd	Widen from 2-Lane to 4-Lane	0	-	0	-	0	-
70	68	86	Green Boulevard Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road	0	-	0	-	0	-
73	20	190	Immokalee Rd (CR 846) intersection	Collier Blvd (CR 951)		Intersection Improvement	0	-	0	-	0	-
74	28	165	Immokalee Rd (CR 846) intersection	Wilson Blvd		Intersection Improvement	0	-	0	-	0	-
75	55	115	I-75 (SR-93) Interchange (new) (not in SIS)	Veterans Memorial Blvd		New Partial Interchange	0	-	0	-	5	20
76	43	137	Vanderbilt Drive	Immokalee Rd	Woods Edge Parkway	Widen from 2-Lanes to 4-Lanes	0	-	5	20	0	-
77	25	170	Pine Ridge Rd intersection	Livingston Rd		Intersection Improvement	0	-	0	-	0	-
78	29	165	Golden Gate Parkway intersection	Livingston Rd		Intersection Improvement	0	-	0	-	0	-
80	47	131	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Pulling Road	Widen from 4-Lanes to 6-Lanes	0	-	5	20	0	-
81	74	75	Bridge @ 47th Avenue NE	West of Everglades Boulevard		New Bridge over Canal	0	-	0	-	0	-
82	75	75	Bridge @ Wilson Boulevard	South of 33rd Avenue NE		New Bridge over Canal	0	-	0	-	0	-
83	69	85	Bridge @ 18th Ave NE	between Wilson Boulevard N and 8th Street NE		New Bridge over Canal	0	-	0	-	0	-
84	76	75	Bridge @ 18th Ave NE	between 8th Street NE and 16th Street NE		New Bridge over Canal	0	-	0	-	0	-
85	64	95	Bridge @ 13th Street NW	north end at proposed Vanderbilt Beach Road Extension		New Bridge over Canal	0	-	0	-	0	-
86	77	75	Bridge @ 16th Street SE	South end		New Bridge over Canal	0	-	0	-	0	-
87	78	75	Bridge @ Location TBD - Assume 10th Avenue SE	East of Everglades Blvd		New Bridge over Canal	0	-	0	-	0	-
88	48	130	Bridge @Wilson Boulevard South, south end			New Bridge over Canal	0	-	0	-	0	-
89	79	75	Bridge @ 62nd Avenue NE	West of 40th Street NE		New Bridge over Canal	0	-	0	-	0	-
90	26	167	Pine Ridge Rd	Logan Blvd S	Collier Blvd (CR 951)	Widen from 4-Lanes to 6-Lanes	5	40	0	-	0	-
93	32	157	Immokalee Rd (CR 846)	43rd Ave NE/Shady Hollow Blvd E	North of 47th Avenue NE/Immokalee	Widen from 2-Lanes to 4-Lanes	0	-	0	-	0	-
94	57	113	Immokalee Road Rural Village Blvd (new)	Immokalee Rd (CR 846)	Immokalee Rd (CR 846)	New 4-Lane Road	0	-	0	-	0	-
41A	19	190	Critical Needs Intersection @ Immokalee Rd	Immokalee Road @ Randall Blvd		Ultimate Intersection Improvement: Overpass	0	-	0	-	0	-
41B	36	151	Randall Boulevard	Immokalee Road	8th St NE	Widen from 2-Lanes to 6-Lanes	0	-	0	-	0	-

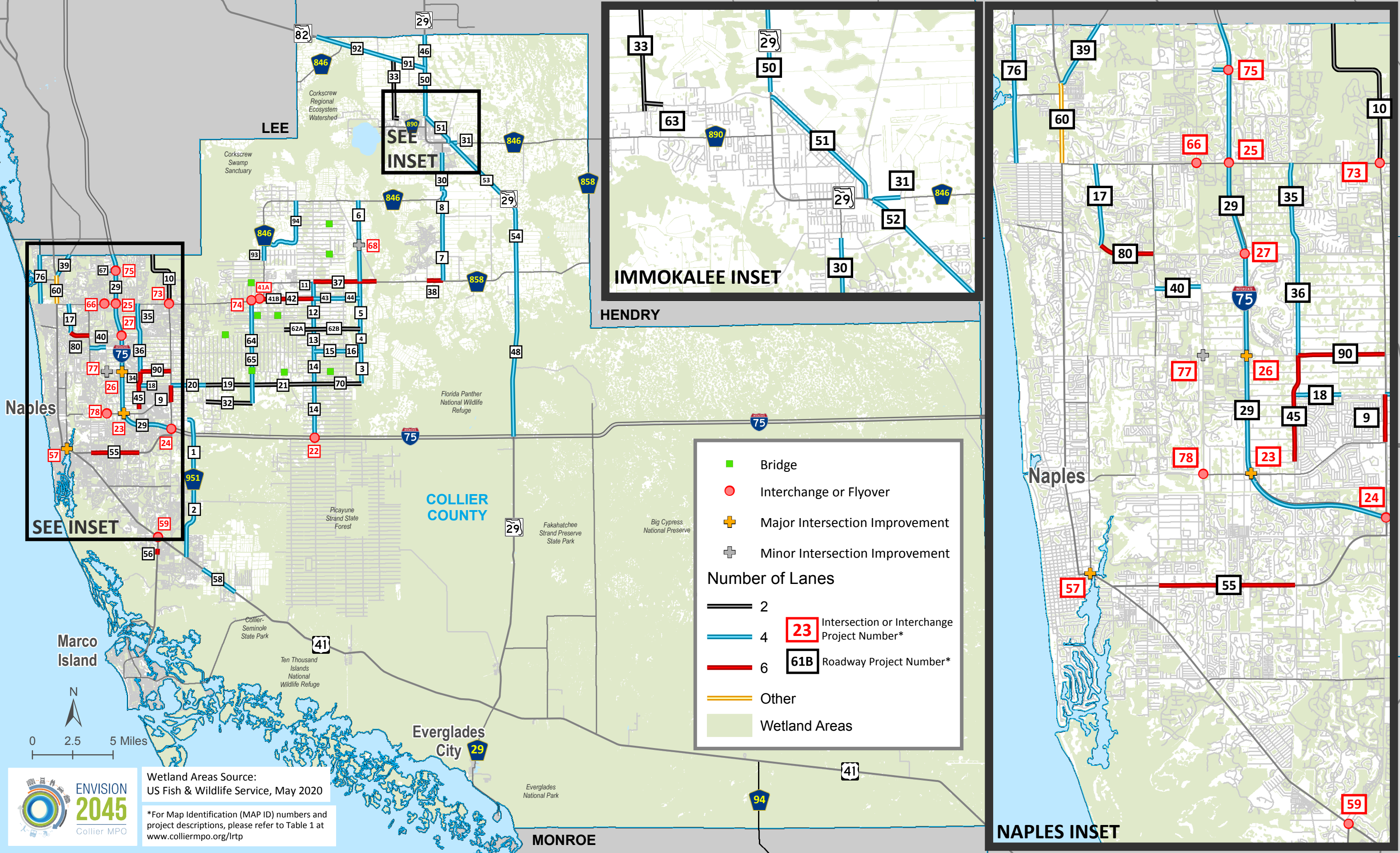
Note: Does not include Critical Needs Intersections (#95 through #114); it was necessary to rank or prioritize

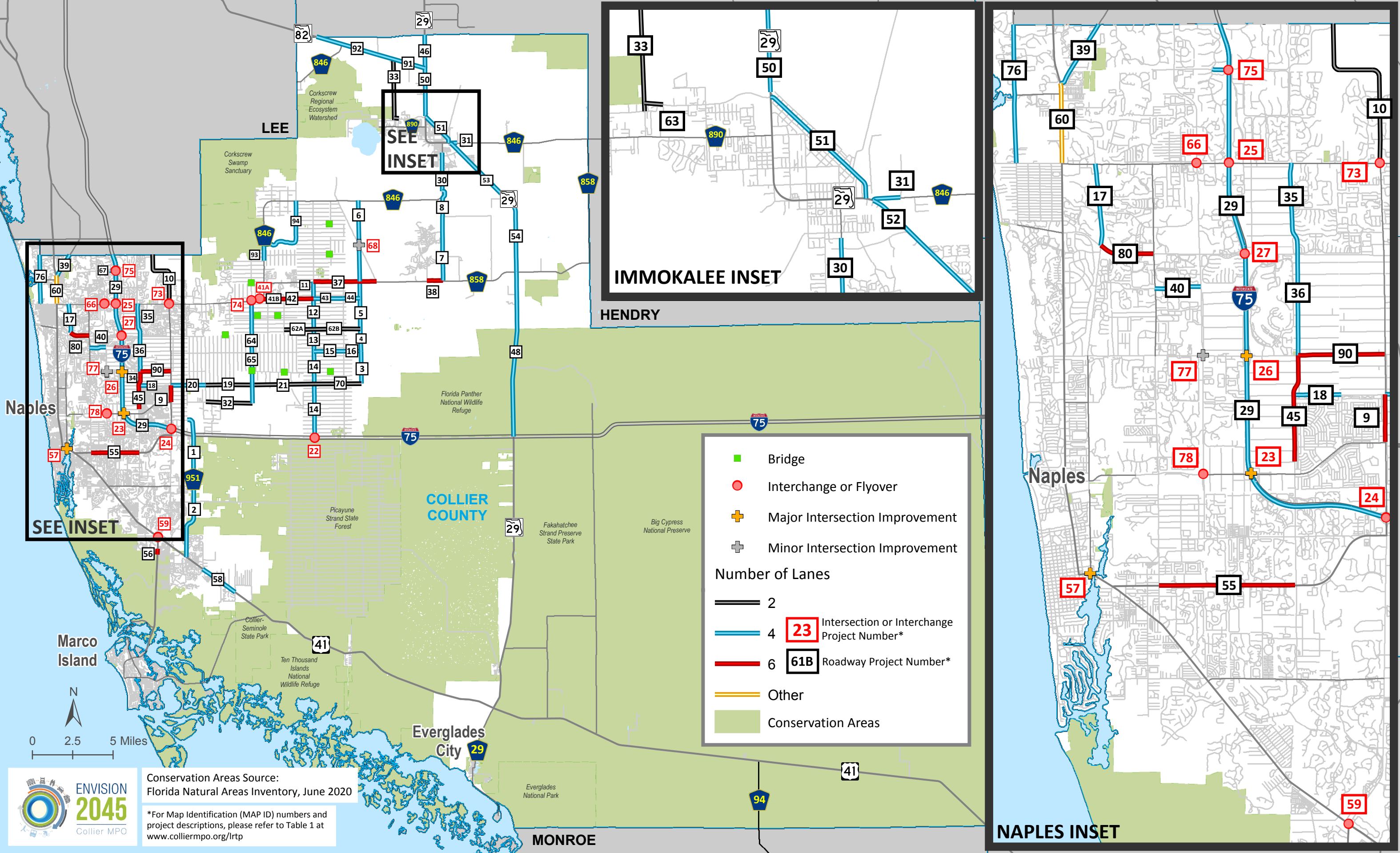
Table 1A.2045 Needs Plan List of Projects					
Map ID	Needs Ranking	Project	From	To	Description
1	51	Benfield Rd. Ext.	The Lords Way	City Gate Blvd. N	New Two-Lane Road (Expandable to Four Lanes)
2	41	Benfield Rd.	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake Hammock Ext.	New Two-Lane Road (Expandable to Four Lanes)
3	72	Big Cypress Pkwy.	Green Blvd.	Golden Gate Blvd.	New Two-Lane Road (Expandable to Four Lanes)
4	70	Big Cypress Pkwy.	Golden Gate Blvd.	Vanderbilt Beach Road Ext.	New Two-Lane Road (Expandable to Four Lanes)
5	71	Big Cypress Pkwy.	Vanderbilt Beach Rd. Ext.	Oil Well Rd.	New Two-Lane Road (Expandable to Four Lanes)
6	82	Big Cypress Pkwy.	Oil Well Rd.	Immokalee Rd.	New Two-Lane Road (Expandable to Four Lanes)
7	62	Camp Keais Rd.	Pope John Paul Blvd.	Oil Well Rd.	Widen from Two to Four Lanes
8	80	Camp Keais Rd.	Immokalee Rd.	Pope John Paul Blvd.	Widen from Two to Four Lanes
9	1	Collier Blvd. (CR 951)	Golden Gate Main Canal	Green Blvd.	Widen from Four to Six Lanes
10	21	CR 951 Ext.	Collier Blvd. (CR 951) (northern terminus)	Lee/Collier County Line	New 2-Lane Road
11	34	Everglades Blvd.	Randall Blvd.	South of Oil Well Road	Widen from Two to Four Lanes
12	35	Everglades Blvd.	Vanderbilt Beach Rd. Ext.	Randall Blvd.	Widen from Two to Four Lanes
13	54	Everglades Blvd.	Golden Gate Blvd.	Vanderbilt Beach Rd. Ext.	Widen from Two to Four Lanes
14	63	Everglades Blvd.	I-75 (SR-93)	Golden Gate Blvd.	Widen from Two to Four Lanes
15	37	Golden Gate Blvd.	Everglades Blvd.	Desoto Blvd.	Widen from Two to Four Lanes
16	58	Golden Gate Blvd. Ext.	Desoto Blvd.	Big Cypress Pkwy.	New Four-Lane Road
17	31	Goodlette-Frank Rd.	Vanderbilt Beach Rd.	Immokalee Rd.	Widen from Two to Four Lanes
18	66	Green Blvd.	Santa Barbara Blvd./ Logan Blvd.	Sunshine Blvd.	Widen from Two to Four Lanes
19	27	Green Boulevard Ext. (16th Ave. SW)	23rd St. SW	Wilson Blvd. Ext.	New Two-Lane (Future Study Area)
20	33	Green Boulevard Ext. (16th Ave. SW)	Collier Blvd. (CR 951)	23rd St. SW	New Four-Lane (Future Study Area)
21	42	Green Boulevard Ext. (16th Ave. SW)	Wilson Blvd. Ext	Everglades Blvd.	New Two-Lane Road
22	60	I-75 (SR-93) Interchange	Everglades Blvd.		New Interchange
23	8	I-75 (SR-93) Interchange (modified)	Golden Gate Pkwy.		Interchange Improvement
24	2	I-75 (SR-93) Interchange (modified)	Collier Blvd. (CR 951)		Interchange Improvement
25	22	I-75 (SR-93) Interchange (modified)	Immokalee Rd.		Interchange improvement (DDI proposed)
27	40	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd.		New Interchange - Partial (to/from the north)
29	5	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd. (CR 951)	Collier/Lee County Line	New Ten-Lane Express (Toll) Lanes
30	7	Immokalee Rd. (CR 846)	Camp Keais Rd.	Carver St.	Widen from Two to Four Lanes
31	23	CR 846 E	SR 29	Airpark Blvd.	Widen from Two to Four Lanes
32	81	Keane Ave.	Inez Rd.	Wilson Blvd. Ext.	New Two-Lane Road (Future Study Area)
33	50	Little League Rd. Ext.	SR 82	Westclox St.	New Two-Lane Road
34	65	Logan Blvd.	Green Blvd.	Pine Ridge Rd.	Widen from Four to Six Lanes
35	52	Logan Blvd.	Vanderbilt Beach Rd.	Immokalee Rd.	Widen from Two to Four Lanes
36	67	Logan Blvd.	Pine Ridge Rd.	Vanderbilt Beach Rd.	Widen from Two to Four Lanes
37	38	Oil Well RoadCR 858	Everglades Blvd.	Oil Well Grade Rd.	Widen from Two to Six Lanes
38	46	Oil Well RoadCR 858	Ave Maria Entrance	Camp Keais Rd.	Widen from Two to Six Lanes
39	10	Old US 41	US 41 (Tamiami Trail E)	Lee/Collier County Line	Widen from Two to Four Lanes
40	45	Orange Blossom Drive	Airport Pulling Rd.	Livingston Rd.	Widen from Two to Four Lanes
41A	19	Randall Blvd. Intersection (flyover)	Immokalee Rd.		Ultimate Intersection Improvement: Overpass
41B	36	Randall Blvd.	Immokalee Rd.	8th St. NE	Widen from Two to Six Lanes
42	39	Randall Blvd.	8th St. NE	Everglades Blvd.	Widen from Two to Six Lanes
43	59	Randall Blvd.	Everglades Blvd.	Desoto Blvd.	Widen from Two to Four Lanes
44	61	Randall Blvd.	Desoto Blvd.	Big Cypress Pkwy.	New Four-Lane Road
45	44	Santa Barbara Blvd.	Painted Leaf Ln.	Green Blvd.	Widen from Four to Six Lanes
46	56	SR 29	SR 82	Collier/Hendry Line	Widen from Two to Four Lanes
48	49	SR 29	I-75 (SR 93)	Oil Well Rd.	Widen from Two to Four Lanes
50	24	SR 29	New Market Road North/Westclox Street	North of SR 82	Widen from Two to Four Lanes
51	13	SR 29/New Market Rd. W (New Road)	CR 846 E	New Market Rd. N	New Four-Lane Road
52	3	SR 29	Agriculture Way	CR 846 E	Widen from Two to Four Lanes
53	15	SR 29	Sunniland Nursery Rd.	Agriculture Way	Widen from Two to Four Lanes
54	16	SR 29	Oil Well Rd.	Sunniland Nursery Rd.	Widen from Two to Four Lanes
55	6	SR 84 (Davis Blvd.)	Airport Pulling Rd.	Santa Barbara Blvd.	Widen from Four to Six Lanes

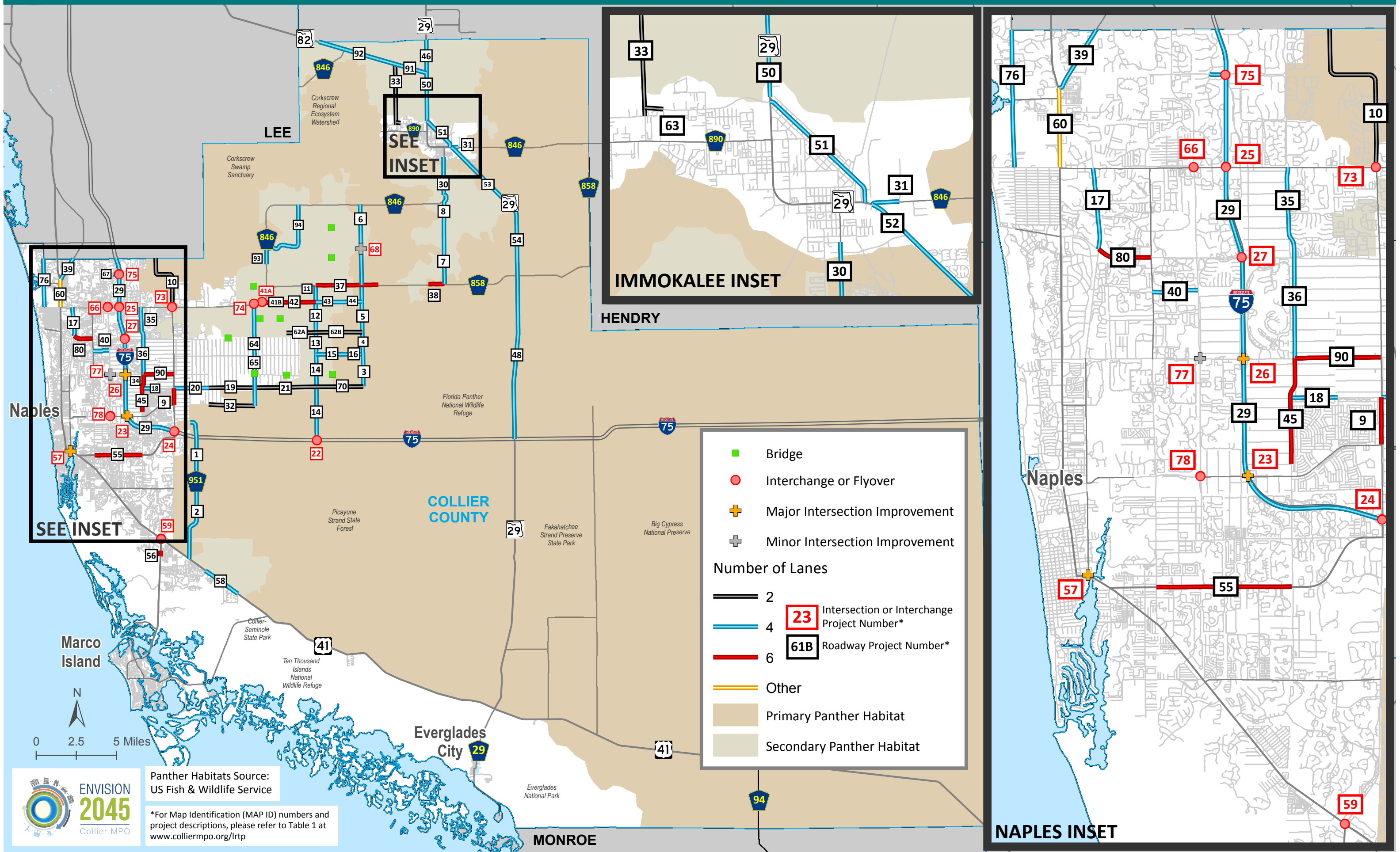
Table 1A. 2045 Needs Plan List of Projects					
Map ID	Needs Ranking	Project	From	To	Description
56	9	Collier Blvd. (SR 951)	South of Manatee Rd.	North of Tower Rd.	Widen from Four to Six Lanes
57	4	US 41 (SR 90) (Tamiami Trail E) intersection	Goodlette-Frank Rd.		Major Intersection Improvement
58	12	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd.	6 L Farm Rd	Widen from Two to Four Lanes
59	11	US 41 (SR 90) (Tamiami Trail E) intersection	Collier Blvd. (SR 951)		Major Intersection Improvement
60	14	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd.	Old US 41	Further Study Required
62A	73	Vanderbilt Beach Rd. Ext.	16th St.	Everglades Blvd.	New Two-Lane Road (Expandable to Four Lanes)
62B	73	Vanderbilt Beach Rd. Ext.	Everglades Blvd.	Big Cypress Pkwy.	New Two-Lane Road (Expandable to Four Lanes)
63	53	Westclox Street Ext.	Little League Rd.	West of Carson Rd.	New Two-Lane Road
65	32	Wilson Blvd.	Keane Ave.	Golden Gate Blvd.	New Two-Lane Road (Expandable to Four Lanes)
66	17	Immokalee Rd. (Intersection)	Livingston Rd.		Major Intersection Improvement
67	57	Veterans Memorial Blvd. Ext.	Strand Blvd.	I-75	New Four-Lane Road
68	83	Big Cypress Pkwy. Intersection (new)	Oil Well Grade Rd.		New At-Grade Intersection
69	N/A	Everglades Blvd	Oil Well Rd / CR 858	Immokalee Rd	Widen from Two to Four Lanes
70	68	Green Blvd. Ext.	Everglades Blvd.	Big Cypress Pkwy.	New Two-Lane Road
73	20	Immokalee Rd. (CR 846) Intersection	Collier Blvd. (CR 951)		Major Intersection Improvement
74	28	Immokalee Rd. (CR 846) Intersection	Wilson Blvd.		Major Intersection Improvement
75	55	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd.		New Partial Interchange
76	43	Vanderbilt Dr.	Immokalee Rd.	Woods Edge Pkwy.	Widen from Two to Four Lanes
78	29	Golden Gate Pkwy. Intersection	Livingston Rd.		Major Intersection Improvement
81	74	Bridge @ 47th Ave NE	West of Everglades Blvd.		New Bridge over Canal
82	75	Bridge @ Wilson Blvd.	South of 33rd Avenue NE		New Bridge over Canal
83	69	Bridge @ 18th Ave. NE	Between Wilson Blvd. N and 8th St. NE		New Bridge over Canal
84	76	Bridge @ 18th Ave NE	Between 8th St. NE and 16th St. NE		New Bridge over Canal
85	64	Bridge @ 13th St. NW	North Terminus at Vanderbilt Beach Rd. Ext.		New Bridge over Canal
86	77	Bridge @ 16th St. SE	South Terminus		New Bridge over Canal
87	77	Bridge @ Location TBD - Assume 10th Ave. SE	East of Everglades Blvd.		New Bridge over Canal
88	48	Bridge @Wilson Blvd. S	South Terminus		New Bridge over Canal
89	79	Bridge @ 62nd Ave NE	West of 40th St NE		New Bridge over Canal
115	N/A	Bridge @ 23rd St. SW	South of Golden Gate Blvd.		New Bridge over Canal
90	26	Pine Ridge Rd.	Logan Blvd.	Collier Blvd.	Widen from Four to Six Lanes
92	N/A	SR 82	Hendry County Line	Gator Slough Ln.	Widen from Two to Four Lanes
93	32	Immokalee Rd.	Shady Hollow Blvd. E	Rural Village Rd. (new)	Widen from Two Four Lanes
94	57	Rural Village Rd. (new)	Immokalee Rd.	Immokalee Rd.	New Four-Lane Road
95	N/A	Golden Gate Pkwy. (Intersection)	Goodlette-Frank Rd.		Major Intersection Improvement
96	N/A	Pine Ridge Rd. (Intersection)	Airport Pulling Rd.		Minor intersection improvements
97	N/A	Immokalee Rd. (Intersection)	Logan Blvd.		Major Intersection Improvement
98	N/A	Vanderbilt Beach Rd. (Intersection)	Livingston Rd.		Minor intersection improvements
99	N/A	Vanderbilt Beach Rd. (Intersection)	Logan Blvd.		Minor intersection improvements
100	N/A	Collier Blvd. (Intersection)	Pine Ridge Rd.		Major Intersection Improvement
101	N/A	Pine Ridge Rd. (Intersection)	Goodlette-Frank Rd.		Minor intersection improvements
102	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Vanderbilt Beach Rd.		Major Intersection Improvement
103	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Pine Ridge Rd.		Major Intersection Improvement
104	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Golden Gate Pkwy.		Major Intersection Improvement
107	N/A	Golden Gate Pkwy.	Collier Blvd.		Major Intersection Improvement
108	N/A	Vanderbilt Beach Rd.	Airport Pulling Rd.		Intersection Innovation/Improvements
109	N/A	Immokalee Rd.	Goodlette-Frank Rd.		Intersection Innovation/Improvements
110	N/A	Immokalee Rd.	Airport Pulling Rd.		Intersection Innovation/Improvements
111	N/A	US 41	Immokalee Rd.		Intersection Innovation/Improvements
112	N/A	Airport Pulling Rd.	Orange Blossom Dr.		Intersection Innovation/Improvements
113	N/A	Airport Pulling Rd.	Golden Gate Pkwy.		Intersection Innovation/Improvements
114	N/A	Airport Pulling Rd.	Radio Rd.		Intersection Innovation/Improvements

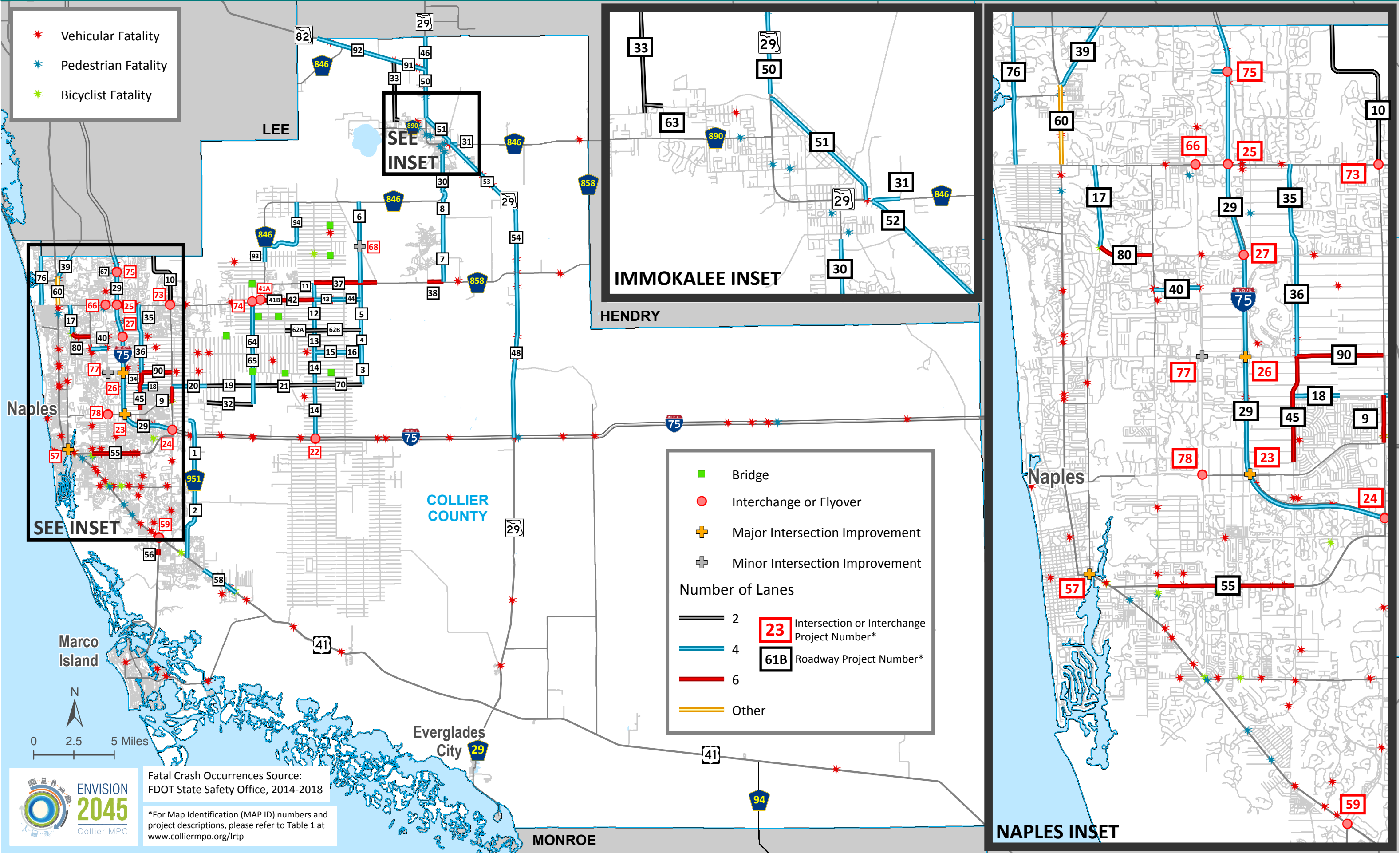


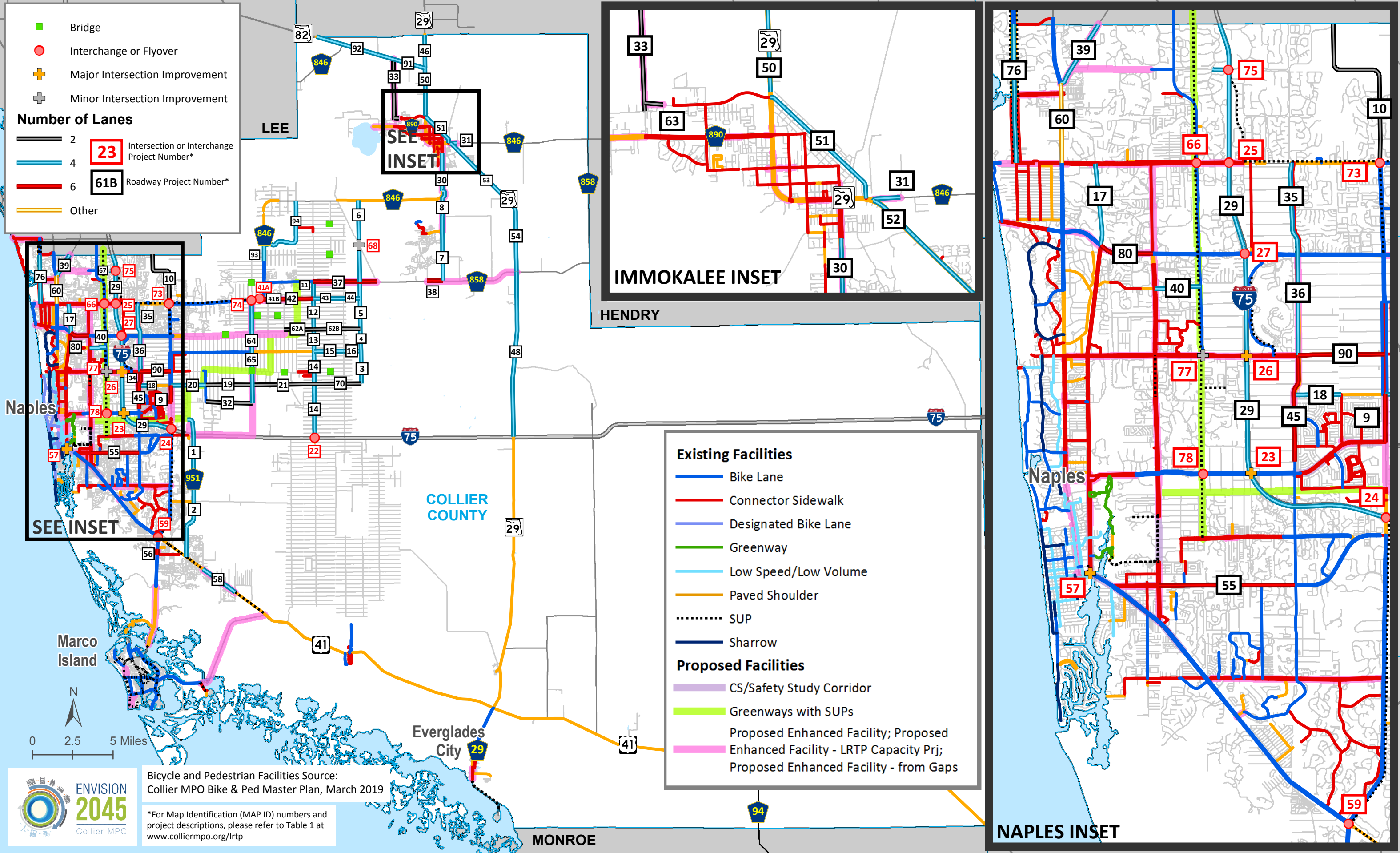


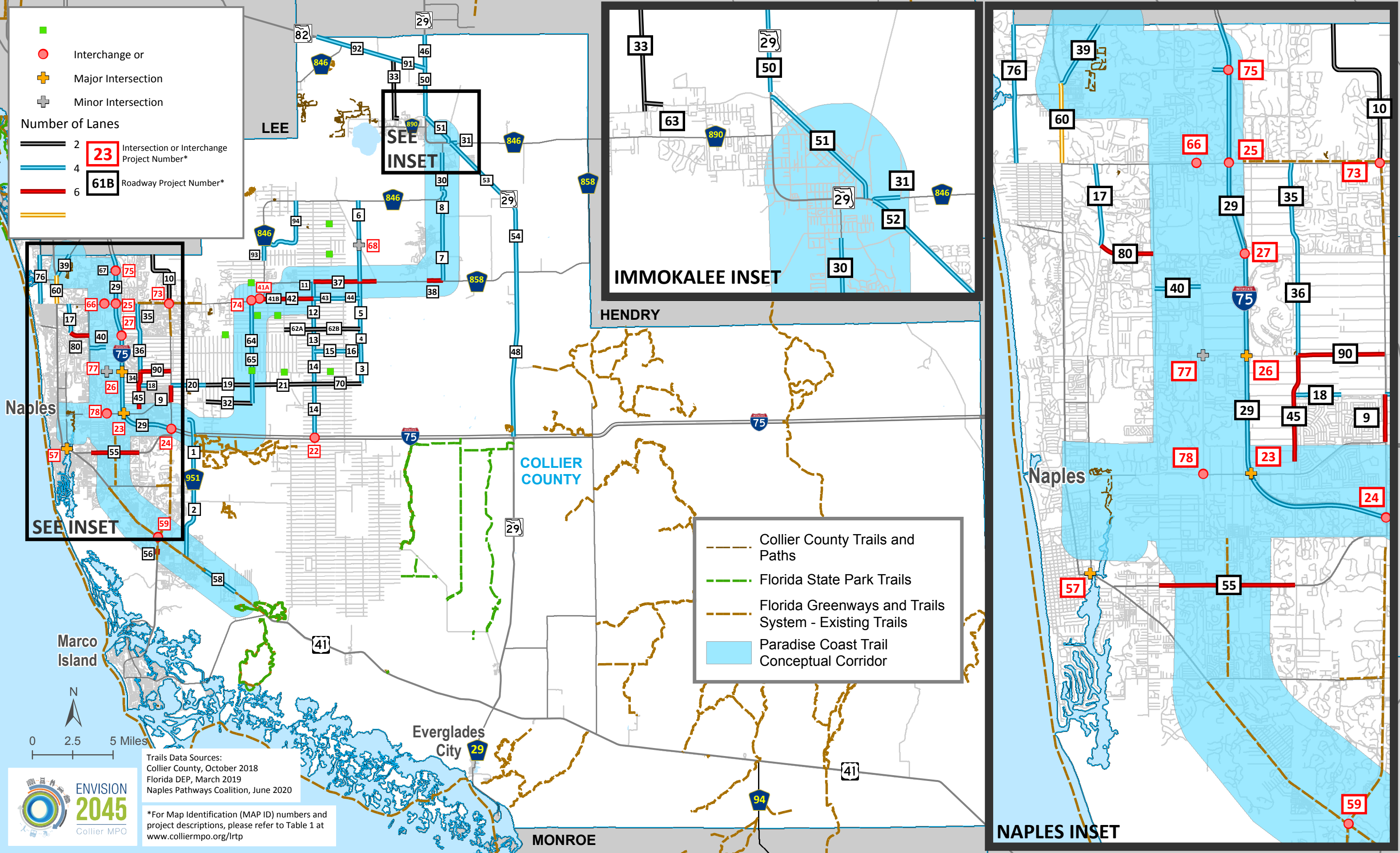


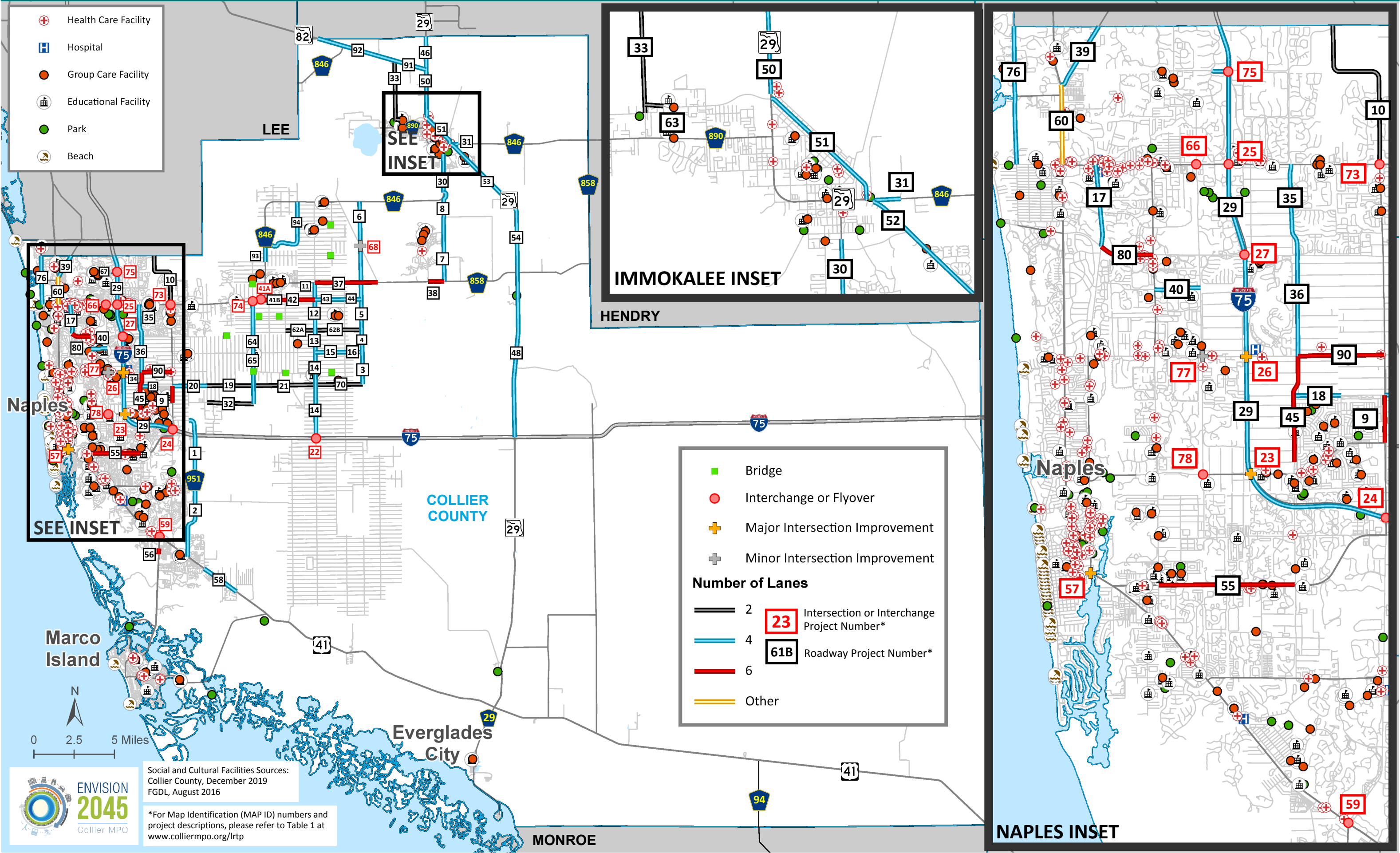


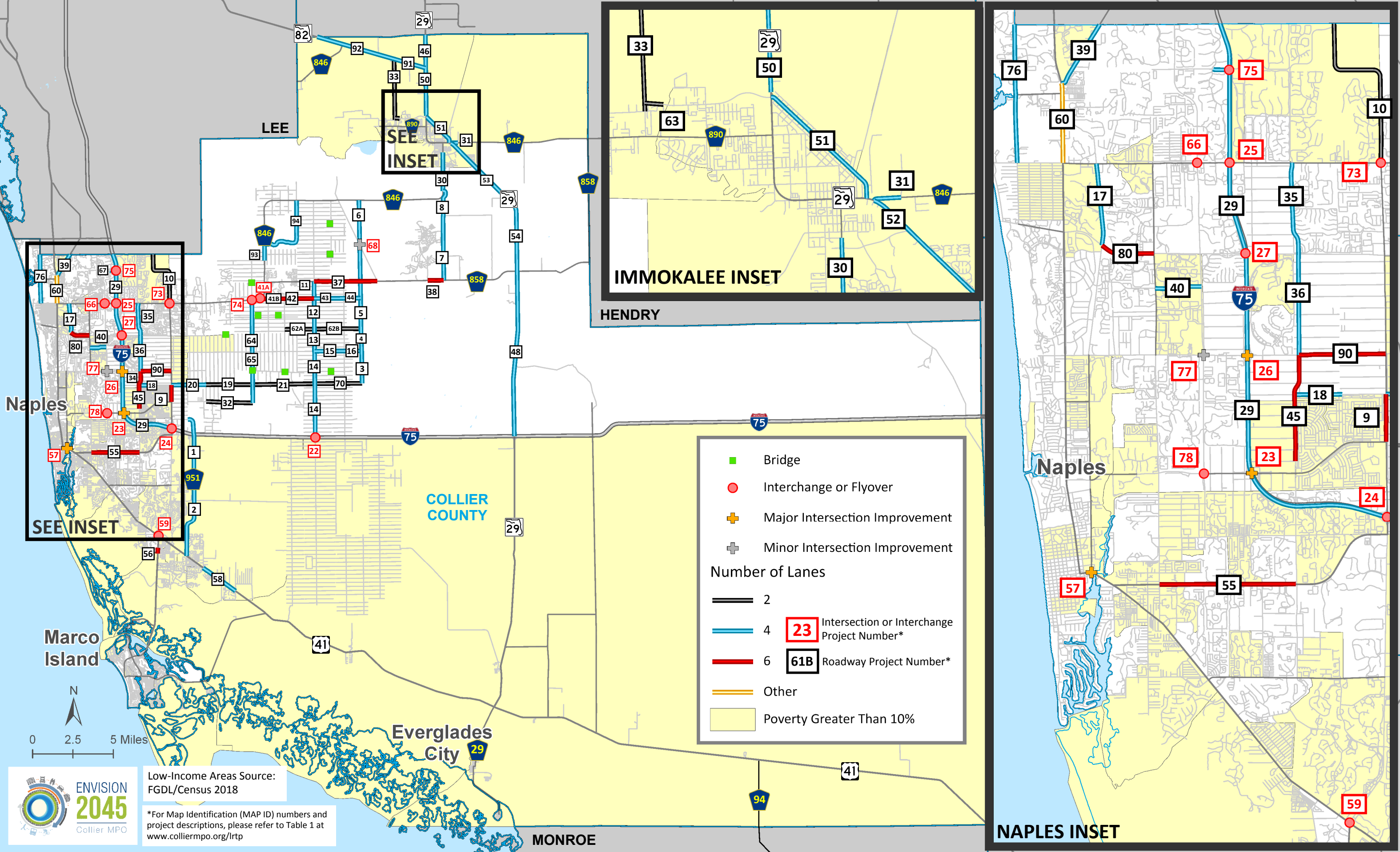


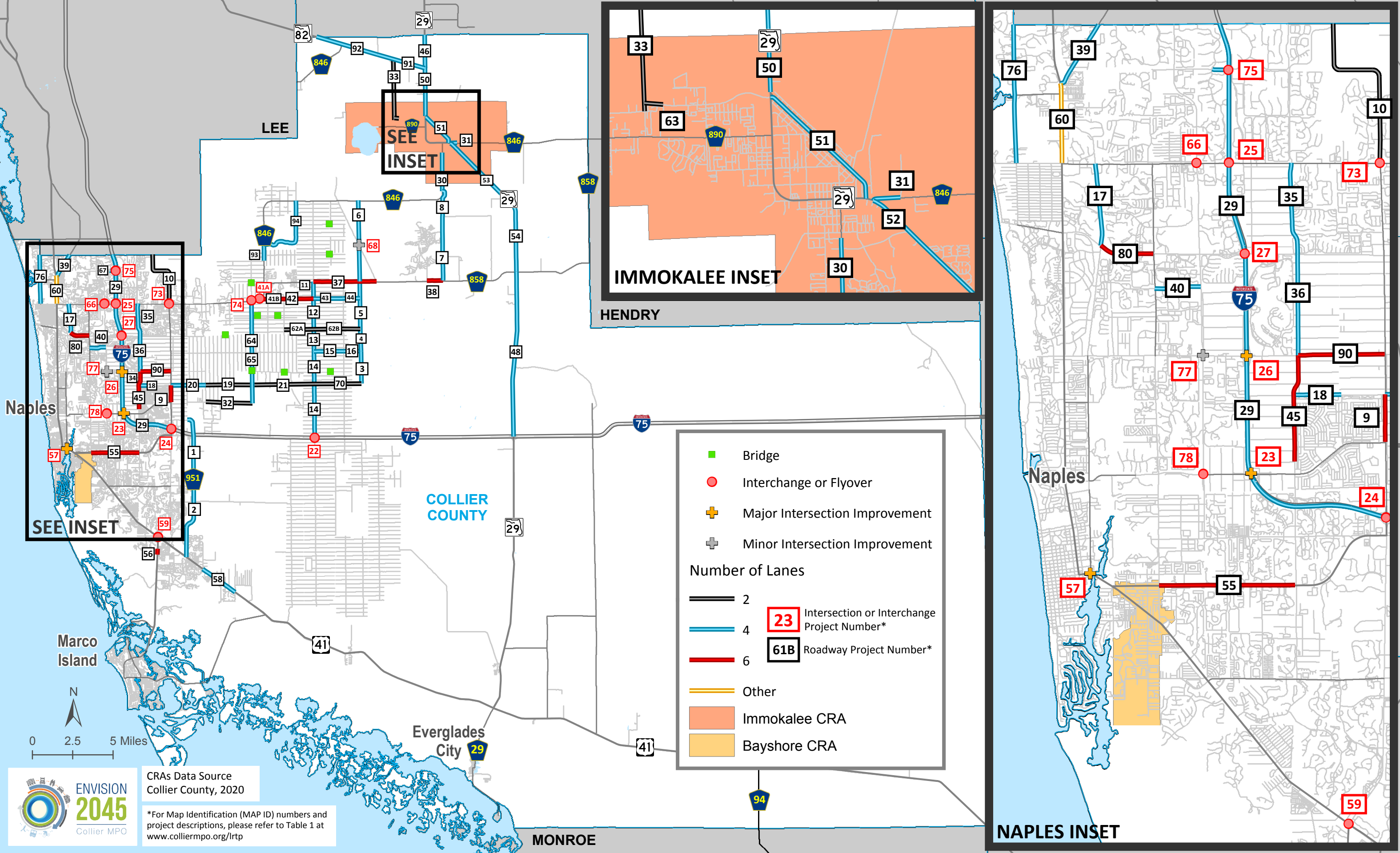


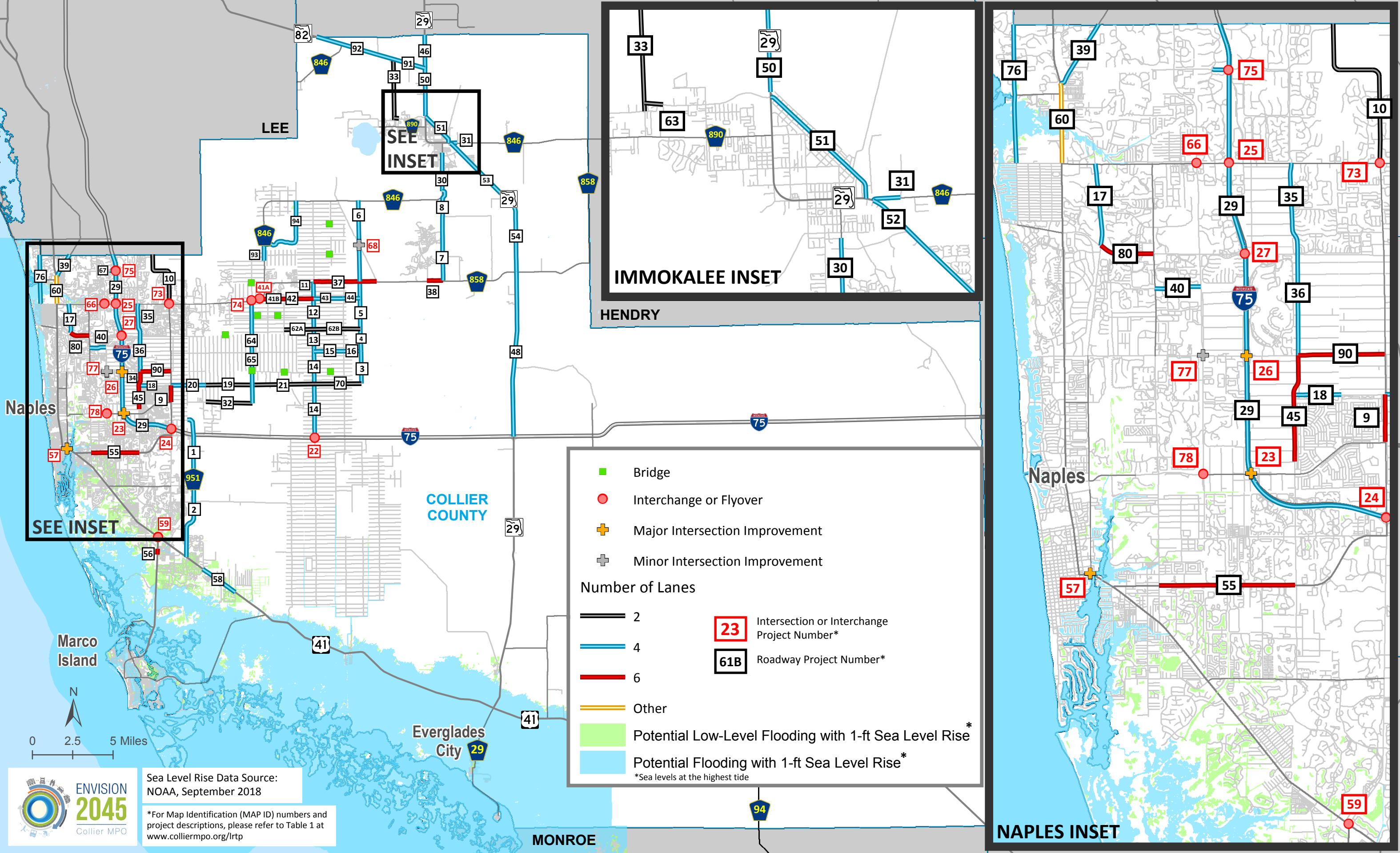




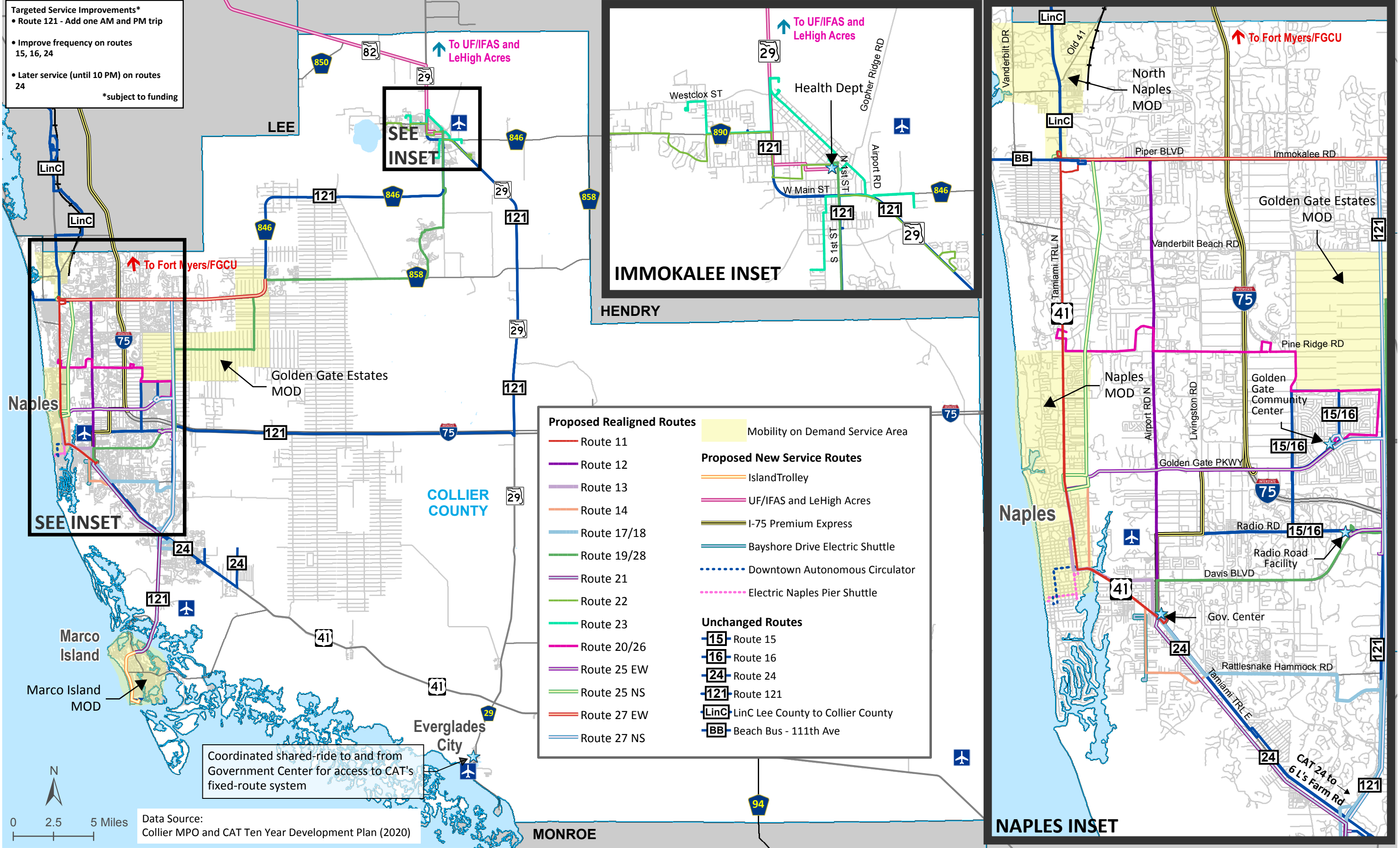








- Targeted Service Improvements*
- Route 121 - Add one AM and PM trip
 - Improve frequency on routes 15, 16, 24
 - Later service (until 10 PM) on routes 24
- *subject to funding



Appendix F

Draft Collier 2020 System Performance Report



DRAFT
11-18-2020

**Collier Metropolitan Planning Organization
2045 Long-Range Transportation Plan
System Performance Report**

**Office of Policy Planning
Florida Department of Transportation**



December 2020



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1 - PURPOSE

This document provides language that Florida’s metropolitan planning organizations (MPO) may incorporate in Long-Range Transportation Plan (LRTP) System Performance Reports to meet the federal transportation performance management rules. Updates or amendments to the LRTP must incorporate a System Performance Report that addresses these measures and related information no later than:

- May 27, 2018 for Highway Safety measures (PM1);
- October 1, 2018 for Transit Asset Management measures;
- May 20, 2019 for Pavement and Bridge Condition measures (PM2);
- May 20, 2019 for System Performance measures (PM3); and
- July 20, 2021 for Transit Safety measures.

MPOs may incorporate this template language and adapt it as needed as they update their LRTPs. In most sections, there are two options for the text, to be used by MPOs supporting statewide targets or MPOs establishing their own targets. Areas that require MPO input are highlighted in grey. Input will range from simply adding the MPO name and adoption dates to providing MPO-specific information such as descriptions of strategies and processes.

The document is consistent with the Transportation Performance Measures Consensus Planning Document developed jointly by the Florida Department of Transportation (FDOT) and the Metropolitan Planning Organization Advisory Council. This document outlines the minimum roles of FDOT, the MPOs, and the public transportation providers in the MPO planning areas to ensure consistency to the maximum extent practicable in satisfying the transportation performance management requirements promulgated by the United States Department of Transportation in Title 23 Parts 450, 490, 625, and 673 of the Code of Federal Regulations (23 CFR).

The document is organized as follows:

- Section 2 provides a brief background on transportation performance management;
- Section 3 covers the Highway Safety measures (PM1);
- Section 4 covers the Pavement and Bridge Condition measures (PM2);
- Section 5 covers System Performance measures (PM3);
- Section 6 covers Transit Asset Management (TAM) measures; and
- Section 7 covers Transit Safety measures.



2 - BACKGROUND

Pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act enacted in 2012 and the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015, state departments of transportation (DOT) and metropolitan planning organizations (MPO) must apply a transportation performance management approach in carrying out their federally required transportation planning and programming activities. The process requires the establishment and use of a coordinated, performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule).¹ This rule details how state DOTs and MPOs must implement new MAP-21 and FAST Act transportation planning requirements, including the transportation performance management provisions.

In accordance with the Planning Rule, the Collier MPO must include a description of the performance measures and targets that apply to the MPO planning area and a System Performance Report as an element of its LRTP. The System Performance Report evaluates the condition and performance of the transportation system with respect to required performance targets, and reports on progress achieved in meeting the targets in comparison with baseline data and previous reports. For MPOs that elect to develop multiple scenarios, the System Performance Report also must include an analysis of how the preferred scenario has improved the performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified targets.²

There are several milestones related to the required content of the System Performance Report:

- In any LRTP adopted on or after May 27, 2018, the System Performance Report must reflect Highway Safety (PM1) measures;
- In any LRTP adopted on or after October 1, 2018, the System Performance Report must reflect Transit Asset Management measures;
- In any LRTP adopted on or after May 20, 2019, the System Performance Report must reflect Pavement and Bridge Condition (PM2) and System Performance (PM3) measures; and
- In any LRTP adopted on or after July 20, 2021, the System Performance Report must reflect Transit Safety measures.

Per the Planning Rule, the System Performance Report for the Collier MPO is included for the required Highway Safety (PM1), Bridge and Pavement (PM2), System Performance (PM3), Transit Asset Management, and Transit Safety targets (adopted by the MPO Board on September 11, 2020).

¹ The Final Rule modified the Code of Federal Regulations at 23 CFR Part 450 and 49 CFR Part 613.

² Guidance from FHWA/FTA for completing the preferred scenario analysis is expected in the future. As of June 2020, no guidance has been issued.



3 - HIGHWAY SAFETY MEASURES (PM1)

Effective April 14, 2016, the FHWA established five highway safety performance measures³ to carry out the Highway Safety Improvement Program (HSIP). These performance measures are:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled (VMT);
3. Number of serious injuries;
4. Rate of serious injuries per 100 million VMT; and
5. Number of non-motorized fatalities and non-motorized serious injuries.

The Florida Department of Transportation (FDOT) publishes statewide safety performance targets in the HSIP Annual Report that it transmits to FHWA each year. Current safety targets address calendar year 2020. For the 2020 HSIP annual report, FDOT established statewide at “0” for each performance measure to reflect Florida’s vision of zero deaths.

The Collier MPO re-adopted safety performance targets on November 13, 2020. Table 3.1 indicates the areas in which the MPO is expressly supporting the statewide target developed by FDOT.

Table 3.1. Highway Safety (PM1) Targets

Performance Target	Collier MPO agrees to plan and program projects that contribute toward the accomplishment of the FDOT safety target of zero
Number of fatalities	✓
Rate of fatalities per 100 million VMT	✓
Number of serious injuries	✓
Rate of serious injuries per 100 million VMT	✓
Number of non-motorized fatalities and non-motorized serious injuries.	✓

Statewide system conditions for each safety performance measure are included in Table 3.2, along with system conditions in the Collier MPO metropolitan planning area. System conditions reflect baseline performance (2013-2017). The latest safety conditions will be updated annually on a rolling five-year window and reflected within each subsequent system performance report, to track performance over time in relation to baseline

³ 23 CFR Part 490, Subpart B

conditions and established targets; however, FDOT's release of 2019 safety data has been delayed until mid-December.

Table 3.2. Highway Safety (PM1) Conditions and Performance

Performance Measures	Florida Statewide Baseline Performance (Five-Year Rolling Average)			Calendar Year 2020 Florida Performance Targets
	2012-2016	2013-2017	2014-2018	
Number of Fatalities	2,688.2	2,825.4	2,972.0	0
Rate of Fatalities per 100 Million VMT	1.33	1.36	1.39	0
Number of Serious Injuries	20,844.2	20,929.2	20,738.4	0
Rate of Serious Injuries per 100 Million VMT	10.36	10.13	9.77	0
Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	3,294.4	3,304.2	3,339.6	0

Baseline Conditions

After FDOT set its Safety Performance Measures targets in 2018, both FDOT and the Collier MPO established 2017 Baseline Safety Performance Measures. To evaluate baseline Safety Performance Measures, the MPO used the most recent five-year rolling average (2013-2017) of crash data and VMT. Table 3-2 presents the Baseline Safety Performance Measures for Florida and Collier MPO.

Table 3.2 – Baseline Safety Performance Measures – 2013-2017 Rolling Five-Year Average

Performance Measure	Florida	Collier MPO
Number of Fatalities	2,979.0	36.2
Number of Serious Injuries	20,653.6	186.2
Fatality Rate per 100 million Vehicle Miles Traveled (VMT)	1.398	1.038
Serious Injury Rate per 100 million Vehicle Miles Traveled (VMT)	9.732	5.263
Total number of non-motorized fatalities and serious injuries	3,267.0	39.2

Trends Analysis

The process used to develop the MPO's Long-Range Transportation Plan includes analysis of safety data trends, including the location and factors associated with crashes with emphasis on fatalities and serious



injuries. These data are used to help identify regional safety issues and potential safety strategies for the LRTP and TIP.

The MPO uses crash data tracking fatalities and serious injuries in Collier County to analyze past trends and identify regional safety issues. Tracking these measures will help to estimate the effectiveness of future MPO transportation investment, as reflected

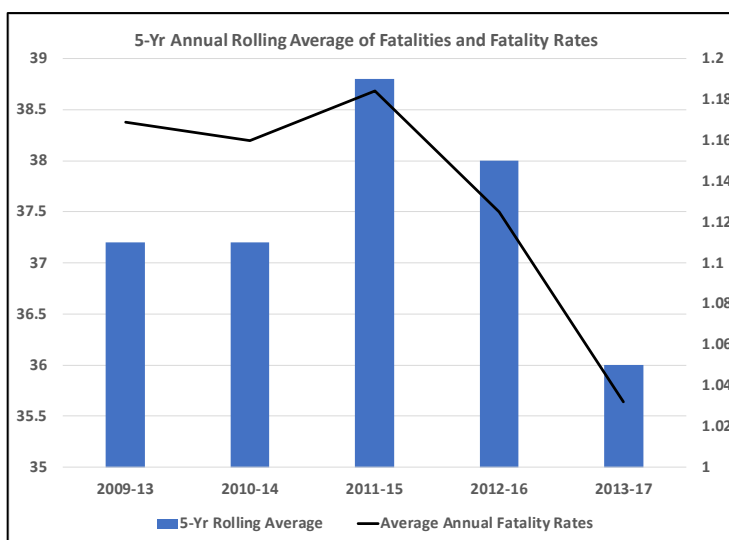
in the TIP. Table 3-3 shows the changes in Safety Performance Measures for Collier MPO from 2009 through 2017. The measures shown in Table 3-3 were calculated by following the same methodology as that used to calculate the baseline conditions.

Table 3-3 Safety Performance Measure Trends in Collier County

Performance Measure	2009-2013	2010-2014	2011-2015	2012-2016	2013-2017
Number of Fatalities	37.2	37.2	38.8	38.0	36.2
Number of Serious Injuries	184.0	174.0	175.2	177.2	186.2
Fatality Rate per 100 million Vehicle Miles Traveled (VMT)	1.169	1.160	1.184	1.125	1.038
Serious Injury Rate per 100 million Vehicle Miles Traveled (VMT)	5.790	5.445	5.388	5.252	5.263
Total number of non-motorized fatalities and serious injuries	37.2	38.6	37.6	40.0	39.2

Coordination with Statewide Safety Plans and Processes

The Collier MPO recognizes the importance of linking goals, objectives, and investment priorities to established performance objectives, and that this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the Collier MPO 2045 LRTP reflects the goals, objectives, performance measures, and targets as they are available and described in other state and public transportation plans and processes; specifically the Florida Strategic Highway Safety Plan (SHSP), the Florida Highway Safety Improvement Program (HSIP), and the Florida Transportation Plan (FTP).



- The 2016 Florida Strategic Highway Safety Plan (SHSP) is the statewide plan focusing on how to accomplish the vision of eliminating fatalities and reducing serious injuries on all public roads. The SHSP was developed in coordination with Florida's 27 metropolitan planning organizations (MPOs) through Florida's Metropolitan Planning Organization Advisory Council (MPOAC). The SHSP guides FDOT, MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out throughout the state.
- The FDOT HSIP process provides for a continuous and systematic process that identifies and reviews traffic safety issues around the state to identify locations with potential for improvement. The goal of the HSIP process is to reduce the number of crashes, injuries, and fatalities by eliminating certain predominant types of crashes through the implementation of engineering solutions.
- Transportation projects are identified and prioritized with the MPOs and non-metropolitan local governments. Data are analyzed for each potential project, using traffic safety data and traffic demand modeling, among other data. The FDOT Project Development and Environment Manual requires the consideration of safety when preparing a proposed project's purpose and need, and defines several factors related to safety, including crash modification factor and safety performance factor, as part of the analysis of alternatives. MPOs and local governments consider safety data analysis when determining project priorities.

L RTP Safety Priorities

The Collier MPO 2045 LRTP increases the safety of the transportation system for motorized and non-motorized users as required. The LRTP aligns with the Florida SHSP and the FDOT HSIP with specific strategies to improve safety performance focused on prioritized safety projects, pedestrian and/or bicycle safety enhancements, and traffic operation improvements to address our goal to reduce fatalities and serious injuries.

The LRTP identifies safety needs within the metropolitan planning area and provides funding for targeted safety improvements. The Collier MPO has developed a project selection process that incorporates safety in its Project Selection Criteria (reference Collier MPO 2045 LRTP, Chapter 3, Page 3-7, Goal #6). The 2045 LRTP includes a goal to increase the safety of the transportation system for all users, presented as follows.

Goal #6: Increase the Safety of the Transportation System for Users: Safety of the transportation system is an important factor in the MPO's planning and project development process. The investment of projects that enhance safety will lead to reduced crashes and lower crash severity for all modes of transportation.

Objectives:

- Reduce the number of fatalities, injuries, and crashes
- Ensure adequate bicycle and pedestrian facilities are incorporated into new highway and transit projects
- Implement safety-related improvements on high crash corridors

Project Evaluation Criteria:

- Enhances safety of transportation system users
- Improves facility or intersection identified as having a high crash occurrence or a fatality
- Promotes traffic calming
- Reduces vehicular conflicts with bicyclists, pedestrians, and other vulnerable road users



The Collier MPO 2045 LRTP will provide information from the FDOT HSIP annual reports to track the progress made toward the statewide safety performance targets. The MPO will document the progress on any safety performance targets established by the MPO for its planning area.



4 - PAVEMENT AND BRIDGE CONDITION MEASURES (PM2)

Pavement and Bridge Condition Performance Measures and Targets Overview

In January 2017, USDOT published the Pavement and Bridge Condition Performance Measures Final Rule, which is also referred to as the PM2 rule. This rule establishes the following six performance measures:

1. Percent of Interstate pavements in good condition;
2. Percent of Interstate pavements in poor condition;
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition;
4. Percent of non-Interstate NHS pavements in poor condition;
5. Percent of NHS bridges (by deck area) classified as in good condition; and
6. Percent of NHS bridges (by deck area) classified as in poor condition.

The four pavement condition measures represent the percentage of lane-miles on the Interstate and non-Interstate NHS that are in good condition or poor condition. The PM2 rule defines NHS pavement types as asphalt, jointed concrete, or continuous concrete. Five metrics are used to assess pavement condition:

- International Roughness Index (IRI) - an indicator of roughness; applicable to asphalt, jointed concrete, and continuous concrete pavements;
- Cracking percent - percentage of the pavement surface exhibiting cracking; applicable to asphalt, jointed concrete, and continuous concrete pavements;
- Rutting - extent of surface depressions; applicable to asphalt pavements only;
- Faulting - vertical misalignment of pavement joints; applicable to jointed concrete pavements only; and
- Present Serviceability Rating (PSR) – a quality rating applicable only to NHS roads with posted speed limits of less than 40 miles per hour (e.g., toll plazas, border crossings). States may choose to collect and report PSR for applicable segments as an alternative to the other four metrics.

For each pavement metric, a threshold is used to establish good, fair, or poor condition. Using these metrics and thresholds, pavement condition is assessed for each 0.1 mile section of the through travel lanes of mainline highways on the Interstate or the non-Interstate NHS. Asphalt pavement is assessed using the IRI, cracking, and rutting metrics, while jointed concrete is assessed using IRI, cracking, and faulting. For these two pavement types, a pavement section is rated good if the rating for all three metrics are good, and poor if the ratings for two or more metrics are poor.

Continuous concrete pavement is assessed using the IRI and cracking metrics. For this pavement type, a pavement section is rated good if both metrics are rated good, and poor if both metrics are rated poor.

If a state collects and reports PSR for any applicable segments, those segments are rated according to the PSR scale. For all three pavement types, sections that are not good or poor are rated fair.



The good/poor measures are expressed as a percentage and are determined by summing the total lane-miles of good or poor highway segments and dividing by the total lane-miles of all highway segments on the applicable system. Pavement in good condition suggests that no major investment is needed and should be considered for preservation treatment. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

The bridge condition measures refer to the percentage of bridges by deck area on the NHS that are in good condition or poor condition. The measures assess the condition of four bridge components: deck, superstructure, substructure, and culverts. Each component has a metric rating threshold to establish good, fair, or poor condition. Each bridge on the NHS is evaluated using these ratings. If the lowest rating of the four metrics is greater than or equal to seven, the structure is classified as good. If the lowest rating is less than or equal to four, the structure is classified as poor. If the lowest rating is five or six, it is classified as fair.

The bridge measures are expressed as the percent of NHS bridges in good or poor condition. The percent is determined by summing the total deck area of good or poor NHS bridges and dividing by the total deck area of the bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width.

A bridge in good condition suggests that no major investment is needed. A bridge in poor condition is safe to drive on; however, it is nearing a point where substantial reconstruction or replacement is needed.

Federal rules require state DOTs and MPOs to coordinate when setting pavement and bridge condition performance targets and monitor progress towards achieving the targets. States must establish:

- Four-year statewide targets for the percent of Interstate pavements in good and poor condition;
- Two-year and four-year targets for the percent of non-Interstate NHS pavements in good and poor condition; and
- Two-year and four-year targets for the percent of NHS bridges (by deck area) in good and poor condition.

MPOs must establish four-year targets for all six measures. MPOs can either agree to program projects that will support the statewide targets or establish their own quantifiable targets for the MPO's planning area.

The two-year and four-year targets represent pavement and bridge condition at the end of calendar years 2019 and 2021, respectively.

Pavement and Bridge Condition Baseline Performance and Established Targets

This System Performance Report discusses the condition and performance of the transportation system for each applicable target as well as the progress achieved by the MPO in meeting targets in comparison with system performance recorded in previous reports. Because the federal performance measures are new, performance of the system for each measure has only recently been collected and targets have only recently been established. Accordingly, this **Collier MPO** Long Range Transportation Plan System Performance Report highlights performance for the 2017 baseline period. FDOT will continue to monitor and report performance on a biennial basis. Future System Performance Reports will discuss progress towards meeting the targets since this initial baseline report.

Table 4.1 presents baseline performance for each PM2 measure for the State and for the MPO planning area as well as the two-year and four-year targets established by FDOT for the State.



Table 4.1. Pavement and Bridge Condition (PM2) Performance and Targets

Performance Measures	Statewide (2017 Baseline)	Statewide 2019 Actual	Statewide 2-year Target (2019)	Statewide 4-year Target (2021)	Collier MPO 2017 Baseline	Collier MPO 2018 Baseline	Collier MPO 2019 Actual
Percent of Interstate pavements in good condition	66.0%		n/a	≥60%	36.2%	38.1%	69%
Percent of Interstate pavements in poor condition	0.1%		n/a	<5%	0%	0%	0%
Percent of non-Interstate NHS pavements in good condition	76.4%		≥40%	≥40%	50.2%	47.1%	39.4%
Percent of non-Interstate NHS pavements in poor condition	3.6%		<5%	<5%	0%	0%	0%
Percent of NHS bridges (by deck area) in good condition	67.7%		≥50%	≥50%	83.58%	82.21%	78.0%
Percent of NHS bridges (by deck area) in poor condition	1.2%		<10%	<10%	0%	0%	1.0%

FDOT established the statewide PM2 targets on May 18, 2018. In determining its approach to establishing performance targets for the federal pavement and bridge condition performance measures, FDOT considered many factors. FDOT is mandated by Florida Statute 334.046 to preserve the state's pavement and bridges to specific standards. To adhere to the statutory guidelines, FDOT prioritizes funding allocations to ensure the current transportation system is adequately preserved and maintained before funding is allocated for capacity improvements. These statutory guidelines envelope the statewide federal targets that have been established for pavements and bridges.

In addition, MAP-21 requires FDOT to develop a Transportation Asset Management Plan (TAMP) for all NHS pavements and bridges within the state. The TAMP must include investment strategies leading to a program of projects that would make progress toward achievement of the state DOT targets for asset condition and performance of the NHS. FDOT's TAMP was updated to reflect MAP-21 requirements in 2018 and the final TAMP was approved on June 28, 2019.

Further, the federal pavement condition measures require a new methodology that is a departure from the methods currently used by FDOT and uses different ratings and pavement segment lengths. For bridge condition, the performance is measured in deck area under the federal measure, while the FDOT programs its bridge repair or replacement work on a bridge by bridge basis. As such, the federal measures are not directly comparable to the methods that are most familiar to FDOT.

In consideration of these differences, as well as the unfamiliarity associated with the new required processes, FDOT took a conservative approach when setting its initial pavement and bridge condition targets.



The Collier MPO agreed to support FDOT’s pavement and bridge condition performance targets on October 12, 2018. By adopting FDOT’s targets, the Collier MPO agrees to plan and program projects that help FDOT achieve these targets.

The Collier MPO recognizes the importance of linking goals, objectives, and investment priorities to established performance objectives, and that this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the Collier MPO 2045 LRTP reflects the goals, objectives, performance measures, and targets as they are described in other state and public transportation plans and processes, including the Florida Transportation Plan (FTP) and the Florida Transportation Asset Management Plan.

- The FTP is the single overarching statewide plan guiding Florida’s transportation future. It defines the state’s long-range transportation vision, goals, and objectives and establishes the policy framework for the expenditure of state and federal funds flowing through FDOT’s work program. One of the seven goals defined in the FTP is Agile, Resilient, and Quality Infrastructure.
- The Florida Transportation Asset Management Plan (TAMP) explains the processes and policies affecting pavement and bridge condition and performance in the state. It presents a strategic and systematic process of operating, maintaining, and improving these assets effectively throughout their life cycle.

The Collier MPO 2045 LRTP seeks to address system preservation, identifies infrastructure needs within the metropolitan planning area, and provides funding for targeted improvements. The Collier MPO 2045 LRTP incorporates the planning priority of the Statewide and Metropolitan Planning Factors as shown on Page 3-2 to “*emphasize the preservation of the existing transportation system.*”

On or before October 1, 2020, FDOT will provide FHWA and the Collier MPO a detailed report of pavement and bridge condition performance covering the period of January 1, 2018 to December 31, 2019. FDOT and the Collier MPO also will have the opportunity at that time to revisit the four-year PM2 targets.



5 - SYSTEM PERFORMANCE, FREIGHT, AND CONGESTION MITIGATION & AIR QUALITY IMPROVEMENT PROGRAM MEASURES (PM3)

System Performance/Freight/CMAQ Performance Measures and Targets Overview

In January 2017, USDOT published the System Performance/Freight/CMAQ Performance Measures Final Rule to establish measures to assess passenger and freight performance on the Interstate and non-Interstate National Highway System (NHS), and traffic congestion and on-road mobile source emissions in areas that do not meet federal National Ambient Air Quality Standards (NAAQS). The rule, which is referred to as the PM3 rule, requires MPOs to set targets for the following six performance measures:

National Highway Performance Program (NHPP)

1. Percent of person-miles on the Interstate system that are reliable, also referred to as Level of Travel Time Reliability (LOTTR);
2. Percent of person-miles on the non-Interstate NHS that are reliable (LOTTR);

National Highway Freight Program (NHFP)

3. Truck Travel Time Reliability index (TTTR);

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

4. Annual hours of peak hour excessive delay per capita (PHED);
5. Percent of non-single occupant vehicle travel (Non-SOV); and
6. Cumulative 2-year and 4-year reduction of on-road mobile source emissions (NO_x, VOC, CO, PM₁₀, and PM_{2.5}) for CMAQ funded projects.

In Florida, only the two LOTTR performance measures and the TTTR performance measure apply. Because all areas in Florida meet current NAAQS, the last three measures listed measures above pertaining to the CMAQ Program do not currently apply in Florida.

LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over all applicable roads during four time periods (AM peak, Mid-day, PM peak, and weekends) that cover the hours of 6 a.m. to 8 p.m. each day. The LOTTR ratio is calculated for each roadway segment, essentially comparing the segment with itself. Segments with LOTTR ≥ 1.50 during any of the above time periods are considered unreliable. The two LOTTR measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. Person-miles consider the number of people traveling in buses, cars, and trucks over these roadway segments. To obtain person miles traveled, the vehicle miles traveled (VMT) for each segment are multiplied by the average vehicle occupancy for each type of vehicle on the roadway. To calculate the percent of person miles traveled that are reliable, the sum of the number of reliable person miles traveled is divide by the sum of total person miles traveled.

TTTR is defined as the ratio of longer truck travel times (95th percentile) to a normal travel time (50th percentile) over the Interstate during five time periods (AM peak, Mid-day, PM peak, weekend, and overnight)



that cover all hours of the day. TTTTR is quantified by taking a weighted average of the maximum TTTTR from the five time periods for each Interstate segment. The maximum TTTTR is weighted by segment length, then the sum of the weighted values is divided by the total Interstate length to calculate the Travel Time Reliability Index.

The data used to calculate these PM3 measures are provided by FHWA via the National Performance Management Research Data Set (NPMRDS). This dataset contains travel times, segment lengths, and Annual Average Daily Travel (AADT) for Interstate and non-Interstate NHS roads.

The PM3 rule requires state DOTs and MPOs to coordinate when establishing performance targets for these measures and to monitor progress towards achieving the targets. FDOT must establish:

- Two-year and four-year statewide targets for percent of person-miles on the Interstate system that are reliable;
- Four-year targets for the percent of person-miles on the non-Interstate NHS that are reliable⁴; and
- Two-year and four-year targets for truck travel time reliability

MPOs must establish four-year performance targets for all three measures within 180 days of FDOT establishing statewide targets. MPOs establish targets by either agreeing to program projects that will support the statewide targets or setting quantifiable targets for the MPO's planning area.

The two-year and four-year targets represent system performance at the end of calendar years 2019 and 2021, respectively.

PM3 Baseline Performance and Established Targets

The System Performance Report discusses the condition and performance of the transportation system for each applicable PM3 target as well as the progress achieved by the MPO in meeting targets in comparison with system performance recorded in previous reports. Because the federal performance measures are new, performance of the system for each measure has only recently been collected and targets have only recently been established. Accordingly, this Collier MPO 2045 LRTP System Performance Report highlights performance for the baseline period, which is 2017. FDOT will continue to monitor and report performance on a biennial basis. Future System Performance Reports will discuss progress towards meeting the targets since this initial baseline report.

Table 5.1 presents baseline performance for each PM3 measure for the state and for the MPO planning area as well as the two-year and four-year targets established by FDOT for the state

⁴ Beginning with the second performance period covering January 1, 2022 to December 31, 2025, two-year targets will be required in addition to four-year targets for the percent of person-miles on the non-Interstate NHS that are reliable measure.

Table 5.1. System Performance and Freight (PM3) - Performance and Targets

Performance Measures	Statewide (2017 Baseline)	Statewide 2019 Actual	Statewide 2-year Target (2019)	Statewide 4-year Target (2021)	Collier MPO 2017 Baseline	Collier MPO 2018 Actual	Collier MPO 2019 Actual
Percent of person-miles on the Interstate system that are reliable	82.2%		≥75.0%	≥70.0%	100%	100%	100%
Percent of person-miles on the non-Interstate NHS that are reliable	84.0%		n/a	≥50.0%	97%	98%	99%
Truck travel time reliability index (TTTR)	1.43		≤1.75	≤2.00	1.12	1.15	1.16

FDOT established the statewide PM3 targets on May 18, 2018. In setting the statewide targets, FDOT reviewed external and internal factors that may affect reliability, conducted a trend analysis for the performance measures, and developed a sensitivity analysis indicating the level of risk for road segments to become unreliable within the time period for setting targets. One key conclusion from this effort is that there is a lack of availability of extended historical data with which to analyze past trends and a degree of uncertainty about future reliability performance. Accordingly, FDOT took a conservative approach when setting its initial PM3 targets.

The Collier MPO agreed to support FDOT's PM3 targets on October 12, 2018. By adopting FDOT's targets, the Collier MPO agrees to plan and program projects that help FDOT achieve these targets.

The Collier MPO recognizes the importance of linking goals, objectives, and investment priorities to established performance objectives, and that this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the Collier MPO 2045 LRTP reflects the goals, objectives, performance measures, and targets as they are described in other state and public transportation plans and processes, including the Florida Transportation Plan (FTP) and the Florida Freight Mobility and Trade Plan.

- The FTP is the single overarching statewide plan guiding Florida's transportation future. It defines the state's long-range transportation vision, goals, and objectives and establishes the policy framework for the expenditure of state and federal funds flowing through FDOT's work program. One of the seven goals of the FTP is Efficient and Reliable Mobility for People and Freight.
- The Florida Freight Mobility and Trade Plan presents a comprehensive overview of the conditions of the freight system in the state, identifies key challenges and goals, provides project needs, and identifies funding sources. Truck reliability is specifically called forth in this plan, both as a need as well as a goal.

The Collier MPO 2045 LRTP seeks to address system reliability and congestion mitigation through various means, including capacity expansion and operational improvements. The 2045 LRTP incorporates Goal #4: Reduce Roadway Congestion (reference Chapter 3, Page 3-6): "Congestion and accompanying delay poses a serious cost to the residents of Collier County, reducing their access to jobs, education, health care, shopping,



recreation, and other activities. The 2045 LRTP emphasizes reducing congestion to help enhance the quality of life for County residents.

Objectives:

- Reduce the number of deficient roadways (those with a high volume-to-capacity ratio) identified in the 2045 existing plus committed (E+C) network
- Reduce travel delay between residential areas and key destinations

Project Selection Criteria:

- Improves existing deficient facility or improves a new or neighboring facility intended to relieve an existing deficient facility
- Improves intersections and roadways with poor levels of service

On or before October 1, 2020, FDOT will provide FHWA and the Collier MPO a detailed report of performance for the PM3 measures covering the period of January 1, 2018 to December 31, 2019. FDOT and the Collier MPO also will have the opportunity at that time to revisit the four-year PM3 targets.



6 - TRANSIT ASSET MANAGEMENT MEASURES

Transit Asset Performance

On July 26, 2016, FTA published the final Transit Asset Management rule. This rule applies to all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets. The rule defines the term “state of good repair,” requires that public transportation providers develop and implement transit asset management (TAM) plans, and establishes state of good repair standards and performance measures for four asset categories: equipment, rolling stock, infrastructure, and facilities. The rule became effective on October 1, 2018.

Table 6.1 below identifies performance measures outlined in the final rule for transit asset management.

Table 6.1. FTA TAM Performance Measures

Asset Category	Performance Measure and Asset Class
1. Equipment	Percentage of non-revenue, support-service and maintenance vehicles that have met or exceeded their useful life benchmark
2. Rolling Stock	Percentage of revenue vehicles within a particular asset class that have either met or exceeded their useful life benchmark
3. Infrastructure	Percentage of track segments with performance restrictions
4. Facilities	Percentage of facilities within an asset class rated below condition 3 on the TERM scale

For equipment and rolling stock classes, useful life benchmark (ULB) is defined as the expected lifecycle of a capital asset, or the acceptable period of use in service, for a particular transit provider’s operating environment. ULB considers a provider’s unique operating environment such as geography and service frequency.

Public transportation agencies are required to establish and report transit asset management targets annually for the following fiscal year. Each public transit provider or its sponsors must share its targets, TAM, and asset condition information with each MPO in which the transit provider’s projects and services are programmed in the MPO’s TIP.

MPOs are required to establish initial transit asset management targets within 180 days of the date that public transportation providers establish initial targets. However, MPOs are not required to establish transit asset management targets annually each time the transit provider establishes targets. Instead, subsequent MPO targets must be established when the MPO updates the LRTP.

When establishing transit asset management targets, the MPO can either agree to program projects that will support the transit provider targets or establish its own separate regional transit asset management targets for the MPO planning area. In cases where two or more providers operate in an MPO planning area and establish different targets for a given measure, the MPO has the option of coordinating with the providers to establish a single target for the MPO planning area, or establishing a set of targets for the MPO planning area that reflects the differing transit provider targets.



To the maximum extent practicable, transit providers, states, and MPOs must coordinate with each other in the selection of performance targets.

The TAM rule defines two tiers of public transportation providers based on size parameters. Tier I providers are those that operate rail service or more than 100 vehicles in all fixed route modes, or more than 100 vehicles in one non-fixed route mode. Tier II providers are those that are a subrecipient of FTA 5311 funds, or an American Indian Tribe, or have 100 or less vehicles across all fixed route modes, or have 100 vehicles or less in one non-fixed route mode. A Tier I provider must establish its own transit asset management targets, as well as report performance and other data to FTA. A Tier II provider has the option to establish its own targets or to participate in a group plan with other Tier II providers whereby targets are established by a plan sponsor, typically a state DOT, for the entire group.

A total of 20 transit providers participated in the FDOT Group TAM Plan and continue to coordinate with FDOT on establishing and reporting group targets to FTA through the National Transit Database (NTD) (Table 6.2). The participants in the FDOT Group TAM Plan are comprised of the Section 5311 Rural Program and open-door Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities FDOT subrecipients. The Group TAM Plan was adopted in October 2018 and covers fiscal years 2018-2019 through 2021-2022. Updated targets were submitted to NTD in 2019.

Table 6.2. Florida Group TAM Plan Participants

District	Participating Transit Providers
1	Good Wheels, Inc Central Florida Regional Planning Council DeSoto County Transportation
2	Suwannee Valley Transit Big Bend Transit Baker County Transit Nassau County Transit Ride Solutions Levy County Transit Suwannee River Economic Council
3	Tri-County Community Council Big Bend Transit Gulf County ARC Calhoun Transit Liberty County Transit JTRANS Wakulla Transit
4	<i>No participating providers</i>
5	Sumter Transit Marion Transit
6	Key West Transit
7	<i>No participating providers</i>

Collier Area Transit (CAT), a Tier II provider, is the only transit provider within the MPO region. CAT does not participate in the FDOT Group TAM Plan as it has too few busses to meet the criteria. On November 9, 2018, the Collier MPO agreed to support the Collier County Board of County Commissioners (BCC) / Collier Area Transit (CAT) transit asset management targets which were adopted on October 23, 2018, thus agreeing to plan and program projects in the TIP that once implemented, are anticipated to make progress toward achieving the transit provider targets. Table 6.3 displays the TAM performance measures targets for CAT and the current conditions within the Collier MPO.



The transit asset management targets are based on the condition of existing transit assets and planned investments in equipment, rolling stock, infrastructure, and facilities. The targets reflect the most recent data available on the number, age, and condition of transit assets, and expectations and capital investment plans for improving these assets. Table 6.3 summarizes both existing conditions for the most recent year available, and the targets.

Table 6.3. FTA TAM Targets for Collier Area Transit (CAT)

Asset Category	FDOT and MPO Transit Targets	Current (2019) Conditions within Collier MPO	Met or Exceed Target
Equipment	10% have met or exceeded their Useful Life Benchmark (ULB)	0%	Yes
Rolling Stock	10% have met or exceeded their ULB	50%	Yes
Infrastructure	n/a	n/a	n/a
Facilities	25% of facilities less than 3.0 on the TERM scale	0.25%	Yes

TAM Performance

The Collier MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the LRTP directly reflects the goals, objectives, performance measures, and targets as they are described in other public transportation plans and processes, including the System-wide Transit Needs Assessment, which builds upon the Collier County FY 2020 Transit Development Plan (TDP) Major Update, the Collier 2040 LRTP, and the 2013 Collier Area Transit Comprehensive Operations Analysis (COA), public input, regional model ridership projections and transit market assessments.

To support progress towards TAM performance targets, transit investment and maintenance funding in the 2045 LRTP Transit Cost Feasible Plan totals approximately \$377.8 million (reference Table 5-1, Page 5-3), approximately 24 percent of total LRTP funding. and 100% percent of requested CAT funding for transit preservation. Improving the State of Good Repair (SGR) of capital assets is an overarching goal of this process.



7 - TRANSIT SAFETY PERFORMANCE

The Federal Transit Administration (FTA) published a final Public Transportation Agency Safety Plan (PTSAP) rule and related performance measures as authorized by Section 20021 of the Moving Ahead for Progress in the 21st Century Act (MAP– 21). The PTASP rule requires operators of public transportation systems that receive federal financial assistance under 49 U.S.C. Chapter 53 to develop and implement a PTASP based on a safety management systems approach. Development and implementation of PTSAPs is anticipated to help ensure that public transportation systems are safe nationwide.

The rule applies to all operators of public transportation that are a recipient or sub-recipient of FTA Urbanized Area Formula Grant Program funds under 49 U.S.C. Section 5307, or that operate a rail transit system that is subject to FTA's State Safety Oversight Program. The rule does not apply to certain modes of transit service that are subject to the safety jurisdiction of another Federal agency, including passenger ferry operations that are regulated by the United States Coast Guard, and commuter rail operations that are regulated by the Federal Railroad Administration.

Transit Safety Performance Measures

The transit agency sets targets in the PTASP based on the safety performance measures established in the National Public Transportation Safety Plan (NPTSP). The required transit safety performance measures are:

1. Total number of reportable fatalities.
2. Rate of reportable fatalities per total vehicle revenue miles by mode.
3. Total number of reportable injuries.
4. Rate of reportable injuries per total vehicle revenue miles by mode.
5. Total number of reportable safety events.
6. Rate of reportable events per total vehicle revenue miles by mode.
7. System reliability - Mean distance between major mechanical failures by mode.

CAT has established safety performance targets based on the safety performance measures reported under the National PTASP. The safety performance targets were adopted by the Collier County BCC on May 12, 2020 and the Collier MPO Board on September 11, 2020. Table 7.1 summarizes the PTASP targets and the five years of past performance between 2015 and 2019. These measures will be evaluated periodically to determine when action must be taken to address inadequate safety performance. A bi-annual meeting will take place between FDOT, Collier MPO, and CAT to review and discuss the safety activities that impact performance targets. The safety performance target review will include discussion about whether the targets are being met and if not, what steps will be required to better meet the established targets. An evaluation of the targets will also consider whether the targets are realistic and attainable. If the targets are determined to not be attainable, recommendations for modification or replacement of the target will be considered. On or around June 30th of each year, CAT will transmit the safety performance targets to FDOT and Collier MPO.



Table 7.1 Collier MPO Annual Transit Safety Performance Targets

SPT Category	2015		2016		2017		2018		2019		5-Year Average		Target	
	MB	DR	MB	DR	MB	DR	MB	DR	MB	DR	MB	DR	MB	DR
Total Number of Fatalities	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Fatality Rate per 100,000 VRM	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0	0.0
Total Number of Injuries	5	0	5	1	3	2	5	1	3	2	4.2	1.2	3.0	1.0
Injury Rate per 100,000 VRM	0.38	0	0.38	0	0.23	0	0.39	0	0.22	0	0.3	0.1	0.0	0.0
Total Number of Safety Events	5	0	5	1	3	2	2	1	3	3	3.6	1.4	2.0	1.0
Safety Event Rate per 100,000 VRM	0.38	0	0.38	0	0.23	0	0.16	0	0.22	0	0.3	0.1	0.0	0.0
Total Number of Major Mechanical System Failures	31	30	23	26	94	87	98	82	15	9	52.2	46.8	20.0	20.0
Vehicle Failures Per 100,000 VRM)	2.35	3.15	1.74	2.49	7.31	7.69	7.72	6.49	1.09	0.64	4.0	4.1	2.0	2.0
Annual VRM	1,320,547	952,694	1,318,931	1,044,873	1,285,354	1,131,859	1,268,696	1,263,684	1,378,866	1,406,149	1,314,479	1,159,852	1,200,000	1,200,000

Source: Collier Area Transit September 2020

In Florida, each Section 5307 and 5311 transit provider must develop a System Safety Program Plan (SSPP) under Chapter 14-90, Florida Administrative Code. FDOT technical guidance recommends that Florida's transit agencies revise their existing SSPPs to be compliant with the new FTA PTASP requirements.

Transit Provider Coordination with States and MPOs

Key considerations for MPOs and transit agencies:

- Transit operators are required to review, update, and certify their PTASP annually.
- A transit agency must make its safety performance targets available to states and MPOs to aid in the planning process, along with its safety plans.
- To the maximum extent practicable, a transit agency must coordinate with states and MPOs in the selection of state and MPO safety performance targets.
- MPOs are required to establish initial transit safety targets within 180 days of the date that public transportation providers establish initial targets. MPOs are not required to establish transit safety targets annually each time the transit provider establishes targets. Instead, subsequent MPO targets must be established when the MPO updates the TIP or LRTP. When establishing transit safety targets, the MPO can either agree to program projects that will support the transit provider targets or establish its own regional transit targets for the MPO planning area. In cases where two or more providers operate in an MPO planning area and establish different targets for a given measure, the MPO has the option of coordinating with the providers to establish a single target for the MPO planning area, or establishing a set of targets for the MPO planning area that reflects the differing transit provider targets.
- MPOs and states must reference those targets in their long-range transportation plans. States and MPOs must each describe the anticipated effect of their respective transportation improvement programs toward achieving their targets.



Over the course of 2020-2021, the Collier MPO will coordinate with public transportation providers in the planning area on the development and establishment of transit safety targets. LRTP amendments or updates after July 20, 2021 will include the required details about transit safety performance data and targets.



COLLIER MPO

2045

LONG RANGE TRANSPORTATION PLAN

TECHNICAL COMPENDIUM

Final Draft 11 - 19 - 20 DECEMBER 2020



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Goals, Objectives, and Decision-Making Framework White Paper



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Goals, Objectives, and Decision-Making Framework White Paper – Final

November 2020



Jacobs



Goals, Objectives, and Decision-Making Framework White Paper

Background

The Long Range Transportation Plan's (LRTP) development process builds on the 2040 LRTP and input from the Collier Metropolitan Planning Organization (MPO) Board, advisory committees, planning partners, and public surveys to establish the long-range vision statement for the MPO's transportation system in 2045. The goals and objectives of the LRTP are also established to help realize this vision. The goals and objectives of the LRTP ultimately guide the entire LRTP development process by creating the basis for a decision-making framework through which projects can be evaluated and ranked to define and document project priorities.

Planning partners for the Collier Metropolitan MPO 2045 LRTP update include the Collier MPO Board and committees, Florida Department of Transportation (FDOT), MPO Adviser Network, local tribal governments, Lee County (through the Lee County MPO Interlocal Agreement), and other various outreach partners in the community.

As part of an initial outreach, the Collier MPO staff addressed the MPO Citizens Advisory Committee (CAC) and Technical Advisory Committee (TAC) during their regular meetings on May 20, 2019, to request input on their vision for the 2045 LRTP update. Initial input received from the TAC included:

- Adding a goal related to consideration of sea level rise and coastal vulnerability
- Adding a goal or emphasis area to address autonomous/connected vehicles

This White Paper documents the proposed Vision, Goals, and Objectives, and Evaluation Criteria of the 2045 LRTP update, which build upon the Collier MPO 2040 LRTP. These proposed elements are intended to be reviewed, discussed, and revised if desired by the MPO Board and committees. During the LRTP update process, the MPO Board staff and consultants will periodically attend MPO Board and committee meetings to present 2045 LRTP update findings and request input from Board and committee members. Input and revisions resulting from this outreach will be documented in the Public Involvement Plan Summary Report and will be reflected in the 2045 LRTP update. As an example, the comments provided by the TAC at their May 20, 2019, meeting have been incorporated into Goals 10 and 11 of this White Paper.

Proposed Draft LRTP Vision Statement

A draft vision statement was presented to the MPO Board at the May 10, 2019, meeting and to the CAC/TAC on May 20, 2019. Based on comments made during the MPO Board and committee meetings, the consultants and staff expanded the draft vision statement to read as:

"The Collier MPO 2045 Long Range Transportation Plan envisions the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods while addressing current and future transportation demand, environmental sustainability, and community character." However, input on the draft vision is required from the MPO Board and committees to ensure the vision best reflects the vision for the 2045 LRTP update.

2045 Long Range Transportation Plan Proposed Goals and Objectives

The Collier MPO 2045 LRTP update will address federal mandates for regional transportation planning. The current transportation legislation, Fixing America's Surface Transportation (FAST) Act, was signed into law on December 4, 2015, and establishes requirements for developing LRTPs.

"The Collier MPO 2045 Long Range Transportation Plan envisions the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods while addressing current and future transportation demand, environmental sustainability, and community character."

Collier MPO 2045 LRTP Vision Statement



In January 2018, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) issued the *Federal Strategies for Implementation Requirements for LRTP Updates for the Florida MPOs* (FHWA and FTA 2018). This document notes that MPOs are now required to address the following New Planning Factors:

- Improve the resiliency and reliability of the transportation system, and reduce or mitigate storm water impacts of surface transportation
- Enhance travel and tourism

Figure 1 lists the 10 federal planning factors that MPOs are now required to consider in the planning process.

The first eight goals and associated objectives of the proposed 2045 LRTP Goals and Objectives originated in the 2040 LRTP. These were presented for consideration to the Collier MPO Board on May 10, 2019. Two additional proposed goals and associated objectives were added in response to the one of the new planning factors as well as input received from the May 20, 2019, TAC Meeting. Proposed Goals 9 and 10 address sustainability and resiliency, which are becoming more important in transportation planning as extreme weather events, such as flooding, severe heat, and intense storms, threaten the long-term investments that federal, state, and local governments have made in transportation infrastructure.

Additionally, the FDOT Office of Policy Planning issued *Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicle* (FDOT 2018), which notes that a key role of MPOs in supporting the transition to an Automated, Connected, Electric and Shared-Use future will include developing policies and prioritizing projects that encourage shared use of vehicles. Therefore, new FDOT requirements state that LRTPs must at a minimum:

- Assess capital investment and other measures necessary to make the most efficient use of existing transportation facilities to relieve vehicular congestion, improve safety, and maximize the mobility of people and goods. Such efforts must include, but are not limited to, consideration of infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as autonomous technology and other developments. [s.339.175(7)(c)(2), F.S.]

In response to the new FDOT requirement, Goal 11: Consider Autonomous and Connected Vehicles (CAV) Technology in Future, was added.

The 2045 LRTP update proposed goals and related objectives follow. The **Goals** provide a framework for what the LRTP is trying to achieve. The **Objectives** (bullets under goals) provide specific metrics on how to achieve each goal. The proposed list requires discussion, analysis, and input among MPO Board and committee members to determine if these goals and objectives will best meet the longer-term vision. Changes to consider include adding new goals, refining the proposed goals, and adding and refining the proposed objectives.

Figure 1. Federal Planning Factors
Source: FDOT (2019)



2045 LRTP Proposed Goals and Associated Objectives

1. Goal: Ensure the Security of Transportation System for Users
 - Enhance important evacuation routes
 - Maintain sound transportation components of the emergency management plan for Collier County
2. Goal: Protect Environmental Resources
 - Minimize encroachment by transportation projects on wetlands and other protected natural areas
 - Minimize adverse impacts on threatened and endangered species
3. Goal: Improve System Continuity and Connectivity
 - Improve continuity and capacity of existing facilities
 - Promote connectivity by creating new transportation links
 - Create a network of direct routes between and within areas of development
4. Goal: Reduce Roadway Congestion
 - Reduce the number of deficient roadways (those with a high volume-to-capacity ratio) identified in the 2045 existing plus committed (E+C) network
 - Reduce travel delay between residential areas and key destinations
5. Goal: Promote Freight Movement
 - Enhance movement on major regional freight mobility corridors or freight distribution routes
 - Improve access to freight activity centers (distribution facilities or major commercial/industrial districts)
6. Goal: Increase the Safety of Transportation System for Users
 - Reduce the number of fatalities, injuries, and crashes
 - Ensure adequate bicycle and pedestrian facilities are incorporated into new highway and transit projects
 - Implement safety-related improvements on high crash corridors
7. Goal: Promote Multimodal Solutions
 - Improve frequency and reliability of public transit service routes and improve access to park-and-ride lots
 - Improve pedestrian and bicycle facilities
 - Improve air quality
 - Improve quality of life
 - Promote healthy living
 - Implement Complete Streets policies¹
8. Goal: Promote the Integrated Planning of Transportation and Land Use
 - Coordinate with local governments and partner agencies to assure transportation plans and programs support local land use plans and a sustainable transportation system
 - Assure that local growth management objectives are reflected in transportation plans and programs
 - Assure that transportation plans and projects promote economic sustainability for the County

¹ <https://www.fdot.gov/roadway/csi/default.shtm>



9. Goal: Promote Sustainability in the Planning of Transportation and Land Use
 - Improve the sustainability of communities through increased access to affordable housing and centers of employment and reduced automobile dependency
 - Ensure that transportation system improvements are equitable and fair to all residents of the County
 - Engage a diverse public in the development of the region's transportation system
10. Goal: Consider Climate Change Vulnerability and Risk in Transportation Decision-Making
 - Identify key climate impacts (rising sea levels, hurricanes, etc.)
 - Identify sensitive assets and thresholds for impacts
 - Identify, evaluate, and adopt strategies to address identified vulnerabilities
 - Screen projects during planning to avoid making investments in particularly vulnerable areas
11. Goal: Consider Autonomous and Connected Vehicles (CAV) Technology in Future
 - Explore options for application and implementation of CAV technologies, in light of the lack of current guidance
 - Consider new guidance and developments during the LRTP process

2045 Long Range Transportation Plan Proposed Evaluation Criteria

As with the proposed goals and objectives, the proposed evaluation criteria (refer to [Table 1](#)) build upon the evaluation criteria in the 2040 LRTP. Evaluation criteria are used to evaluate and then compare how well potential transportation projects meet the goals and objectives. Each goal is assigned a weighting factor that places more emphasis on certain goals that require more focus in the Collier MPO transportation system. The purpose of having a project evaluation criterion is to show the advantages and disadvantages of the proposed projects in relation to each other. Ultimately, this evaluation is used to shape the recommendations and prioritize transportation projects in the Needs Assessment and Cost Feasibility Plan.

The proposed evaluation criteria presented in [Table 1](#) require discussion, analysis, and input among MPO Board and committee members to determine if they are effective in prioritizing transportation projects. Additional changes to consider include revising the evaluation criteria to reflect new or different data sources and revising the weighting factors to best reflect current priorities and the MPO's adopted performance targets.

Table 1. Draft 2045 LRTP Evaluation Criteria

Goal	Evaluation Criteria
1. Ensure the Security of Transportation System for Users Total Weighting Factor: 8%	1A - Improves or maintains critical evacuation routes
	1B - Provides enhanced or potential new evacuation routes where needed
2. Protect Environmental Resources Total Weighting Factor: 12%	2A - Minimize wetland encroachments by transportation projects
	2B - Minimize impacts to wetland flows (maintain or enhance existing flows to the extent feasible)
	2C - Minimize the adverse impacts on threatened and endangered species

Table 1. Draft 2045 LRTP Evaluation Criteria

Goal	Evaluation Criteria
3. Improve System Continuity and Connectivity Total Weighting Factor: 10%	3A - Improves existing infrastructure deficiencies
	3B - Improves connectivity with new transportation links to address system gaps
4. Reduce Roadway Congestion Total Weighting Factor: 18%	4A - Improves existing deficient facility or improves a new or neighboring facility intended to relieve an existing deficient facility
	4B - Improves intersections and roadways with poor levels of service
5. Promote Freight Movement Total Weighting Factor: 6%	5 - Enhances operation of the facility identified as a major freight route
6. Increase the Safety of Transportation System Users Total Weighting Factor: 10%	6A - Enhances safety of transportation system users
	6B - Improves facility or intersection identified as having a high crash occurrence or a fatality
	6C – Promotes traffic calming
	6D - Reduces vehicular conflicts with bicyclists, pedestrians, and other vulnerable road users
7. Promote Multimodal Solutions Total Weighting Factor: 10%	7A - Provides for trail improvements that implement the Bicycle and Pedestrian Master Plan
	7B - Provides multimodal improvement near affordable housing, centers of employment, multi-family housing, health care, educational, recreational, or cultural centers
	7C - Provides multimodal improvements for environmental justice communities and underserved neighborhoods, and connects these neighborhoods to centers of employment and important destinations for transit-dependent households
	7D - Improves transit (frequency and reliability) within existing or future TSAs or within a CRA; improves access to park-and-ride facilities; provides for BRT
	7E - Improves bicycle or pedestrian access to transit
	7F – Improves safety and access for people of all ages and abilities; improves safety for people walking, biking, and using mobility devices



Table 1. Draft 2045 LRTP Evaluation Criteria

Goal	Evaluation Criteria
8. Promote the Integrated Planning of Transportation and Land Use Total Weighting Factor: 10%	8A - Improves access to regional travel (for example, interstates, airports, ports, and SIS facilities)
	8B - Improves access to tourist destinations
	8C - Supports targeted redevelopments or CRAs (multimodal or vehicle improvements)
	8D - Identified in partner agency (city, transit, county, MPO, etc.) as a priority
	8E - Improves vehicle or freight movement to an intermodal facility
9. Promote Sustainability in the Planning of Transportation and Land Use Total Weighting Factor: 8%	9A - Benefits low-income areas and improves sustainability through increased housing choices and reduced automobile dependency
10. Consider Climate Change Vulnerability and Risk in Transportation Decision-Making Total Weighting Factor: 4%	10A - Promotes transportation infrastructure resiliency in the face of climate change and sea level rise
11. Consider Connected and Autonomous Vehicles (CAV) Technology in the Future Total Weighting Factor: 4%	11A - Utilizes technological improvements (ITS, Transit Signal Priority, etc.)

Transportation Performance Management Reporting Requirements in the LRTP

According to FDOT's *MPO Program Management Handbook* (FDOT 2019), MPOs are required to provide ongoing performance information and progress toward achieving performance targets in the LRTP. The LRTP must include a description of all applicable performance measures and targets used to assess the performance of the transportation system in the MPO planning area. The LRTP must also include a System Performance Report (SPR) that evaluates the condition and performance of the transportation system with respect to the MPO's performance targets. The SPR must include progress achieved by the MPO in meeting the performance target in comparison with system performance recorded in previous reports, including baseline data.

If the Collier MPO considers multiple scenarios when developing the LRTP, the SPR must include an analysis of how the preferred scenario has improved the conditions and performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified performance targets.

Currently, there is no standard template or guidance from FHWA or FTA for the required description of the applicable performance measures and targets or for the SPR. However, FDOT has templates MPOs may use to develop LRTP language specific to each MPO. This documentation can be included in the body of the LRTP or as an appendix. The requirement to include an SPR in the LRTP only has to be met at the time that the LRTP is updated. It does not have to be updated when the LRTP is amended.



In 2012, the Moving Ahead for Progress in the 21st Century (MAP-21) Act established performance-driven and outcome-based requirements to align federal transportation funding with national goals and track progress toward achievement of these goals. The purpose of this performance-based program is for state departments of transportation, MPOs, and public transportation providers to invest resources in projects that, collectively, make progress toward achievement of the national goals. **Figure 2** presents the Federal Transportation Performance Management Framework.

The FAST Act in 2015 affirmed this TPM approach by requiring MPOs to establish performance targets for each measure to be achieved within a specified time period. MPOs are required to provide ongoing performance information and progress toward achieving performance targets in the LRTP. MPOs must also include an SPR on all applicable performance measures and targets used in assessing the performance of the transportation system in the MPO planning area. The SPR in the LRTP only has to be met at the time that the LRTP is updated (not during amendments).

On November 9, 2018, the Collier MPO adopted FDOT's performance measures and targets for safety, pavement condition, bridge condition, and system performance, and the local Transit Agency Targets established by the Board of County Commissioners. Because the SPR is a new requirement, the initial LRTP update will focus on baseline performance. MPO staff reported on progress made concerning the required TPM measures and targets to the MPO Board in 2018 and will do so again in 2019. The 2045 LRTP SPR will incorporate the most current performance data available at the time it is finalized. The Collier MPO's current understanding of the new requirements is that the Cost Feasible Plan constitutes the "preferred scenario" and, as such, the SPR must include an analysis of how the Cost Feasible Plan will improve the conditions and performance of the transportation system baseline conditions, and how the LRTP policies and project priorities have impacted the costs necessary to achieve the identified performance targets. **Table 2** lists the Collier MPO's adopted performance measures and targets.

Figure 2. Federal Transportation Performance Management Framework

Source: FDOT (2019)

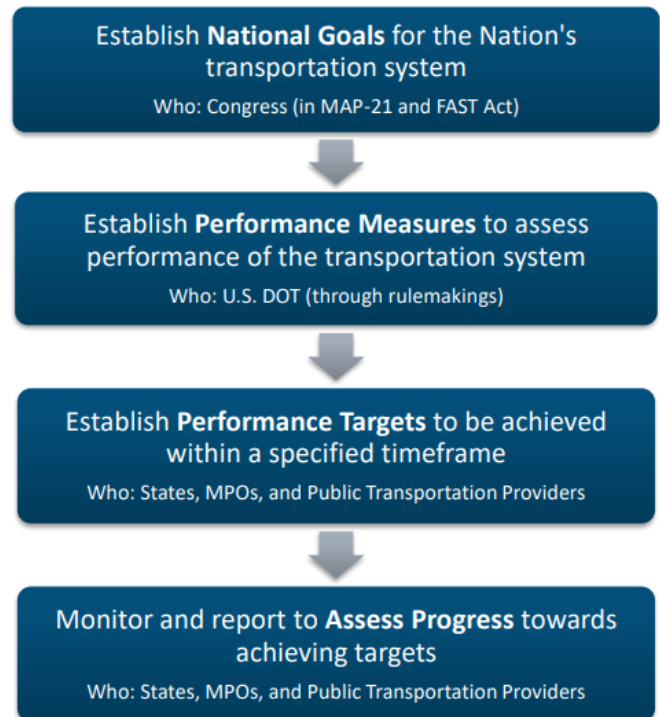


Table 2. National and State Transportation Performance Measures and Targets – Adopted by Collier MPO on November 9, 2018

Measure	Deadline/Data Availability	MPO Actions	Add Language to Plans	Applicability in Collier	FDOT/Transit Agency Targets	Current Conditions
ALL PERFORMANCE TARGETS (except transit safety)	May 20, 2019	Support state or transit agency targets as applicable, or set own targets	TIPs and TIP amendments, next LRTP update	NHS – Interstate and Non-Interstate; or local Transit Agency (BCC). Per FDOT’s review of NHS & designation of portions of Airport & Pine Ridge, NHS network will be: SR 29, SR 41, I-75 and CR 951 (between US 41 and I-75)	See following rows	See following rows
Pavement & Bridge Condition	November 14, 2018 / FDOT will provide pavement data by June 30 th each year, bridge data by 1 st week April each year	Support state targets or set own targets	LRTP if amended & next major update; TIP immediately	Interstate and Non-Interstate NHS: SR 29, SR 41, I-75 and CR 951 between US 41 and I-75	NHS Interstate Pavements: ≥60% Good, ≤5% Poor in 4 yrs.; NHS Non-Interstate Pavements: ≥ 40% Good in 2 & 4 yrs., and ≤5% Poor in 4 yrs.; Bridges ≥ 50% Good in 2 & 4 yrs., ≤10% Poor in 2 & 4 yrs.	FDOT: Interstate Pavements 36.2% Good, 0% Poor, Non-Interstate NHS Pavement: 50.2% Good, 0% Poor; NHS Bridges: 83.58% Good, 0% Poor; Note CR 951 bridges ARE NOT represented in this data
System Performance	November 14, 2018 / FDOT will provide data by December 30 th annually	Support state targets or set own targets	LRTP if amended & next major update; TIP immediately	Interstate and Non-Interstate NHS: SR 29, SR 41, I-75 and CR 951 between US 41 and I-75	75% Person-Miles on Interstate Reliable in 2 yrs., 70% in 4 yrs.; 50% Person-Miles on Non-Interstate Reliable in 4 yrs.; Truck Travel Time Reliability Ratio on	FDOT: Person-Miles Traveled On Interstate That Are Reliable: 2014, 2015, 2016, & 2017 = 100%. Non-Interstate NHS Reliability: 2014=56%, 2015=46%, 2016=42%, 2017=97%; Truck Travel Time Reliability Index on

Table 2. National and State Transportation Performance Measures and Targets – Adopted by Collier MPO on November 9, 2018

Measure	Deadline/Data Availability	MPO Actions	Add Language to Plans	Applicability in Collier	FDOT/Transit Agency Targets	Current Conditions
					Interstate 1.75 in 2 yrs., 2.0 in 4 yrs.	Interstate: 2014 & 2015 =1.10; 2016=1.14, 2017=1.12
Transit Assess Management	October 1, 2018 for transit agency to “establish” TAM plan; TAM going to BCC on October 23, 2018. MPOs have 180 days to affirm transit agency targets or set new ones.	Affirm transit agency targets or set new regional targets	LRTP if amended & Next major update: TIP immediately	Local Transit Agency: BCC will be asked to endorse TAM plan with targets noted on 10/23/2018	Consistent with BCC adopted targets: 10% rolling stock & 25% equipment have met or exceeded Useful Life Benchmark (ULB); 25% of facility < 3.0 TERM scale	Collier County TAM: Rolling Stock 0% at or past ULB; Equipment 50% at or past ULB; Facilities 0% at or past ULB
Annual Safety	February 27, 2018 initial due date; February 27 th annually thereafter; FDOT will provide safety data by end of October each year	Support state targets or set own targets	LRTP if amended & next major update; TIP immediately	All public roads: MPO Board voted to support state targets for 2018	FDOT 2019: Fatalities 0; Serious Injuries 0; Fatality Rate/VMT 0; Serious Injury Rate/VMT 0; Non-Motorized Fatalities & Serious Injuries 0	FDOT: 5-yr Rolling Averages 2012-2016: Fatalities 38; Serious Injuries 177; Fatality Rate 1.125; Serious Injury Rate 5.252; Nonmotorized Fatalities & Serious Injuries 40
FDOT Freight Plan	May 27, 2018 – May 19, 2019	Support state targets	TIPs and TIP amendments	Added language to TIP adopted June 2018 referencing Freight Plan	No state targets established yet	
FDOT Asset Management Plan	May 27, 2018 – May 19, 2019	Support state targets	TIPs and TIP amendments			
Transit State of Good Repair	May 27, 2018 – May 19, 2019	Affirm transit agency targets or set new targets	TIPs and TIP amendments	Added language to TIP adopted June 2018 referencing State of Good Repair	No initial targets set as of January 1, 2017 deadline	

References

Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). 2018. *Federal Strategies for Implementing Requirements for LRTP Updates for the Florida MPOs*. January. Accessed August 2020.

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Evaluation Framework Technical Memorandum



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Evaluation Framework Technical Memorandum – Final

November 2020



Jacobs



Technical Memorandum Evaluation Framework

This Technical Memorandum (TM) documents the evaluation framework for the Collier Metropolitan Planning Organization (MPO) Long Range Transportation Plan (LRTP) 2045 Update. The goals and objectives of the 2045 LRTP update were previously documented in the *Goals, Objectives and Decision-Making Framework White Paper* (September 2019). These goals and objectives create the basis for project evaluation criteria and corresponding performance metrics. These elements form an evaluation framework through which projects can be ranked against one another and a prioritized project list can be developed. **Figure 1** shows the framework process to be used.

Figure 1. Framework Process



The purpose of the evaluation framework is to ensure that the projects in the LRTP serve to implement the plan goals. The Collier MPO staff developed the original process framework for the 2040 LRTP. For the 2045 LRTP update, the framework remains much the same, with revisions to some evaluation methods and criteria. This TM summarizes the revised scoring to be applied in the 2045 LRTP update. Ultimately this type of evaluation is used to shape the recommendations and prioritize transportation projects in the Needs Assessment and Cost Feasibility Plan.

The project team will use the evaluation criteria and performance metrics in this TM to compare and evaluate how well potential transportation projects meet the LRTP's goals and objectives. The evaluation provides a tool to compare relative benefits of each potential transportation improvement and make decisions about transportation improvement recommendations.

Projects with "High" ratings on the performance metrics are considered to be consistent with reaching each respective objective based on the evaluation criteria. Conversely, projects with "Low" ratings may be less consistent with meeting the objectives. Evaluations resulting in medium or "Med" scores are not necessarily inconsistent with the goals and objectives but are likely less supportive of reaching those goals. The evaluation framework is detailed in **Table 1**.

The proposed evaluation criteria presented in **Table 1** require discussion, analysis, and input among MPO Board and committee members to determine if their effectiveness in prioritizing transportation projects. Additional changes to consider include revising the evaluation criteria to reflect new or different data sources and revising the weighting factors to best reflect current priorities and the MPO's adopted performance targets. The project prioritization will consider a high rank a score of 5, a medium rank a score of 3, and a low rank a zero. The priority list will be sorted based on this raw score.

Table 1. Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
1. Ensure the Security of Transportation System for Users Total Weighting Factor: 8%	1A - Improves or maintains critical evacuation routes	Yes = 5; No = 0	4
	1B - Provides enhanced or potential new evacuation routes where needed	Does the roadway connect to an existing evacuation route or does it have potential to be a new evacuation route (for example, major extension or new project that connects to a Strategic Intermodal System?) Yes = 5; No = 0	4
2. Protect Environmental Resources Total Weighting Factor: 12%	2A - Minimize wetland encroachments by transportation projects	How many acres of wetland encroachment based on National Wetlands Inventory? No impact = 0; 0–5 acres = -1; 6–10 acres = -2; 11–15 = -3; 15–20 = -4; 21 or more = -5 (max)	4
	2B - Minimize impacts to wetland flows (maintain or enhance existing flows to the extent feasible)	Proximity to protected natural areas (0.5 miles) Within 0.5 miles of Conservation Areas/Preserves lands? Yes = -1 No = 0	4
	2C - Minimize the adverse impacts on threatened and endangered species	Amount of habitat encroachment based on primary panther habitat? No impact = 0 0–10 acres = -1 11–20 acres = -2 21–30 = -3 31–40 = -4 40 or more = -5 (max)	4
3. Improve System Continuity and Connectivity Total Weighting Factor: 10%	3A - Improves existing infrastructure deficiencies	Does the project improve mobility in an existing roadway facility (for example, widening, intersection improvements, etc.)? Yes = 5; No = 0	5
	3B - Improves connectivity with new transportation links to address system gaps	Does the project improve connectivity with a new facility including projects that are extensions that connect to future or existing facilities? Yes = 5; No = 0	5



Table 1. Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
4. Reduce Roadway Congestion Total Weighting Factor: 18%	4A - Improves existing deficient facility or improves a new or neighboring facility intended to relieve an existing deficient facility	Does the project increase capacity or provide relief to a parallel facility (for example, new facilities, bridges over canals, etc.)? Yes = 5; No = 0	9
	4B - Improves intersections and roadways with poor levels of service	Does capacity ratio decrease when compared to the 2045 E+C Alternative? Yes = 5; No = 0	9
5. Promote Freight Movement Total Weighting Factor: 6%	5 - Enhances operation of the facility identified as a major freight route	Is the roadway on a regional freight mobility corridor, freight distribution route, or connects to a freight activity center as outlined in the 2040 LRTP? Yes = 5; No = 0	6
6. Increase the Safety of Transportation System Users Total Weighting Factor: 10%	6A - Enhances safety of transportation system users	Does project implement a recommendation from a safety plan (for example, safe routes to school, protected bike lanes, etc.)? Yes = 5; No = 0	2
	6B - Improves facility or intersection identified as having a high crash occurrence or a fatality	High crash location or segment? Yes = 5; No = 0	4
	6C – Promotes traffic calming	Does the project improve safety by calming traffic (for example, gateway treatments, roundabouts, reduced width and turning radii)? Are vehicular speeds appropriate to context and facility type? Yes = 5; No = 0	2
	6D - Reduces vehicular conflicts with bicyclists, pedestrians, and other vulnerable road users	High crash location or segment for bicycle and pedestrian conflicts? Yes = 5; No = 0	2
7. Promote Multimodal Solutions Total Weighting Factor: 10%	7A - Provides for trail improvements that implement the Bicycle and Pedestrian Master Plan	New or improved trail/greenways = 5 No new or improved trail = 0	2
	7B - Provides multimodal improvement near affordable housing, centers	Improvement within 0.25 miles = 5 No improvement within 0.25 mile = 0	2

Table 1. Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
	of employment, multi-family housing, health care, educational, recreational, or cultural centers		
	7C - Provides multimodal improvements for environmental justice communities and underserved neighborhoods, and connects these neighborhoods to centers of employment and important destinations for transit-dependent households	Improvement within 0.25 miles = 5 No improvement within 0.25 miles = 0	2
	7D - Improves transit (frequency and reliability) within existing or future TSAs or within a CRA; improves access to park-and-ride facilities; provides for BRT	Project along an existing or planned bus route within an existing or future TSA = 5 Project along an existing or planned bus route inside a CRA = 5 Improves access to park-and-ride facility = 5 Provides for BRT = 5 No improvement = 0	1
	7E - Improves bicycle or pedestrian access to transit	Improve Access = 5; No improvement = 0	2
	7F – Improves safety and access for people of all ages and abilities; improves safety for people walking, biking, and using mobility devices	Improvement = 5 No improvement = 0	1
8. Promote the Integrated Planning of Transportation and Land Use Total Weighting Factor: 10%	8A - Improves access to regional travel (for example, interstates, airports, ports, and SIS facilities)	Improves access = 5 Does not improve access = 0	4
	8B - Improves access to tourist destinations	Improves access = 5 Does not improve access = 0	2

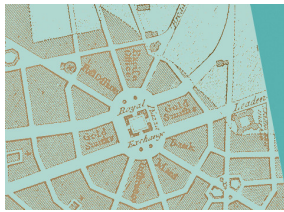
Table 1. Evaluation Criteria and Performance Measures

Goal	Evaluation Criteria	Performance Measures	Weighting (out of 100)
	8C - Supports targeted redevelopments or CRAs (multimodal or vehicle improvements)	Yes = 5 No = 0	2
	8D - Identified in partner agency (city, transit, county, MPO, etc.) as a priority	Connections to other municipalities or counties? Yes = 5 No = 0	1
	8E - Improves vehicle or freight movement to an intermodal facility	Does the project improve vehicle or freight movement to intermodal facilities (for example, airport, bus transfer station, freight center, park and ride, etc.)? Yes = 5 No = 0	1
9. Promote Sustainability in the Planning of Transportation and Land Use Total Weighting Factor: 8%	9A - Benefits low-income areas and improves sustainability through increased housing choices and reduced automobile dependency	Does the project bring better mobility to a low-income areas and CRAs (for example, bike/ped improvements along a bus route or stop, etc.)? Project in target area=5 Project not in target area=0	8
10. Consider Climate Change Vulnerability and Risk in Transportation Decision-Making Total Weighting Factor: 4%	10A - Promotes transportation infrastructure resiliency in the face of climate change and sea level rise	Within 0.25 miles of NOAA 1 ft Sea Level Rise Flooding Area =5 Within 0.25 miles of NOAA 1 ft Sea Level Rise Low Lying Area = 3 Not in high risk area = 0	4
11. Consider Connected and Autonomous Vehicles (CAV) Technology in the Future Total Weighting Factor: 4%	11A - Utilizes technological improvements (ITS, Transit Signal Priority, etc.)	Yes = 5 No = 0	4



2015 and 2045 Socio-economic Data for the Collier MPO 2045 Long-Range Transportation Plan





SPIKOWSKI PLANNING ASSOCIATES

SUBJECT: 2015 and 2045 Socio-economic Data for the
Collier MPO 2045 Long-Range Transportation Plan
PREPARED FOR: Jacobs and Collier MPO
PREPARED BY: Bill Spikowski, FAICP
DATE: 2/3/2020

Introduction

The Collier MPO is in the process of updating the previous (year 2040) Long-Range Transportation Plan (LRTP) to a new planning horizon year of 2045. To support the update effort by all MPOs in District One, the Florida Department of Transportation (FDOT) is updating its 2040 regional planning model to the year 2045. This model is referred to as the D1-RPM.

Long-range transportation planning by MPOs relies heavily on the D1-RPM, which is a travel model that uses algorithms to simulate travel behavior throughout District One. The results of the modeling helps MPOs analyze the need for new road capacity and for better transit service.

Travel models follow a sequence of steps that simulate responses people make about how to travel, given various possible configurations of highway and transit service. These configurations are effectively scenarios of different travel networks that could exist in Collier County in the year 2045. These ‘travel-network scenarios’ are tested to see how they perform given a hypothetical distribution of people and their destinations across Collier County in 2045.

Before any travel-network scenarios can be tested, the forecasted distribution of population, employment, shopping, schools, etc. for the year 2045 must be entered into the model. This dataset is referred to as socio-economic (SE) data, which must be provided for each Traffic Analysis Zone (TAZ). Future land use patterns are a key variable that affects transportation networks and the public investments required to build and maintain them. **Figure 1** shows the 730 Collier County TAZs being used in the new D1-RPM. Florida DOT modified the TAZ boundaries slightly from the prior travel model, and all zone numbers have been changed.

In addition to analyzing the effectiveness of travel-network scenarios, the model can be run using different scenarios of how population, employment, and shopping might be distributed across Collier County in 2045. These are called ‘land-use scenarios.’

Before any tests are run for the year 2045, the travel model must be calibrated to ensure that it reasonably represents actual travel decisions being made in Collier County. This process is called “validation,” which is conducted by running the travel model for the year 2015, using actual traffic counts and transit service for 2015 and using SE data for each TAZ that represents actual conditions in 2015.

FDOT runs the D1-RPM for all MPOs in District One, but it relies on individual MPOs to provide SE data for 2045 and to review SE data for 2015. These datasets have been in preparation since spring of 2019. This memorandum describes key assumptions and data sources for SE data and presents a summary and maps of the resulting data. **Figure 2** identifies the types of SE data that are required for each TAZ for 2015 and for 2045.

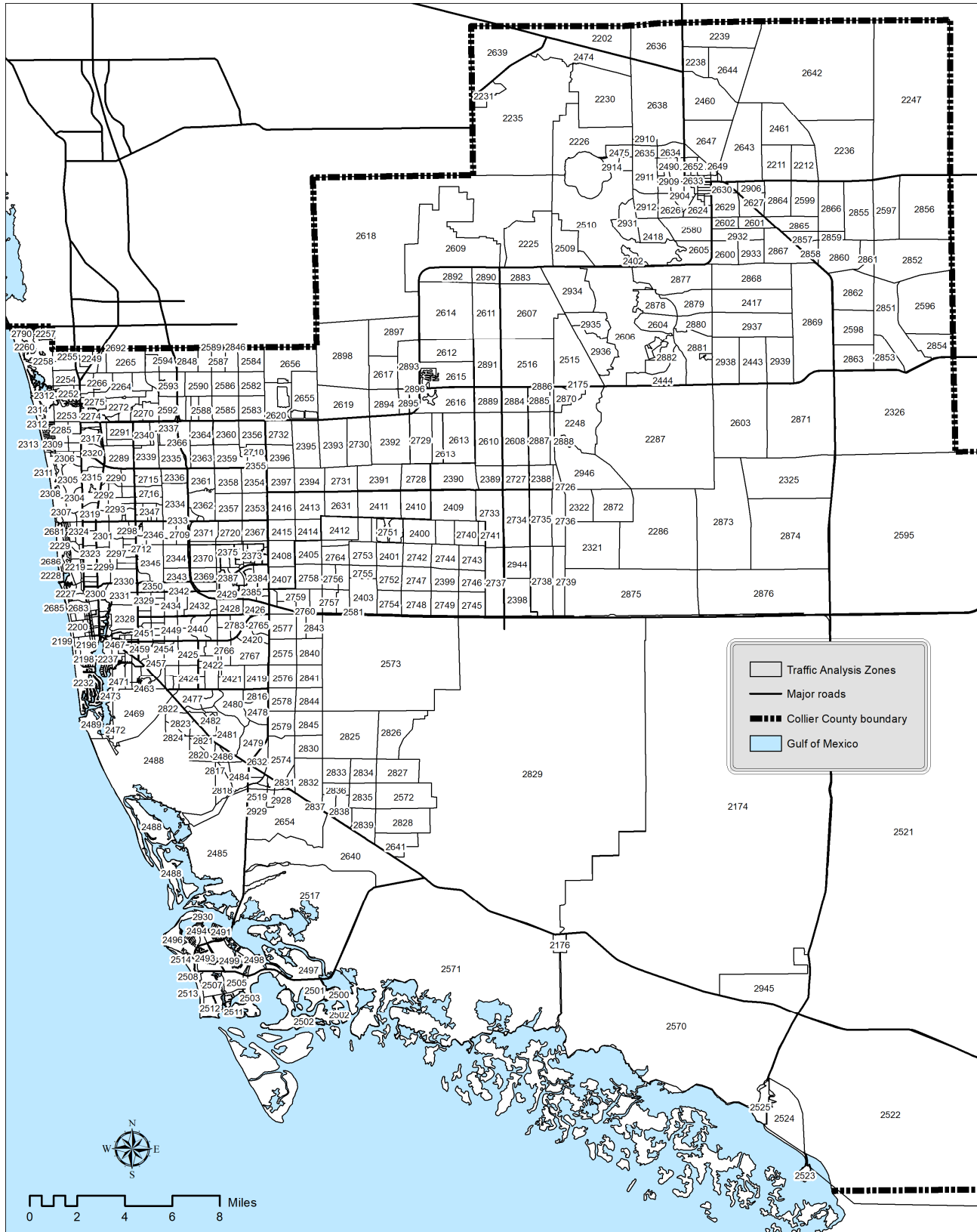


Figure 1, Traffic Analysis Zones in the latest D1-RPM

Field name	Description of data in each field
ZONE	Unique number for each Collier County traffic analysis zone in FDOT's D1-RPM
SFDU	Number of single-family dwelling units
SF_PctVac	Percentage of single-family dwelling units that are vacant because they are for sale, for rent, being rehabilitated, etc.
SF_PctVnp	Percentage of single-family dwelling units that are vacant (as above) plus those that are used only by seasonal residents (whose permanent residence is somewhere else)
SFpop	Permanent population in (occupied) single-family dwelling units
SF_PopDU	Average number of permanent residents per (occupied) single-family household
SF_0auto	Percentage of single-family dwelling units with 0 automobiles
SF_1auto	Percentage of single-family dwelling units with 1 automobile
SF_2auto	Percentage of single-family dwelling units with 2 or more automobiles
MFDU	Number of multi-family dwelling units
MF_PctVac	Percentage of multi-family dwelling units that are vacant because they are for sale, for rent, being rehabilitated, etc.
MF_PctVnp	Percentage of multi-family dwelling units that are vacant (as above) plus those that are used only by seasonal residents (whose permanent residence is somewhere else)
MFpop	Permanent population in (occupied) multi-family dwelling units
MF_PopDU	Average number of permanent residents per (occupied) multi-family household
MF_0auto	Percentage of multi-family dwelling units with 0 motor vehicles
MF_1auto	Percentage of multi-family dwelling units with 1 motor vehicles
MF_2auto	Percentage of multi-family dwelling units with 2 or more motor vehicles
RESDhhld	Residential households -- sum of single-family and multi-family dwelling units
RESDpop	Residential population -- sum of permanent population in single-family and multi-family dwelling units
HHincome	Median household income
HHincindex	Median household income index: ratio of the median household income of the TAZ to all of District One
HHLDsize	Average number of permanent residents per household (occupied dwelling units)
WORKERS	Number of workers, by place of residence
WRKRphhld	Average number of workers per household
IND_Emp	Number of industrial employees, by place of employment
COMM_Emp	Number of commercial (retail) employees, by place of employment
SERV_Emp	Number of service employees, by place of employment
TOT_Emp	Total number of employees, by place of employment
HMDU	Number of hotel and motel rooms
HMocc	Percentage of hotel and motel rooms occupied during the peak season
HMpop	Number of occupants in hotel and motel rooms during the peak season
SCHOOL	Number of students enrolled in schools (K-12 plus post-secondary if fewer than 2,000 students)
UNIVERSITY	Number of students enrolled in post-secondary schools with more than 2,000 students (in 2015 data only; combined with SCHOOL in 2045 data)

Figure 2, Description of SE data in the latest D1-RPM

Summary of 2015 SE Data

Socio-economic data for 2015 will be used to calibrate and validate the D1-RPM. The calibration process is essential to ensure that the model fairly represents the travel choices currently being made across District One; those choices differ to some degree among the twelve counties in the district.

In April 2019, Florida DOT, through its consultant Traf-o-Data, began preparing a complete draft of socio-economic data for the year 2015. This data also included a number of preliminary changes to the TAZ structure; some Collier TAZs were split and others were aggregated, and new sequential TAZ numbers were assigned.

At the request of the Collier MPO, a significant data source was year 2017 TAZ-level data from the Collier Interactive Growth Model (CIGM), prepared for Collier County in 2017 by Metro Forecasting Models. In the zonal data files, the TAZ numbers from CIGM are shown as 'TAZ10'; the revised TAZ numbers that will be used in the D1-RPM are shown as 'TAZ15.'

The county-wide residential population (permanent residents in single and multi-family dwellings) for 2017 from CIGM was 367,516, higher than the 2015 county-wide population estimate from the American Community Survey of 357,305. The CIGM population and housing data for 2017 was reduced by Florida DOT to 2015 levels in part by examining property appraiser parcel data and recent aerial photographs to identify TAZs with significant growth between 2015 and 2017.

The CIGM also produces estimates of the number of employees for each TAZ, beginning with its base year of 2017. These estimates are calculated based on the square-footages of buildings (commercial, industrial, governmental, and institutional). Florida DOT declined to use this data for 2015 employment levels, preferring to use data from InfoUSA, a commercial provider, which does not rely on ratios between building size and number of employees. The CIGM employee forecasts for future years, however, will be used to prepare SE data on employment for 2045, since neither InfoUSA nor any source other than CIGM is able to provide employment forecasts for small areas such as TAZs.

Florida DOT also prepared 2015 data on other factors that are important in the D1-RPM, using various sources including the U.S. Census plus data provided by directly by county and state agencies. Three examples are illustrated here:

- **Figure 3:** the ratio of permanent residents per acre in each TAZ for the year 2015.
- **Figure 4:** the number of single-family dwellings in each TAZ with two or more vehicles.
- **Figure 5:** average household income in each TAZ.

Note that much of this data originated from the U.S. Census, which often does not provide separate data for each TAZ, thus requiring that multiple adjoining TAZs are assigned the data from a single larger area such as a census block group or census tract.

Beginning this year, the number of students in colleges and universities will no longer be broken out separately in the D1-RPM, except for institutions with more than 2,000 local students. Since no local institutions exceed that threshold, college and university students will be included in a single data field for schools; however, the 2015 SE files use the older method, with all college and university students shown in a separate column.

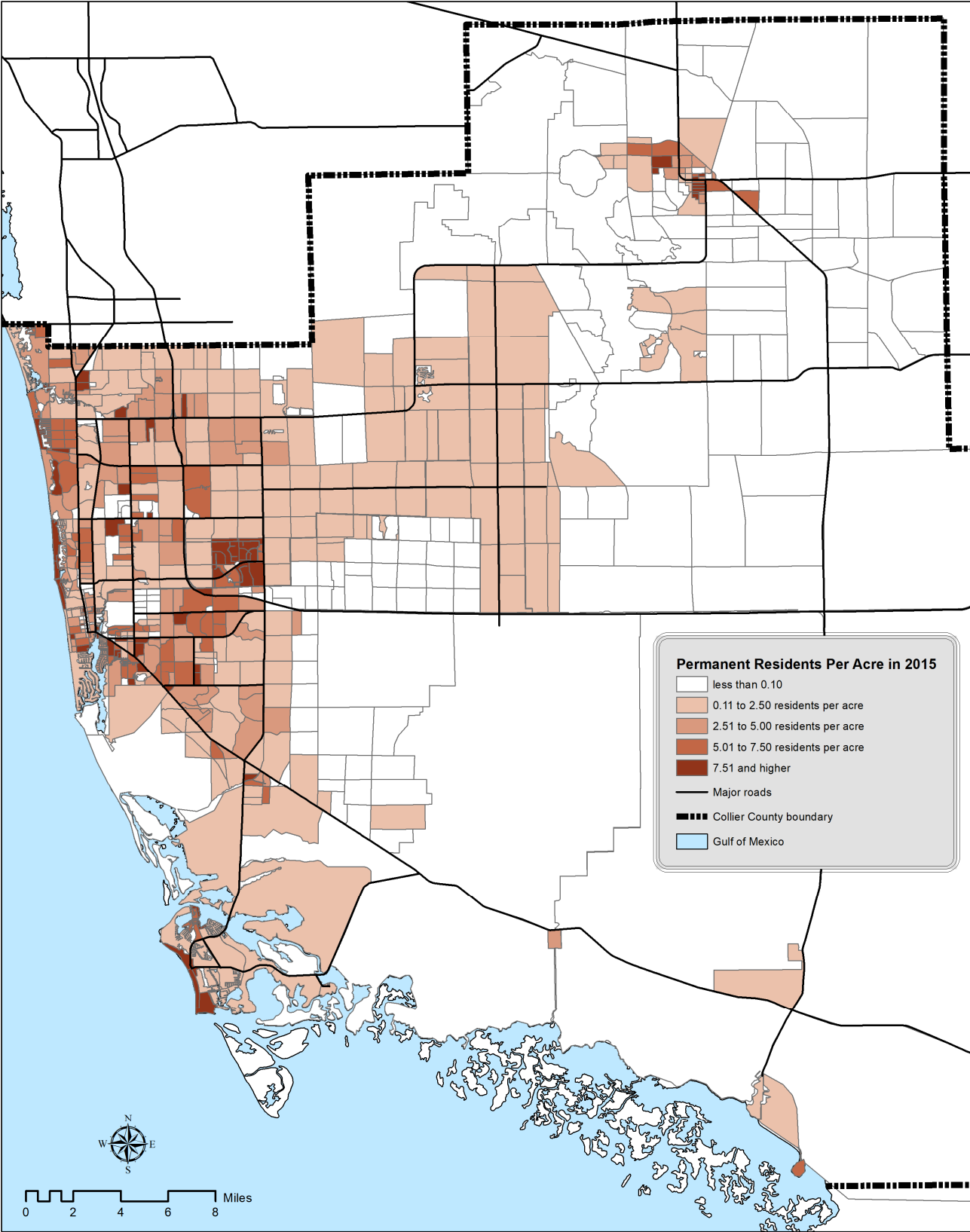


Figure 3, Ratio of permanent residents per acre in each TAZ in 2015

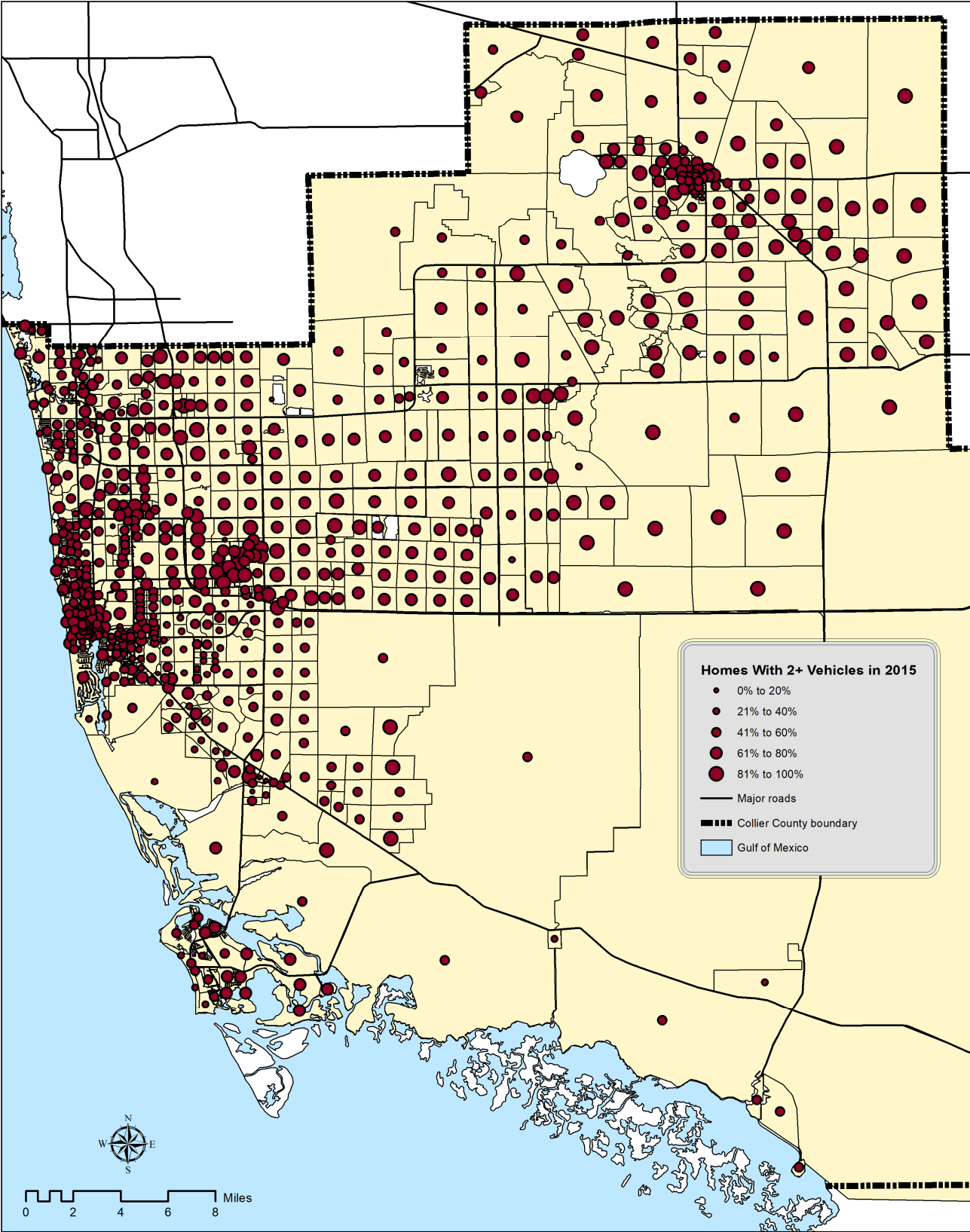


Figure 4, Number of single-family dwellings in each TAZ with two or more vehicles in 2015

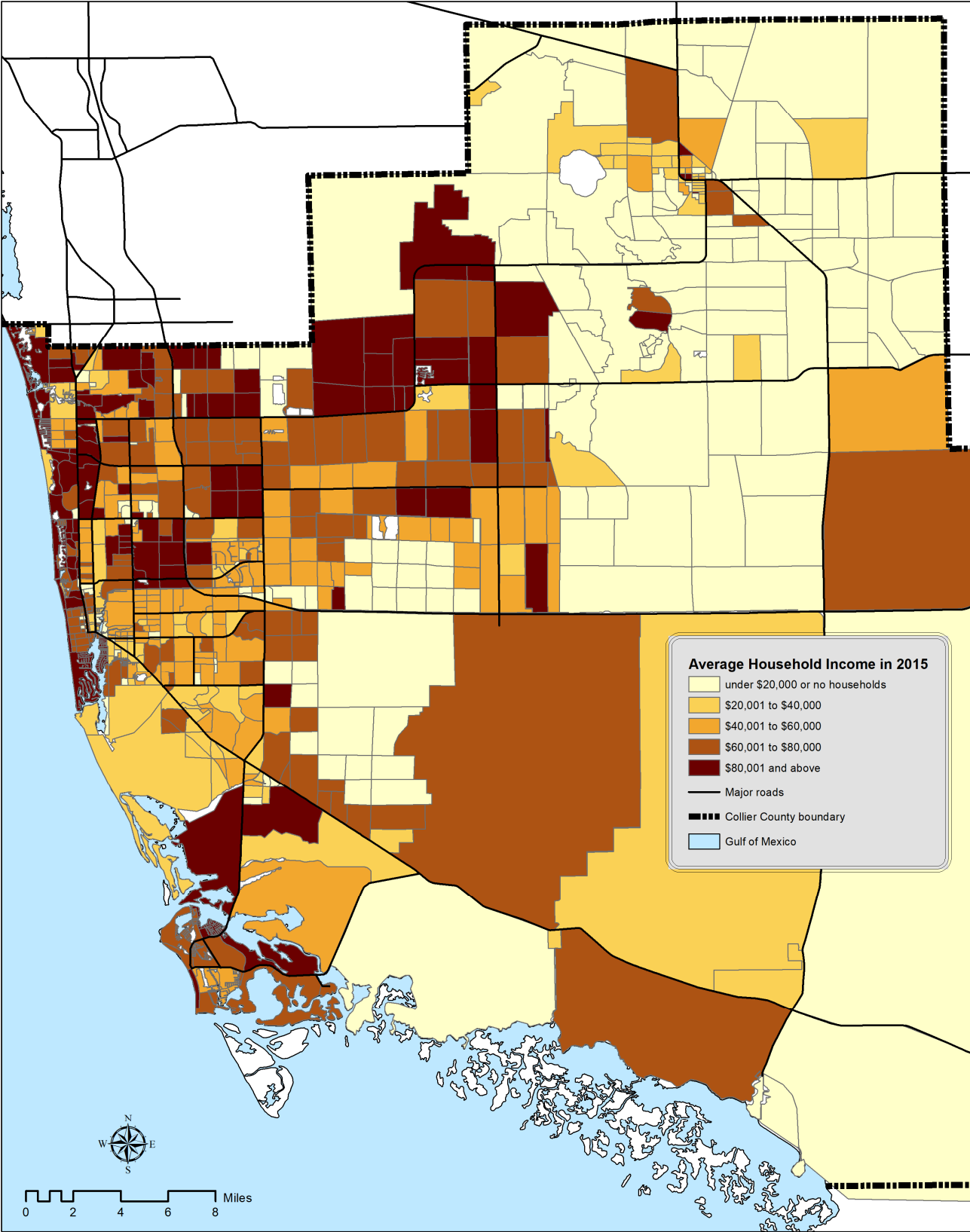


Figure 5, Average household income in each TAZ in 2015

Conceptual Alternatives for 2045 Data

The expected county-wide population for the year 2045 is 516,100, according to the medium projection from the University of Florida’s Bureau of Economic and Business Research (BEBR).¹ Counties frequently use the medium BEBR figure as a population forecast for their comprehensive plans; according to state statutes, sufficient land must be available to accommodate at least that number of people (F.S. 163.3177(1)(f)(3)). Because MPO plans are often incorporated into comprehensive plans, the same figure is frequently used by MPOs.

Collier County is in the unique position of having prepared its own and much more detailed population forecasts. The county authorized the initial development of the Collier Interactive Growth Model (CIGM) in 2007 to better understand the spatial distribution of population over time to assist in planning for infrastructure. The initial CIGM covered only the land area east of County Road 951, but has now been expanded to include the entire county.² Unlike the BEBR projections, which provide a single figure for the entire county, the CIGM provides data for every TAZ. The 2017 CIGM forecast for the year 2045 was for a total residential population of 559,410 for the entire county (about 8% higher than BEBR medium).

There are several advantages to either population total for 2045 when updating the Long-Range Transportation Plan:

<i>Advantages of using 2045 CIGM forecast:</i>	<i>Advantages of using 2045 BEBR medium projection:</i>
<i>Uses sophisticated locally generated data instead of generic county-level data from BEBR</i>	<i>Follows past practices by the Collier MPO when preparing long-range transportation plans</i>
<i>CIGM data was prepared at the TAZ level; BEBR data would have to be disaggregated to TAZs</i>	<i>Complies with Policy 4.9 in Collier County’s Growth Management Plan</i>
<i>Keeps MPO planning in sync with other Collier County planning efforts</i>	<i>Meets minimum requirement in state law</i>
	<i>Most other MPOs use BEBR projections (very few have locally generated forecasts)</i>

After extensive discussions including the Jacobs team, Collier MPO staff, Collier County transportation planning staff, Traf-o-Data (modeling consultant to Florida DOT and to Jacobs), and Metro Forecasting Models (consultant to Collier MPO and Collier County on the Collier Interactive Growth Model), Jacobs recommended that two separate scenarios be developed and evaluated during the process leading to the 2045 update of the Collier MPO Long-Range Transportation Plan:

- **Scenario A** uses the 2045 forecasts for population, housing, employment, public schools, and hotel/motel rooms as produced by the Collier Interactive Growth Model (CIGM) on behalf of Collier County. (The CIGM also provides forecasts in 5-year increments beginning with the year 2020, allowing an interim-year travel model to be developed in the future.)

¹ *Projections of Florida Population by County, 2020–2045, with Estimates for 2018*, BEBR Bulletin 183, April 2019

² *Reading MFM Reports: Housing & Population, Commercial, and Industrial – for the Collier County MPO*, Metro Forecasting Models, LLC, undated

- **Scenario B** modifies the CIGM forecasts so that the county-wide population total will match the most recent BEBR medium projection for 2045 (516,100). The reductions will come primarily by lowering the optimism about how much development will take place in Rural Lands Stewardship Areas and Rural Fringe Mixed-Use Districts by 2045.
- Other socio-economic data required by Florida DOT's District One regional travel model for both scenarios is being provided by Jacobs.

FDOT allows MPOs to submit socio-economic (SE) data that is equal to or higher than the medium projection for each county from BEBR. The choice of which population projection to use for the Long-Range Transportation Plan has implications for the MPO's member entities. Language now in the Florida Statutes (§§163.3180(5)(h)(2) and (4)) governs proportionate share payments that may be required by local governments. A key phrase ("...including traffic modeling...") can be interpreted to mean that whatever 'transportation deficiencies' will be created in order to accommodate the development forecast that is in the SE data for 2045 could be interpreted as a public responsibility. This is because proportionate share payments, by current state law, cannot be charged to remedy 'transportation deficiencies.'

Collier County's Growth Management Plan, its comprehensive plan, requires that the county's capital improvement plan be based on BEBR's medium projection (Policy 4.9, Future Land Use Element). MPOs commonly submit SE data based on the BEBR medium projection when updating their Long-Range Transportation Plans (LRTP). For these reasons, Jacobs recommends that the Collier MPO base the 2045 LRTP on the BEBR medium projection, and also evaluate the transportation needs should a higher rate of growth prevail by creating a second scenario for testing purposes. These scenarios would be used as follows:

- **Scenario A (CIGM 2045):** In 2017, the CIGM forecasted a residential population of 559,410 for the year 2045. Scenario A is based primarily on that forecast, which is well below the BEBR high projection of 612,100 for 2045. A significant reason that the CIGM forecasts are higher than the BEBR medium projection is the added development potential in the eastern part of the county, primarily in Rural Lands Stewardship Areas and Rural Fringe Mixed-Use Districts as designated in the county's Growth Management Plan. The rate of growth in these areas is much more difficult to forecast than the remaining rate of growth in the western part of the county where past growth rates are well known.

Scenario A will be used internally by the MPO's consulting team to test the full CIGM forecasts in the travel model and identify any potentially additional transportation needs.

- **Scenario B (BEBR Medium 2045):** The most recent BEBR medium population projection for 2045 is 516,100. Scenario B is nearly identical to Scenario A except that the assumed rate of development in Rural Lands Stewardship Areas, Rural Fringe Mixed-Use Districts, and far eastern Golden Gate Estates zones through 2045 is lowered slightly from the rate forecasted by the CIGM so that the county-wide population would match the BEBR medium projection.

Scenario B is being submitted by the Collier MPO to FDOT for use in the District One regional planning model for the 2045 LRTP.

By using these two scenarios – CIGM 2045 and BEBR Medium 2045 – the MPO can effectively model a medium and a somewhat higher rate of population growth for Collier County while keeping the underlying land uses and ultimate densities and intensities consistent with adopted county policies. If the higher rate of growth anticipated by Scenario A requires additional or wider roads, those needs could be identified as being dependent on additional private financing, which could come from developer contribution agreements or other funding sources.

These two scenarios can be visualized by these maps showing additional dwelling units by 2045:

- **Figure 6:** the number of additional dwelling units in **Scenario A (CIGM 2045)** in each TAZ between 2017 and 2045.
- **Figure 7:** the number of additional dwelling units in **Scenario B (BEBR Medium 2045)** in each TAZ between 2017 and 2045.
- **Figure 8:** enlargement showing the number of additional dwelling units in and around Naples (same in both scenarios).
- **Figure 9:** enlargement showing the number of additional dwelling units in and around Marco Island (same in both scenarios).
- **Figure 10:** enlargement showing the number of additional dwelling units in and around Immokalee (same in both scenarios).

These two scenarios can be further visualized by these maps showing additional commercial square footage by 2045:

- **Figure 11:** the number of additional commercial square footage in **Scenario A (CIGM 2045)** in each TAZ between 2017 and 2045.
- **Figure 12:** the number of additional commercial square footage in **Scenario B (BEBR Medium 2045)** in each TAZ between 2017 and 2045.

Other Potential Scenarios

Other Land Use Scenarios for 2045: Given the inherent limitations of regional travel demand models and the predominant low-density pattern of most existing development within Collier County, Jacobs does not recommend modeling other alternative land-use scenarios such as high-density, mixed-use infill and redevelopment. Modeling of realistic scenarios for land that has mostly been developed would not alter the regional travel model results enough to justify the expense incurred.

Interim Land Use Scenarios: Florida DOT does not intend to create interim regional travel models anywhere in District One. Collier County could create its own interim travel model for any period from 2025 to 2040, for instance a single mid-point interim scenario based on the original CIGM forecast for 2030. This option, which could assist in prioritizing transportation improvements that are needed by 2045, will be explored during the LRTP planning process.

Network Scenarios: Instead of additional land-use scenarios for 2045, Jacobs recommends exploring a range of transportation-related scenarios which will be developed through the LRTP process and then evaluated using the 2045 regional travel model.

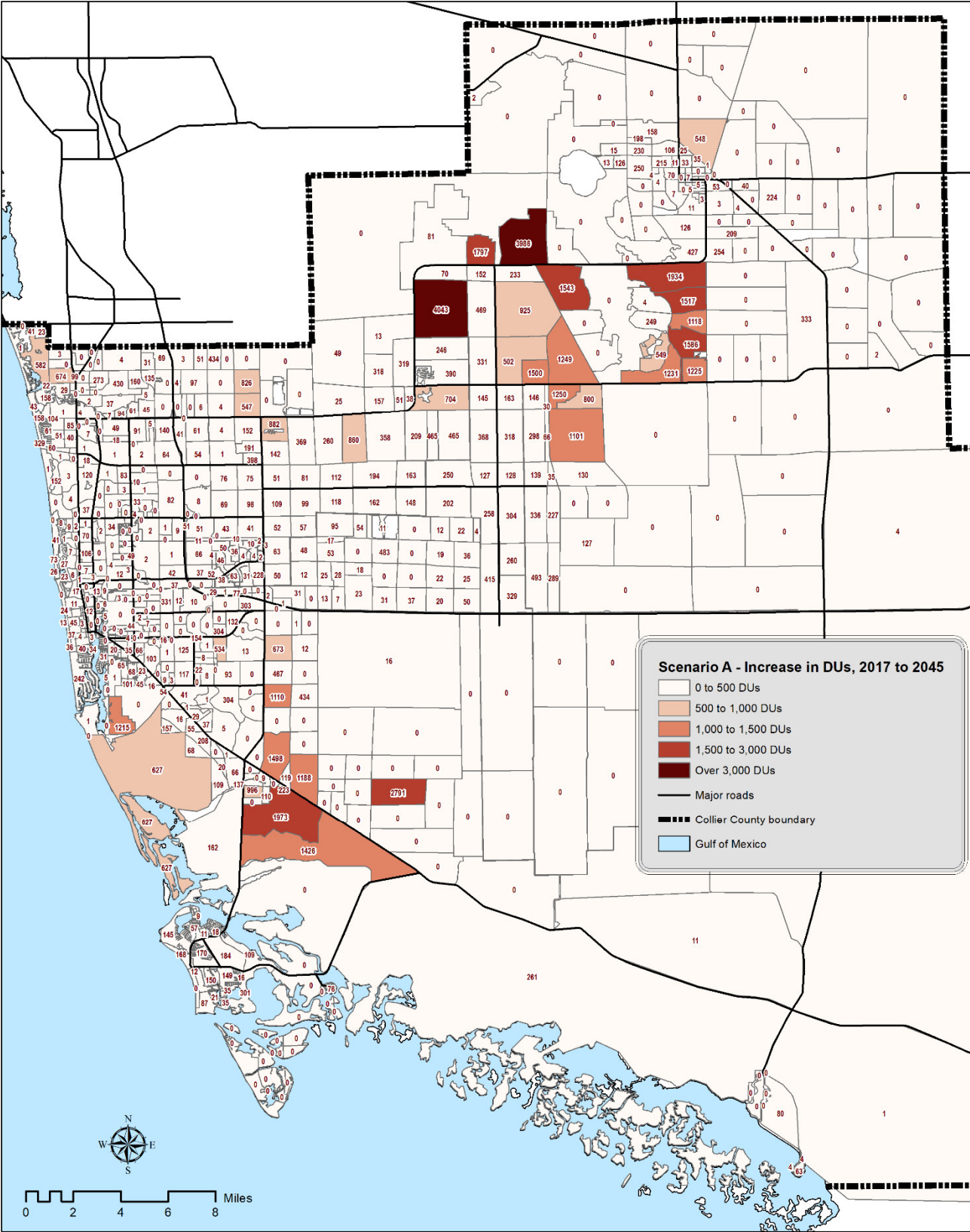


Figure 6, Forecasted increase in dwelling units for Scenario A between 2017 and 2045

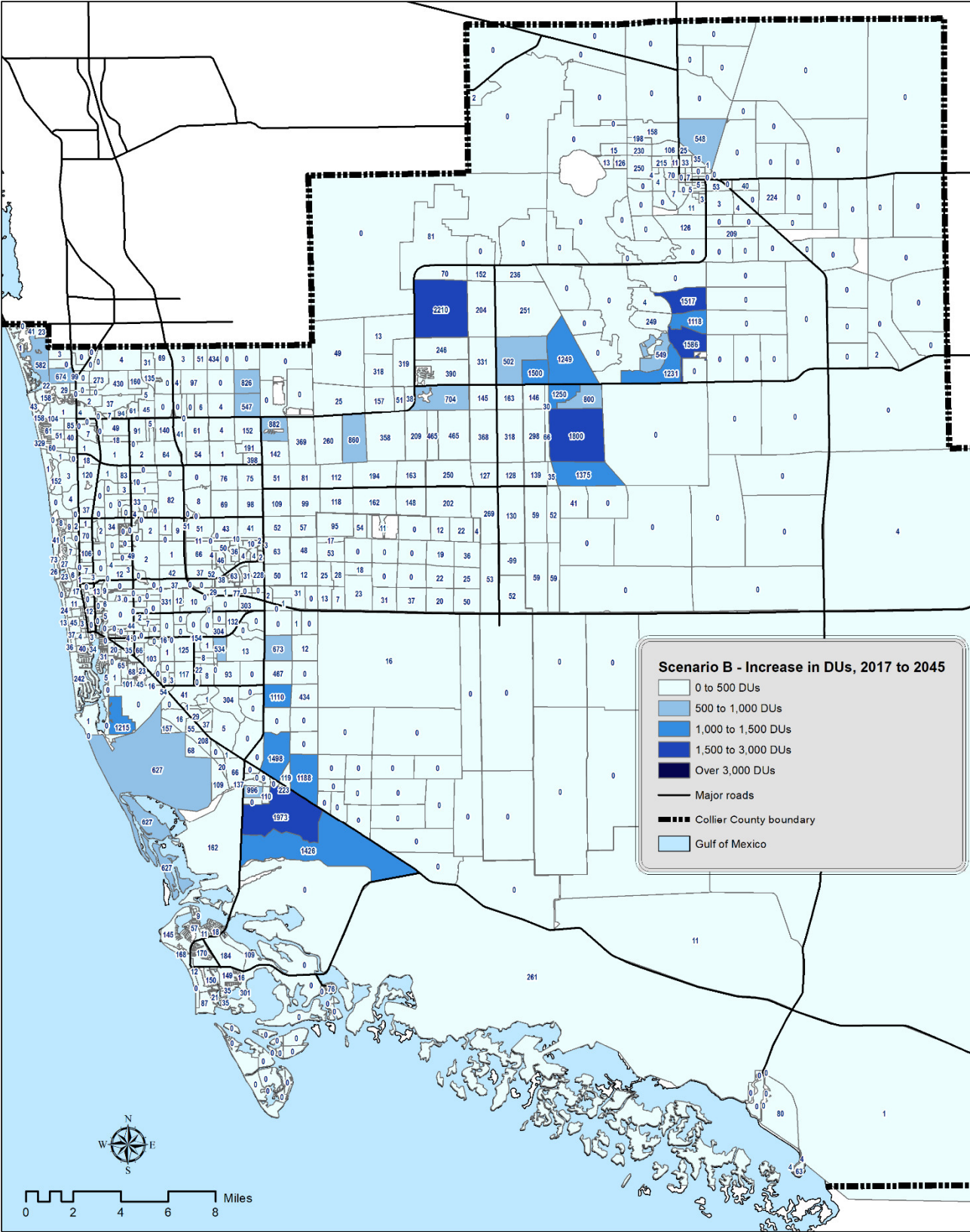


Figure 7, Forecasted increase in dwelling units for Scenario B between 2017 and 2045

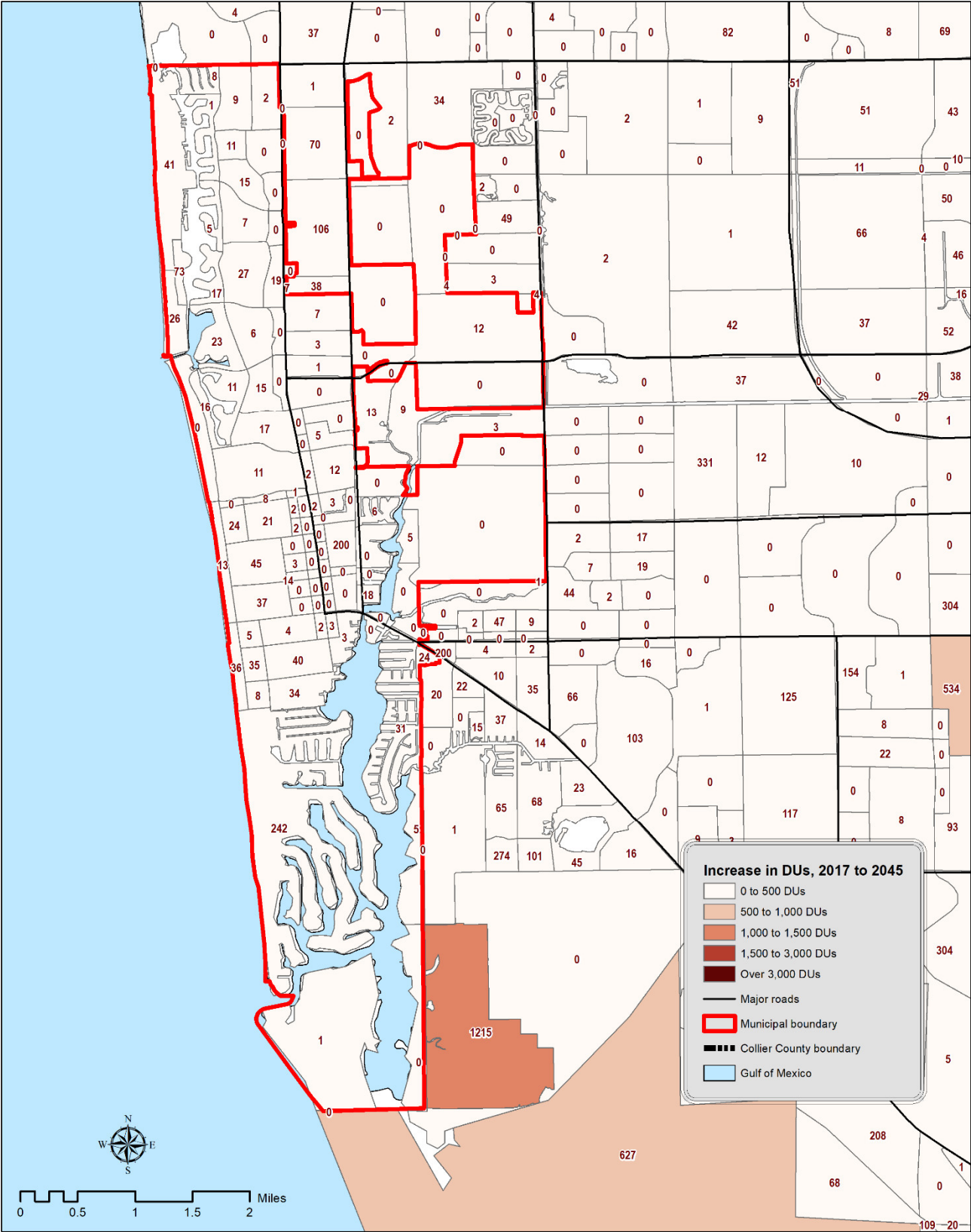


Figure 8, Forecasted increase in dwelling units for Naples between 2017 and 2045 (both scenarios)

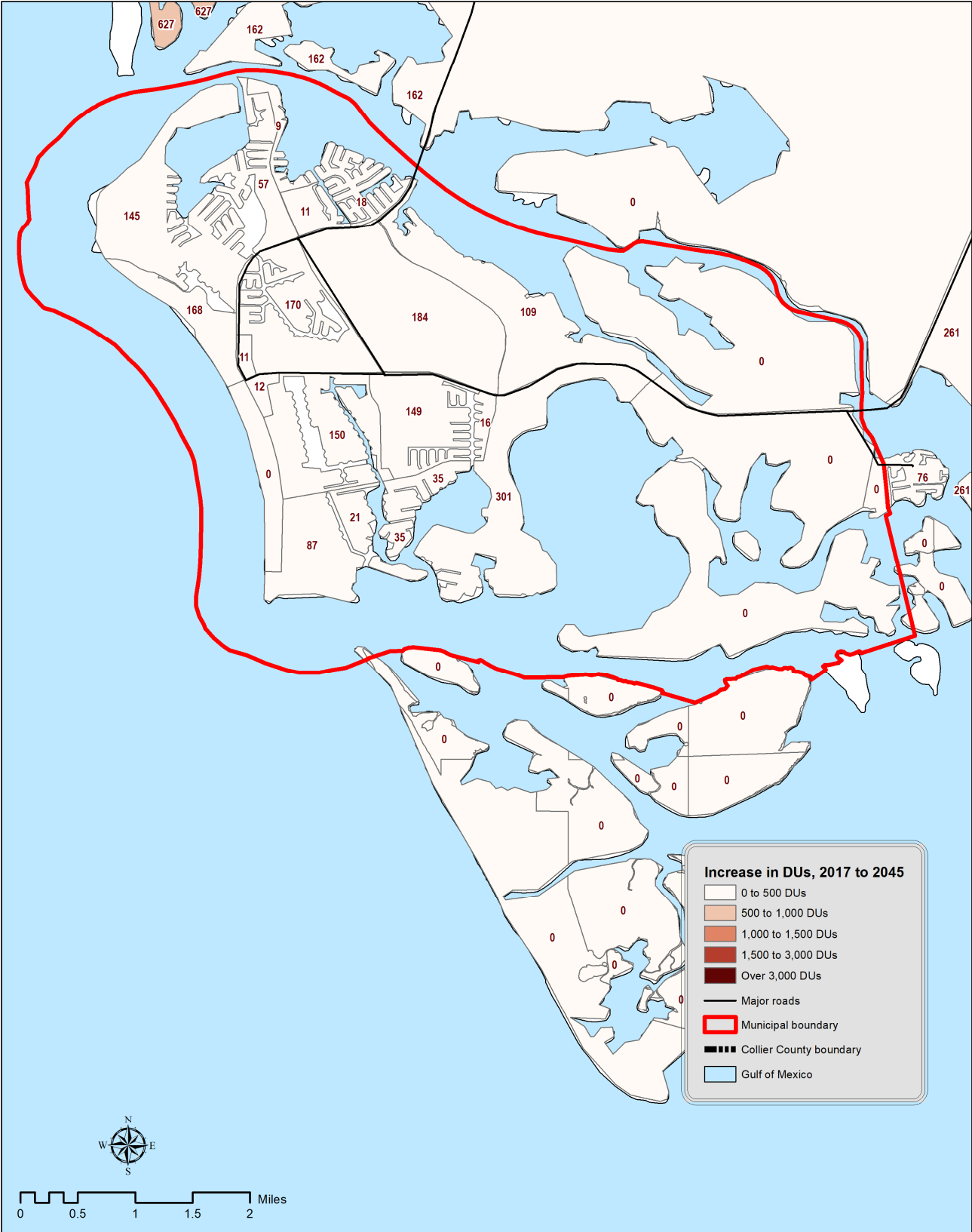


Figure 9, Forecasted increase in dwelling units for Marco Island between 2017 and 2045 (both scenarios)

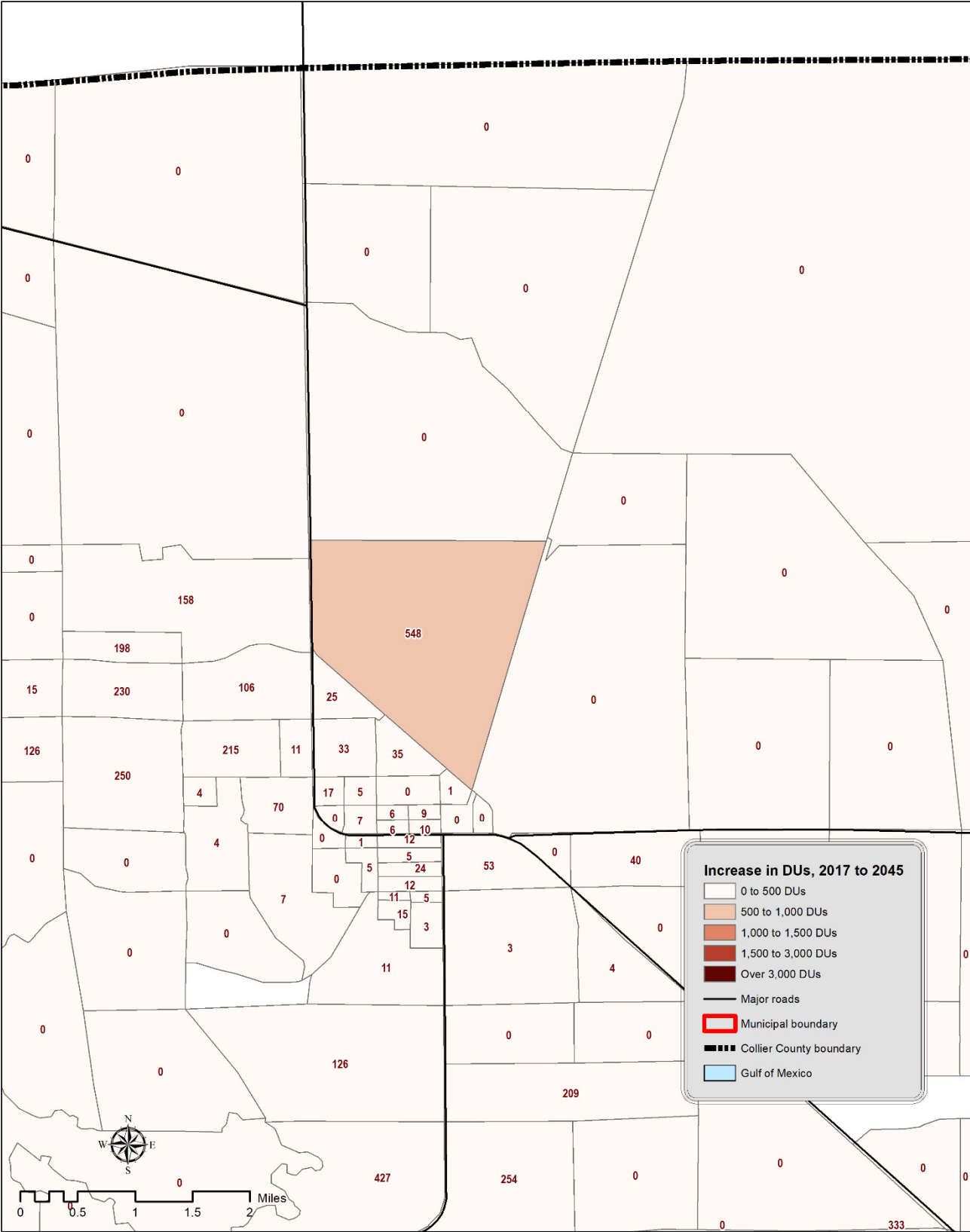


Figure 10, Forecasted increase in dwelling units for Immokalee between 2017 and 2045 (both scenarios)

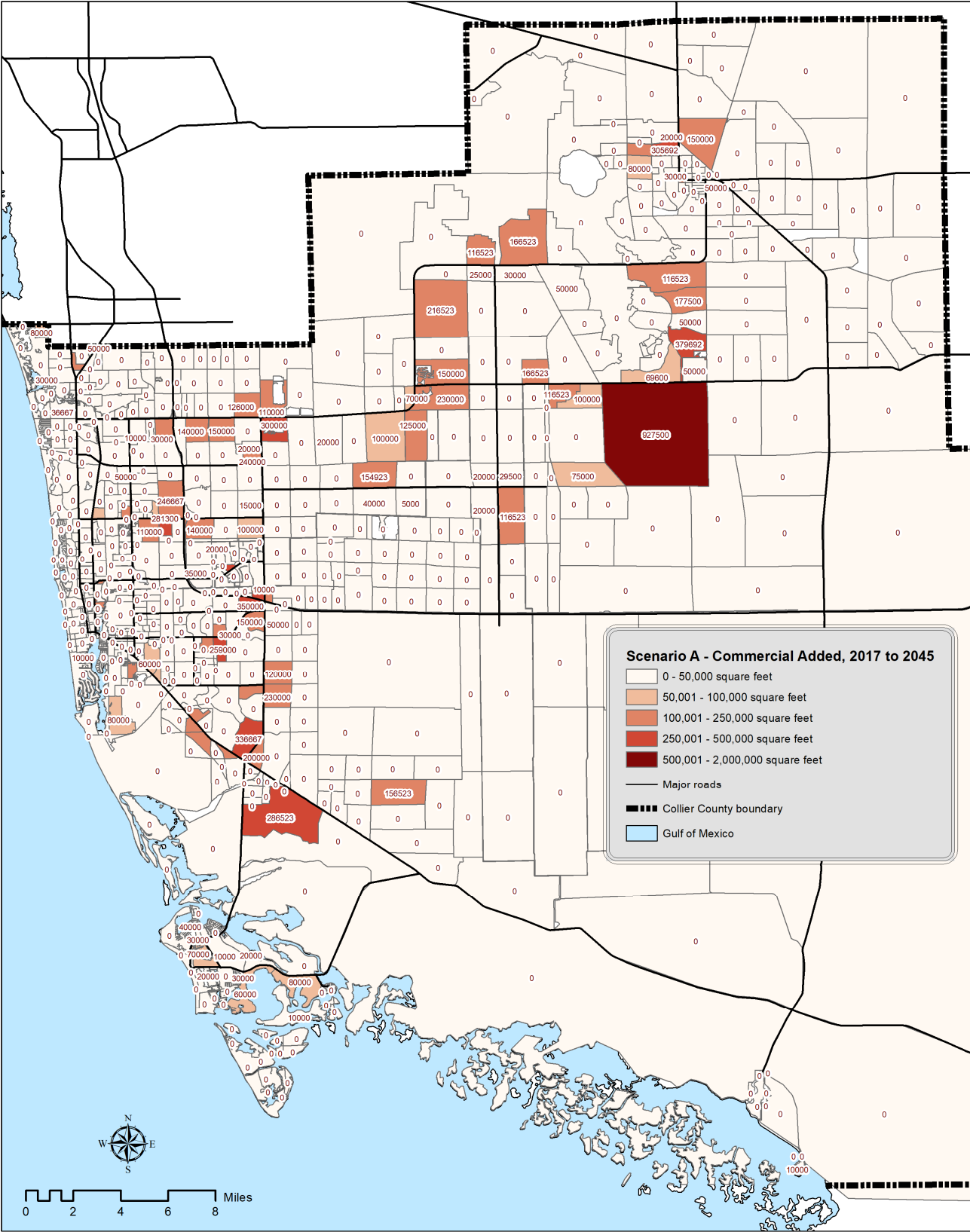


Figure 11, Forecasted increase in commercial square footage for Scenario A between 2017 and 2045

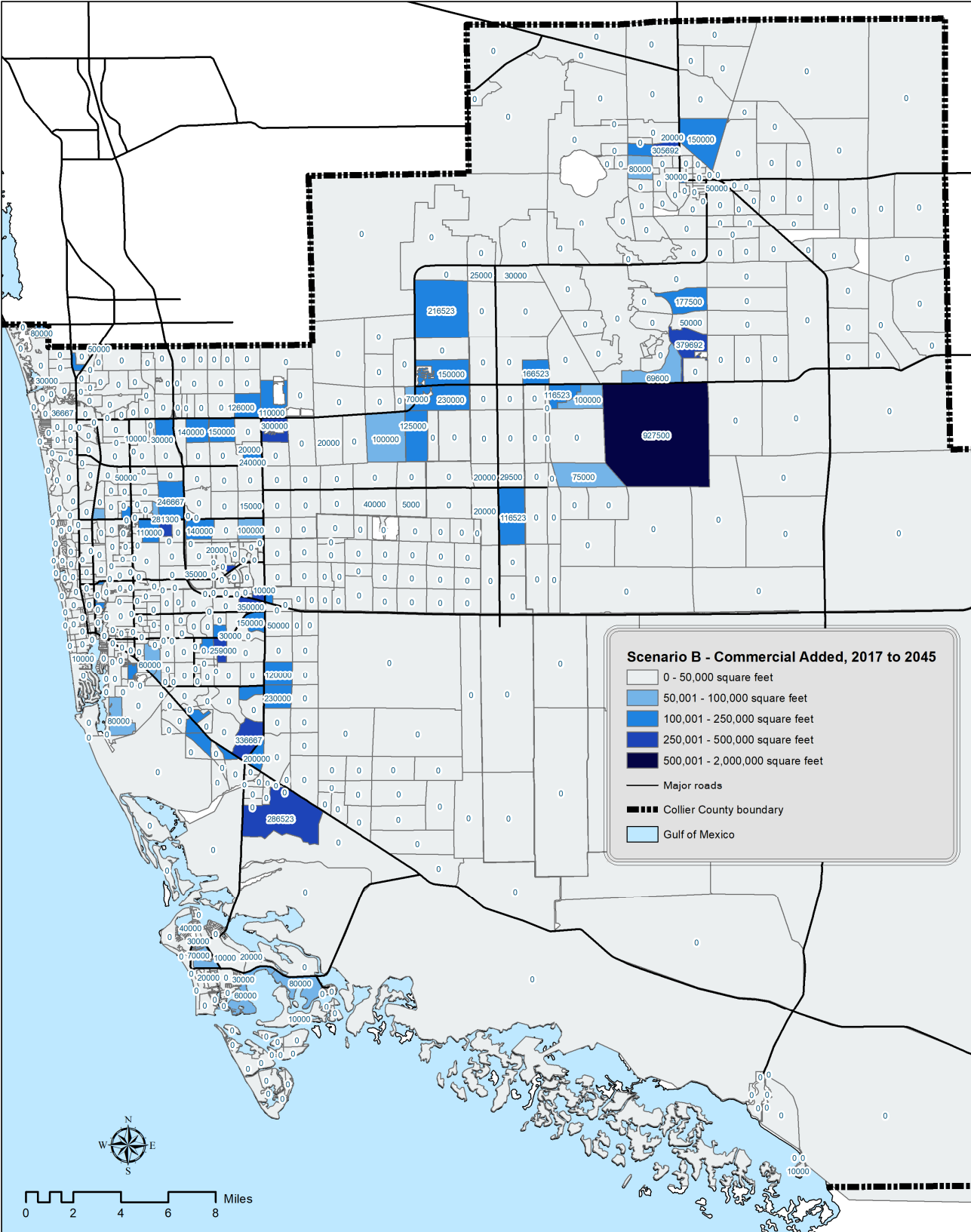


Figure 12, Forecasted increase in commercial square footage for Scenario B between 2017 and 2045

Sources of Core 2045 SE Data

Population estimates and forecasts in travel models count the number of permanent residents in a manner similar to the U.S. Census Bureau. Seasonal residents are not included in the population totals; the dwellings they occupy seasonally are tabulated, but are identified as “vacant” along with dwellings that are vacant for other reasons such as being up for sale or for rent.

Travel demand models, however, use a figure that is slightly lower: the number of permanent residents in single-family and in multi-family dwellings (disregarding permanent residents living in group quarters such as nursing homes, dormitories, jails, etc.). This lower figure is the “residential population” that must be entered into the D1-RPM for each TAZ.

Collier’s Interactive Growth Model (CIGM) uses the same “residential population” as the D1-RPM. The 2017 CIGM forecast of residential population county-wide in the year 2045 was 559,410. The CIGM figures for each TAZ are being used for Scenario A without adjustments other than those described later in this report.

Scenario B reduces the population forecast slightly to be in sync with the BEBR medium projection for 2045 (516,100 people). However, the BEBR projection includes people living in group quarters. The American Community Survey estimates that in recent years about 1.2% of Collier County’s population was living in group quarters. Assuming this ratio will be the same in 2045, the BEBR medium projection for 2045 would need to be reduced by 1.2%, to around 510,000; this reduced figure was used as a target for the total residential population in Scenario B.

For most Collier County TAZs, the forecasted residential population is virtually the same in Scenario B as in Scenario A. The major differences are in and near TAZs within the Rural Lands Stewardship Areas and Rural Fringe North and South. (These differences can be visualized by comparing **Figures 6** and **7**, or by comparing **Figures 11** and **12**.)

To estimate the growth in each TAZ, the CIGM first determines the likely amount of residential, commercial, and industrial development in each TAZ at full build-out. The rate of growth between now and build-out is forecasted using non-linear regression methods including logistic growth curves that reflect the rate of development to date in Collier County. Specific forecasts are then provided in five-year increments beginning in 2020 and ending near build-out of each TAZ.³

For Scenario B, the shape of the logistic growth curves were adjusted for certain TAZs to simulate a slightly slower growth rate through 2045 – sufficient to lower the county-wide residential population to about 510,000. Note that these growth-curve adjustments have no effect on the anticipated density and intensity at build-out of any TAZs.

³ Collier County, Florida – 2015 Forecast Report: Population, Housing, and Commercial Demand, Metro Forecasting Models, LLC

DATA ON HOUSING AND POPULATION: For residential development, the CIGM begins with the number of single-family and multi-family dwellings in each TAZ. To convert the number of dwellings into a population forecast, the CIGM uses a series of adjustments similar to those used by the Census Bureau:

- **Average Household Size:** An average household size is assigned to each TAZ. This factor is derived from census data: the number of permanent residents divided by the number of dwellings they occupy. This factor varies considerably across Collier County.
- **Vacancy Rate:** A vacancy rate is also assigned to each TAZ. This rate is expressed as the total percentage of dwellings that are vacant, including:
 - Dwellings considered to be vacant because they are used only by seasonal residents who have a permanent residence somewhere else; plus
 - Dwellings that are vacant for all other reasons, including units that are for sale or for rent, or have recently been sold or abandoned.

The remaining dwellings in each TAZ are deemed “occupied.” The residential population is the number of occupied dwellings times the average household size, calculated separately for single-family and for multi-family dwellings.

Vacancy rates vary dramatically across Collier County, primarily due to the locational preferences of seasonal retirees and other owners of vacation homes.

- **Zone Clusters:** Since source data on household size, vacancy rates, and many other factors is not available down to the TAZ level, the same factor is sometimes applied to each TAZ in what the CIGM terms a ‘zone cluster.’ Numerous zone clusters were defined by the CIGM to organize zonal data by cities, census-designated places, and locally specified planning districts, allowing the best available census data to be combined with locally important planning distinctions that are not reflected in census data. **Figure 13** provides a map showing the larger zone clusters. Many zone clusters are further subdivided, for instance in Rural Land Stewardship and Rural Fringe areas where development densities and intensities will vary considerably within the larger zone clusters that are shown on Figure 13.

Figure 14 presents the ratio of permanent residents per total acre in each TAZ in 2045 for Scenario A.

Additional maps are provided here as examples of other population and housing data in each TAZ for 2045; these maps apply to both Scenario A and Scenario B:

- **Figure 15** presents the average household size (for occupied dwellings). The travel model requires this data separately for single-family and multi-family dwellings; that data is combined in Figure 15.
- **Figure 16** presents the vacancy rate (percentage of dwellings that are not occupied by permanent residents). The travel model requires this data separately for single-family and multi-family dwellings; that data is combined in Figure 16.

DATA ON HOTELS AND MOTELS: The CIGM provides data on the expected number of hotel and motel rooms in each TAZ, again derived from other CIGM growth forecasts for the same period. When two or more establishments are in the same TAZ, the number of rooms is combined.

- **Figure 17** identifies TAZs where hotel or motel rooms are forecasted in 2045 for Scenario A, with the darker shading representing a larger number of rooms.
- **Figure 18** provides the same information for Scenario B.

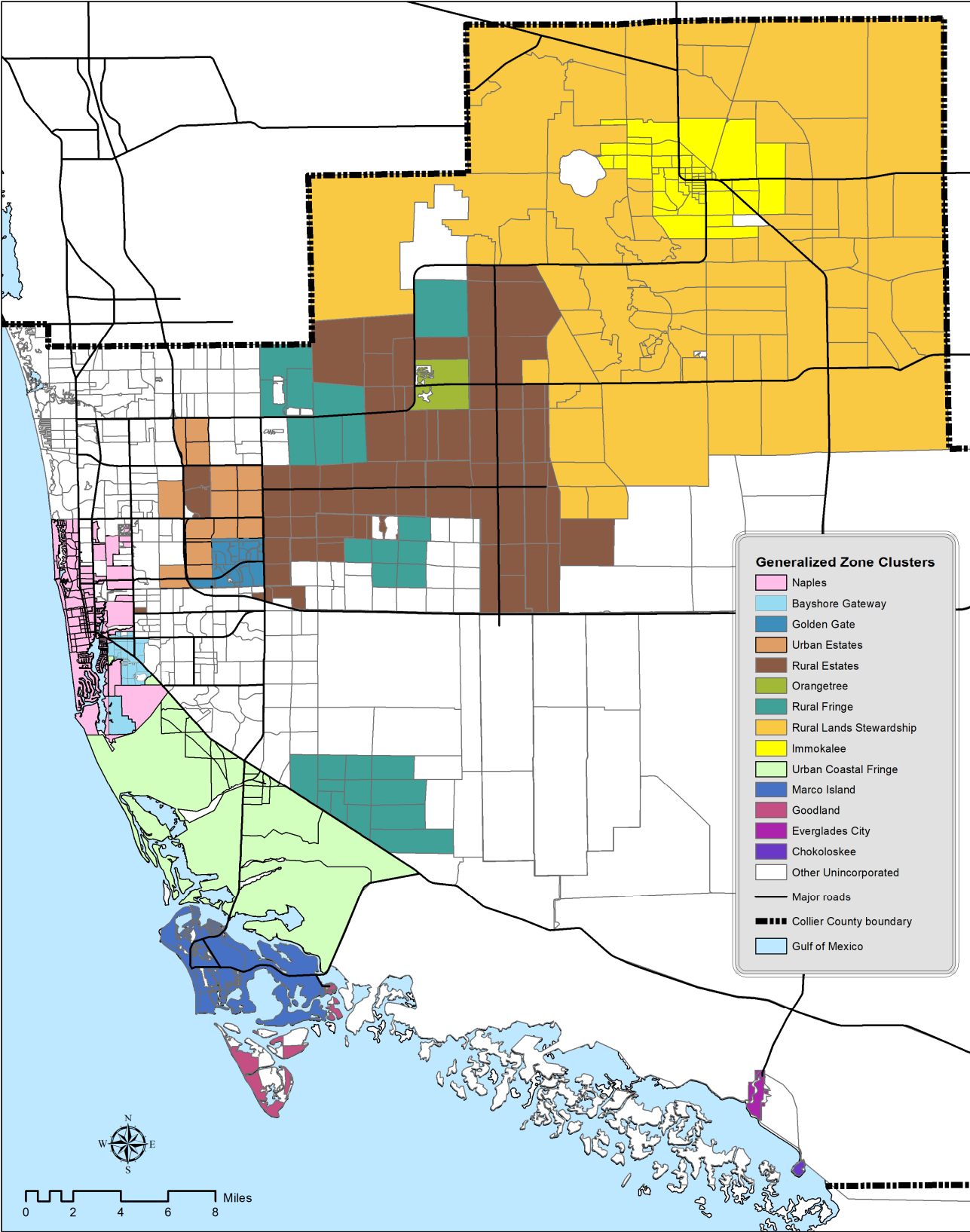


Figure 13, Larger CIGM zone clusters

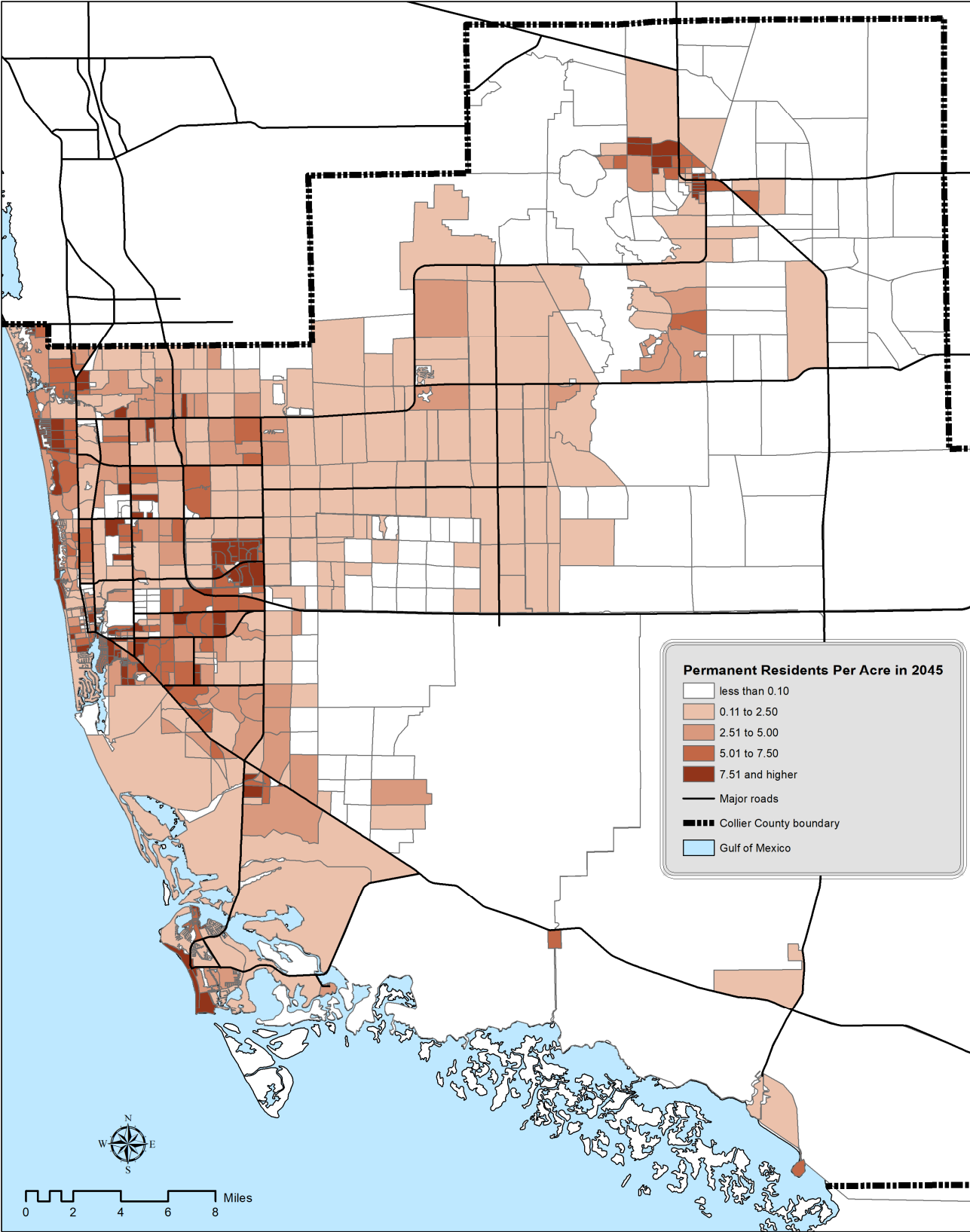


Figure 14, Ratio of permanent residents per acre in each TAZ in 2045 (Scenario A)

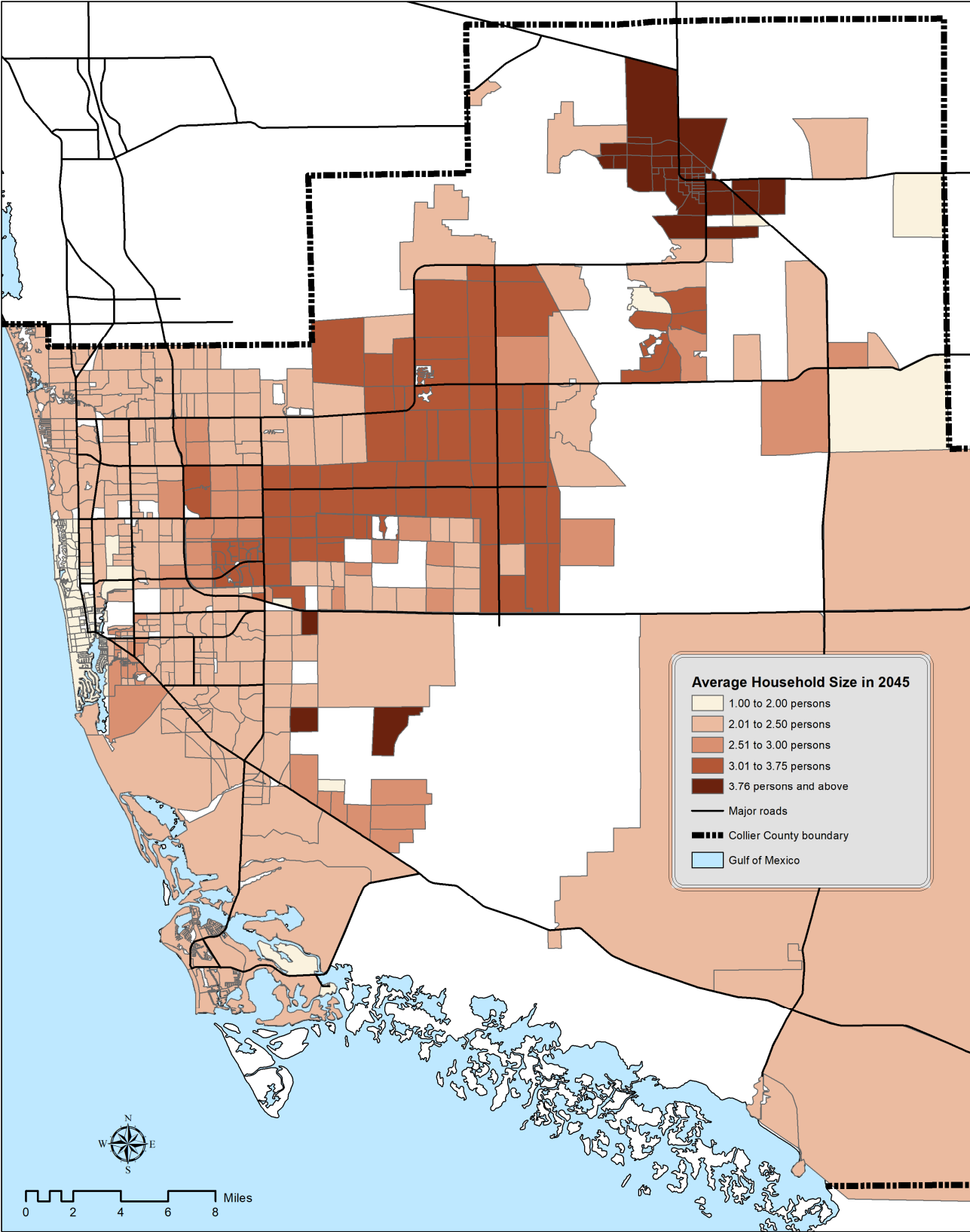


Figure 15, Average household size in 2045

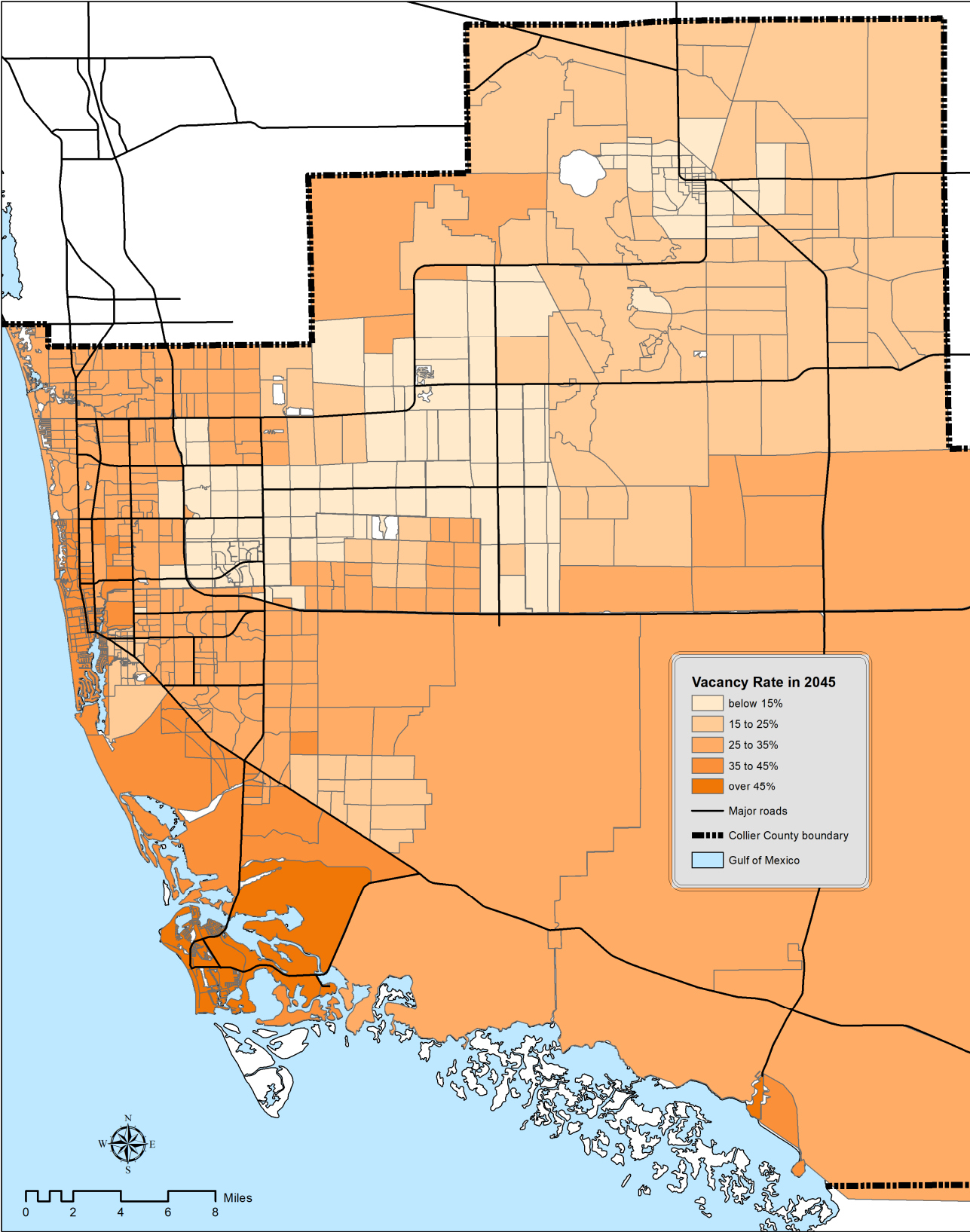


Figure 16, Vacancy rate in 2045

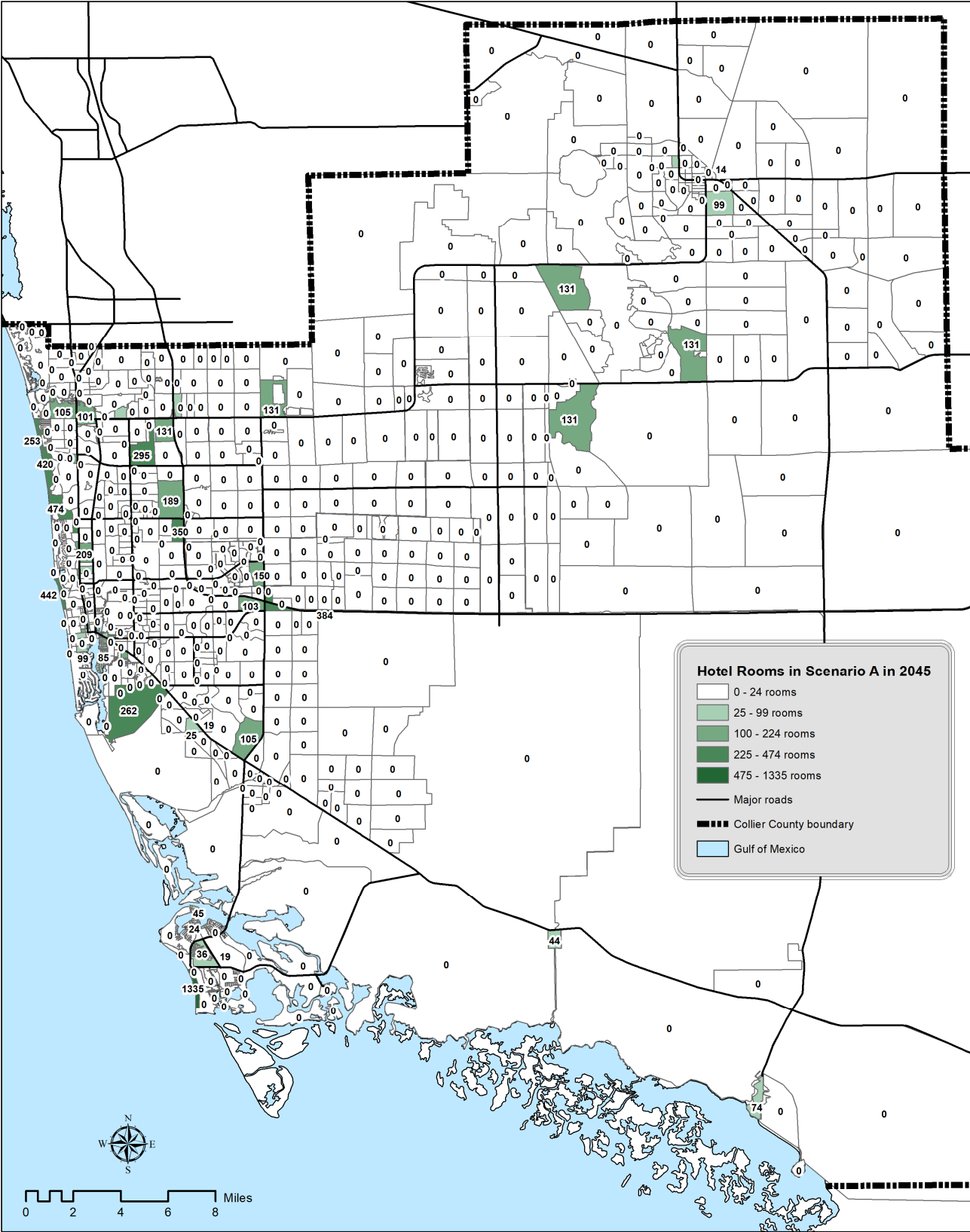


Figure 17, Number of hotel/motel rooms in 2045 for Scenario A

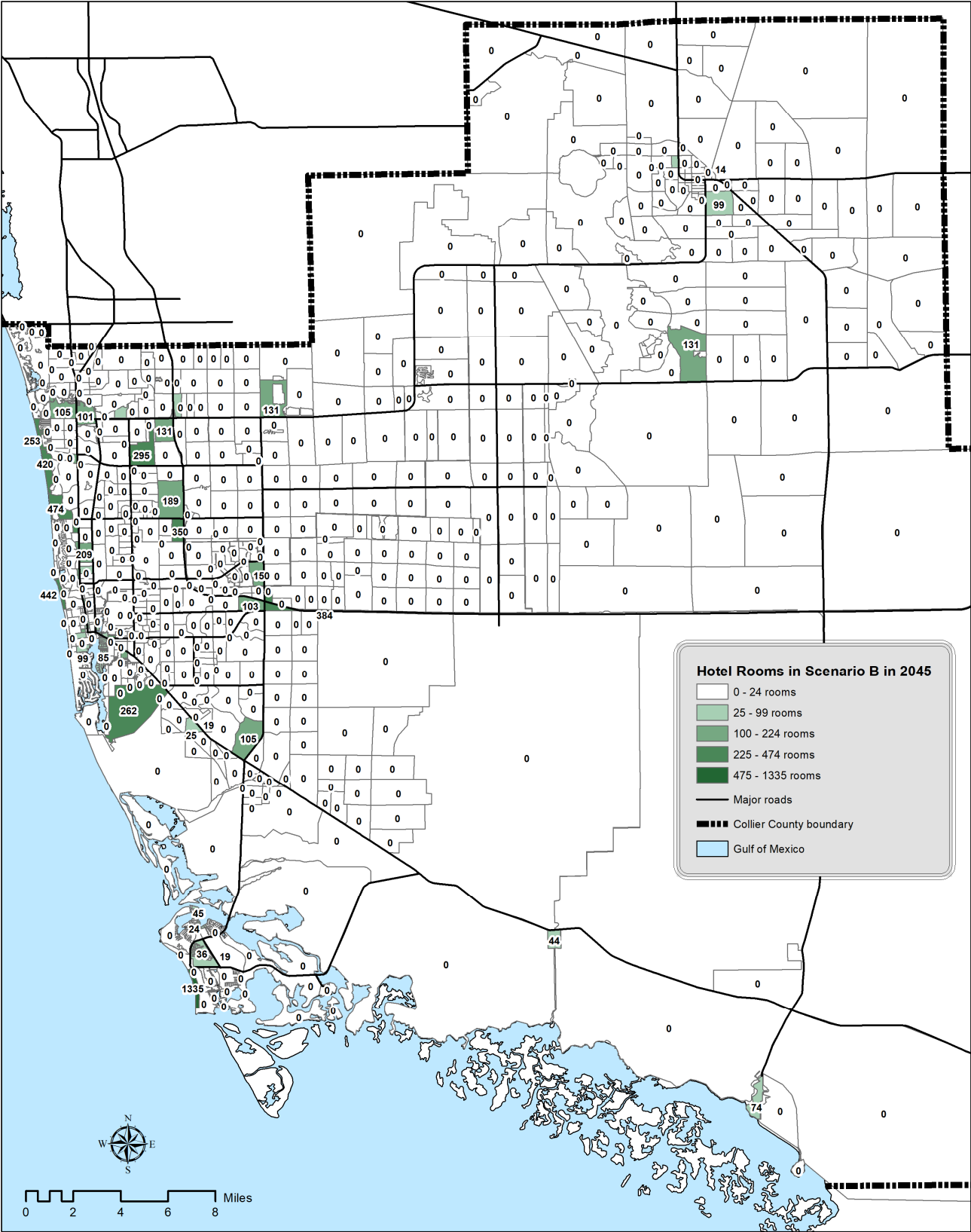


Figure 18, Number of hotel/motel rooms in 2045 in Scenario B

DATA ON LOCATION AND ENROLLMENT IN SCHOOLS: The CIGM begins with current data on the number of students attending a K-12 public school in each TAZ. The CIGM then provides forecasts of future growth in K-12 public school students; these forecasts are derived from the CIGM forecasts of population growth for Scenario A and for Scenario B. Additional public schools that could serve the expanded student population are then designated within CIGM. The lower population anticipated by Scenario B would reduce the number of public schools in 2045 by four elementary schools, by one middle school, and by one high school.

CIGM data on public schools was supplemented by determining the current number of students in charter schools, based on data from the Collier County School District. The current number of students in private schools was determined primarily using data submitted voluntarily to the Florida Department of Education, supplemented by data on some additional private schools that was available in the 2015 SE dataset.

Beginning this year, the number of students in post-secondary schools (including trade schools, colleges, and universities) will no longer be broken out separately in the D1-RPM, except for institutions with more than 2,000 local students. Since no local institutions exceed that threshold, post-secondary students will be included in a single data field that also include public schools, charter schools, and private schools. These students currently attend Florida SouthWestern State College, Hodges University, Ave Maria University, Ave Maria School of Law, Immokalee Technical College, and Lorenzo Walker Technical College; enrollment data was obtained from the National Center for Education Statistics.

- **Figure 19** presents the total number of students anticipated to attend all schools in each TAZ for Scenario A.
- **Figure 20** presents the same information for Scenario B.

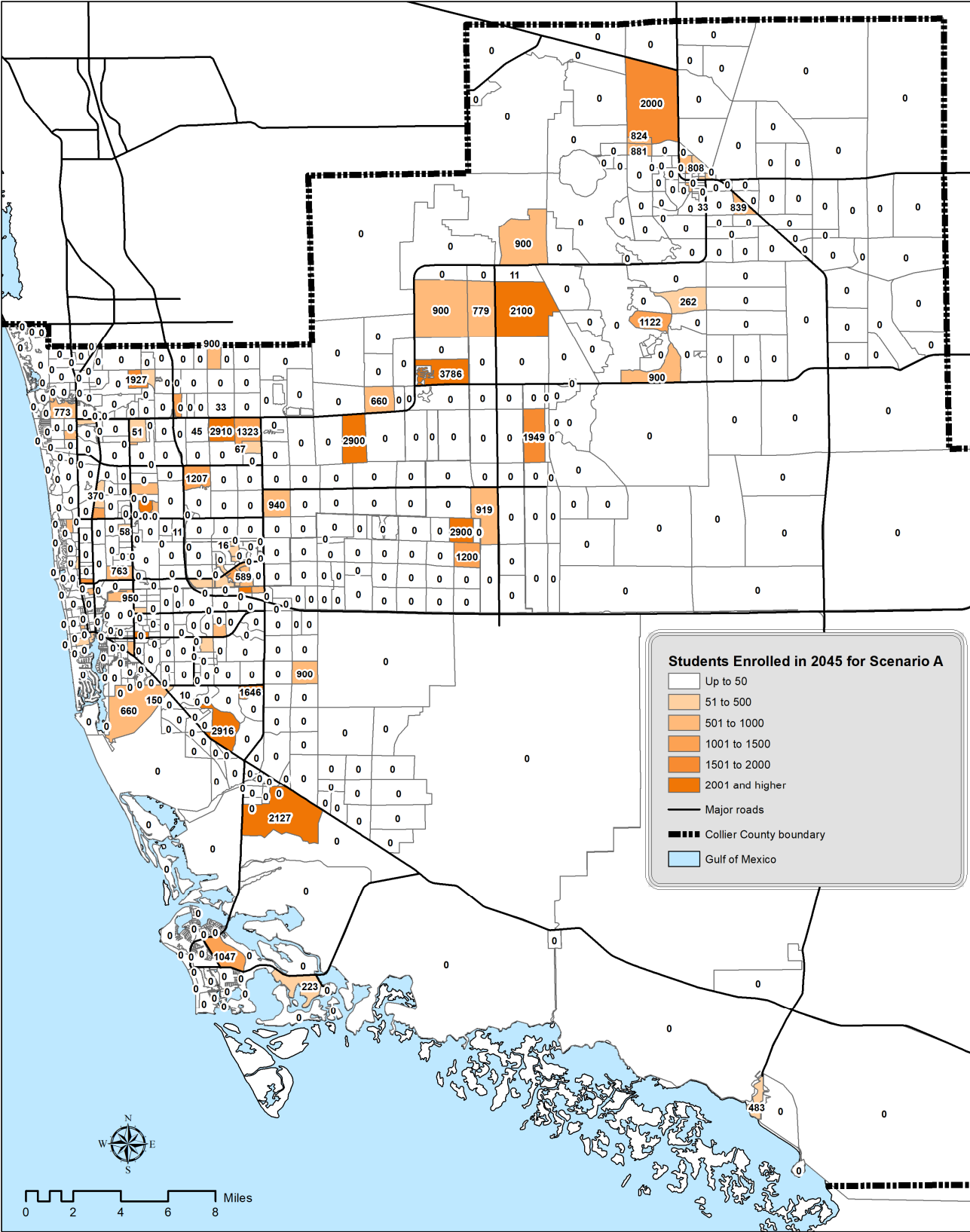


Figure 19, Students enrolled in 2045 for Scenario A

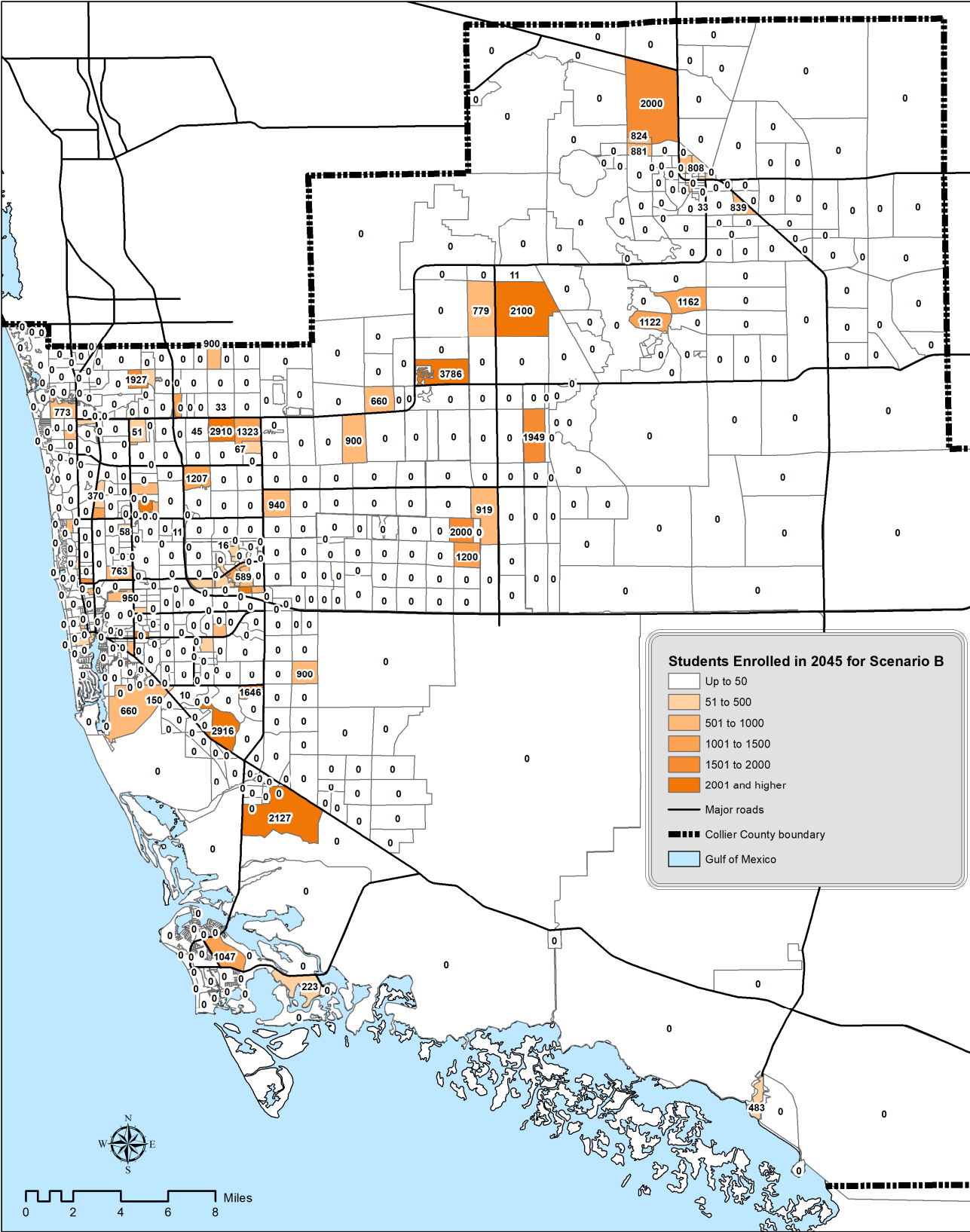


Figure 20, Students enrolled in 2045 for Scenario B

DATA ON EMPLOYEES BY PLACE OF WORK: The CIGM provides data on the approximate number of employees currently working in each TAZ, broken into five categories: industrial, retail, office, government, and institutional employees. CIGM also provides forecasts for 2045 for industrial, retail, office, and public school employees, all of which are derived from the CIGM's forecast of the additional demand for each of these land uses given the forecasted growth in population over the same period.

The number of employees to be used in the D1-RPM travel model in Scenario A for 2045 was derived as follows:

- For industrial employees, CIGM 2045 forecasts of industrial employees were used without modification.
- For commercial employees, CIGM 2045 forecasts of retail employees were used without modification.
- For service employees, the following data sources were combined:
 - CIGM 2045 forecasts of office employees; plus
 - CIGM 2017 data on institutional and government employees, plus 1.5% annual increase in government employees; plus
 - CIGM forecasts of increases in public school employees between 2017 and 2045 (public school employees in 2017 were included in the 2017 total of government employees).

The number of employees for Scenario B was computed in the same manner, without the percentage increase in government employees. The total number of employees is lower in Scenario B mainly due to the lower population in Scenario B.

- **Figure 21** presents the total number of employees in each TAZ for Scenario A; the relative intensity (in employees per acre) is shown through shading.
- **Figure 22** presents the same information for Scenario B.

Note that on Figures 21 and 22, one TAZ is circled. This TAZ (#2870) had been shown with a strong concentration of employees in a major retail and office center that would serve residents on land likely to be developed by 2045 (formerly known as Rural Lands West) and nearby residents in eastern Golden Gate Estates. The demand for this center was forecasted in 2017 by CIGM based on the assumption that the development pattern would be a new town immediately east of Golden Gate Estates.

Given the current uncertainty whether a town will in fact be built at that location, the concentration of employees (and commercial square footage) in TAZ 2870 was deemed no longer appropriate. Consequently, that concentration was reduced to match the currently proposed commercial development levels for the four villages that could replace the previously proposed town. The remaining commercial demand has been relocated nearby (further east on the south side of Oil Well Road). This relocation concept was presented to the Technical and Citizens Advisory Committees in November and the MPO Board in December and was endorsed by each group.

DATA ON WORKERS BY PLACE OF RESIDENCE: The latest D1-RPM travel model requires a new type of data: the number of workers in each TAZ, by place of residence.

This data was provided by Florida DOT for the year 2015. For 2045, the 2015 data was increased for all TAZs with more than nominal increases in households through 2045. The number of additional households forecasted by the CIGM for each TAZ was converted to the number of additional workers by applying the average 2015 ratio of workers per household in each larger zone cluster.

The number of workers for Scenario B was computed in the same manner. The total number of workers is lower in Scenario B due to the lower population in Scenario B.

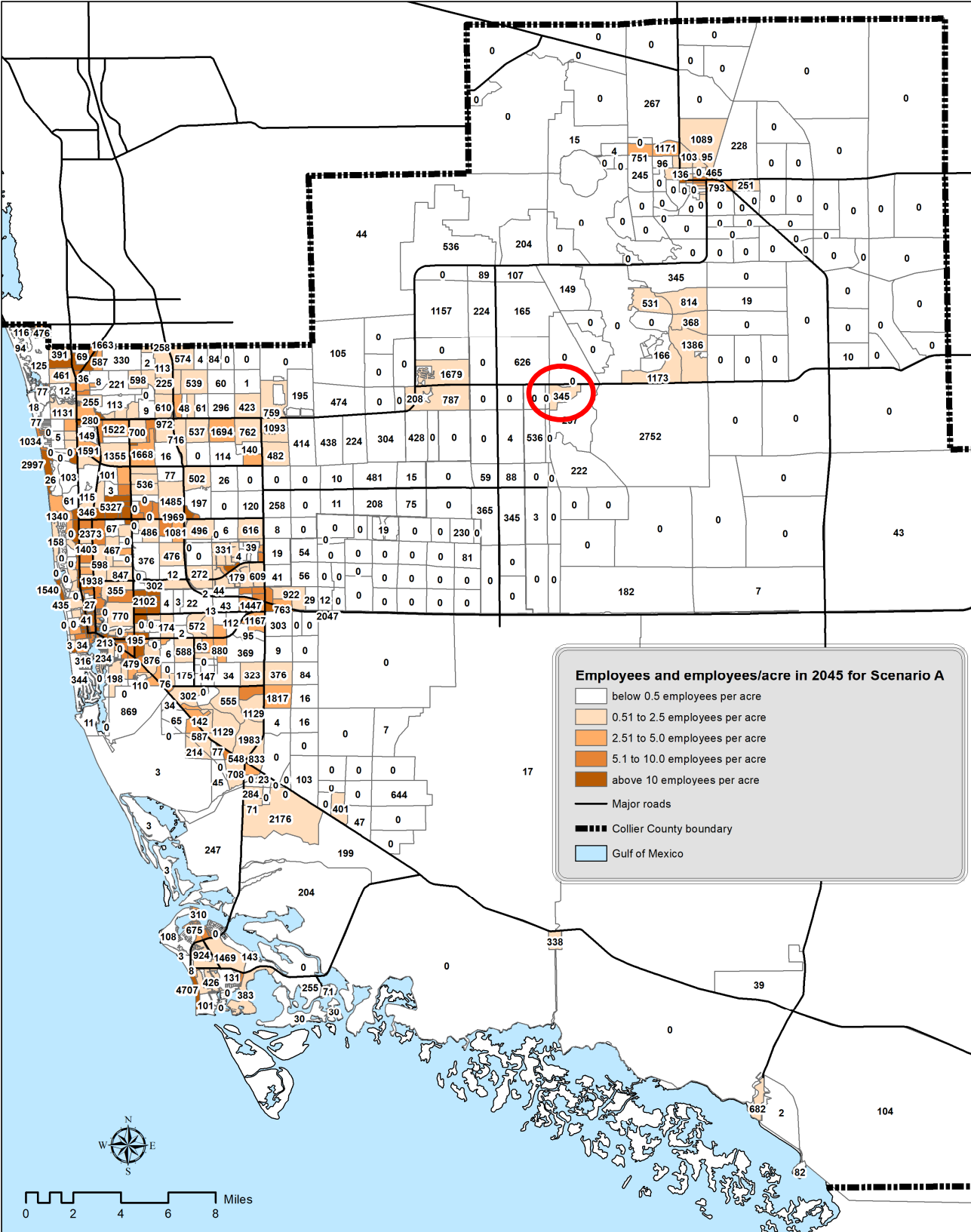


Figure 21, Employees, in each TAZ and per acre, in 2045 in Scenario A

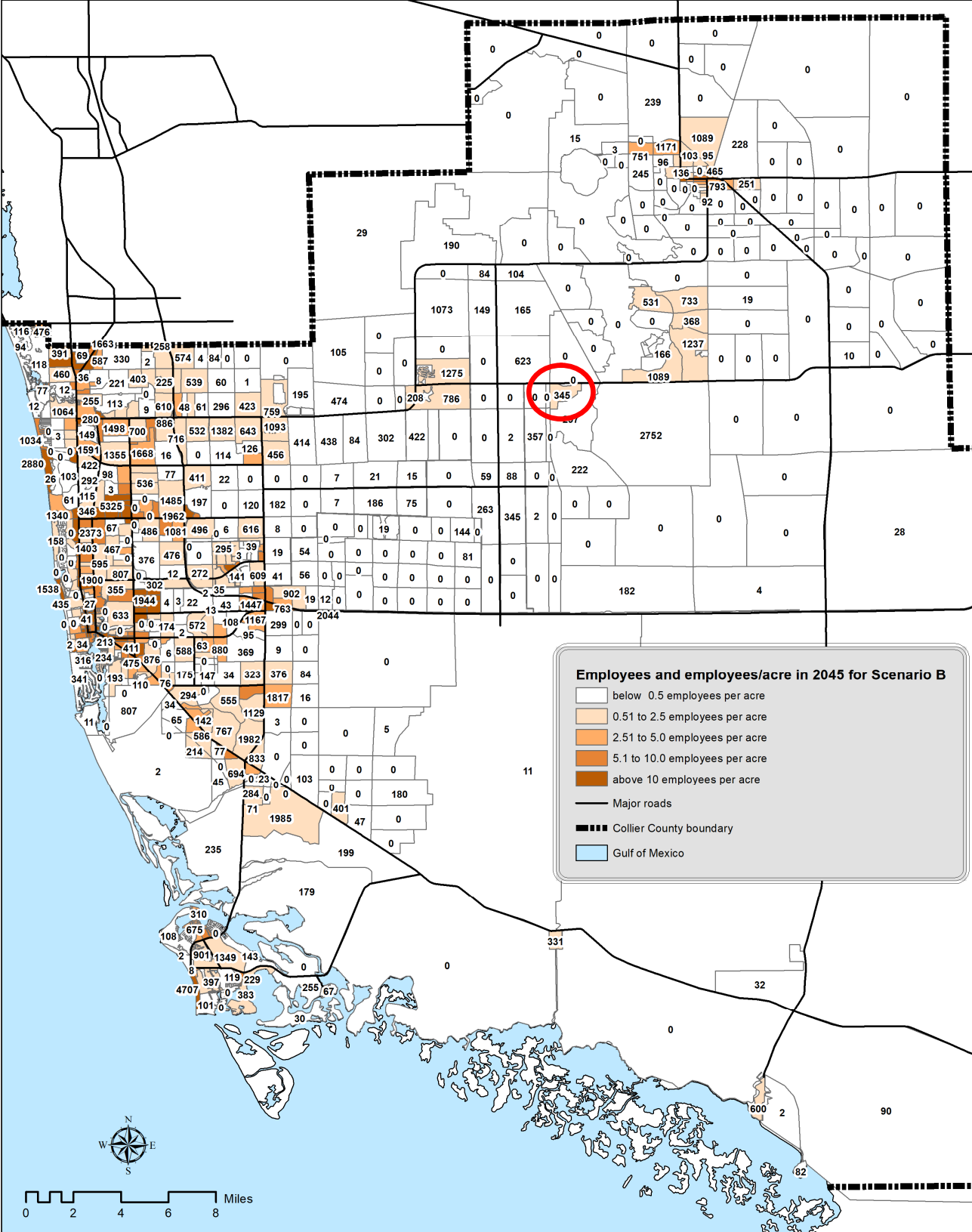


Figure 22, Employees, in each TAZ and per acre, in 2045 in Scenario B

Variations Between Year 2015 and Scenarios A & B

Figure 23 summarizes county-wide variations between the base year (2015) and Scenarios A and B for 2045.

Figure 23			
<u>SOCIO-ECONOMIC DATA</u>	<u>Year 2015</u> <u>(2015 SE data)</u>	<u>Scenario A</u> <u>(Original CIGM)</u>	<u>Scenario B</u> <u>(BEBR Medium)</u>
Single-Family Dwelling Units	102,622	163,366	151,104
Population in Single-Family Units	184,377	329,398	300,152
Multi-Family Dwelling Units	115,147	132,547	130,655
Population in Multi-Family Units	173,386	216,838	210,085
Residential Population (in SF + MF units)	357,763	547,290	510,237
Hotel/Motel Rooms	8,817	9,642	9,380
Students in School (including colleges)	67,922	79,817	75,117
Employees (at place of work)	143,044	223,011	212,780
Workers (at place of residence)	179,594	213,735	194,090

Detailed SE Datasets for 2015 and 2045

The full SE dataset for 2015, as prepared by Florida DOT, can be downloaded in GIS format from:

www.spikowski.com/details/CollierMPOscenarios.html

The full datasets for both 2045 scenarios are available in Excel format from the same address. These Excel files can be mapped and viewed in GIS by using the TAZ15_ fields to link the Excel files to the latest TAZ boundaries in the 2015 dataset.

Automated, Connected, Electric and Shared-Use Mobility White Paper



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Automated, Connected, Electric and Shared-Use Mobility White Paper – Draft

November 2020



Jacobs



Automated, Connected, Electric and Shared Mobility White Paper

Introduction

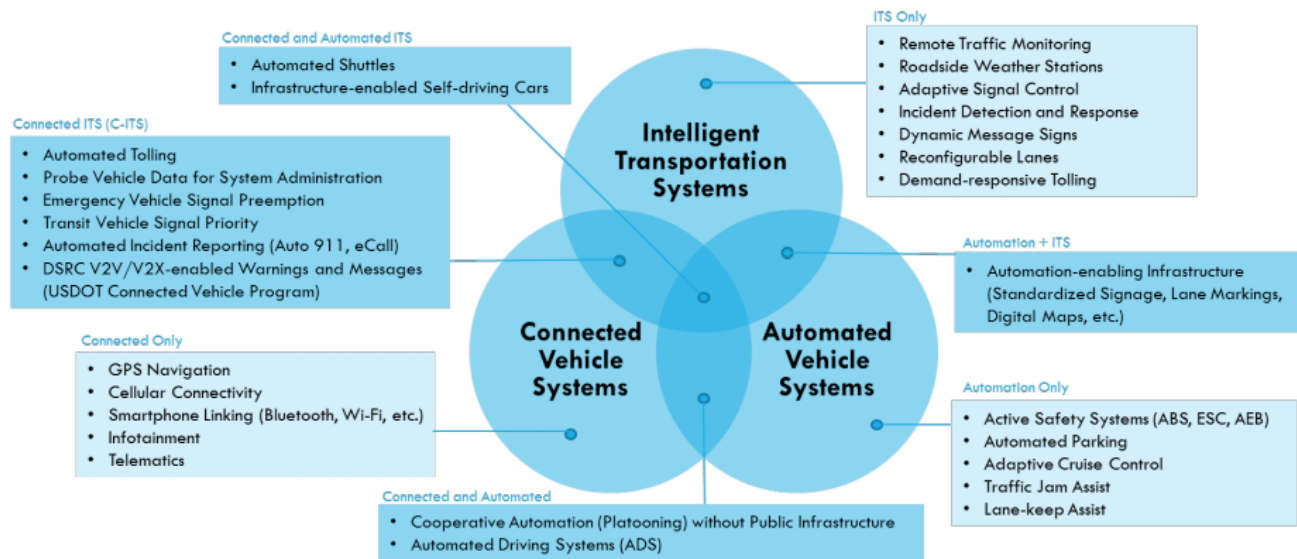
The Federal Highway Administration and the Federal Transit Administration are encouraging Florida and other Metropolitan Planning Organizations (MPOs) to incorporate Automated, Connected, Electric and Shared-Use (ACES) vehicles into their next round of Long Range Transportation Plans (LRTP). In 2016, Florida passed a bill mandating that MPOs “assess capital investment and other measures necessary to...make the most efficient use of existing transportation facilities to relieve vehicular congestion, improve safety and maximize the mobility of people and goods. Such efforts must include, but are not limited to, consideration of infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as automated technology and other developments.” Because no Florida Department of Transportation (FDOT) policy or design guidance existed to help MPOs plan for the transition to ACES, FDOT prepared a guidance document to help Florida MPOs deal with the amount of potential change as they plan for their transportation needs between now and 2045 (FDOT 2018).

Defining ACES

ACES (or connected and automated vehicle [CAV]) can refer to a variety of existing vehicle technologies. These technologies may work at the vehicle level, transportation system level, or both. **Figure 1** presents the various approaches that can be identified within three categories: intelligent transportation systems (ITS), automated vehicle (AV) systems, and connected vehicle (CV) systems.

Figure 1. Advance Transportation Technologies

Source: Center for Automotive Research (2017)



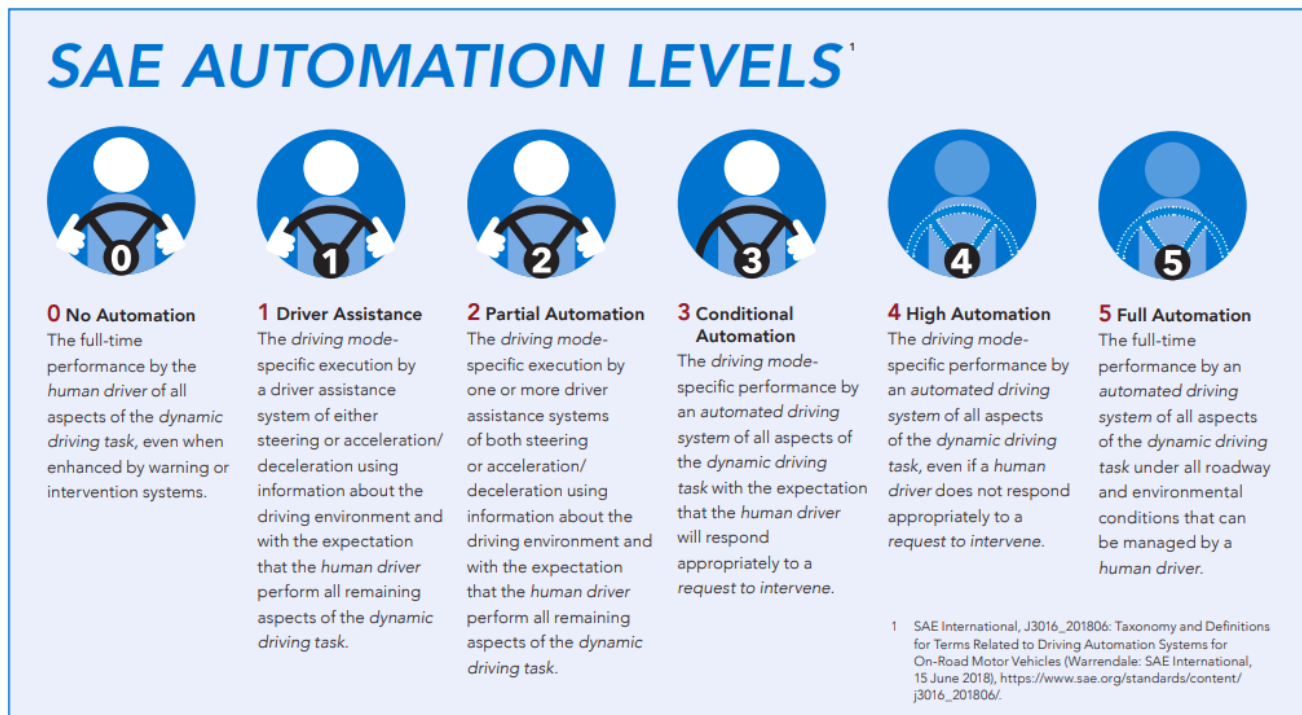
ITS use information and communication technologies in the existing transportation infrastructure including traffic signals, automated tolling, transit vehicle signal priority (that is, dedicated bus lanes), and cooperative systems (for example, vehicle-to-vehicle [V2V] or vehicle-to-infrastructure [V2I] communications). V2V systems describe wireless communication between vehicles, such as safety warnings and messages. V2I systems describe wireless communication between vehicles and the infrastructure (for example, connecting a vehicle to cellular towers for navigation purposes).

CV systems exchange digital communications wirelessly between the vehicle and the outside world. Some vehicles receive data communication, some send data, and some both send and receive communications. These vehicles are primarily digital and do not use sensors (for example, radar or LIDAR [Light Detection and Ranging]) or analog (for example, AM/FM radio or CB radio) to communicate.

AV systems are electronic and influence the motion of the vehicle (NHTSA 2020). They use a combination of hardware (sensors, cameras, or radar) and software to help the vehicle identify risks to warn the driver to act. Automated driving systems can operate a vehicle independently (without a human driver). The Society of Automotive Engineers (SAE) developed framework for Levels of Automation as well as definitions for terms related to automated driving systems (refer to **Figure 2**). Automation Levels range from Level 0 to Level 5. Level 1 through Level 3 require a human driver, but have some varying degree of automation, such as adaptive cruise control or lane assist. Levels 4 and 5 do not require a human driver and are fully automated.

Figure 2. SAE Automation Levels

Source: USDOT (2018)



Benefits and Drawbacks of ACES Technologies

Because emerging technologies have the potential to transform conventional transportation practices, it is important to understand the potential benefits and drawbacks of the various technologies. The key benefit to these emerging technologies is the potential to improve safety by reducing injuries and fatalities caused by human error and distractions. However, ACES technologies also introduce a great deal of unknowns, such as costs, social inequities, and new planning requirements that make navigating policy difficult. Concerns for MPOs related to potential ACES impacts include significant changes to where people live and work affecting planning for land use and travel. Additionally, as a significant share of the vehicle fleet no longer pays motor fuel taxes because of a shift to electric vehicles, existing transportation funding sources will be reduced, leaving MPOs to adjust their investment programs. **Table 1** presents potential positive and negative effects from these emerging technologies as noted in the FDOT ACES guidance document.

Table 1. Potential Positive and Negative Effects Resulting from ACES Technologies

Technology	Potential Negative Effect(s)	Potential Positive Effect(s)
Automated Vehicles	<ul style="list-style-type: none"> • Potential increase in vehicle miles traveled from empty vehicles • Changes in land use or urban form 	<ul style="list-style-type: none"> • Increased mobility for children, elderly, or the disabled at potentially lower costs • Reduced parking demand

Table 1. Potential Positive and Negative Effects Resulting from ACES Technologies

Technology	Potential Negative Effect(s)	Potential Positive Effect(s)
		<ul style="list-style-type: none"> • Changes in land use or urban form • Crash-free driving and improved vehicle safety • Reduced need for new roadway infrastructure and reduced maintenance costs
Connected Vehicles	<ul style="list-style-type: none"> • Potential hacking of a transportation network 	<ul style="list-style-type: none"> • Potential increase in roadway capacities • New safety features • Improved congestion management • Crash-free driving and improved vehicle safety • Reduced need for new roadway infrastructure and reduced maintenance costs • Substantially reduce uncertainty in travel times via real-time, predictive assessment of travel times on all routes
Electric Vehicles	<ul style="list-style-type: none"> • Decrease in transportation funding sources from reduction in motor fuel tax revenues 	<ul style="list-style-type: none"> • Potential reduction in air emissions (depending on energy sources used to generate electricity) • Reduced energy consumption and efficient infrastructure
Shared-Use Vehicles	<ul style="list-style-type: none"> • Complete Street design challenges because of competition for limited curb space in urban areas 	<ul style="list-style-type: none"> • Opportunities for mobility hubs and new funding sources

Planning for ACES

The Collier MPO 2045 LRTP development process began early in 2019 by establishing the plan's goals and objectives. The LRTP goals and objectives are a critical part of the planning process because the transportation project needs are based on these goals and objectives. Each goal was assigned a weighting factor, and evaluation criteria were used to evaluate and compare how well potential transportation projects met the goals and objectives. Collier MPO staff addressed the MPO Citizens Advisory Committee and Technical Advisory Committee during one of their regular meetings on May 20, 2019, to request input on the 2045 goals and objectives. In response to the state requirements to plan for ACES, the following goal was added to the LRTP:



Goal #11: Consider Connected and Autonomous Vehicles (CAV) Technology in Future

Advances in automotive infrastructure technology through connected vehicles or self-driving cars pose some of the biggest challenges to transportation planning (for example, equity among users). The potential for disruptions to transportation systems includes changes to land uses and the system network itself. However, because of the potential safety benefits, the

Collier MPO is exploring ways to incorporate these technologies into the transportation network. The total weighting factor for this goal is 4 percent.

The goal objectives include:

- Explore options for application and implementation of CAV technologies, in light of the lack of current guidance.
- Consider new guidance and developments during the LRTP process. Identify, evaluate, and adopt strategies to address identified vulnerabilities.

The evaluation criteria for this goal asks if the transportation project uses technological improvements (for example, ITS or transit signal priority). When ranking the transportation projects in the Needs Plan as they relate to use of technological improvements, projects received a score of 5 if they incorporated technology into the improvements and a score of 0 if they did not.

For the 2045 LRTP update, one CAV planning scenario was modeled by FDOT. As noted in the FDOT White Paper in **Attachment A**, vehicles with Level 3 automation may represent 30 to 60 percent of the vehicle fleet by 2035. The FDOT D1RPM Model Network included special-use lanes and ramps on I-75 in Lee and Collier counties. The CAV planning scenario assumed 35 percent of the vehicles on the MPO network were CAV, and vehicle trips were separated into CAV and non-CAV trips. CAV trips were coded with special-use lanes that were used exclusively by CAV. The CAV scenario model output resulted in minor capacity improvements to the overall network in the Collier County area.

The FDOT's ACES guidance document notes that given the uncertainties around ACES deployment and impacts, MPOs should consider high-level strategic planning and performance-setting activities that involve:

- Identifying transportation and societal goals and objectives that may be achieved through AV and CV technologies
- Setting the general parameters under which CV and AV deployment can be facilitated to achieve agency and societal goals
- Developing performance measures that support specific safety, congestion, mobility, and environmental goals that may be supported by AV and CV systems and can be used to track the results of testing and investment in these systems over time
- Outlining potential communication toward building the business case for investing in ACES, generating support for adoption of safety and mobility applications, and promoting incentives for producers to improve applications and technology

The FDOT Florida Connected Vehicle Initiative includes multiple planning, design/implementation, and operational connected vehicle projects throughout the state (FDOT 2019). While there are currently no projects or initiatives in Collier County, there is one project in neighboring Lee County: US 41 Florida's Regional Advanced Mobility Elements (FRAME), which is in the initial phases. The overall goal is to improve efficient operations of the traffic signals along the corridor, thereby improving mobility as well as provide information for connected vehicles. The project covers approximately 30 miles and 71 traffic signals and includes the following initiatives:

- Traffic signal controllers/cabinets upgrades
- Connected Vehicle Road Side Units deployment
- Pedestrian detection using LIDAR detectors
- Deployment of Automated Traffic Signal Performance Measures

The 2045 LRTP includes multiple intersection projects along US 41 including at Immokalee Road, Goodlette-Frank Road, Collier Boulevard, Pine Ridge Road, and Golden Gate Parkway, as well as a study along a constrained portion of US 41 from Immokalee Road to Old US 41. All of these projects will benefit from lessons learned during the design and implementation of the FDOT-funded FRAME project.

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Attachment A

Implementation of CAV into the D1RPM in Development of 2045 LRTP Updates White Paper



White Paper -- Implementation of CAV into the D1RPM in Development of 2045 LRTP Updates

PURPOSE

In light of emerging technologies and State legislative guidance (Appendix 1), Metropolitan Planning Organizations/Transportation Planning Organizations (MPO/TPO) must address the potential effects of Connected and Automated Vehicles (CAV) in developing their 2045 Long-Range Transportation Plan (LRTP) updates. Development of the District 1 Regional Planning Model D1RPM is currently underway by the Florida Department of Transportation (FDOT) District 1 with MPO/TPO alternative testing scheduled for completion prior to the adoption of the MPO/TPO LRTPs in 2020-2021. The purpose of this white paper is to explore the potential effects of level 2 and level 3 CAV on traffic forecasting in developing the new 2015-2045 (D1RPM) and explain steps the District is taking to assist the MPO/TPOs in addressing these new requirements.

INTRODUCTION

The new automotive technologies addressed in this paper include adaptive cruise control, traffic incident warning, and self-parking systems provided by some new car models on the road today. Defined by Society of Automotive Engineers as “levels 2-3 automation”, these vehicles are anticipated to provide safer and more efficient travel as their numbers increase and become a significant portion of vehicles on Florida’s roadways. For example, the study: *Planning for Cars That Drive Themselves: Metropolitan Planning Organizations, Regional Transportation Plans, and Autonomous Vehicles*, Erick Guerra, *Journal of Planning Education and Research*, 2015, suggests that by providing safer and more efficient spacing or platooning of vehicles, these CAVs can potentially bring significant increases roadway capacity and reductions in vehicle collisions.

While we may continue to speculate about when fully autonomous vehicles (levels 4 and 5 automation) will become a significant portion of the vehicle mix, it is understood this level of technology has the potential to fundamentally change transportation infrastructure planning, engineering, and operations. It also promises to expand mobility for the very young, the elderly, and the disabled and may substantially lower travel costs for all.

According to the 2018 FDOT report “Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicles (ACES)”, level 3 automation may represent 30% to 60% of the vehicle fleet by 2035 (see table A 2-1 in Appendix 3). As previously mentioned, this significant increase could yield an increase in roadway lane capacity. Therefore, our discussion begins by considering the impact this may have on the development and use of the 2045 D1RPM model in District 1.

MODEL PLANNING ELEMENTS

White Paper -- Implementation of CAV into the D1RPM in Development of 2045 L RTP Updates

With respect to Travel Demand Forecasting, the FDOT report *“Emerging Technology, Demographic Changes, and Travel Behavior; Trends, Key Parameters, and Scenarios”*, FDOT-2016” proposes several key parameters in modeling CAV technology.

- Capacity of Freeway and Major Arterial Segments associated with reduced headway
- Trip Generation/Generational Effects associated with 0 car households and unlicensed driver mobility
- Value of In-Vehicle Time (IVT) associated with trip length
- Auto Operating Cost (including Parking Costs)

While data is not yet available to reliably forecast the potential effects of many of these elements, data is available pertaining to potential increases in roadway capacity due to the effects of decreased and consistent vehicle headways, or following distance, of Level 2 and 3 automation which is available on many vehicles today.

D1RPM CAV IMPROVEMENTS

As presented at past Florida Statewide Model Task Force (MTF) meetings, the 2045 D1RPM model under development has been improved to include features that allow for the testing of potential roadway capacity effects of CAV. These features include:

- A *saturation-rate* parameter used to determine the proportion of CAV in the vehicle fleet (currently on a system-wide basis);
- A *lookup table* used to estimate the effects of CAV on roadway capacity based on fleet saturation rate and facility type;
- A *separate trip purpose* designation for CAV;
- *Special-use lanes* which may be designated for exclusive use by CAV resulting in a maximum capacity increase.

A summary of other CAV related improvements to the D1RPM are as follows:

- The Model Network
 - Special-use lanes and ramps have been included in the roadway network on I-4 in Polk County; on I-75 in Sarasota/Manatee County; and on I-75 in Lee and Collier Counties.
 - Link capacity for certain facility types is modified according to the current *“lookup”* table of capacity effects which is in use.
- Auto Occupancy and Mode Choice
 - Vehicle trips are split into two tables for identification of CAV and non-CAV vehicle trips.

White Paper -- Implementation of CAV into the D1RPM in Development of 2045 LRTP Updates

- Highway Assignment
 - CAV trips are identified with a special ‘linkgroup’ code which enables special-use lanes to be used exclusively by CAV.
- Reporting
 - Model output reports modified to reflect inclusion of CAV.

Figure 1 was developed by District 1 in coordination with Professor Xiaoping (Shaw) Li, PhD with the Center for Urban Transportation Research (CUTR) at the University of South Florida (USF), to reflect his extensive research and field experiments in testing autonomous vehicles. Dr. Li’s research provides a reasonable, albeit conservative estimate of the effects of platooning and CAV fleet saturation rates on roadway capacity. Additional data on potential capacity effects are included in Appendix 2.

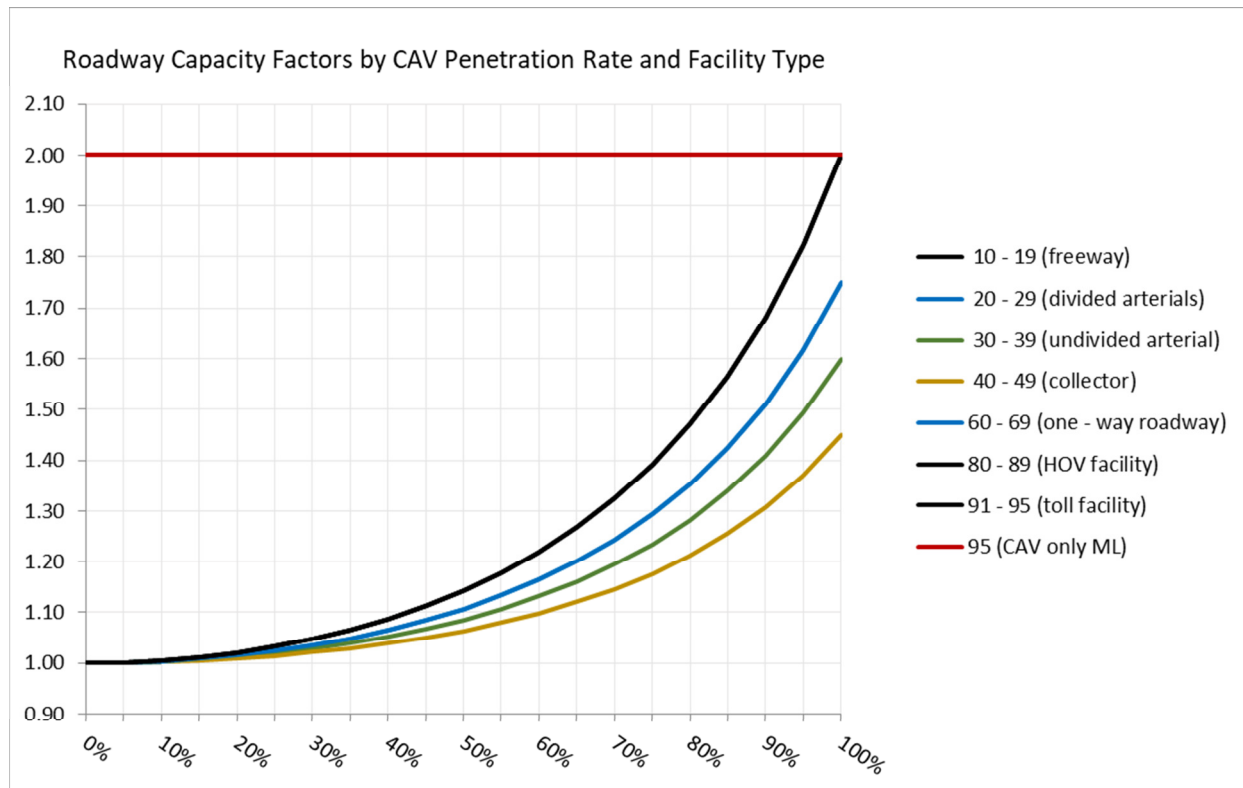


Figure 1: Roadway Capacity Factors by CAV Penetration Rate and Facility Type

IMPLEMENTATION OF D1RPM CAV CAPABILITIES IN THE MPO/TPO 2045 LRTP UPDATES

In consideration of Federal and State of Florida legislative guidance, FDOT District 1 proposes to assist District MPO/TPOs in the development of their upcoming 2045 LRTP Updates by

White Paper -- Implementation of CAV into the D1RPM in Development of 2045 LRTP Updates

incorporating these model procedures within the D1RPM, as deemed appropriate, as an initial step in addressing the potential effects of CAV on roadway capacity.

Appendix 1 – Legislative Guidance

Federal Highway Administration, Section 1430 of the FAST ACT, with respect to Use of Modeling and Simulation Technology, states *“It is the sense of Congress that the Department should utilize, to the fullest and most economically feasible extent practicable, modeling and simulation technology to analyze highway and public transportation projects authorized by this Act to ensure that these projects: (1) will increase transportation capacity and safety, alleviate congestion, and reduce travel time and environmental impacts; and (2) are as cost effective as practicable.”*

Recent CAV legislation available on the FDOT Florida Automated Vehicles site, (automatedfl.com) conveys the following:

Florida HB 7027 Recommends MPOs consider advances in vehicle technology when developing long-range transportation plans and requires FDOT to accommodate advances in vehicle technology when updating the Strategic Intermodal System Plan.

Statute 339.175 – (with respect to Long Range Transportation Plans) directs FDOT to make the most efficient use of existing transportation facilities to relieve vehicular congestions, improve safety, and maximize the mobility of people and goods. Further, it states that such efforts must include, but are not limited to, consideration of infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as autonomous technology and other developments.

Statute 339.64 (3)(c) – (with respect to Strategic Intermodal System Plan) directs FDOT to coordinate with federal, regional, and local partners, as well as industry representatives, to consider infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as autonomous technology and other developments, in Strategic Intermodal System facilities.

Appendix 2 Roadway Capacity Factors by CAV Penetration Rate and Facility Type

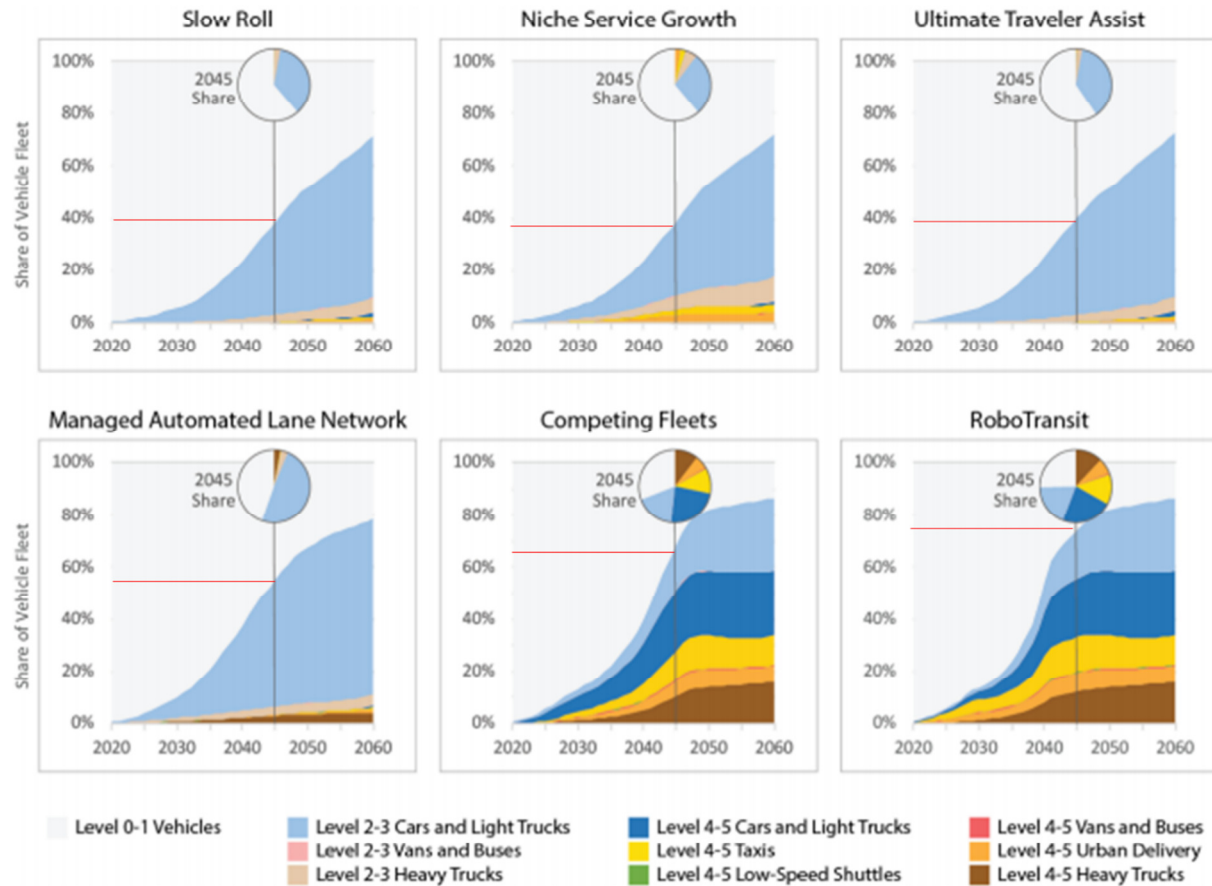
D1RPM Lookup Table: Roadway Capacity Factors by CAV Penetration Rate and Facility Type

CAV Pct.	Facility Type							
	10 - 19 (freeway)	20 - 29 (divided arterials)	30 - 39 (undivided arterial)	40 - 49 (collector)	60 - 69 (one - way roadway)	80 - 89 (HOV facility)	91 - 95 (toll facility)	95 (CAV only ML)
0%	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2.0000
5%	1.0013	1.0009	1.0008	1.0006	1.0009	1.0013	1.0013	2.0000
10%	1.0050	1.0038	1.0030	1.0023	1.0038	1.0050	1.0050	2.0000
15%	1.0114	1.0085	1.0068	1.0051	1.0085	1.0114	1.0114	2.0000
20%	1.0204	1.0153	1.0122	1.0092	1.0153	1.0204	1.0204	2.0000
25%	1.0323	1.0242	1.0194	1.0145	1.0242	1.0323	1.0323	2.0000
30%	1.0471	1.0353	1.0283	1.0212	1.0353	1.0471	1.0471	2.0000
35%	1.0652	1.0489	1.0391	1.0294	1.0489	1.0652	1.0652	2.0000
40%	1.0870	1.0652	1.0522	1.0391	1.0652	1.0870	1.0870	2.0000
45%	1.1127	1.0845	1.0676	1.0507	1.0845	1.1127	1.1127	2.0000
50%	1.1429	1.1071	1.0857	1.0643	1.1071	1.1429	1.1429	2.0000
55%	1.1782	1.1337	1.1069	1.0802	1.1337	1.1782	1.1782	2.0000
60%	1.2195	1.1646	1.1317	1.0988	1.1646	1.2195	1.2195	2.0000
65%	1.2678	1.2009	1.1607	1.1205	1.2009	1.2678	1.2678	2.0000
70%	1.3245	1.2434	1.1947	1.1460	1.2434	1.3245	1.3245	2.0000
75%	1.3913	1.2935	1.2348	1.1761	1.2935	1.3913	1.3913	2.0000
80%	1.4706	1.3529	1.2824	1.2118	1.3529	1.4706	1.4706	2.0000
85%	1.5656	1.4242	1.3393	1.2545	1.4242	1.5656	1.5656	2.0000
90%	1.6807	1.5105	1.4084	1.3063	1.5105	1.6807	1.6807	2.0000
95%	1.8223	1.6167	1.4934	1.3700	1.6167	1.8223	1.8223	2.0000
100%	2.0000	1.7500	1.6000	1.4500	1.7500	2.0000	2.0000	2.0000

Estimated CAV percentage ranges based on 2018 ACES guidance (Appendix 3)

Appendix 3 – 2018 ACES GUIDEBOOK ADOPTION RATE ESTIMATE TABLE

Figure A2-1 Autonomous Vehicle (AV) Fleet Share by Scenario, 2020-2060



Transportation Network's Vulnerability to Climate Change White Paper



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Transportation Network's Vulnerability to Climate Change White Paper – Draft

November 2020



Jacobs



Transportation Network's Vulnerability to Climate Change White Paper

Introduction

Southwest Florida contains the largest area of tidally influenced public lands in the Gulf of Mexico and the fastest growing urban landscape in Florida. Both the human and natural components of the ecosystem are under increasing risk because of the threats of a growing human population, sea level rise (SLR), and tropical cyclones. Changing conditions including increased inland flooding, SLR, increased frequency of severe storms with high winds and greater rainfall, increased duration of droughts and rapidly spreading fires, and economic recessions. Rapid degradation and a decreased lifespan of transportation facilities is expected as these conditions increase. The Collier Metropolitan Planning Organization (MPO) along with its partnering agencies are considering the unique challenges they face to better plan for ways to protect and preserve their infrastructure.

Title 23 of the Code of Federal Regulations Part 450.306(b)(9) requires transportation planning agencies, in cooperation with the state and public transportation operators, to "improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation" in the long-range transportation planning process. Planning for resilience involves considering objectives and strategies in other planning areas, as shown on **Figure 1**.

Figure 1. Resiliency Planning Considerations

Source: *FDOT Resilience Quick Guide: Incorporating Resilience in the MPO Long Range Transportation Plan, January 2020*



Collier County Resiliency Program

Collier County initiated their own coastal resiliency program in the mid-1990s to improve the County's ability to resist storm surge, erosion, and wave impacts, and has conducted four major renourishments since 1996. The renourishments include hauling and placing more than 1.3 million cubic yards of sand on various beaches between Wiggins Pass and Gordon Pass, which are designated by the state of Florida as critically eroded. Additionally, in September 2019 and October 2020, the Board of County Commissioners approved beach renourishment projects on Park Shore, North Park Shore, and Clam Pass beaches, and Naples Beach from Doctors Pass to just north of Lowdermilk Park, respectively.

Planning for Resiliency

The Florida Department of Transportation (FDOT) *Resilience Quick Guide* was developed by the FDOT Office of Policy Planning to outline the steps for an MPO to consider through the development of the Long Range Transportation Plan (LRTP) including:

- examining the plan goals and objectives to address resilience
- developing performance measures to track progress on the objectives
- ensuring that the Needs Plan assesses the impacts on assets and mobility
- including projects and actions in the Cost Feasible Plan that will make the MPO region more resilient



The Collier MPO 2045 LRTP development process began early in 2019 by establishing the plan's goals, and objectives. The LRTP goals and objectives are a critical part of the planning process because the transportation project needs are based on these goals and objectives. Each goal was assigned a weighting factor and evaluation criteria were used to evaluate and compare how well potential transportation projects met the goals and objectives. The Collier MPO staff addressed the MPO Citizens Advisory Committee and Technical Advisory Committee during one of their regular meetings on May 20, 2019, to request input on the 2045 goals and objectives. In response to the federal requirements to plan for resilience, the following goal was added to the LRTP:



Goal #10: Consider Climate Change Vulnerability and Risk in Transportation Decision Making

A resilient transportation system is one that supports mobility, system preservation, and evacuation needs, and addresses social equity. The total weighting factor for this goal is 4 percent.

The goal objectives include:

- Identify key climate impacts of concern (rising sea levels, hurricanes, wildfires, etc.)
- Identify sensitive assets and thresholds for impacts
- Identify, evaluate, and adopt strategies to address identified vulnerabilities
- Screen projects during planning to avoid making investments in particularly vulnerable areas

The evaluation criteria for this goal asks if the transportation project promotes transportation infrastructure resiliency in the face of climate change and SLR.

To rank the roadway transportation project needs, the National Oceanic and Atmospheric Administration (NOAA) Sea Level Rise Viewer (version 3.0.0) tool was used to evaluate potential SLR and flooding to the Collier Metropolitan Area transportation network. The tool is for screening-level evaluations and uses best-available, nationally consistent data sets and analyses. The SLR viewer can be used at several scales to help estimate impacts and prioritize actions for different scenarios. For the 2045 LRTP, an intermediate high scenario was selected, which results in a 1.35 feet rise in sea level by 2040 and 1.9 feet SLR by 2050. While the data and maps provided by the tool illustrate the scale of potential flooding, the exact location of SLR and flooding is an estimate. **Attachment A** presents a map of potential SLR and coastal flooding in Collier County with a 1-foot SLR and the results of the NOAA SLR tool.

When ranking the transportation projects in the Needs Plan as they related to promoting transportation infrastructure resiliency in the face of climate change and SLR, projects received a score of 5 if they were within 0.25 miles of potential SLR and coastal flooding (assuming a 1-foot SLR), and a score of 3 if they were within 0.25 miles of a potential low-lying area.

Ongoing Studies for Possible Mitigation Strategies

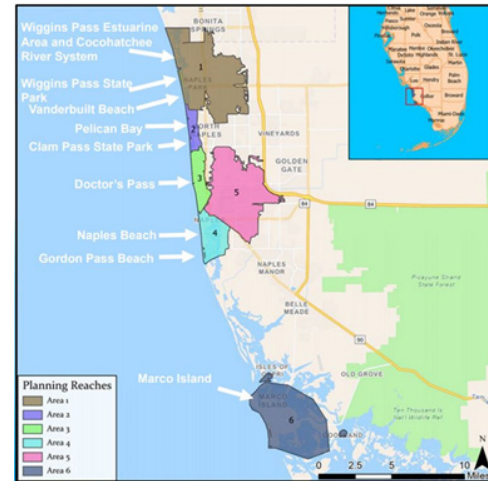
To better understand planning needs and potential actions to mitigate SLR, the County, City of Naples, City of Marco Island, and City of Everglades teamed with Florida Gulf Coast University and the University of Florida to sponsor a grant application from the National Centers for Coastal Ocean Science (a subsidiary of NOAA) for a 3-year study to develop a web-based interactive decision-support tool for Adaptation of Coastal Urban and Natural Ecosystems (ACUNE) in Southwest Florida. The Board approved a Resolution of Support for the project on September 13, 2016, and the NOAA grant was awarded. The ACUNE project began in June 2017 to develop the tool to aid resource managers, municipalities, and agencies in Collier County with decisions related to the preservation and restoration of mangrove, marsh, and beach habitats; water management; and coastal planning, zoning, and land acquisition. Further, the study is expected to provide a framework for greater community resilience and long-term adaptation strategies. The study was expected to be complete by late

spring of 2020, but has been delayed because of the COVID-19 pandemic. The anticipated release date for the ACUNE mapping tool is January 2021 at the earliest.

The U.S. Army Corps of Engineers (USACE) Collier County Coastal Storm Risk Management Feasibility Study began in October 2018 and is developing, analyzing, and evaluating coastal storm risk management alternatives for the North Collier County (including Naples) and Marco Island study areas (covering both Gulf-facing shorelines and inland bay areas). Expected to be complete by September 2021, the study divided the County into six primary planning reaches based on hydrologic boundaries and existing County project limits (refer to **Figure 2**). The USACE study estimates that relative SLR in the study area is estimated between 0.45 feet and 1.54 feet by 2045. The draft report was released on July 31, 2020, and included a tentative resilience plan called a Tentatively Selected Plan that includes structural and nonstructural measures to reduce coastal storm risk and damage to the coastal areas of the County. Structural measures include six surge-barrier systems (miter and/or sluice gates), three tide gates (sluice gates), and three floodwalls, as well as approximately 9.5 miles of beach and dune fill. Nonstructural measures include acquisition and elevation of residential structures and floodproofing of commercial structures and critical infrastructure. The total project cost is estimated at \$4.8 billion and would take 50 years to complete.

Figure 2. USACE Collier County Coastal Storm Risk Management Feasibility Study Planning Reaches

Source: USACE



One area already experiencing the impacts of SLR is Goodland Drive (CR 92A) between Goodland and the City of Marco Island. Because of its low elevation, the existing roadway is frequently flooded during peak tides and storms, cutting off access to Goodland and damaging the pavement. Current mitigation strategies employed by the County include road raising and the addition of cross-drain pipes to allow tidal and storm flows to more easily pass from one side of the road to the other.

Collier County's vulnerability to flooding from coastal and weather events is expected to remain into the foreseeable future. Based on the information presented in Attachment A, it appears that US 41 south of San Marco Road, Collier Boulevard south of US 41, San Marco Road, and SR 29 will experience significant flooding issues by 2040. Additionally, the infrastructure associated with the areas of Goodland, City of Marco Island, and Everglades City will also experience significant flooding. Because mitigation studies and model development are still underway, the 2050 LRTP update or future amendments to the 2045 LRTP should include projects and actions based on the results of the ongoing studies.

References

National Oceanic and Atmospheric Administration (NOAA). 2020a. "Sea Level Rise Viewer". NOAA Office for Coastal Management. Accessed August. <https://coast.noaa.gov/digitalcoast/tools/slr.html>

U.S. Army Corps of Engineers (USACE). 2018. "Collier County Coastal Storm Risk Management Study". November. Accessed August. <https://www.saj.usace.army.mil/CollierCountyCSRMFfeasibilityStudy/>

Florida Department of Transportation (FDOT). 2020. *FDOT Resilience Quick Guide: Incorporating Resilience in the MPO Long Range Transportation Plan*. January. http://floridatransportationplan.com/pdf/2020-01-29_FDOT%20Resilience%20Quick%20Start%20Guide_FINAL.pdf

National Oceanic and Atmospheric Administration (NOAA) RESTORE Science Program. 2020b. “A Web-Based Interactive Decision-Support Tool for Adaptation of Coastal Urban and Natural Ecosystems (ACUNE) in Southwest Florida”. Accessed August. <https://restoreactscienceprogram.noaa.gov/projects/local-coastal-tool>



Attachment A
Potential SLR and Coastal Flooding in Collier County Map
NOAA Sea Level Rise Viewer (v 3.0.0) Tool Results



Project Cost Development Methodology Technical Memorandum



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Project Cost Development Methodology Technical Memorandum – Final

November 2020



Jacobs



Project Cost Development Methodology

Background

The Financial Plan for the Collier MPO 2045 Long Range Transportation Plan (LRTP) update establishes the basis for determining how many of the projects identified during the Needs Assessment can be included in the Cost Feasible Plan and establishes the project cost framework for developing planning-level cost estimates for each individual project. Costs were developed for each project phase including Project Development and Environment (PD&E) Study, preliminary engineering/design (PE), right of way (ROW), construction (CST), and environmental mitigation. The project phase costs were developed using the Florida Department of Transportation (FDOT) 2045 LRTP Cost Estimation Tool. The cost components are applied to individual projects from the Needs Assessment to develop the Cost Feasible Plan for the LRTP. Once the projects are prioritized, the FDOT present-day cost inflation factors available in the FDOT cost estimating tool will be applied to develop Year of Expenditure costs for each project in the Cost Feasible Plan.

Project Cost Methodology and Assumptions

Once the Needs Assessment revealed a list of required projects within Collier County, project costs for PD&E, PE, ROW, CST, and environmental mitigation were developed. Costs associated with Interstate 75 improvements (managed lanes, new interchanges, or interchange modifications) and other state roads will be defined by FDOT for compliance with the Strategic Intermodal System First Five Year Plan (FY2019/2020 – FY 2023/2024), Second Five Year Plan (FY2024/2025 – FY 2028/2029), and Long Range Cost Feasible Plan (FY 2029 – FY 2045).

Prior to estimating any costs, basic information for each project including a typical section, project description, project length, and location were entered into the FDOT 2045 LRTP Cost Estimation Tool. A required tool entry called Future Area Type is based on the future typical section of each project (Rural, Urban, or Suburban). The Future Area Type and project description determined the Rural, Urban, or Suburban typical section option for each project. The cost estimating tool allows for overriding of some cells to manually enter costs that may already be known or when more detailed cost information is available.

PD&E and Preliminary Engineering Costs

Both the PD&E and PE costs are estimated by the cost estimating tool as a percentage of the total construction costs. The PD&E phase costs for each project are 5 percent of the total construction costs, and the PE phase costs are 15 percent of the total construction costs.

Right of Way Acquisition Costs

To develop the ROW costs, the existing roadway widths provided by Collier County were entered into the cost estimating tool for each project. If the project was a new corridor, the existing roadway width was entered in as zero. The proposed ROW width is based on the Future Area Type selected in the tool along with the project improvements (for example, add two additional lanes). To determine ROW costs, the tool requires entry of either High, Medium, or Low for ROW Estimate Range, which is tied to the FDOT typical section of Rural (High, Medium, and Low), Urban (High, Medium, or Low), and Suburban (High, Medium, and Low). **Table 1** lists the FDOT 2045 LRTP Cost Estimation Tool ROW Unit Cost Definitions. The tool populated the proposed ROW width and after the length of each project (in miles) was entered into the tool, the total ROW needs and cost were generated for each project. **As is standard practice, a ROW Estimate Range of rural low was assumed for all projects, which is equal to \$130,680 per acre of ROW impact.**



Table 1. FDOT ROW Unit Cost Definitions

URBAN HIGH Land in the high-density urban core. Land values are relatively high and usually development is on commercial non-acreage size lots with retail, business, and professional, parking and other commercial use land uses. This may also apply to very high traffic volume roads in any part of the urban area where commercial sites are afforded maximum exposure and commercial growth is increasing.	URBAN MEDIUM Land is contiguous to the urban core. Land values are relatively high, but lower than the core area. Tracts are usually commercial size lots and may contain some larger commercial tracts, however slightly lower density. Land use is typically retail, professional, and mixed use commercial. This cost may apply to high and moderate state and local high traffic volume roads. This may apply to the CBD of smaller cities within the county as well.	URBAN LOW Land between the urban medium and the transition area to suburban, but still within corporate limits. Land uses are mostly mixed use with more neighborhood commercial uses than residential uses. Land uses are typically neighborhood shopping centers and other neighborhood commercial uses. This may apply to the commercial areas of smaller towns/commercial nodes within the county.
SUBURBAN HIGH Less commercialized urban fringe typically outside corporate limits. Residential land uses dominate except along highway frontage. Neighborhood commercial uses front on high volume state and local highways. This cost may apply to areas abutting the central urban area of small cities and towns within the county where there is a dominance of commercial uses.	SUBURBAN MEDIUM Less commercialized urban fringe areas outside corporate limits where residential land uses dominate. However, neighborhood commercial uses and some high density residential uses share frontage on high volume state and local highways. Land values are lower than the suburban high area. This cost may apply to areas abutting the central urban area of small cities and towns within the county where there is a dominance of less intense commercial uses.	SUBURBAN LOW Urban fringe areas outside the corporate limits where there may be mixed use properties, but residential uses dominate the area including road frontage. This may also apply to smaller cities and rural towns within the county where there is mix of commercial and residential uses along roads and highways.
RURAL HIGH Low density rural areas on the suburban fringe, outside the urban service area where the typical size property may be large and estate size residential tracts. Land values are relatively lower than the suburban area. Evidence of transition to more intense uses; area most likely for subdivision of larger tracts or PUDs. May be used for suburban high for small cities and towns within the county.	RURAL MEDIUM Lesser developed rural areas well beyond the suburban fringe where many of the properties are larger tracts. Land values are lower than the suburban area. Area static, but FLUM shows more intense land uses are planned. Slightly higher density than RURAL LOW. May be used for suburban areas of small cities and towns within the county.	RURAL LOW Land use in undeveloped rural areas well beyond the suburban fringe where the typical size properties are large tracts. Land values are significantly lower than the suburban area. Land use changes are possible, but rural/agricultural character is likely to remain. May be woodlands. Development is minimal and sporadic. May be used for rural area surrounding small cities and rural towns.

Notes:

CBD = Central Business District

FLUM = Future Land Use Map

Construction Costs

Based on the typical section selected for each project, the cost estimating tool estimates unit cost per mile for construction. The tool then adds the following costs based on the preliminary construction costs:

- Maintenance of Traffic (MOT) = 10 percent of construction costs



- Mobilization = 10 percent of construction costs
- Construction, Engineering and Inspection (CEI) = 15 percent of construction costs
- Project Unknowns = 25 percent of the subtotal of construction costs, MOT, Mobilization, and CEI

The resulting total construction costs per project include the preliminary construction costs, MOT costs, mobilization costs, CEI costs, and project unknowns.

Environmental Mitigation Costs

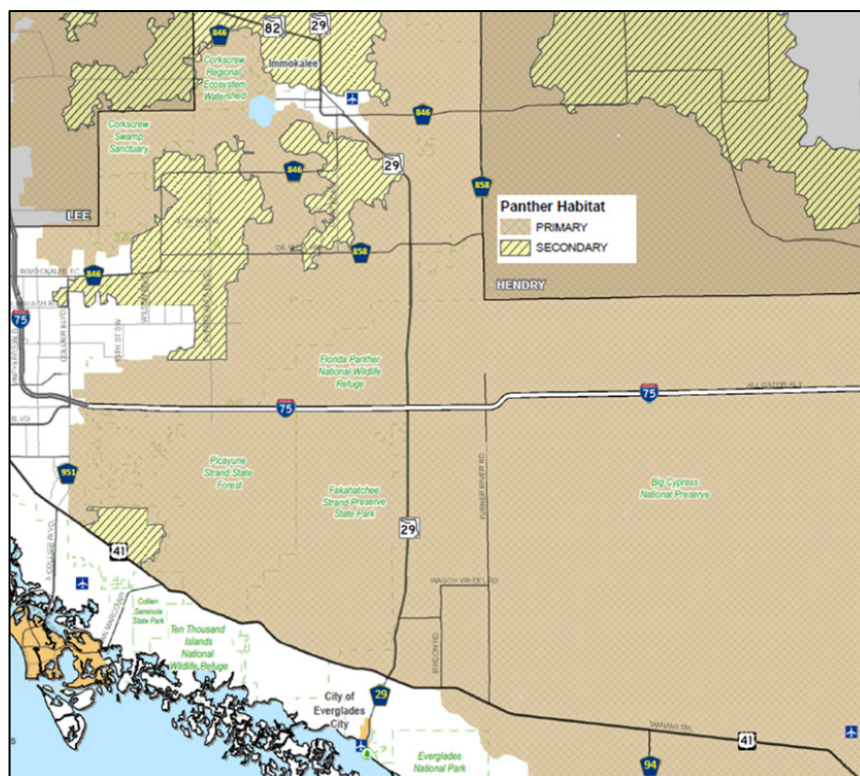
As an integral part of the Needs Assessment process, an evaluation of potential impacts to wildlife, habitat, and wetlands was conducted for each facility in the needs network. Although impacts to natural resources are to be avoided or minimized, a worst-case scenario evaluation of potential environmental mitigation costs was performed. The natural resources evaluation was limited to wetland and panther habitat impacts using the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory and Florida Panther Habitat databases. Once the potential impact areas were determined for each project, mitigation costs were estimated. The assumptions for estimating the environmental mitigation costs are provided in the following text. The calculations were performed to determine planning-level mitigation costs. It should be noted that costs for additional mitigation, such as secondary impacts to wetlands or additional species surveys (for example, Florida bonneted bat), are not typically included at this planning level of evaluation. Mitigation costs are routinely determined at the time of permitting of a project, but planning-level cost estimates are used to better determine the overall project costs. Prior to determining the environmental mitigation costs, the area of environmental impacts for each project was determined using geographic information system tools.

Panther Habitat Mitigation Costs

To secure and permanently protect the Florida panther habitat, a federal permit is required to convert panther habitat to other uses and an equal Panther Habitat Units (PHUs) value must be purchased elsewhere in the Panther Focus Area. PHUs are calculated for each acre of land in each zone in the Panther Focus Area.

The Panther Focus Area is separated into two zones: Primary Zone and Secondary Zone, as shown on **Figure 1**. The Primary Zone lands are considered essential to the long-term viability and persistence of the panther in the wild. The Secondary Zone lands, while contiguous with the Primary Zone, are currently used by few panthers but could accommodate expansion of the panther population south of the Caloosahatchee River.

Figure 1. Panther Habitat Focus Areas in Collier County



Research of recent Collier County project's panther habitat mitigation costs indicates that a single PHU costs between \$745 to \$850. Florida panther mitigation costs were calculated by multiplying the project's final number of PHUs by \$745 (based on the most recent Collier County projects for PHU costs). The number of PHUs for each project were calculated based on the USFWS Panther Habitat Assessment Methodology (September 24, 2012):

PHU = Panther Focus Area Habitat Impacted (acres) x USFWS Base Ratio (2.5) x Habitat Functional Value x Landscape Multiplier

- **USFWS Base Ratio (2.5):** The USFWS Base Ratio of 2.5 provides for the protection of sufficient acreage of Primary Zone equivalent lands for a population of 90 panthers.
- **Habitat Functional Value:** The habitats within the project impact area are assigned a habitat functional value. The habitat functional value reflects the suitability of the habitat for the panther. **Table 2** presents the assigned USFWS habitat functional values for various land cover types near the Panther Focus Area. One land cover type with a habitat value of 9 was assumed for all projects in the Collier 2045 LRTP project cost estimates. **A habitat value of 5.7 for Unimproved Pasture was assumed for all projects and was derived from the average value (from 0 to 9.5).**
- **Landscape Multiplier:** The landscape multiplier is a function of whether the project is in a Primary or Secondary Zone. For the 2045 LRTP project cost estimates, all projects were assumed to be in the Primary Zone and, therefore, were assigned a landscape multiplier of 1. **Projects in the Primary Zone are multiplied by 1.0, while projects in the Secondary Zone are multiplied by 0.69.**

Table 2. Florida Panther Habitat Unit Values

Source: USFWS (2012)

Table PM2. Revised panther habitat unit values for use in assessing habitat value to the Florida panther.

Land Cover Type	Value	Land Cover Type	Value	Land Cover Type	Value
Reservoirs	*	Xeric scrub	4.5	Dry prairie	6.3
STAs	**	Orchards/groves	4.7	Upland Hardwood Forest	9.0
Urban	0	Marsh/ wet prairie	4.7	Cypress swamp	9.2
Water	0	Cropland	4.8	Hardwood swamp	9.2
Barren/Disturbed lands	3	Improved pasture	5.2	Hardwood-Pine	9.3
Coastal wetlands	3	Shrub swamp/brush	5.5	Upland-Hydric Pine forest	9.5
Exotic/nuisance plants	3	Unimproved pasture	5.7		

* PHU values for reservoirs are evaluated based on open water for the main water areas and the appropriate categories for berms and other non-water sections. Refer to pages 5- 7 for the accompanying text for guiding criteria for these systems.

** PHU values for stormwater treatment areas vary depending on design criteria, mode of operation, location in native or non-native habitats, and other landscape features. Refer to page 6 for the accompanying text for guiding criteria for these systems.

Wetland Mitigation Costs

Wetland mitigation serves to offset unavoidable wetland impacts. The ecological benefits of wetland mitigation compensate for the functional loss resulting from the permitted wetland impact. To determine the amount of mitigation needed to offset potential adverse impacts to jurisdictional wetlands and surface waters, an evaluation to assess their ecological functions is required. There are three ecological functional assessment categories: location and landscape support, water environment, and community structure. These are scored with respect to the value they provide to wildlife and fisheries. Each functional assessment category is scored on a scale from 0 to 10 (where 10 indicates a minimally impaired or high quality wetland system). Scores are based on site-specific conditions, such as the wetland's size, connection to other natural areas, structural complexity, wildlife habitat, distance from development, and water quality. The functional assessment categories scores are summed then divided by 30 to determine a weighted wetland impact score between 0 and 1 (the higher the number the higher the wetland quality). Once the wetland impact score is known, it is multiplied by the area of potentially impacted wetlands (acres) to yield the number of wetland credits required to be mitigated.

For the 2045 LRTP update, an impact score of 0.6 was assumed for all project wetlands. The wetland credits determined for each project (area of potentially impacted jurisdictional wetlands multiplied by 0.6) was then multiplied by an estimate of \$105,000 per wetland credit to yield the wetland mitigation cost. Research of recent Collier County project's wetland mitigation costs indicates that a conservative wetland mitigation credit is approximately \$105,000.

References

U.S. Fish and Wildlife Service. 2012. *Panther Habitat Assessment Methodology*. September 24.
https://www.fws.gov/verobeach/MammalsPDFs/20120924_Panther%20Habitat%20Assessment%20Method_Appendix.pdf



Financial Resources Technical Memorandum



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Financial Resources Technical Memorandum – Final

November 2020



Jacobs



Financial Resources Technical Memorandum

Background

This Technical Memorandum documents the assumptions used to develop future revenues for the Collier Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP) update. The assumptions give the Collier MPO a reasonable estimate of future revenues that can be used to fund the multimodal transportation projects included in the Collier MPO 2045 LRTP. Consistent with the requirements of Title 23 of United States Code Section 134 (23 U.S. Code §134), the revenues identified for the 2045 LRTP are reasonably expected to be available during the planning period through 2045. Three multi-year phases used to report available revenues and project costs are shown on **Figure 1** and are consistent with the state and federal requirements for LRTPs.

Figure 1. Revenue Bands

Collier 2045 Long Range Transportation Plan				
Funding Document	TIP	LRTP Cost Feasible Plan		
Time Period	Present – 2025	2026 – 2030 (5 Years)	2031 – 2035 (5 Years)	2036 – 2045 (10 Years)

Revenue Projections

The Collier MPO 2045 LRTP includes revenue projections from federal, state, and county sources. The following section describes the revenue sources used to develop the 2026–2045 Cost Feasible Plan. **Table 1** summarizes the total projected revenues as future Year of Expenditure (YOE) dollars that are anticipated to be available for the LRTP. The statewide estimates for federal and state revenues for use in the metropolitan planning process, and methodology to develop the estimates, were developed in coordination with the Florida Department of Transportation (FDOT).

Collier County (hereafter, “the County”) has funded transportation projects using a variety of local sources including fuel taxes, impact fees, and General Fund transfers (ad valorem) in addition to federal and state revenues. For the 2045 LRTP update, it is assumed that the County will continue to use these revenue sources to contribute funding toward the 2026–2045 Cost Feasible Plan. The following sections briefly describe the individual revenue sources used to develop the 2026–2045 Cost Feasible Plan. The sections also include a projection of the total future year dollars that will be used in the LRTP for demonstrating financial feasibility using YOE revenues and costs.

Federal/State Revenue Sources

Projections of federal and state revenues for use in MPO LRTPs are generated by FDOT. Through enhanced federal, state, and MPO cooperation and guidance provided by the MPO Advisory Council, FDOT has provided a long-range revenue estimate through 2045. At a statewide level, these forecasts are allocated to the seven FDOT districts. FDOT has further subdivided the District 1 revenue forecast by County for use in the Collier MPO 2045 LRTP (refer to **Attachment A**). **Table 2** highlights these revenues for Collier MPO in YOE format as required by MAP-21¹ and is followed by a description of each revenue source and the associated assumptions.

¹ MAP-21 is the Moving Ahead for Progress in the 21st Century Act, which was signed into law on July 6, 2012, by President Obama.



Table 1. LRTP Revenue Projections Summary

Jurisdiction	Funding Source	Total 2026–2045 (YOE)
Revenues Dedicated to Transit Operations		
Federal	Transit Operations	\$50,770,000
State	Transit Operations	\$30,414,000
Local	Transit Operations	\$177,500,000
Fares	Transit Operations	\$23,821,000
Local	Transportation Disadvantaged	\$24,454,000
	Subtotal – Transit Operations	\$306,959,000
Revenues Dedicated to Transit Capital Projects		
Federal	Transit Capital	\$81,966,000
Federal/State	Transit Capital	\$281,000
Local	Transit Capital	\$17,186,000
	Subtotal – Transit Capital Projects	\$99,433,000
Total Transit Revenues		\$406,392,000
Revenues Dedicated to Roadway Operations and Maintenance		
County	General Fund (Ad Valorem)	\$240,000,000
County	Fuel Tax (48% of \$375.53M Net Revenues)	\$180,254,000
	Total Operations and Maintenance	\$420,254,444
Revenues Dedicated for Collier 2045 LRTP Roadway Projects		
Federal	Transportation Alternatives Program	\$6,760,000
Federal	Transportation Management Area	\$100,360,000
Federal	Strategic Intermodal System	\$337,404,000
State	Other Arterial Construction & Right of Way (ROW)	\$443,200,000
State	Other Arterial Project Development and Environment and Design	\$97,504,000
County	Transportation Impact Fees	\$346,275,700
County	Fuel Tax (52% of \$375.53M Net Revenues)	\$195,275,300
Total for Collier MPO 2045 LRTP Roadway Projects		\$1,526,779,000

Table 2. Federal and State Revenue Projections (YOE)

Jurisdiction	Funding Source	2026–2030	2031–2035	2036–2045	Total 2026–2045
Federal	Transportation Alternatives (Urban Area)	\$1,690,000	\$1,690,000	\$3,380,000	\$6,760,000
Federal	Transportation Management Area (TMA)	\$25,090,000	\$25,090,000	\$50,180,000	\$100,360,000
State and Federal	Other Arterial (OA)/ Construction & ROW	\$100,620,000	\$110,540,000	\$232,040,000	\$443,200,000
State	Transportation Regional Incentive Program (TRIP)	\$3,924,000	\$4,368,000	\$8,952,000	\$17,244,000
State and Federal	Transit	\$33,016,000	\$39,662,000	\$90,761,000	\$163,439,000
Total Revenues		\$164,340,000	\$181,350,000	\$385,313,000	\$731,003,000
Jurisdiction	Funding Source	2026–2030	2030–2045	Total 2026–2045	
Federal	Strategic Intermodal System	\$38,622,000	\$298,782,000	\$337,404,000	

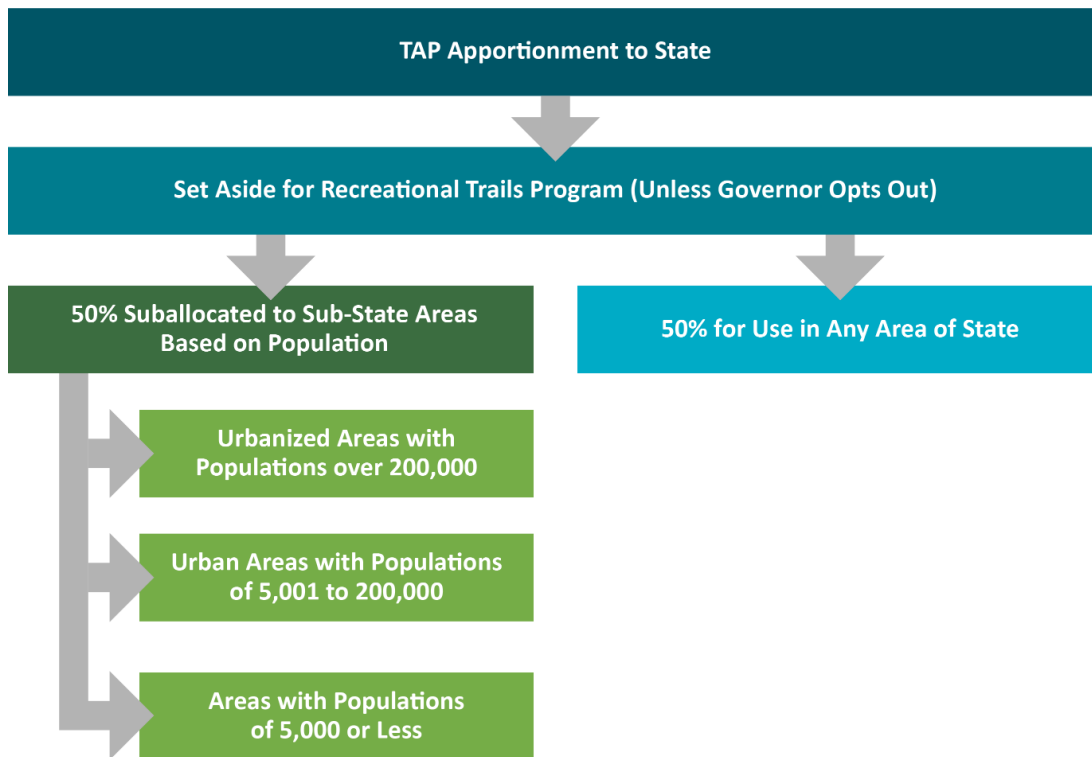
Transportation Management Area

Additional federal funds are distributed to an urban area that has a population greater than 200,000 (known as a TMA), as designated by the U.S. Census Bureau following the 2010 Census. These revenues are listed as the Surface Transportation Program Urban Attributable (XU) funds in the FDOT *Five-Year Work Program* (FDOT 2020). As indicated in Attachment A, approximately **\$100.36 million** in future revenues will be available from 2026–2045 for the County.

Transportation Alternatives Program

Created as a new funding program under current federal transportation legislation (MAP-21), the Transportation Alternatives Program (TAP) combines three previous programs—Transportation Enhancements, Safe Routes to School, and Recreational Trails Program. Revenue estimates for the TAP are developed into categories based on population. Designed solely to fund projects that are non-auto-based, nine eligible project types can be funded by these revenues, as outlined in 23 USC Section 213(b) and 101(a)(29). The one revenue category of the TAP that is available to the County is the Transportation Alternatives–Urban Area funds, which are available to urbanized areas designated as a TMA (greater than 200,000 population). **Figure 2** illustrates how the TAP revenues are distributed throughout the state. Approximately **\$6.76 million** in future TAP revenues are estimated to be available to the Collier MPO from 2026–2045.

Figure 2. Distribution of Transportation Alternatives Program Revenues



Strategic Intermodal System

The Strategic Intermodal System (SIS) capacity program provides funds for construction, improvements, and associated ROW acquisition on the State Highway System (SHS) roadways that are designated as part of SIS. SIS planning, led by FDOT, includes a First Five-Year Plan (FY 2019/2020 – FY 2023/2024), a Second Five-Year Plan (FY 2024/2025–FY2028/2029), and the SIS Long Range Cost Feasible Plan (FY 2029–2045). Using the Second Five-Year and the Long Range Cost Feasible SIS plans, approximately **\$337.4 million** in improvements have been identified for 2026–2045 within the County.

Other Arterial Construction/Right of Way

This capacity program provides funds for construction, improvements, and associated ROW acquisition on SHS roadways that are not designated as part of the SIS. OA revenue includes additional funding for the Economic Development Program and the County Incentive Grant Program. The Economic Development Program is a sub-program of the OA program that may provide funds for access roads and highway improvements for new and existing businesses and manufacturing enterprises that meet certain criteria. As shown in Attachment A, approximately **\$443.2 million** in future revenues will be available to the Collier MPO for roadway infrastructure projects for the 2026–2045 timeframe.

Transportation Regional Incentive Program

TRIP was established as part of the state’s major growth management legislation enacted with Senate Bill 360. The program is intended to encourage regional planning by providing matching funds for improvements to regionally significant transportation facilities identified and prioritized by regional partners. The Collier MPO has partnered with the Lee County MPO to develop a regional roadway network that identifies regional facilities that could be eligible for TRIP funding. For long-range planning purposes, it is assumed that this FDOT-district-allocated revenue could be divided among the counties of FDOT District 1 based on population. FDOT District 1 revenues are projected to be \$143.7 million (2014 dollars) for the 2026–2045 timeframe. A population-based

distribution of the TRIP funds within District 1 results in approximately **\$17.2 million** in future revenues that could be available for the County during the 2026–2045 planning horizon. However, because this revenue source is not directly allocated to Collier County, it was not assumed as a revenue source in developing the 2045 Cost Feasible Plan.

Federal/State Transit Revenues

Estimates of federal and state transit revenues are based on information provided in the FDOT 2045 *Revenue Forecasting Guidebook* and the Collier Area Transit (CAT) 10-Year Transit Development Plan (TDP). CAT recently updated their TDP through the year 2030 for both capital and operating expenses (CAT 2020). Revenue assumptions in the TDP and the Collier MPO 2045 LRTP will be coordinated as both plans develop. The total federal and state transit revenues assumed for the 2026–2045 planning timeframe in future year dollars for capacity projects are **\$101.8 million**. For transit operations, the total federal, state, and local revenues for the 2026–2045 period are **\$310.5 million**. The development of the TDP may result in additional revenues available for future transit service improvements.

Local Revenue Sources

Transportation Impact Fees

Transportation impact fees (TIFs) provide revenue for financing the addition and expansion of roadway facilities needed to accommodate specific new growth and development. If growth rates are high, the County will have more impact fee revenues to fund growth-related infrastructure sooner, rather than later. If growth slows down, less revenue will be generated and the timing and need for future infrastructure will be realized later, rather than sooner.

To project TIF revenues through 2045, historical TIF collections, historical permitting, and population growth projections were considered.

1. Future population was projected using 2045 medium-level population projections provided by the Bureau of Economic and Business Research (BEBR) at the University of Florida (BEBR 2020).
2. Total housing units (broken down by single- and multi-family units) was obtained using TAZ-level data from the Collier Interactive Growth Model and in-house long-range demographic modeling. Additional existing housing unit data (for mobile homes and retirement communities) was inferred from historical permitting data.
3. Projected growth in housing units between 2026–2045 was calculated using the above data. Total projected housing units in 2045 was obtained by using average occupants per household data and medium-level 2045 population projections from BEBR. Growth was allocated among various housing types (single-family, multi-family, mobile homes, and retirement communities).
4. Projected units were then multiplied by the current adopted impact fee rates in Collier County. It was assumed that these rates will remain constant and that the County will continue to collect TIFs through 2045. After residential TIF revenues were projected, non-residential TIF revenues were determined using a ratio analysis based on the County's historical impact fee collection. Approximately 75 percent of all impact fee revenues are estimated to come from residential development with the remaining 25 percent coming from non-residential development.

Additionally, the revenue projections for earlier years were adjusted to account for the impact fee pre-payment requirements in Collier County. The County requires that 33 percent of the estimated TIF be paid prior to approval of a Site Development Plan or Residential Plat and issuance of a Certificate of Adequate Public Facilities (COA) for transportation concurrency. As of August 2020, the County has a COA balance of approximately \$44.5 million, which indicates that there is a large number of future permits for which impact fees have already been collected. It was assumed that approximately 20 percent of this total would remain by 2026, and the



remaining funds would be exhausted during the 2026–2030 timeframe. For the Collier MTP 2045 LRTP, **\$346.3 million** in future-year revenues are anticipated to be available from 2026 to 2045 (refer to [Table 3](#)).

Table 3. Transportation Impact Fee Revenue Projections (YOE)

Transportation Impact Fee	2026–2030	2031–2035	2036–2045	Total 2026–2045
Total (Residential + Non-Residential)	\$117,117,446	\$86,601,470	\$142,556,813	\$346,275,729

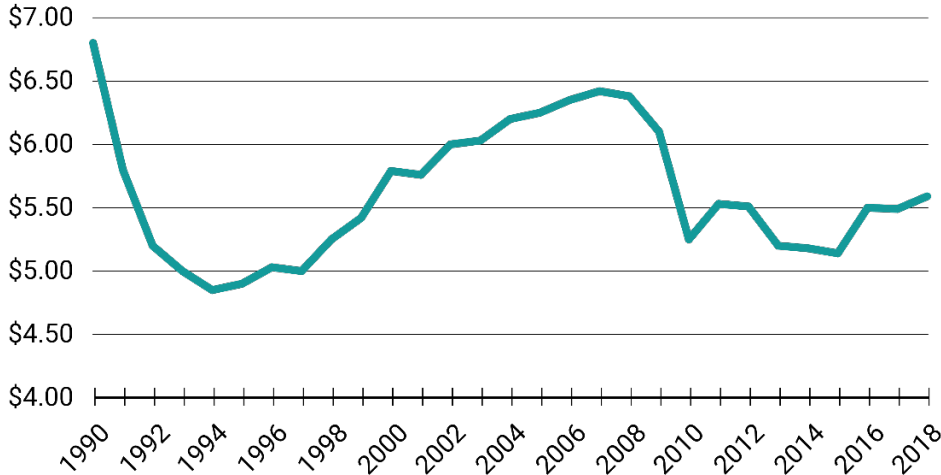
Fuel Taxes

Fuel taxes represent a major portion of Collier County’s local transportation revenues. The County currently charges a 12 cents of local option fuel tax in addition to the 3 cents of state fuel tax for local use. Fuel tax revenue is dedicated to both transportation capacity expansion and maintenance and operations. This section provides a brief outline of adopted and available fuel taxes as well as historical trends and projected future revenues for all fuel tax options in the County.

Figure 3 illustrates the trend in historical fuel tax revenue per capita for the County fuel tax (1 cent). As shown, the fuel tax revenue per capita has decreased by an annual average of 1.21 percent since 1989. Throughout Florida, the fuel tax per capita has decreased by 0.28 percent during this same time.

Figure 3. Collier County Fuel Tax (1 Cent) Per-Capita Trend

Source: Collier MPO Financial Resources Technical Memorandum



Local fuel tax revenues are based on a set pennies-per-gallon charge, not a percentage of the sale. Therefore, fuel taxes do not increase as gas prices increase or with the effects of inflation. Since 1980, fuel efficiency has increased by approximately 0.50 percent each year. Because of recent changes in fuel efficiency standards for new vehicles, the fleet-wide fuel efficiency is expected to increase by more than 5 percent annually through 2025, which will reduce fuel tax revenues. Moreover, as electric vehicle market share continues to increase, motor vehicle demand for fuel will decrease even if overall vehicle miles travelled remain the same (or even increase). Therefore, based on the combination of ongoing fuel efficiency improvements and the continued market share increase for electric vehicles, it was assumed that fuel tax revenue levels will decrease by approximately 1.5 percent annually through 2045.

Table 4 provides projected fuel tax revenues for the County through 2045. Fuel taxes collected by the cities within the County have not been considered during the LRTP. Future decisions to include city fuel tax revenues can be determined based on project funding needs. These projections assume that all locally adopted fuel taxes

will continue to be implemented as they are currently and at their current rates through 2045. Current obligations that are fulfilled through fuel tax revenues, as shown in the Collier County Budget, are shown in **Table 4**. The result is **\$375.5 million** of future year net revenues between 2026 and 2045 for the LRTP.

Table 4. Fuel Tax Revenue Projections for Collier County (YOE)

Jurisdiction	Funding Source	2026–2030	2031–2035	2036–2045	Total 2026–2045
County	Constitutional Fuel Tax	\$20,972,071	\$19,445,650	\$34,748,345	\$75,166,066
County	County Fuel Tax	\$9,226,138	\$8,554,628	\$15,286,666	\$33,067,432
County	9-Cent Fuel Tax	\$8,020,836	\$7,437,051	\$13,289,616	\$28,747,503
County	6-Cent 1st Local Option Fuel Tax	\$45,011,202	\$41,735,129	\$74,578,461	\$161,324,792
County	5-Cent 2nd Local Option Fuel Tax	\$34,214,541	\$31,724,287	\$56,689,618	\$122,628,446
Total Revenues					\$420,934,239
County	Transfer for Cities	-\$12,668,203	-\$11,746,167	-\$20,989,777	(\$45,404,147)
Net Revenues					\$375,530,092

Constitutional Fuel Tax (2 Cents Per Gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county; collected in accordance with Article XII, Section 9 (c) of the Florida Constitution.
- The state of Florida allocates 80 percent of this tax to counties after first withholding amounts pledged for debt service on bonds issued pursuant to provisions of the Florida Constitution for road and bridge purposes.
- Funds can be used for ROW acquisition, construction, and maintenance of roads.
- Counties are not required to share the proceeds of this tax with their municipalities.

Based on the distribution provided in the *Local Government Financial Information Handbook* (EDR 2019), the County will receive approximately **\$4.7 million** from the Constitutional Fuel Tax in FY 2019/2020.

County Fuel Tax (1 Cent Per Gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county.
- The primary purpose of these funds is to help reduce a county's reliance on ad valorem taxes.
- Proceeds are to be used for transportation-related expenses including reduction of bond indebtedness incurred for transportation purposes. Authorized uses include acquisition of ROW, construction, reconstruction, operation, maintenance; repair of transportation facilities, roads, bridges, bicycle paths, and pedestrian pathways; and reduction of bond indebtedness incurred for transportation purposes.
- Counties are not required to share the proceeds of this tax with their municipalities.

Based on the distribution provided in the *Local Government Financial Information Handbook*, the County will receive approximately **\$2.1 million** from the County Fuel Tax in FY 2019/2020.

9th-Cent Fuel Tax (1 Cent Per Gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county.
- Proceeds may be used to fund transportation expenditures as defined in Section 336.027(7), Florida Statutes.
- To accommodate statewide equalization, this tax is automatically levied on diesel fuel in every county, regardless of whether a county is levying the tax on motor fuel at all.
- Counties are not required to share the proceeds of this tax with their municipalities.

Based on the distribution provided in the *Local Government Financial Information Handbook*, the County will receive approximately **\$1.8 million** from this fuel tax in FY 2019/2020. It was assumed that the County allocates a similar portion of these revenues to the municipalities as it does with the 1st Local Option Fuel Tax (14.52 percent to municipalities).

6-Cent 1st Local Option Fuel Tax

- Tax applies to every net gallon of motor and diesel fuel sold within a county.
- Proceeds may be used to fund transportation expenditures as defined in Section 336.025(7), Florida Statutes.
- To accommodate statewide equalization, all 6 cents are automatically levied on diesel fuel in every county, regardless of whether a county is levying the tax on motor fuel at all or at the maximum rate.
- Proceeds are distributed to a county and its municipalities according to a mutually agreed-upon distribution ratio or by using a formula contained in the Florida Statutes.

Based on the distribution provided in the *Local Government Financial Information Handbook*, the County will receive approximately **\$10.2 million** from this fuel tax in FY 2019/2020, with 85.48 percent allocated to the County and the remaining 14.52 percent distributed to cities.

5-Cent 2nd Local Option Fuel Tax

- Tax applies to every net gallon of motor fuel sold within a county except for diesel fuel.
- Tax must be levied by an ordinance adopted by a majority plus one vote of the membership of the governing body or voter approval in a countywide referendum.
- Proceeds may be used to fund transportation expenditures needed to meet requirements of the capital improvements element of an adopted Local Government Comprehensive Plan or for expenditures needed to meet the immediate local transportation problems and for other transportation-related expenditures that are critical for building comprehensive roadway networks by local governments. Routine maintenance of roads is not considered an authorized expenditure.
- Proceeds are distributed to a county and its municipalities according to a mutually agreed-upon distribution ratio or by using a formula contained in the Florida Statutes.

Based on the distribution provided in the *Local Government Financial Information Handbook*, the County will receive approximately **\$7.7 million** from this fuel tax in FY 2019/2020, with approximately 85.48 percent allocated to the County and the remaining 14.52 percent distributed to cities.



General Fund/Ad Valorem

In the past, the County has used General Fund revenues to help fund capacity expansion and debt service, but with recent constraints placed on this fund, fuel taxes have been shifted into this role. While taxable values are stabilizing, the County will continue to contribute General Fund revenues only to non-capacity roadway improvements.

As outlined in the Collier County FY 2020/2021 adopted budget, the County will transfer General Fund dollars into Capital Fund 310 to support the maintenance and improvement of the transportation network. For LRTP purposes, it was assumed that the County would continue to transfer General Fund revenues to this transportation fund and that the funds would continue to be available to fund transportation-related operations and maintenance improvements. Additionally, it was assumed that the County would continue to transfer these funds at the current level through 2045. FY 2021 General Fund transfers to Fund 310 total approximately **\$12.4 million**. To account for projected population growth in the County, an annual adjustment factor of 1.2 percent was used consistent with the population projections used for the LRTP. As the County's population increases, the revenues transferred to Fund 310 will increase in the same proportion.

In addition to the General Fund transfers for operations and maintenance, the current budget indicates a transfer for Transportation Disadvantaged services. Using the latest "FY 2015 Current" values, General Fund transfers total approximately \$2.3 million annually for Funds 427 and 429. Similar to the transportation-related transfers, the projections for these funds have been adjusted to account for projected population growth in the County. The revenue projections from these transfers are highlighted in **Table 5**.

Table 5. General Fund Revenue Projections (YOE)

Jurisdiction	Funding Source	2026–2030	2031–2035	2036–2045	Total 2026–2045
County	General Fund/Ad Valorem	\$60,000,000	\$60,000,000	\$120,000,000	\$240,000,000
Total Revenue					\$240,000,000

Sales Tax

The Collier Board of County Commissioners placed a 1-cent infrastructure sales surtax referendum on the November 6, 2018, General Election Ballot. It was subsequently approved by a majority of County voters. This sales tax is estimated to produce an average of \$70 million a year for 7 years (or \$490 million in total revenue). Collier County will receive approximately \$420 million of this projected sales tax revenue. Of this amount, the County will allocate approximately \$191 million for transportation projects between 2019 and 2026.

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Attachment A
2045 Forecast of State and Federal Revenues for Statewide and
Metropolitan Plans – Revenue Forecast for the Collier MPO Long Range
Plan Update



2045 REVENUE FORECAST COLLIER MPO

WITH STATEWIDE, DISTRICTWIDE AND COUNTY-SPECIFIC PROJECTIONS

2045 Forecast of State and Federal Revenues for Statewide and Metropolitan Plans

Overview

This report documents the Florida Department of Transportation (FDOT) revenue forecast through 2045. Estimates for major state programs for this metropolitan area, for FDOT Districts, and for Florida as whole are included. This includes state and federal funds that “flow through” the FDOT work program. This information is used for updates of Metropolitan Planning Organization (MPO¹) Long Range Transportation Plans (LRTPs) and related documents.

Background

In accordance with federal statute, longstanding FDOT policy and leadership by the Metropolitan Planning Organization Advisory Council (MPOAC), the Office of Policy Planning (OPP) provides projections of future available funding to Florida’s 27 MPOs. This data is known as the Revenue Forecast. Consistent data is being applied to the development of the FDOT Strategic Intermodal System (SIS) Highway Cost Feasible Plan.

The department developed a long-range revenue forecast through 2045. The forecast is largely based upon recent federal legislation (e.g., the FAST Act²) and changes in multiple factors affecting state revenue sources and current policies. This 2045 forecast incorporates (1) amounts contained in the department’s work program for FYs 2018 through 2022, (2) the impact of the department’s objectives and investment policies, and (3) the Statutory Formula (equal parts of population and motor fuel tax collections) for distribution of certain program funds. All estimates are expressed in nominal dollars, also known as year of expenditure (YOE) dollars.

Purpose

This version of the forecast (in word processing or portable document format) provides one specific MPO, and all interested parties, with dollar figures that will be necessary and useful as it prepares its 2045 LRTP. If more detail or particular additional numbers are needed, these may subsequently be delivered in spreadsheet format. This document does not forecast funds that do not “flow through” the state work program. Further information concerning local sources of revenue is available from State of Florida sources, particularly *Florida’s Transportation Tax Sources: A Primer*, and the *Local Government Financial Information Handbook*.³

¹ In this document, the general term MPO is used to refer to organizations whose names take different forms, including TPO, TPA and MTPO.

² Fixing America’s Surface Transportation (FAST) Act, Public Law 114-94, December 4, 2015.

³ FDOT’s tax source primer is available at <http://www.fdot.gov/comptroller/pdf/GAO/RevManagement/Tax%20Primer.pdf>. The financial information handbook is prepared by the Office of Economic and Demographic Research, part of the Florida Legislature; it is available at <http://edr.state.fl.us/Content/local-government/reports/lgfih17.pdf>.

This forecast features county level estimates for major FDOT capacity programs, specifically Other Roads and Transit. If an MPO includes more than one county, the county level estimates are totaled to produce an overall MPO estimate. If an MPO's boundary doesn't match county boundaries, the FDOT District will determine appropriate funding totals for that MPO. OPP is available for consultation and support, and Districts are asked to share their method and results with our office. However, final responsibility rests with the appropriate District.

There is a long-term goal to focus planning on metropolitan areas which do not correspond to county or city boundaries. In some cases, analyses and plans are based on census designated urbanized areas (UZAs). But for most sources of funding, it is more practical to define geographic areas by county boundaries.

This forecast does not break down SIS Highway expenditures to the county or District level. SIS Highway expenditures are addressed in the SIS Cost Feasible Plan (CFP), which is under preparation by the FDOT Systems Implementation Office.⁴ Districts always inform MPOs of projects that are proposed to be included in the CFP, and, conversely, CFP projects need to be included in the appropriate MPO LRTP(s) to receive federal funding.

This Forecast lists funding for FDOT programs designed to support, operate, and maintain the state transportation system. The FDOT has set aside sufficient funds in the 2045 Revenue Forecast for these programs, referred to as "non-capacity programs" here, to meet statewide objectives and program needs in all metropolitan and non-metropolitan areas. Specific District level amounts are provided for existing facilities expenditures. Funding for these programs is not included in the county level estimates.

2045 Revenue Forecast (State and Federal Funds)

The 2045 Revenue Forecast is the result of a three-step process:

1. State and federal revenues from current sources were estimated.
2. Those revenues were distributed among appropriate statewide capacity and non-capacity programs consistent with statewide priorities.
3. County level estimates for the Other Roads and Transit programs were developed, along with County, District or Statewide estimates for other funding categories that are of particular interest to the 27 Florida MPOs.

Forecast of State and Federal Revenues

The 2045 Revenue Forecast includes program estimates for the expenditure of state and federal funds expected from current revenue sources (i.e., new revenue sources were not added). The forecast estimates revenues from federal, state, and Turnpike sources included in the Department's 5-Year Work Program.

The forecast does not estimate revenue from other sources (i.e., local government/authority taxes, fees, and bond proceeds; private sector participation; and innovative finance sources). Estimates of state revenue sources were based on estimates prepared by the State Revenue Estimating Conference (REC) in September 2017 for state fiscal years (FYs) 2019 through 2028. Estimates of federal revenue sources were based on the Department's Federal Aid Forecast for FYs 2018 through 2027. Assumptions about revenue growth are shown in Table 1:

⁴ Formerly known as the Systems Planning Office.

Table 1
Revenue Sources and Assumptions

Revenue Sources	Years	Assumptions*
State Taxes (includes fuel taxes, tourism-driven sources, vehicle-related taxes and documentary stamp taxes)	2019-2028	Florida REC Estimates; these average in the range from 2.5% to 3.0% per year
	2029-2045	Annual 1.93% increase in 2029, gradually decreasing to -0.44% in 2045
Federal Distributions (Total Obligor Authority)	2018-2027	FDOT Federal Aid Forecast
	2028-2045	Annual 0.0% increase through 2045
Turnpike	2018-2028	Turnpike Revenue Forecast
	2029-2045	Annual 1.93% increase in 2029, gradually decreasing to -0.44% in 2045

* Note all growth rates show nominal, or year of expenditure, dollar figures. Consistent with REC assumptions, a constant annual inflation rate of 2.60% is projected forward indefinitely. Therefore, *an assumption of nominal growth of 1.93% signifies a real decline of about 0.65% per year.*

A summary of the forecast of state, federal and Turnpike revenues is shown in Table 2. The *2045 Revenue Forecast Guidebook* contains inflation factors that can be used to adjust project costs expressed in “present day cost” to “year of expenditure” dollars.

Table 2
Forecast of Revenues
2045 Revenue Forecast (Millions of Dollars)

(Percentages reflect percentage of total period funding produced by that source. For example, Federal funding is projected to provide 24% of all funding for the period of 2021 through 2025)

Major Revenue Sources	Time Periods (Fiscal Years)					26-Year Total ² 2020-2045
	2020 ¹	2021-2025 ¹	2026-2030	2031-2035	2036-2045	
Federal	2,353 28%	10,884 24%	11,878 23%	12,108 21%	24,217 20%	61,440 22%
State	5,263 62%	27,311 61%	34,040 65%	38,164 66%	80,399 66%	185,178 65%
Turnpike	814 10%	6,572 15%	6,688 13%	7,861 14%	16,518 14%	38,453 13%
Total²	8,430	44,768	52,606	58,133	121,134	285,071

¹ Based on the FDOT Adopted Work Program for 2018 through 2022.

² Columns and rows sometimes do not equal the totals due to rounding.

Estimates for State Programs

Long range revenue forecasts assist in determining financial feasibility of needed transportation improvements, and in identifying funding priorities. FDOT policy places primary emphasis on

safety and preservation. Remaining funding is planned for capacity programs and other priorities.

The 2045 Revenue Forecast includes the program funding levels contained in the July 1, 2017 Adopted Work Program for 2018 through 2022. The forecast of funding levels for FDOT programs for 2020-2045 was developed based on the corresponding Program and Resource Plan (PRP), which includes the Adopted Work Program and planned funding for fiscal years 2023-2026. This Revenue Forecast provides information for Capacity and Non-Capacity state programs. The information is consistent with “Financial Guidelines for MPO Long Range Plans” moved forward by the Metropolitan Planning Organization Advisory Council Policy and Technical Committee on July 13, 2017.

The Revenue Forecast entails long-term financial projections for support of long-term planning. The forecast is delivered well in advance of the 5-year LRTP adoption schedule, roughly 18 months in advance of the first required adoption. This forecast is considered satisfactory for the remainder of the 5-year cycle; in other words, it is useful for MPOs whose adoptions come at the end of the cycle, about 3½ years after the first MPOs. However, FDOT reserves the right to consider adjustments to the Revenue Forecast during the LRTP adoption cycle, if warranted.

Capacity Programs

Capacity programs include each major FDOT program that expands the capacity of existing transportation systems (such as highways and transit). Table 3 includes a brief description of each major capacity program and the linkage to the program categories used in the PRP.

Statewide Forecast for Capacity Programs

Table 4 identifies the statewide estimates for capacity programs in the 2045 Revenue Forecast. \$285 billion is forecast for the entire state transportation program from 2020 through 2045; about \$149 billion (52%) is forecast for capacity programs.

Metropolitan Forecast for Capacity Programs

Pursuant to federal law, transportation management area (TMA) funds and certain Transportation Alternatives (TALU) funds are projected based on current population estimates. These 2 categories only apply to federally designated TMAs; 15 of the State’s 27 MPOs qualify for these funds. District estimates for certain Transportation Alternatives (TA) funds and the Other Roads program were developed using the current statutory formula.⁵ For planning purposes, transit program funds were divided between Districts and counties according to population.

⁵ The statutory formula is 50% population and 50% motor fuel tax collections.

TABLE 3
Major Capacity Programs Included in the 2045 Revenue Forecast
and Corresponding Program Categories in the Program and Resource Plan (PRP)

2045 Revenue Forecast Programs	PRP Program Categories
<u>SIS Highways Construction & ROW</u> - Construction, improvements, and associated right of way on SIS highways (i.e., Interstate, the Turnpike, other toll roads, and other facilities designed to serve interstate and regional commerce including SIS Connectors).	Interstate Construction Turnpike Construction Other SIS Highway Construction SIS Highway Traffic Operations SIS Highway Right of Way (ROW) SIS Advance Corridor Acquisition
<u>Other Arterial Construction/ROW</u> - Construction, improvements, and associated right of way on State Highway System roadways not designated as part of the SIS. Also includes funding for local assistance programs such as the Transportation Regional Incentive Program (TRIP), and the County Incentive Grant Program (CIGP).	Arterial Traffic Operations Construction County Transportation Programs Economic Development Other Arterial & Bridge Right of Way Other Arterial Advance Corridor Acquisition
<u>Aviation</u> - Financial and technical assistance to Florida's airports in the areas of safety, security, capacity enhancement, land acquisition, planning, economic development, and preservation.	Airport Improvement Land Acquisition Planning Discretionary Capacity Improvements
<u>Transit</u> - Technical and operating/capital assistance to transit, paratransit, and ridesharing systems.	Transit Systems Transportation Disadvantaged – Department Transportation Disadvantaged – Commission Other; Block Grants; New Starts Transit
<u>Rail</u> - Rail safety inspections, rail-highway grade crossing safety, acquisition of rail corridors, assistance in developing intercity and commuter rail service, and rehabilitation of rail facilities.	Rail/Highway Crossings Rail Capacity Improvement/Rehabilitation High Speed Rail Passenger Service
<u>Intermodal Access</u> - Improving access to intermodal facilities, airports and seaports; associated rights of way acquisition.	Intermodal Access
<u>Seaport Development</u> - Funding for development of public deep-water ports projects, such as security infrastructure and law enforcement measures, land acquisition, dredging, construction of storage facilities and terminals, and acquisition of container cranes and other equipment used in moving cargo and passengers.	Seaport Development
<u>SUN Trail</u> – FDOT is directed to make use of its expertise in efficiently providing transportation projects to develop a statewide system of paved non-motorized trails as a component of the Florida Greenways and Trails System (FGTS), which is planned by the Florida Department of Environmental Protection (FDEP).	Other State Highway Construction Other State Highway ROW Other Roads Construction Other Roads ROW Other SIS Highway Construction SIS Highway ROW

Table 4
Statewide Capacity Program Estimates
State and Federal Funds from the 2045 Revenue Forecast (Millions of Dollars)

Major Programs	Time Periods (Fiscal Years)					26-Year Total ²
	2020 ¹	2021-25 ¹	2026-30	2031-35	2036-45	2020-2045
SIS Highways Construction & ROW	2,199	12,940	12,490	13,933	28,971	70,534
Other Roads Construction & ROW	885	6,483	7,918	8,550	17,783	41,618
Aviation	211	1,143	1,433	1,596	3,354	7,738
Transit	417	2,306	2,881	3,154	6,580	15,339
Rail	178	850	1,255	1,425	2,985	6,692
Intermodal Access	40	262	345	379	791	1,816
Seaports	114	622	837	938	1,970	4,481
SUN Trail	25	125	125	125	250	650
Total Capacity Programs	4,068	24,731	27,284	30,100	62,684	148,868
Statewide Total Forecast	8,430	44,768	52,606	58,133	121,134	285,071

¹ Based on the FDOT Tentative Work Program for FYs 2018 through 2022.

² Columns and rows sometimes do not equal the totals due to rounding.

Estimates for the Other Roads and Transit program categories for this metropolitan area are included in Table 5.

Table 5
County Level Capacity Program Estimates
State and Federal Funds from the 2045 Revenue Forecast (Millions of Dollars)
Estimates for the Collier Metropolitan Planning Organization

Capacity Programs*	Time Periods (Fiscal Years)					26-Year Total
	2020	2021-25	2026-30	2031-35	2036-45	2020-2045
Other Roads Construction & ROW	9.09	78.40	100.62	110.54	232.04	530.69
Transit	6.60	36.67	46.24	50.64	105.50	245.66
Total - Main Programs	15.69	115.08	146.86	161.18	337.54	776.35

* Estimates for 2018 through 2022 are contained in the FDOT Adopted Work Program.

Other Roads estimates do not include projected funding for the TRIP program of the Federal TMA program (SU Fund Code).

^ Transit estimates do not include projected funding for the Florida New Starts program.

A few programs fund capacity projects throughout the state on a competitive basis. The two most prominent programs for MPOs are the Transportation Regional Incentive Program (TRIP) and the Florida New Starts Transit Program. Formerly, TRIP was referred to as a Documentary Stamp Tax program, but there are currently multiple sources of funding. With the economic recovery, the forecast funding for TRIP is now over five times the level of 5 years ago. Also, amounts for the federally funded TMA program (Fund Code SU) are provided in Table 6, and not included in Table 5. Neither TRIP, Florida New Starts or TMA funds are included above.

Table 6
Transportation Management Area (TMA) Funds Estimates
(Known as SU Funds in FDOT Work Program)
Federal Funds from the 2045 Revenue Forecast (Millions of Dollars)

Collier Metropolitan Area (Defined as Collier County)	Time Periods (Fiscal Years)					26 Year Total
	2020	2021-25	2026-30	2031-35	2036-45	2020-2045
TMA / SU Funds	5.02	25.09	25.09	25.09	50.18	130.47

Projects which would be partially or entirely funded by TRIP or FL New Starts cannot be counted as “funded” in LRTPs. This is because there is no guarantee of any specific project receiving TRIP or FL New Starts funding in the future. Both programs are competitive, and only a small percentage of potentially eligible projects receive funding. However, these projects can be included in LRTPs as “illustrative” projects.⁶ If MPOs have specific questions, they should consult with their District liaison and planning staff; District staff will contact the OPP, Work Program, or other Central Office staff as needed. Conditional estimates of TRIP funds by District are in Table 7. Statewide estimates of FL New Starts funds are in Table 8.

The FAST Act continued funding for Transportation Alternatives projects. Categories impacting MPOs include funds for (1) Transportation Management Areas (TALU funds); (2) areas with populations greater than 5,000 up to 200,000 (TALL funds), and (3) any area of the state (TALT funds). Estimates of Transportation Alternatives Funds are shown further below in Table 9.

Table 7
Districtwide Transportation Regional Incentive Program Estimates
State Funds from the 2045 Revenue Forecast (Millions of Dollars)

FDOT District	5-Year Period (Fiscal Years)					26-Year Total ²
	2020 ¹	2021-25	2026-30	2031-35	2036-2045	2020-2045
District 1	3.1	21.9	32.7	36.4	74.6	168.8
District 2	2.5	17.6	26.3	29.2	59.9	135.5
District 3	1.6	11.6	17.3	19.2	39.3	89.0
District 4	4.1	28.9	43.1	47.9	98.2	222.3
District 5	4.7	32.8	49.0	54.4	111.7	252.6
District 6	2.8	19.7	29.4	32.7	67.0	151.6
District 7	3.3	23.2	34.6	38.4	78.8	178.2
Statewide Total Forecast	22.2	155.8	232.3	258.2	529.5	1,197.9

¹ Estimates for 2018 through 2022 are contained in the FDOT Adopted Work Program.

² Columns and rows sometimes do not equal the totals due to rounding.

⁶ Other projects for which funding is uncertain may also be included as illustrative projects.

Table 8
Transit - Florida New Starts Program Estimates
State Funds from the 2045 Revenue Forecast (Millions of Dollars)

Statewide Program	Time Periods (Fiscal Years)					26-Year Total
	2020	2021-25	2026-30	2031-35	2036-45	2020-2045
Statewide Total Forecast	41.8	226.3	259.2	282.4	593.4	1,403.1

Table 9
Transportation Alternatives Funds Estimates
Federal Funds from the 2045 Revenue Forecast (Millions of Dollars)

Collier Metropolitan Area (Defined as Collier County)	Time Periods (Fiscal Years)					26 Year Total ¹
	2020 ¹	2021-25	2026-30	2031-35	2036-45	2020-2045
TALU (Urban); Funds for TMA	0.34	1.69	1.69	1.69	3.38	8.79
TALL (<200,000 population); Entire FDOT District	0.55	2.73	2.73	2.73	5.46	14.20
TALT (Any Area); Entire FDOT District	3.45	17.25	17.25	17.25	34.49	89.67

¹ Rows sometimes do not equal the totals due to rounding.

Other projects for which funding is uncertain may also be included in LRTPs as “illustrative” projects.

Non-Capacity Programs

Non-capacity programs refer to FDOT programs designed to support, operate and maintain the state highway system: safety, resurfacing, bridge, product support, operations and maintenance, and administration. Table 10 includes a description of each non-capacity program and the linkage to the program categories used in the Program and Resource Plan.

County level estimates are not needed for these programs. Instead, FDOT has included sufficient funding in the 2045 Revenue Forecast to meet the following statewide objectives and policies:

- **Resurfacing program:** Ensure that 80% of state highway system pavement meets Department standards;
- **Bridge program:** Ensure that 90% of FDOT-maintained bridges meet Department standards while keeping all FDOT-maintained bridges open to the public safe;
- **Operations and maintenance program:** Achieve 100% of acceptable maintenance condition standard on the state highway system;
- **Product Support:** Reserve funds for Product Support required to construct improvements (funded with the forecast’s capacity funds) in each District and metropolitan area; and
- **Administration:** Administer the state transportation program.

The Department has reserved funds in the 2045 Revenue Forecast to carry out its responsibilities and achieve its objectives for the non-capacity programs on the state highway system in each

TABLE 10
Major Non-Capacity Programs Included in the 2040 Revenue Forecast
and Corresponding Program Categories in the Program and Resource Plan (PRP)

2045 Revenue Forecast Programs	PRP Program Categories
<u>Safety</u> - Includes the Highway Safety Improvement Program, the Highway Safety Grant Program, Bicycle/Pedestrian Safety activities, the Industrial Safety Program, and general safety issues on a Department-wide basis.	Highway Safety Grants
<u>Resurfacing</u> - Resurfacing of pavements on the State Highway System and local roads as provided by state law.	Interstate Arterial and Freeway Off-System Turnpike
<u>Bridge</u> - Repair and replace deficient bridges on the state highway system. In addition, not less than 15% of the amount of 2009 federal bridge funds must be expended off the federal highway system (e.g., on local bridges not on the State Highway System).	Repair - On System Replace - On System Local Bridge Replacement Turnpike
<u>Product Support</u> - Planning and engineering required to “produce” FDOT products and services (i.e., each capacity program; Safety, Resurfacing, and Bridge Programs).	Preliminary Engineering Construction Engineering Inspection Right of Way Support Environmental Mitigation Materials & Research Planning & Environment Public Transportation Operations
<u>Operations & Maintenance</u> - Activities to support and maintain transportation infrastructure once it is constructed and in place.	Operations & Maintenance Traffic Engineering & Operations Toll Operations Motor Carrier Compliance
<u>Administration and Other</u> - Resources required to perform the fiscal, budget, personnel, executive direction, document reproduction, and contract functions. Also includes the Fixed Capital Outlay Program, which provides for the purchase, construction, and improvement of non-highway fixed assets (e.g., offices, maintenance yards). The “Other” category consists primarily of debt service.	Administration Fixed Capital Outlay Office Information Systems Debt Service

District and metropolitan area. Table 11 identifies the statewide estimates for non-capacity programs. About \$136 billion (48% of total revenues) is forecast for non-capacity programs.

Table 11
Statewide Non-Capacity Expenditure Estimates
State and Federal Funds from the 2045 Revenue Forecast (Millions of Dollars)

Major Categories	Time Periods (Fiscal Years)					26-Year Total ¹
	2020	2021-25	2026-30	2031-35	2036-45	2020-2045
Safety	141	820	826	825	1,659	4,271
Resurfacing	633	4,354	4,150	4,241	8,756	22,135
Bridge	1,035	1,051	2,403	2,946	6,122	13,556
Product Support	1,302	6,576	6,709	7,096	14,614	36,299
Operations and Maintenance	1,384	7,442	8,596	9,162	18,939	45,523
Administration and Other	429	2,770	2,891	2,819	5,559	14,468
Statewide Total Forecast	4,923	23,013	25,576	27,089	55,650	136,251

¹ Columns and rows sometimes do not equal the totals due to rounding.

Table 12 contains District-wide estimates for State Highway System (SHS) existing facilities expenditures for information purposes. Existing facilities expenditures include all expenditures for the program categories Resurfacing, Bridge, and Operations and Maintenance (O&M). In the previous Revenue Forecast, these expenditures were described as SHS O&M, but the expenditures on the Resurfacing and Bridge categories, in combination, are about as much as those for O&M. These existing facilities estimates are provided pursuant to an agreement between FDOT and the Federal Highway Administration (FHWA) Division Office.

Table 12
State Highway System Existing Facilities Estimates by District
State and Federal Funds from the 2045 Revenue Forecast (Millions of Dollars)

Major Programs	Time Periods (Fiscal Years)					26-Year Total ¹
	2020	2021-25	2026-30	2031-35	2036-45	2020-2045
District 1	457	1,922	2,267	2,446	5,060	12,151
District 2	606	2,551	3,009	3,247	6,716	16,129
District 3	495	2,084	2,458	2,652	5,487	13,176
District 4	410	1,728	2,038	2,199	4,549	10,924
District 5	561	2,362	2,785	3,006	6,217	14,931
District 6	203	854	1,007	1,087	2,248	5,399
District 7	319	1,345	1,586	1,712	3,541	8,503
Statewide Total Forecast	3,051	12,847	15,150	16,348	33,817	81,214

Note: Includes Resurfacing, Bridge, and Operations & Maintenance Programs.

¹ Columns and rows sometimes do not equal the totals due to rounding.

Advisory Concerning Florida's Turnpike Enterprise

Within the framework of FDOT, Florida's Turnpike Enterprise (Turnpike) is given authority, autonomy and flexibility to conduct its operations and plans in accordance with Florida Statute and its Bond Covenants. The Turnpike's traffic engineering consultant projects Toll Revenues and Gross Concession Revenues for the current year and the subsequent 10-year period, currently FYs 2018-2028. The consultant's official projections are available at http://www.floridasturnpike.com/documents/reports/Traffic%20Engineers%20Annual%20Report/1_Executive%20Summary.pdf.

Projections of Turnpike revenues within the State of Florida Revenue Forecast beyond FY2028 are for planning purposes, and no undue reliance should be placed on these projections. Such amounts are generated and shared by the FDOT Office of Policy Planning (OPP) for purposes of accountability and transparency. They are part of the Revenue Forecast process, which serves the needs of MPOs generating required Long Range Transportation Plans (LRTPs).

MPOs do not program capital projects or make decisions concerning Turnpike spending. OPP projections are not part of the Turnpike's formal revenue estimating process and are not utilized for any purpose other than to assist MPOs and perform related functions. Such amounts do not reflect the Turnpike's requirement to cover operating and maintenance costs, payments to bondholders for principal and interest, long-term preservation costs, and other outstanding Turnpike obligations and commitments.

**REVENUE FORECAST FOR THE COLLIER
MPO LONG RANGE PLAN UPDATE**

**2045 Forecast of State and Federal Revenues
for Statewide and Metropolitan Plans**

Long Range Transportation Plan Scenario Network Modeling Technical Memorandum



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Long Range Transportation Plan Scenario Network Modeling Technical Memorandum – Draft

November 2020



Jacobs



Long Range Transportation Plan Scenario Networking Modeling Technical Memorandum

Travel Demand and Forecasting

A major element of the 2045 Long Range Transportation Plan (LRTP) development was to identify growth patterns so that planners and officials will know where growth is forecasted to occur. This was helpful to determine transportation projects needed to accommodate that growth. To identify growth patterns, the Collier Metropolitan Planning Organization (MPO) used Collier County's Interactive Growth Model (CIGM), which takes into account historical growth trends, local zoning, and land use policies. The CIGM informed the establishment of the 2015 base year socioeconomic (SE) variables and the geographic distribution of forecasted 2045 variables. The 2015 data were input to the travel demand model and the resulting traffic assignments were compared to known ground counts to calibrate and validate the models. Once the model was validated to be able to approximate current conditions, the 2045 forecast data were used as input to the transportation planning models to estimate capacity needs and project performance in the future year.

Travel Model Development Process

The Florida Department of Transportation (FDOT) Districtwide Regional Planning Model (D1RPM) was the primary travel forecasting tool for updating the 2045 LRTP. To update D1PRM, several coordination meetings were held with FDOT and Collier MPO staff related to the model development process (including providing additional model data and input assumptions to FDOT) and the use of the model for developing the Needs Plan and the Cost Feasible Plan. **Table 1** lists the various traffic modeling coordination events and dates. The next steps in the process included the review of intermediate model data files provided by FDOT. Also, the traffic demand model and all LRTP maps related to the Needs Plan and the Cost Feasible Plan were created in a PDF format and a GIS platform. **Figure 1** provides the D1RPM Development Process chart and schedule (provided by FDOT on February 24, 2020).

Alternative Scenario Development and Testing

Travel models follow a sequence of steps that simulate responses people make about how to travel, given various possible configurations of highway and transit service. These configurations are effectively "scenarios" of different travel networks that could exist in Collier County in the year 2045. Travel-network alternative scenarios are tested to see how they perform given a hypothetical distribution of people and their destinations across Collier County in 2045. Before any travel-network scenarios can be tested, the forecasted distribution of population, employment, shopping, schools, and others for the year 2045 must be entered into the model. This dataset is referred to as SE data, which must be provided for each Traffic Analysis Zone. FDOT runs the travel model for all MPOs in District 1, but they rely on individual MPOs to provide forecasted SE data for 2045. The CIGM, prepared for Collier County in 2017 by Metro Forecasting Models, contributed to the development of the forecasted SE data for 2045 entered into the travel model. Travel demand projections were analyzed using D1PRM relative to the performance measures and targets to determine the location of service deficiencies.

Table 2 summarizes the travel demand forecasting alternative scenarios conducted by FDOT. Six alternative network scenarios were modeled and evaluated for the Collier MPO 2045 LRTP update. Revisions made to alternatives were based on comments received from presentations given to the Collier MPO Board, the Technical Advisory Committee (TAC), and Citizens Advisory Committee (CAC) throughout the development process. Coordination and comments between the Collier MPO Board, TAC, and CAC were carefully considered and guided the development of the needs list and cost feasible list.

Existing Plus Committed (E+C) Network

A key element of the System-Wide Highway Needs Assessment is the Existing plus Committed (E+C) transportation network. The E+C characterizes the transportation network expected to be in place, or nearly so,

by the year 2023. The E+C network is the initial model run developed using the current Collier MPO Transportation Improvement Program (TIP) and the FDOT Five Year Work Program. Existing projects are those that were completed since the last LRTP update (by 2019), and Committed projects are funded through construction by Fiscal Year (FY) 2023. The E+C travel network used the 2045 data to estimate future deficiencies in 2045 network. Once potential deficiencies were understood, the new projects were identified as alternative network scenarios for input to the model. The E+C network was presented to the TAC/CAC in October 2019, and the Collier MPO Board approved submittal of the E+C Network to FDOT in November 2019.

The E+C model run identified which roadways were deficient throughout Collier County and its associated municipalities. Deficient roadways were classified by using a ratio of Average Annual Daily Traffic (AADT) divided by FDOT's Generalized Level of Service D Volumes (LOS D). **Table 3** and **Figure A-1** in **Attachment A** identifies roadway segments determined to be deficient as a result of having an AADT/LOS D ratio greater than 1.15. **Table 4** lists the projects in the E+C network.

Alternative 1

Alternative 1 was developed by evaluating deficiencies identified using the 2045 travel demand and E+C network results. Projects included in Alternative 1 were adopted from the 2040 LRTP needs network. Capacity improvements, new connections, and parallel relievers were determined as needs and incorporated into Alternative 1 including the following new corridors/improvements:

- CR 951 Extension: New two-lane road to Bonita Beach Road in Lee County (in coordination with Lee County MPO)
- Benfield Road Extension: New two-lane road in a four-lane footprint
- Big Cypress Parkway: New two-lane road (right of way expandable to four lanes); east of Desoto Boulevard
- SR 29 Bypass: new bypass around the north side of the downtown Immokalee area
- I-75 managed lanes (ten lanes including three general-use lanes [in each direction] and two toll lanes [in each direction]).

These projects or improvements are financially unconstrained needs that are designed to test the Collier County network through 2045. **Attachment B-1** lists the projects entered into D1RPM for the year 2045.

The Alternative 1 model run identified deficient or failing roadways through 2045 based on the improvements in **Attachment B-1**. **Table 5** and **Figure A-2** in **Attachment A** indicate roadway segments determined to be deficient by 2045 as a result of having an AADT/LOS D ratio greater than 1.15.

Alternative 2

The resulting deficiencies of the Alternative 1 network were used to identify additional improvements and develop a revised list of needed projects/improvements. Projects were also removed from the original needs list used in Alternative 1 to test their impact on future travel demand. The combination of new projects and projects from the previous list of needs resulted in the Alternative 2 project list (**Attachment B-2**). Similar to Alternative 1, these projects are financially unconstrained. These projects were tested to determine the performance of Collier County network through 2045. **Attachment B-2** lists the projects used in Alternative 2, along with notes highlighting changes or corrections made within the Alternative 2 Network. Total present-day cost (PDC) estimations were identified for each project from Alternative 2 using the FDOT 2045 LRTP Project Costing Tool.

Using D1PRM, the Alternative 2 model run identified deficient or failing roadways through 2045 based on the improvements in **Attachment B-2**. **Table 6** and **Figure A-3** in **Attachment A** indicate roadway segments determined to be deficient by 2045 as a result of having an AADT/LOS D ratio greater than 1.15. Based on public and agency comments, revisions were made to Alternative 2, which resulted in the Needs Plan (**Figure C-1** in **Attachment C**).

Alternative 3

The list of projects used for the Alternative 3 network was developed using criteria designed to determine an initial list of projects that are financially constrained. First, the Alternative 2 list of projects were evaluated using the goals approved by the Collier MPO Board early in the LRTP development process. The evaluation involved ranking each project based on a specific scoring criterion for each goal. Projects ranking the highest were given priority consideration for inclusion into the Alternative 3 network (refer to the 2045 LRTP *Evaluation Framework Technical Memorandum*). Finally, projects were selected for Alternative 3 based on their evaluation score and their total PDC to develop a list of projects that is financially constrained, while meeting the Collier MPO's transportation planning goals. The projects list in **Attachment B-3** was used for the Alternative 3 network.

The Alternative 3 model run identified deficient or failing roadways through 2045 based on the improvements in **Attachment B-3, Table 7** and **Figure A-4** in **Attachment A** indicate roadway segments determined to be deficient by 2045 as a result of having an AADT/LOS D ratio greater than 1.15.

Alternative 4

The resulting deficiencies of the Alternative 3 network were used to identify additional improvements and develop a revised financially constrained list of projects. Projects were also removed from the list used in Alternative 3 to test their impact on future travel demand. The combination of new projects and projects from the previous constrained list resulted in the Alternative 4 project list (**Attachment B-4**). Similar to Alternative 3, these projects are financially constrained. These projects were tested to determine the performance of Collier County network through 2045. **Attachment B-4** lists the projects used in Alternative 4, along with notes highlighting changes or corrections made within the Alternative 3 network. Total PDC estimations were identified for each project from Alternative 3 using the FDOT 2045 LRTP Project Costing Tool.

The Alternative 4 model run identified deficient or failing roadways through 2045 based on the improvements in **Attachment B-4, Table 8** and **Figure A-5** in **Attachment A** indicate roadway segments determined to be deficient by 2045 as a result of having an AADT/LOS D ratio greater than 1.15. **Figure A-6** in **Attachment A** shows Alternative 4 with 35 percent of the vehicle fleet being Connected and Autonomous Vehicles (CAV).

Alternative 4 including the following assumptions/results:

- Per FDOT directive, Alternative 4 was run with 10 lanes and without I-75 managed lanes (six lanes).
- At the request of Collier County, the new I-75/Everglades Boulevard interchange was added to Alternative 4.
- The results of the model run showed potential improvement (compared to Alternative 3) to projects on Collier Boulevard, Golden Gate Parkway, and Vanderbilt Beach Road
- The results of the model run showed segments failing, including Old US 41 (potentially because of I-75) and Everglades Boulevard (potentially because of the new I-75/Everglades Boulevard interchange).

Alternative 5

The resulting deficiencies of the Alternative 4 network were used to identify additional improvements and develop a revised financially constrained list of projects. Projects were also removed from the list used in Alternative 4 to test their impact on future travel demand. The combination of new projects and projects from the previous constrained list resulted in the Alternative 5 project list (**Attachment B-5**). Similar to Alternative 4, these projects are financially constrained. These projects were tested to determine the performance of Collier County network through 2045. **Attachment B-5** lists the projects used in Alternative 5, along with notes highlighting changes or corrections made within the Alternative 4 network. Total PDC estimations were identified for each project from Alternative 5 using the FDOT 2045 LRTP Project Costing Tool.

The Alternative 5 model run identified deficient or failing roadways through 2045 based on the improvements in **Attachment B-5, Table 9** and **Figure A-7** in **Attachment A** indicate roadway segments determined to be deficient

by 2045 as a result of having an AADT/LOS D ratio greater than 1.15. [Figure A-8](#) in [Attachment A](#) shows Alternative 5 with 35 percent of the vehicle fleet being CAV.

Alternative 5 including the following FDOT directives:

- **I-75:** Alternative 5 was run with I-75 managed lanes (10 lanes).
- **New Interchanges on I-75:** FDOT will not be including any proposed interchanges within the District in this LRTP update that have not received Federal Highway Administration approval through the Interchange Justification Report process. However, upon the request of Collier County, FDOT included the four-laning of Everglades Boulevard and the I-75/Everglades Boulevard Interchange in the model network to meet the needs of the community.
- **Cost Feasible Strategic Intermodal System (SIS) projects:** FDOT was exploring various funding strategies and, therefore, these four projects (I-75 and SR 29 segments that are partially funded in SIS Cost Feasible Plan shall remain in the LRTP network):
 - MAP ID #29: I-75 Managed Lanes north of Golden Gate Parkway
 - MAP ID # 53: SR 29 (SEGMENT D) [4175403]
 - MAP ID #54: SR 29 (SEGMENT E) [4175402]
 - MAP ID #46: SR 29 [4178784]
- **SIS Cost Feasible Plan update:** The SIS 5-Year Plan (adopted July 2020) and the FDOT 2045 SIS Second 5-Year Plan (approved July 2020) were used to determine SIS roadway improvements through the year 2030. In October 2020, FDOT Central Office put an indefinite hold on development of the FDOT 2045 SIS Cost Feasible Plan update because of COVID-related revenue forecasting issues. Therefore, FDOT reverted back to the 2045 SIS Cost Feasible Plan (adopted 2018) for use in determining SIS roadway improvements for the years 2031 to 2045.
- **Innovative intersections projects:** Per FDOT, grade-separated intersections (for example, overpasses, single-point urban interchanges, diverging diamond interchanges) are not explicitly coded in the D1RPM macro traffic forecast model network. Innovative intersection projects will remain on the Needs Plan and the Cost Feasible Plan, as appropriate.

As a result, Alternative 5 included the following assumptions/results:

- Everglades Boulevard (MAP ID #13, MAP#14) from Vanderbilt Beach Road Extension to I-75 was included in Alternative 5 as a four-lane widening.
- SR 29 (MAP ID #48) from I-75 to Oil Well Road was removed.
- I-75 Managed Lanes was extended to north of Golden Gate Parkway
- The new I-75 interchange at Everglades Boulevard was included.
- Everglades Boulevard remains a two-lane facility south of Vanderbilt Beach Road to I-75 (undivided arterial).

Alternative 6 (Final Cost Feasible Network)

The resulting deficiencies of the Alternative 5 network were used to identify additional improvements and develop a revised financially constrained list of projects. Projects were also removed from the list used in Alternative 5 to test their impact on future travel demand. The combination of new projects and projects from the previous constrained list resulted in the Alternative 6 project list ([Attachment B-6](#)). Similar to Alternative 3, these projects are financially constrained. These projects were tested to determine the performance of Collier County network through 2045. [Attachment B-6](#) lists the projects used in Alternative 4, along with notes



highlighting changes or corrections made within the Alternative 3 network. Total PDC estimations were identified for each project from Alternative 3 using the FDOT 2045 LRTP Project Costing Tool.

The Alternative 6 model run identified deficient or failing roadways through 2045 based on the improvements in **Attachment B-6, Table 10** and **Figure A-9** in **Attachment A** indicate roadway segments determined to be deficient by 2045 as a result of having an AADT/LOS D ratio greater than 1.15. **Figure A-10** in **Attachment A** shows Alternative 6 with 35 percent of the vehicle fleet being CAV.

Based on public and agency comments, revisions were made to Alternative 6, which resulted in the Cost Feasible Plan (**Figure C-2** in **Attachment C**).

Alternative 6 included the following FDOT directives:

- **I-75:** Alternative 5 was run with I-75 managed lanes (10 lanes).
- **Cost Feasible SIS projects:** FDOT was exploring various funding strategies and, therefore, these four projects (I-75 and SR 29 segments that are partially funded in SIS Cost Feasible Plan) shall remain in the LRTP network:
 - MAP ID #29: I-75 Managed Lanes north of Golden Gate Parkway
 - MAP ID # 53: SR 29 (SEGMENT D) [4175403]
 - MAP ID #54: SR 29 (SEGMENT E) [4175402]
 - MAP ID #46: SR 29 [4178784]
- **SIS CFP update:** The SIS 5-Year Plan (adopted July 2020) and the FDOT 2045 SIS Second 5-Year Plan (approved July 2020) were used to determine SIS roadway improvements through the year 2030. In October 2020, FDOT Central Office put an indefinite hold on development of the FDOT 2045 SIS Cost Feasible Plan update because of COVID-related revenue forecasting issues. Therefore, FDOT reverted back to the 2045 SIS Cost Feasible Plan (adopted 2018) for use in determining SIS roadway improvements for the years 2031 to 2045.
- **Innovative intersections projects:** Per FDOT, grade-separated intersections (for example, overpasses, single-point urban interchanges, diverging diamond interchanges) are not explicitly coded in the D1RPM macro traffic forecast model network. Innovative intersection projects will remain on the Needs Plan and the Cost Feasible Plan, as appropriate.

As a result of FDOT, agency, and public comments, Alternative 6 included the following assumptions:

- I-75 Managed Lanes (10 lanes) was extended to north of Golden Gate Parkway
- Two Corridor segments (MAP ID #C1, MAP#C2, replacing Everglades Boulevard [MAP ID #13, MAP#14]) were added from Vanderbilt Beach Road Extension to I-75 were included as a four-lane road.
- MAP ID #22: The new interchange at I-75 and Everglades Boulevard was included.
- MAP ID #30: Added from Needs Plan to the CFP with updated limits for a planning study for 1st Street/ CR 846 Immokalee Road from Camp Keais Road to Eustis Avenue (not in model as it is partially funded).
- MAP ID #48: SR 29 from I-75 to Oil Well Rd was removed from the model.
- MAP ID #60: US 41 was identified as constrained and requiring further study; improvements included potential Transportation System Management and Operations, Safety, Bike/Pedestrian, Complete Streets, and Congestion Management to meet multimodal local transportation needs and safety.
- MAP ID #69 Everglades Boulevard on Needs Plan north of Oil Well Road was added on project list for further study (not in model as it is partially funded).



Figure 1. District 1 2045 Cost Feasible LRTP Model Development Process and Schedule (2/24/2020)

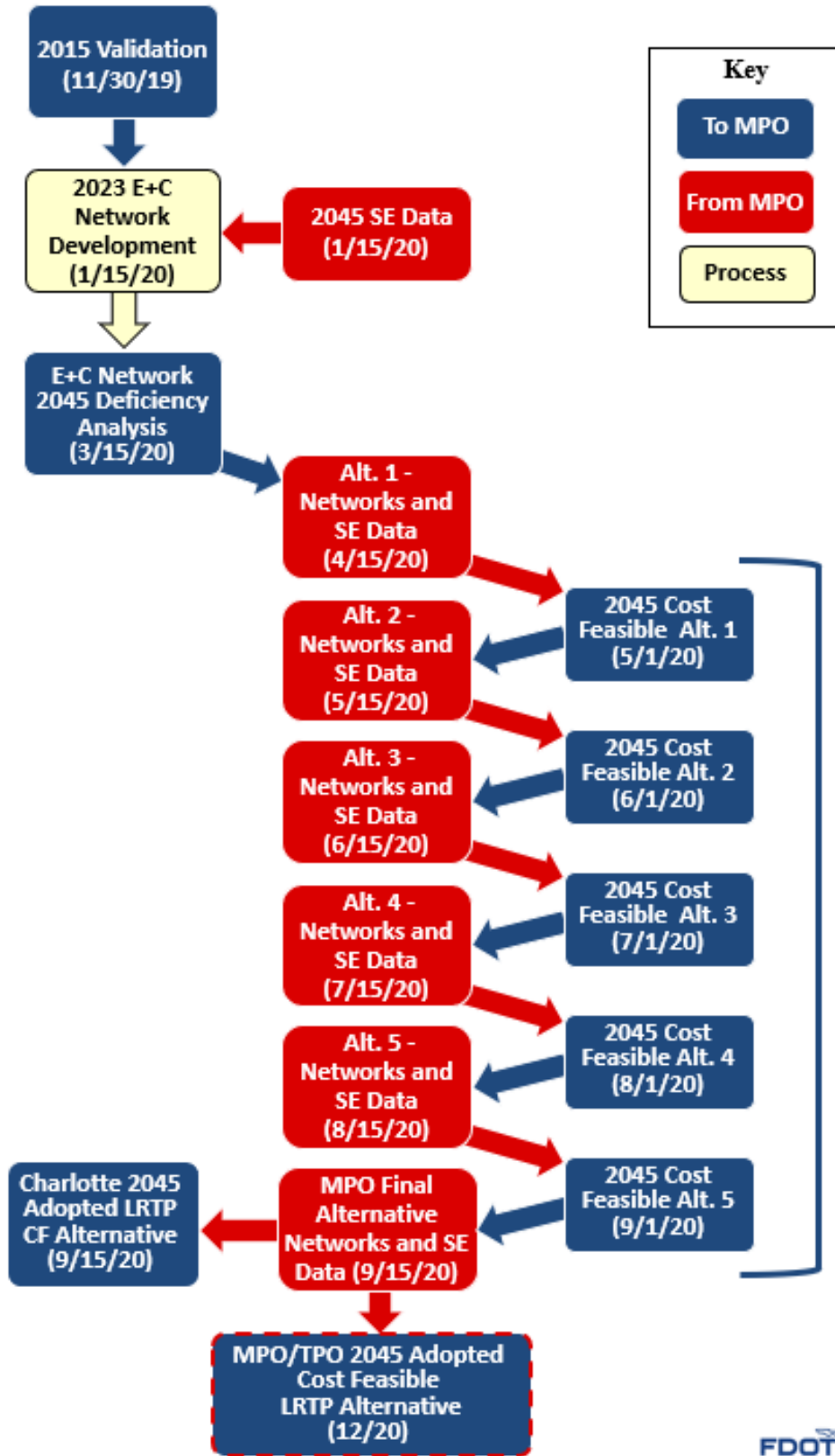


Table 1. Traffic Modeling Coordination Events

Event Details	Group	Date
2045 External Station Volume Projections Coordination Meeting	MPO Staff and Representatives, FDOT Traffic Staff and Representatives	1/24/2020
2045 External Station Volume Projections Coordination Meeting	MPO Staff and Representatives, FDOT Traffic Staff and Representatives	2/3/2020
2045 LRTP Socioeconomic Data Coordination meeting	MPO Staff and Representatives, FDOT Traffic Staff and Representatives	3/26/2020
Traffic and Socioeconomic Data Coordination	MPO Staff and Representatives, Collier County Staff	4/9/2020
Alternative 1 Modeling Coordination	MPO Staff and Representatives, Collier County Staff	4/15/2020
2045 LRTP Network Scenarios Coordination	MPO Staff and Representatives, Collier County Staff	5/6/2020
Alternative 1 Modeling Results and Alternative 2 Modeling Coordination	MPO Staff and Representatives, Collier County Staff, Lee County MPO Director	5/12/2020
Alternative 2 Modeling Coordination	MPO Staff and Representatives, Collier County Staff	5/14/2020
Presentation of Alternative 1 Network Scenario modeling results and Proposed Alternative 2 Network Scenario; Technical Advisory Committee and Citizens Advisory Committee provided input	TAC/CAC	5/18/2020
Alternative 2 Modeling Results and Alternative 3 Modeling Coordination	MPO Staff and Representatives, Collier County Staff	6/9/2020
Presentation of Alternative 2 Network Scenario modeling results and Proposed Alternative 3 Cost Feasible Network; TAC/CAC and MPO Board provided input	TAC/CAC	6/10/2020
	MPO Board	6/12/2020

Table 1. Traffic Modeling Coordination Events

Event Details	Group	Date
Needs Plan Projects List Evaluation Scoring Coordination	MPO Staff and Representatives, Collier County Staff	6/30/2020
Alternative 3 Modeling Results and Alternative 4 Modeling Coordination	MPO Staff and Representatives, Collier County Staff	7/7/2020
Transit Planning and Congestion Management Coordination	MPO Staff and Representatives, Collier County Staff, FDOT Staff and Representatives, Lee County MPO Director	7/14/2020
Alternative 4 Modeling Coordination	MPO Staff and Representatives, Collier County Staff	7/16/2020
Alternative 4 Modeling Results and Alternative 5 Modeling Coordination	MPO Staff and Representatives, Collier County Staff, Lee County MPO Director	8/6/2020
2045 LRTP Revenue Projections Coordination	MPO Staff and Representatives, Collier County Staff	8/10/2020
Alternative 5 Modeling Coordination	MPO Staff and Representatives, Collier County Staff	8/17/2020
Alternative 5 Modeling Coordination	MPO Staff and Representatives, Collier County Staff	8/18/2020
Alternative 5 Modeling Results and Cost Feasible Plan Projects Coordination	MPO Staff and Representatives, Collier County Staff	9/9/2020
2045 LRTP Cost Feasible Plan Projects and Alternative 5 Comments Coordination	MPO Staff and Representatives, Collier County Staff, FDOT Staff and Representatives	9/11/2020

Table 2. Alternative Scenarios for 2045

Alternative	Description
E+C Network Refer to Figure A-1	Initial Traffic Demand Model run is primarily to identify deficiencies using: a) Existing (2019) and Committed (2023) Transportation Network based on the current MPO Transportation Improvement Program and FDOT Work Program b) 2045 SE Data based on Bureau of Economic and Business Research Medium Projections
Alternative 1 Refer to Figure A-2	Alternative 1 will evaluate the adopted 2040 LRTP needs network with 2045 SE data to determine the impact of planned long-range projects on demand and includes: a) Needs network to relieve highway segments with poor level of service b) Capacity improvement projects c) New connectivity projects for parallel relievers
Alternative 2 Refer to Figure A-3	Alternative 2 is similar to Alternative 1 Needs network and is designed to test the performance of a list of proposed needed/financially unconstrained projects; it may include: a) Additional capacity improvement projects (for example, applying freeway design criteria to arterials, and overpasses) b) Corridor Improvement Studies recommendations (for example, Pine Ridge Rd. and Immokalee Rd.)
Alternative 3 Refer to Figure A-4	Final Needs Plan Network is designed to test the performance of a list of proposed needed/financially unconstrained projects. Transportation scenarios include: a) Transportation corridors (for example, bus rapid transit corridors, intermodal hubs, express service, park-and-ride system) consistent with Congestion Management Process (2017).
Alternative 4 Refer to Figure A-5 (without CAV) and Figure A-6 (with CAV)	Draft Cost Feasible Network is designed to test the performance of a list of proposed financially constrained projects. Transportation scenarios may include: a) Connected and Automated Vehicles on limited-access facilities to maximize capacity and efficiency.
Alternative 5 Refer to Figure A-7 and Figure A-8 (with CAV)	Revised Draft Cost Feasible Network a) Connected and Automated Vehicles on limited-access facilities to maximize capacity and efficiency.
Alternative 6 Refer to Figure A-9 and Figure A-10 (with CAV)	Final Cost Feasible Network based on Final SE Data a) Connected and Automated Vehicles on limited-access facilities to maximize capacity and efficiency.

Table 3. E+C Network Deficient Roadway Segments

AADT/LOS D	Roadway	Location
E+C Deficient Roadway Segments		
1.15 to 1.5	Santa Barbara Blvd.	S of Rattlesnake Hammock Rd. to N of Huntington Woods Dr.
1.15 to 1.5	Golden Gate Pkwy.	W of I-75 to E of I-75
1.15 to 1.5	Collier Blvd.	N of Golden Gate Pkwy. to S of 23rd Ave. SW
1.15 to 1.5	Pine Ridge Rd.	W of I-75 to E of I-75
1.15 to 1.5	Park Shore Dr.	W of Crayton Rd. to W of Park Shore Landing
1.15 to 1.5	Vanderbilt Beach Rd.	E of Bay Laurel Dr. to W of Bay Laurel Dr.
1.15 to 1.5	Vanderbilt Beach Rd.	W of US 41 to East of Vanderbilt Dr.
1.15 to 1.5	US 41	S of Immokalee Rd. to Old Us 41
1.15 to 1.5	Old US 41	US 41 to Bonita Beach Rd. SE
1.15 to 1.5	Immokalee Rd.	W of I-75 to E of Lakeland Ave.
1.15 to 1.5	Immokalee Rd.	E of I-75 to Tarpon Bay Blvd.
1.15 to 1.5	I-75	N of Immokalee Rd. to S of Bonita Beach Rd. SE
1.15 to 1.5	Immokalee Rd.	Collier Blvd. to W of Randall Blvd.
1.15 to 1.5	Everglades Blvd.	Oil Well Rd. to N of 39th Ave. NE
1.15 to 1.5	Oil Well Rd.	Everglades Blvd. to Oil Well Grade Rd.
1.15 to 1.5	Immokalee Rd.	Camp Keais Rd. to S of Colorado Ave.
1.15 to 1.5	SR 29	N of New Market Rd. for 1/2 mile
>1.5	Golden Gate Blvd.	E of 18th S.t NE to Everglades Blvd.
>1.5	Randall Blvd.	E of Immokalee Rd. to W of Approach Blvd.
>1.5	SR 29	Westclox Rd. to N of New Market Rd.

Table 4. 2045 Existing Plus Committed (E+C) Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2021-2025 TIP?
Existing (2015–2019)						
19	I-75	North of SR 951	Golden Gate Pkwy	Widen from Four to Six Lanes	FDOT FPN: 406313-4	N/A
20	SR 951	Manatee Road	North of Tower Rd	Widen from Two to Four Lanes	FDOT FPN: 435111-2	N/A
21	City Gate Blvd. Extension	White Lake Blvd.	East of Brennan Dr.	New Four-Lane Facility	Collier County	N/A
22	Golden Gate Blvd.	Wilson Blvd.	Everglades Blvd.	Widen from Two to Four Lanes	Collier County	N/A
23	Logan Blvd.	North of Immokalee Rd.	Lee County Line	New Two-Lane Facility	Collier County	N/A
24	Massey St./Woodcrest Dr.	Calusa Pines Dr.	Immokalee Rd.	New Two-Lane Facility	Collier County	N/A
25	Pristine Dr.	Wolfe Rd.	Vanderbilt Beach Rd	New Two-Lane Facility	Collier County	N/A
26	Tree Farm Rd.	Davila St	Massey St	New Two-Lane Facility	Collier County	N/A
51	I-75	Golden Gate Parkway Southbound Off Ramp	-	Interchange Improvements	FDOT FPN: 429907-1	N/A
53	SR 29	Jefferson Avenue	9th Street	Add Turn Lanes	FDOT FPN: 431390-2	N/A
54	SR 82	Corkscrew Road	-	Add Turn Lanes	FDOT FPN: 433175-1	N/A
55	Airport Pulling Rd.	North Horseshoe Dr.	-	Intersection Improvements	Collier County	N/A
56	Golden Gate Pkwy.	Livingston Rd.	-	Intersection Improvements	Collier County	N/A
57	Pine Ridge Rd.	US 41	-	Intersection Improvements	Collier County	N/A
70	8th Street Bridge			New Bridge	Collier County	N/A



Table 4. 2045 Existing Plus Committed (E+C) Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2021-2025 TIP?
79	Vanderbilt Beach Rd.	Gulf Pavilion Dr.	US 41 (SR 90) (Tamiami Trail E)	Constrained to Four Lanes	Collier County	N/A
Committed (2019–2023)						
29	Airport Pulling Rd. ^a	Vanderbilt Beach Rd.	Immokalee Rd.	Widen from Four to Six Lanes	Collier County	Yes
30	Randall Blvd.	Immokalee Rd.	8th St.	Widen from Two to Four Lanes	Collier County	Yes
32	Vanderbilt Beach Rd. Extension ^a	Collier Blvd.	Curry Canal	Widen from Two to Six Lanes	Collier County	Yes
33	Veterans Memorial Blvd.	Old US 41	Secoya Reserve Cir	New Four-Lane Facility	Collier County	Yes
34	Veterans Memorial Blvd.	Secoya Reserve Cir	Strand Blvd.	Widen from Two to Four Lanes	Collier County	Yes
35	Whippoorwill Lane	Pine Ridge Rd.	Stratford Ln.	Widen from Two to Four Lanes	Collier County	Yes
36	SR 82	Gator Slough Lane	SR 29	Widen from Two to Four Lanes	FDOT FPN: 430849-1	Yes
37	Vanderbilt Beach Rd. Extension ^a	Curry Canal	Wilson Blvd.	New Four-Lane Facility	Collier County	Yes
38	Vanderbilt Beach Rd. Extension ^a	Wilson Blvd.	16th St.	New Two-Lane Facility Expandable to Four Lanes	Collier County	Yes
58	US 41	Oasis Visitor Center	-	Add Left-Turn Lane	FDOT FPN: 441975-1	Yes
59	Immokalee Rd.	Woodcrest Dr.	-	Intersection Improvements	Collier County	Yes
60	Pine Ridge Rd. ^a	Livingston Rd.	-	Intersection Improvements	Collier County	Yes
61	Randall Blvd. ^a	Immokalee Rd.	-	Intersection Improvements	Collier County	Yes



Table 4. 2045 Existing Plus Committed (E+C) Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2021-2025 TIP?
62	Triangle Blvd. ^a	Celeste Dr.	-	Roundabout Implementation	Collier County	Yes
63	10th St.	5th Ave North	-	Roundabout Implementation	City of Naples	Yes
64	3rd Ave. South	8th St. South	-	Roundabout Implementation	City of Naples	Yes
67	Mooring Line Dr.	Crayton Rd.	-	Roundabout Implementation	City of Naples	Yes
71	16th Street Bridge	16th St.	16th St.	New Bridge	Collier County	Yes
73	Crayton Rd.	Harbour Dr.	-	Roundabout Implementation	City of Naples	Yes
75	Price St. ^a	Waterford Dr.	-	Roundabout Implementation	Collier County	Yes
100	Wilson Blvd.	Golden Gate Blvd.	Immokalee Rd.	Widen from Two to Four Lanes	Collier County	Yes
101	I-75	Pine Ridge Rd.		Interchange Improvement	FDOT FPN: 445296-2	Yes
102	Corkscrew Rd. N.	Wildcat Dr.	E. of Wildcat Dr.	Widen and Resurface	Collier County	Yes
103	Santa Barbara Blvd.	Green Blvd.		Minor Intersection Improvement	Collier County	Yes
104	I-75	Collier Blvd. (SR 951)		Interchange Improvement	FDOT FPN: 4258432	Yes

Sources: FDOT Collier County Five Year Work Program FY 2019-2023, Collier County AUIR Five Year Work Program FY 2019-2023, Collier County One-Cent Sales Surtax Website

^a Collier One-Cent Sales Surtax Transportation Project

Note:

FPN = Financial Project Number

Table 5. Alternative 1 Network Deficient Roadway Segments

AADT/LOS D	Roadway	Location
Alternative 1 Deficient Roadway Segments		
1.15 to 1.5	Collier Blvd.	N. of Bellmeade Rd. to Manatee Rd.
1.15 to 1.5	Santa Barbara Blvd.	Rattlesnake Hammock Rd. to S. of Hollow Dr.
1.15 to 1.5	Gulf Shore Blvd.	S. of Park Shore Dr. to Park Shore Dr.
1.15 to 1.5	Pine Ridge Rd.	at I-75
1.15 to 1.5	Vanderbilt Beach Rd.	Beach Gate Dr. to Gulf Pavilion Dr.
1.15 to 1.5	US 41	Immokalee Rd. to Old US 41
1.15 to 1.5	Immokalee Rd.	E. of I-75
1.15 to 1.5	Immokalee Rd.	W. of I-75
1.15 to 1.5	I-75	Pine Ridge Rd to S. of Immokalee Rd.
1.15 to 1.5	I-75	N. of Immokalee Rd. to Lee County Line
1.15 to 1.5	Wilson Blvd.	Vanderbilt Beach Rd. to 16th Ave. NE
>1.5	Everglades Blvd.	Oil Well Rd. to 43rd NE

Table 6. Alternative 2 Network Deficient Roadway Segments

AADT/LOS D	Roadway	Location
Alternative 2 Deficient Roadway Segments		
1.15 to 1.5	Collier Blvd.	N. of Bellmeade Rd. to Manatee Rd.
1.15 to 1.5	Collier Blvd.	Yellowbird St. to N. Barnfield Dr.
1.15 to 1.5	Gulf Shore Blvd.	S. of Park Shore Dr. to Park Shore Dr.
1.15 to 1.5	Pine Ridge Rd.	at I-75
1.15 to 1.5	Vanderbilt Beach Rd.	Gulf Shore Dr. to Gulf Pavilion Dr.
1.15 to 1.5	US 41	N. of Immokalee Rd. to Old US 41
1.15 to 1.5	Immokalee Rd.	Livingston Rd. to I-75
1.15 to 1.5	Immokalee Rd	W. of I-75
1.15 to 1.5	Golden Gate Pkwy.	E. of I-75
1.15 to 1.5	Golden Gate Pkwy.	at Santa Barbara Blvd.
1.15 to 1.5	Lake Tafford Rd.	at N 19th St.
>1.5	Golden Gate Pkwy.	at I-75



Table 7. Alternative 3 Network Deficient Roadway Segments

AADT/LOS D	Roadway	Location
Alternative 3 Deficient Roadway Segments		
1.15 to 1.5	Collier Blvd.	N. of Bellmeade Rd. to Manatee Rd.
1.15 to 1.5	Pine Ridge Rd.	at I-75
1.15 to 1.5	Vanderbilt Beach Rd.	Beach Gate Dr. to Gulf Pavilion Dr.
1.15 to 1.5	US 41	Immokalee Rd. to S. of Old US 41
1.15 to 1.5	Immokalee Rd.	Livingston Rd. to W. of I-75
1.15 to 1.5	Immokalee Rd.	Tarpon Bay Blvd. to E. of I-75
1.15 to 1.5	I-75	N. of Immokalee Rd. to Veterans Memorial Blvd.
1.15 to 1.5	I-75	S of Lee County Line to Lee County Line

Table 8. Alternative 4 Network Deficient Roadway Segments

AADT/LOS D	Roadway	Location
Alternative 4 Deficient Roadway Segments		
1.15 to 1.5	Collier Blvd.	N. of Bellmeade Rd. to Manatee Rd.
1.15 to 1.5	Collier Blvd.	Davis Blvd. to White Lake Blvd.
1.15 to 1.5	Pine Ridge Rd.	at I-75
1.15 to 1.5	Vanderbilt Beach Rd.	Beach Gate Dr. to Gulf Pavilion Dr.
1.15 to 1.5	US 41	Immokalee Rd. to Lee County Line
1.15 to 1.5	Immokalee Rd.	Livingston Rd. to W. of I-75
1.15 to 1.5	Immokalee Rd.	Tarpon Bay Blvd. to E. of I-75
1.15 to 1.5	Immokalee Rd.	Randal Blvd. to Wilson Blvd. N.



Table 9. Alternative 5 Network Deficient Roadway Segments

AADT/LOS D	Roadway	Location
Alternative 5 Deficient Roadway Segments		
1.15 to 1.5	Collier Blvd.	N. of Bellmeade Rd. to Manatee Rd.
1.15 to 1.5	Pine Ridge Rd.	at I-75
1.15 to 1.5	Vanderbilt Beach Rd.	Beach Gate Dr. to Gulf Pavilion Dr.
1.15 to 1.5	I-75	N. of Pine Ridge Rd. to S. of Immokalee Rd.
1.15 to 1.5	I-75	N. of Immokalee Rd. to Lee County Line
1.15 to 1.5	US 41	Immokalee Rd. to Old US 41
1.15 to 1.5	Immokalee Rd.	Livingston Rd. to W. of I-75
1.15 to 1.5	Immokalee Rd.	Tarpon Bay Blvd. to E. of I-75
1.15 to 1.5	Immokalee Rd.	Randal Blvd. to Wilson Blvd. N.
>1.5	Old US 41	US 41 to Lee County Line

Table 10. Alternative 6 Network Deficient Roadway Segments

AADT/LOS D	Roadway	Location
Alternative 6 Deficient Roadway Segments		
1.15 to 1.5	Collier Blvd.	N. of Bellmeade Rd. to Manatee Rd.
1.15 to 1.5	Golden Gate Pkwy.	at I-75
1.15 to 1.5	Pine Ridge Rd.	at I-75
1.15 to 1.5	Vanderbilt Beach Rd.	Beach Gate Dr. to Gulf Pavilion Dr.
1.15 to 1.5	Immokalee Rd.	Livingston Rd. to W. of I-75
1.15 to 1.5	US 41	Immokalee Rd. to Old US 41



Attachment A

Network Deficiency Plots



Figure A-1. E+C Network Deficient Plot

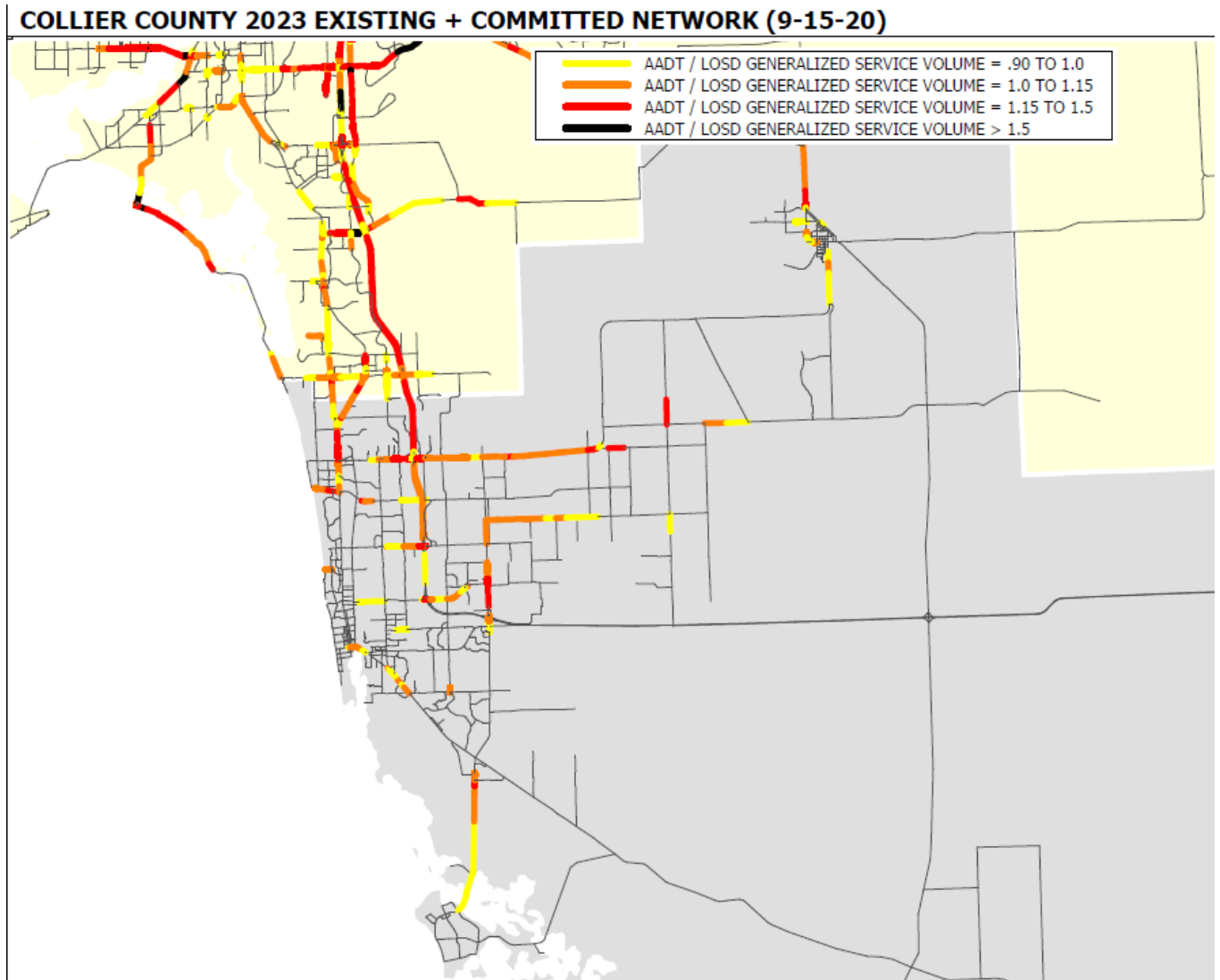


Figure A-2. Alternative 1 Network Deficiency Plot

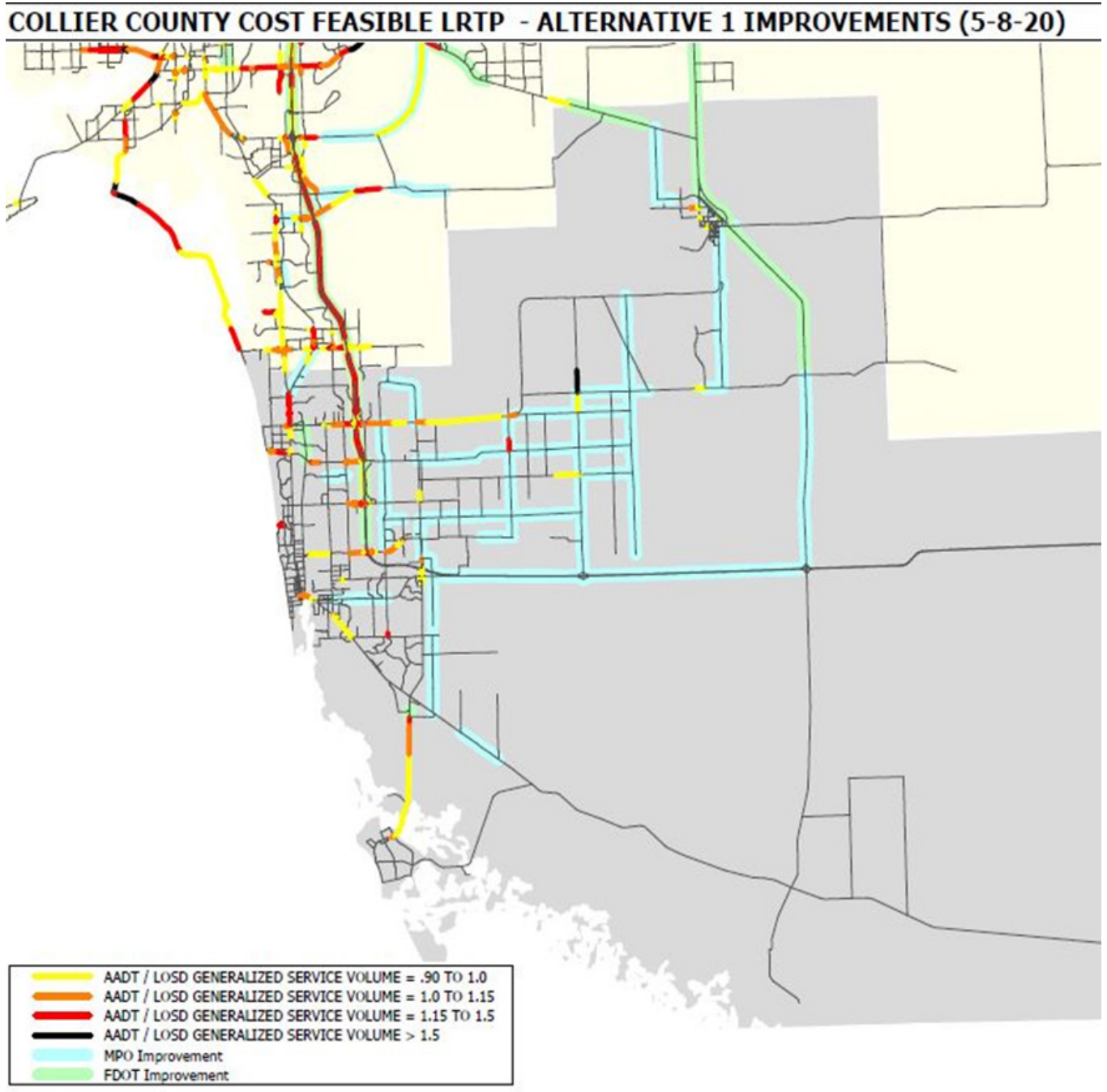


Figure A-3. Alternative 2 Network Deficiency Plot

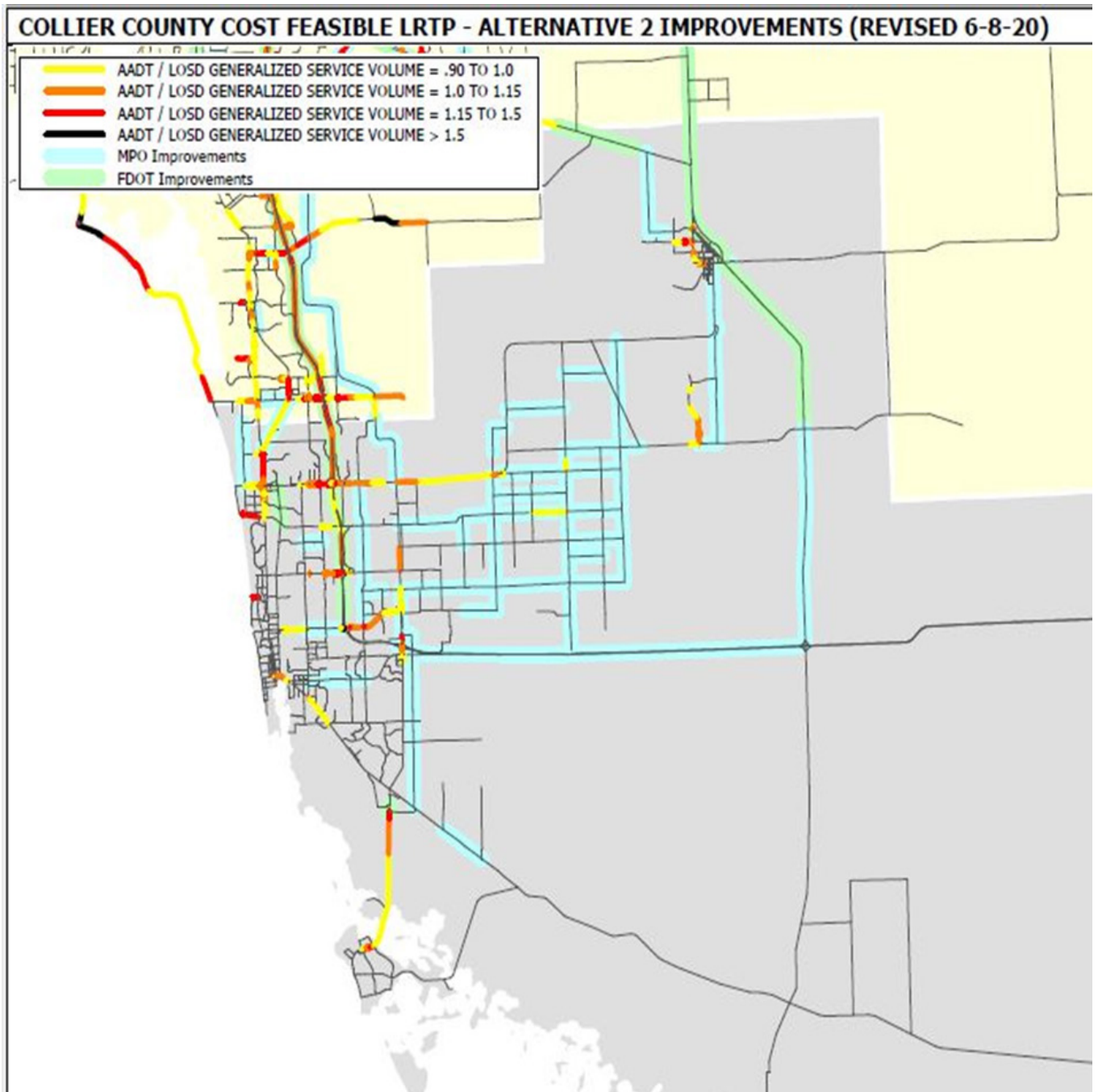


Figure A-4. Alternative 3 Network Deficiency Plot

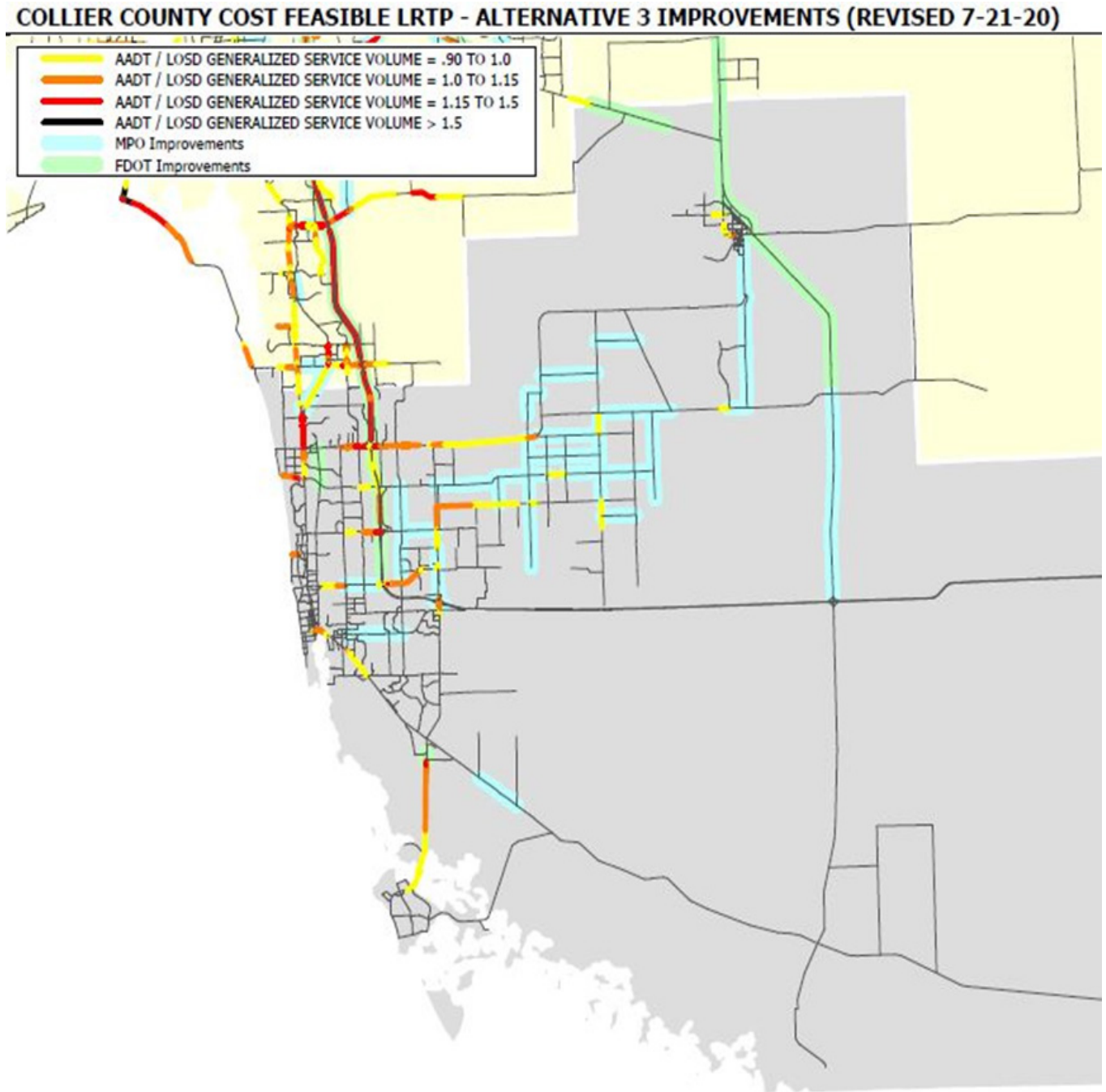


Figure A-5. Alternative 4 Network Deficiency Plot without CAV

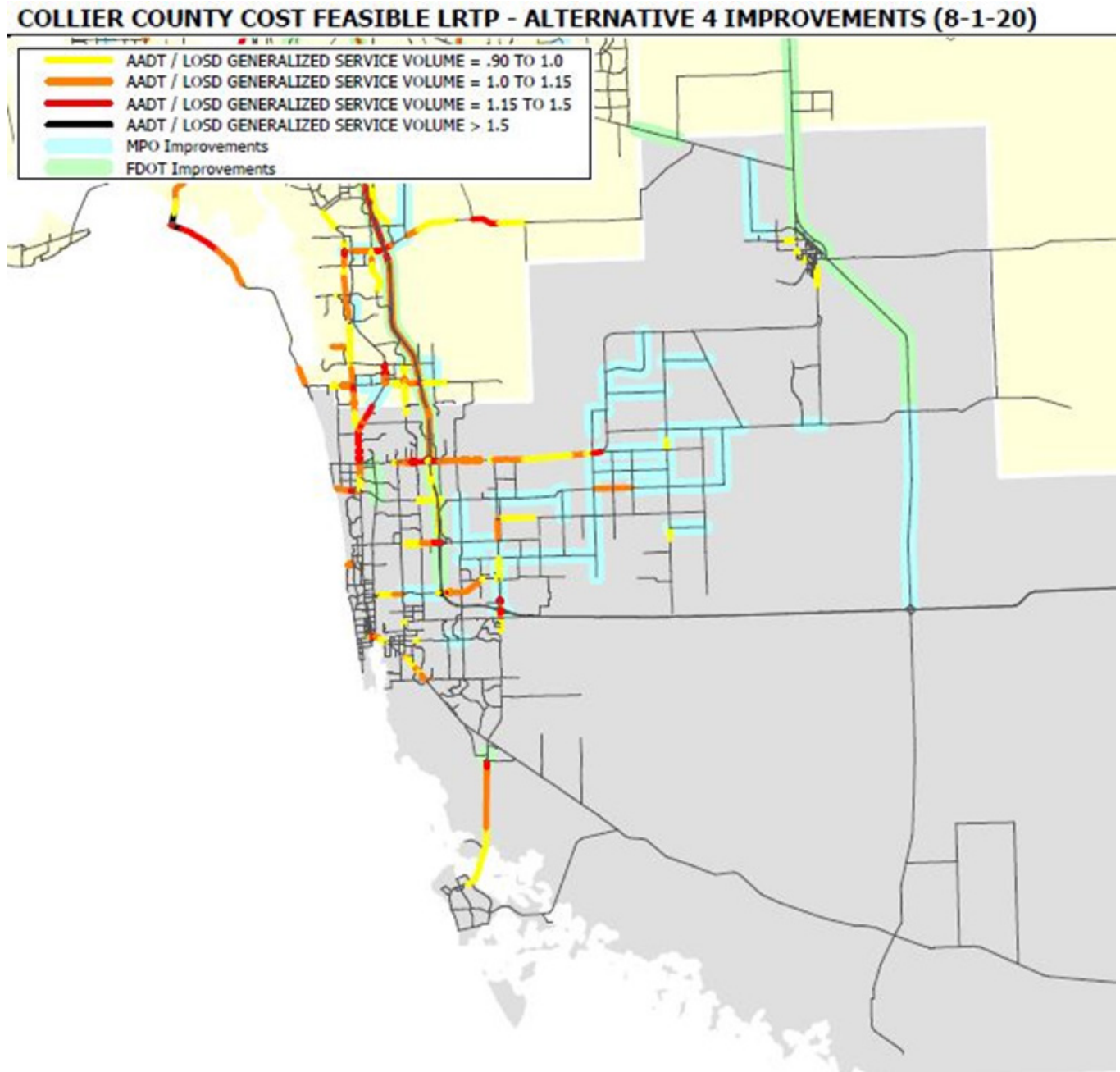


Figure A-6. Alternative 4 Network Deficiency Plot with CAV

COLLIER COUNTY COST FEASIBLE LRTP - ALTERNATIVE 4 IMPROVEMENTS WITH 35% CAV (8-1-20)

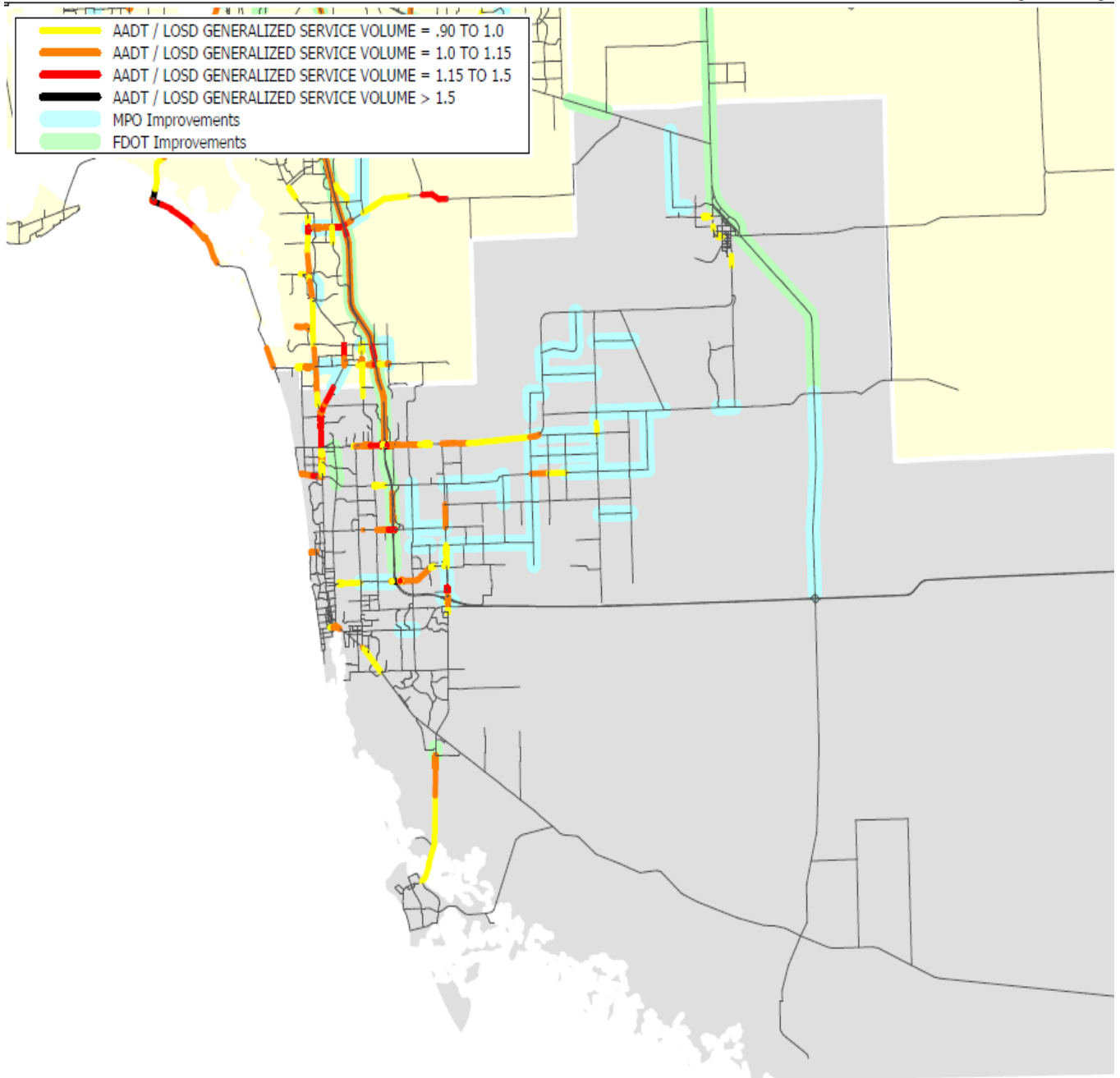


Figure A-7. Alternative 5 Network Deficiency Plot without CAV

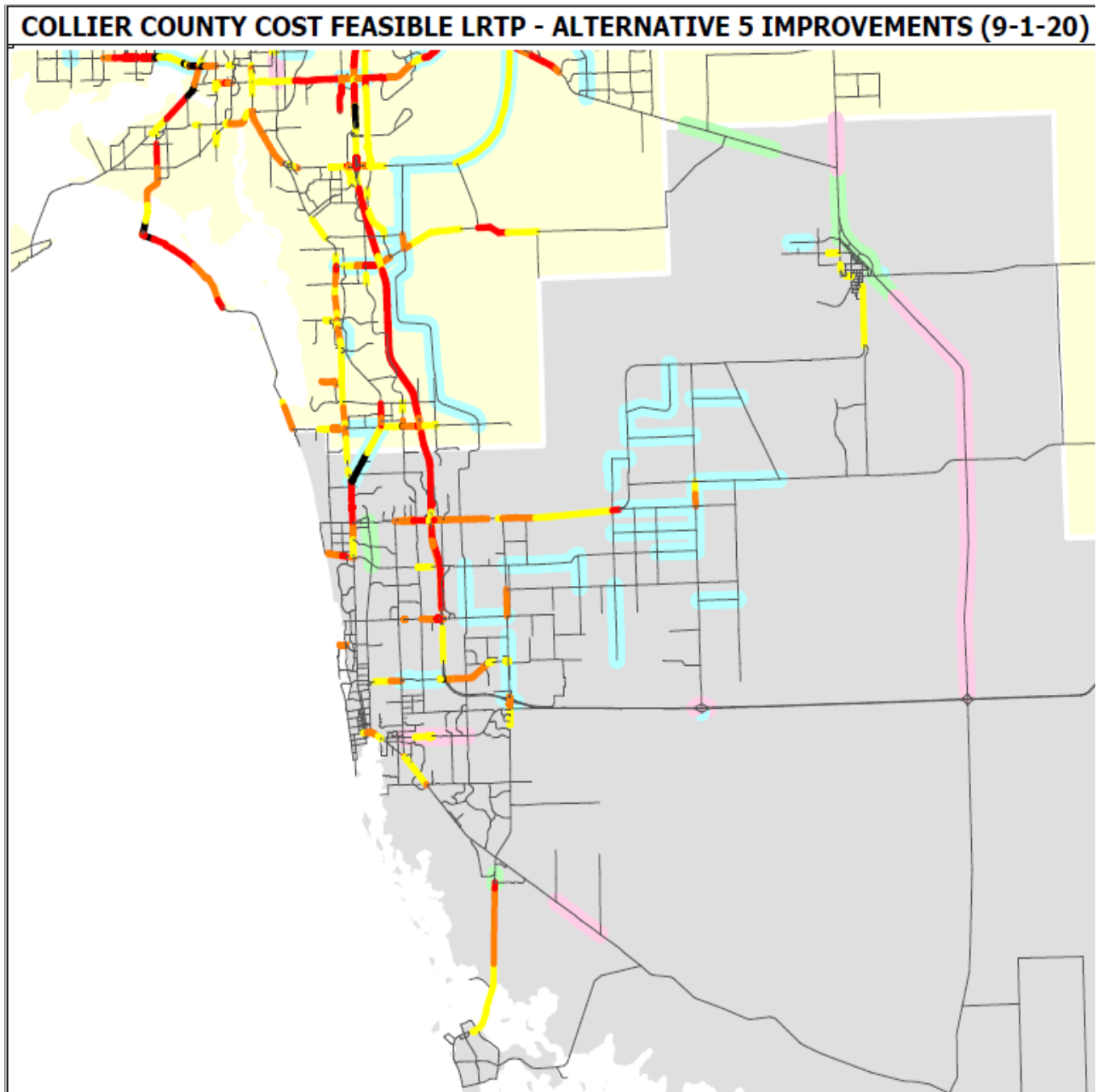


Figure A-8. Alternative 5 Network Deficiency Plot with CAV

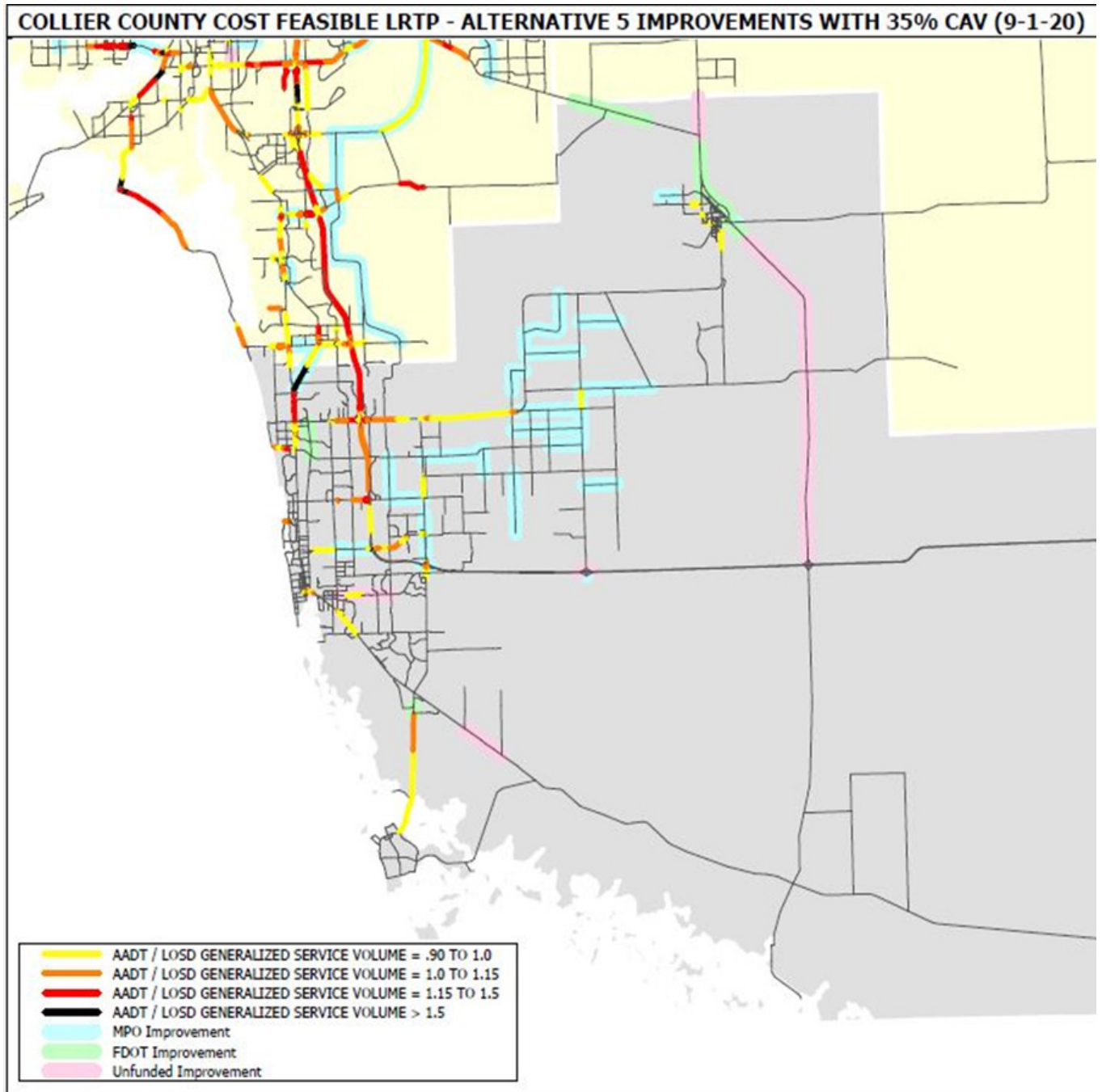


Figure A-9. Alternative 6 Network Deficiency Plot without CAV

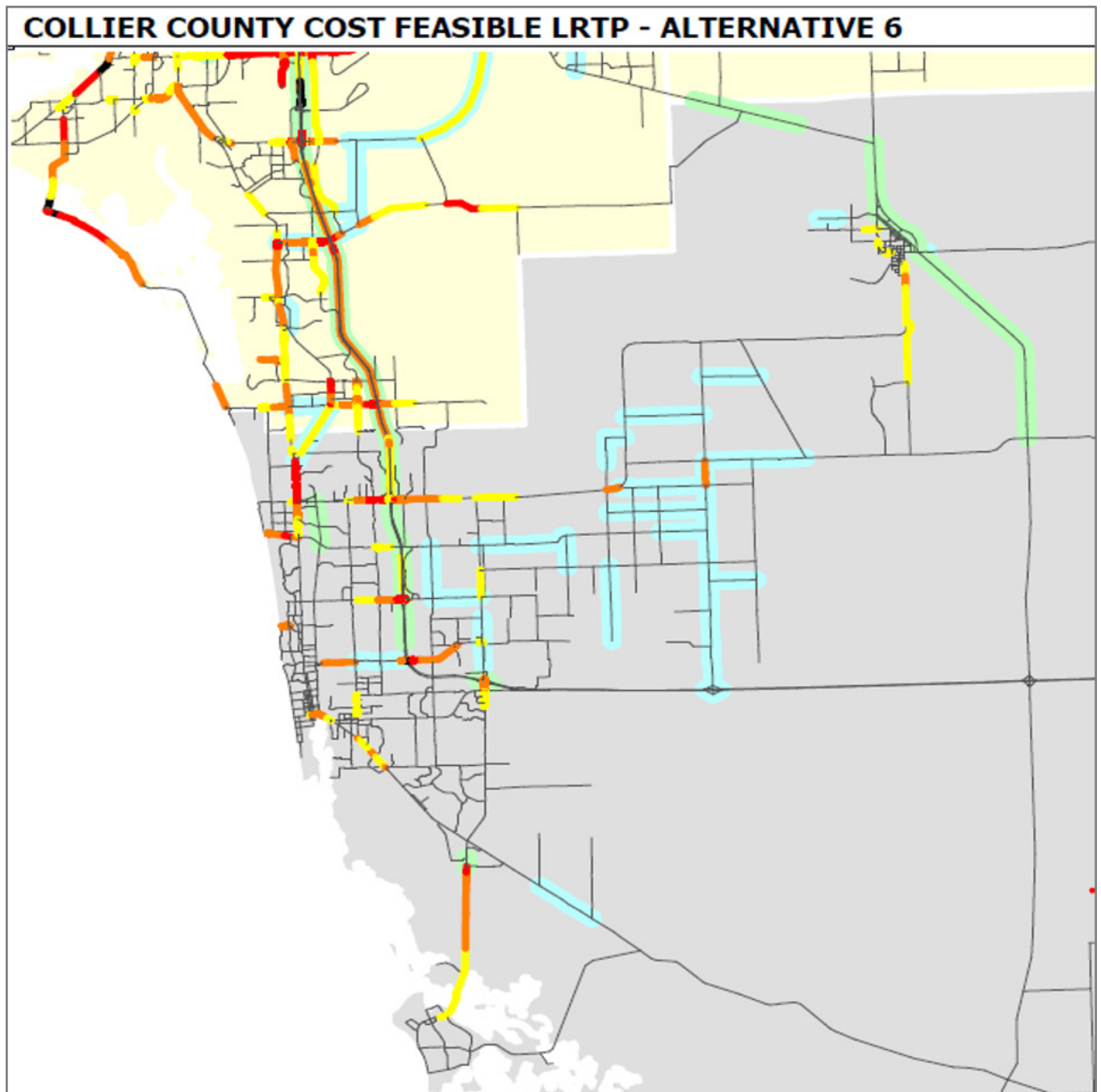
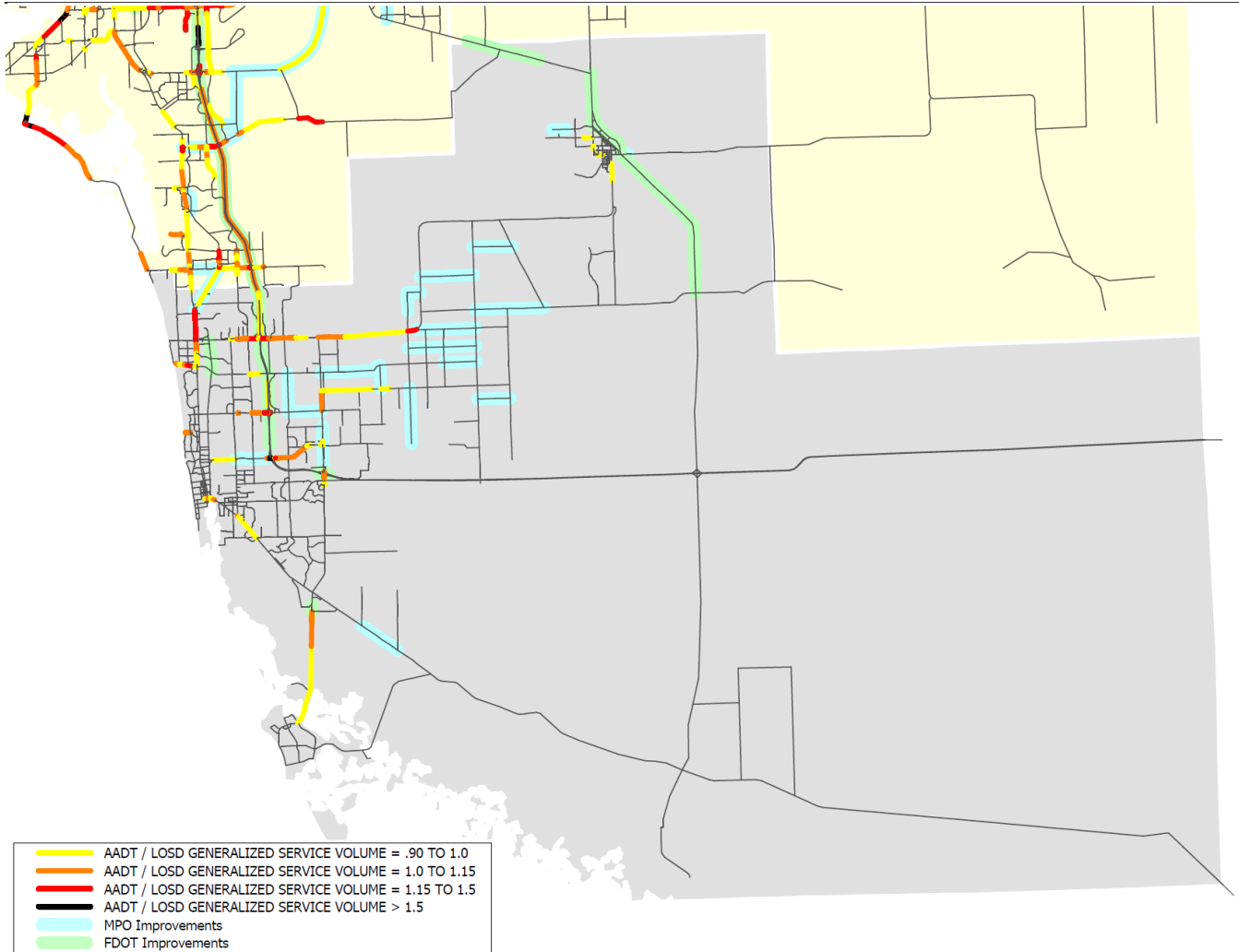


Figure A-10. Alternative 6 Network Deficiency Plot with CAV

COLLIER COUNTY COST FEASIBLE LRTP - ALTERNATIVE 6 IMPROVEMENTS WITH 35% CAV (10-1-20)



Attachment B

Tabulated Network List of Projects



Attachment B-1

ALTERNATIVE 1 - DRAFT 4/15/2020

ID	MAP ID	FACILITY	FRON	TO	# of Existing Lanes	PROJECT DESCRIPTION
	1	Benfield Road	City Gate Boulevard North	Lords Way	0	New 2 lane roadway in a 4 lane footprint
	2	Benfield Road	US 41 (SR 90) (Tamiami Trail East	Rattlesnake-Hammock Ext	0	New 2 lane roadway in a 4 lane footprint
	3	Big Cypress Parkway	Everglades Blvd north of I-75	Golden Gate Blvd	0	New 2-Lane Road (ROW Expandable to 4-Lanes); east of Desoto Blvd
	4	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	0	New 2-Lane Road (ROW Expandable to 4-Lanes); east of Desoto Blvd
	5	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	0	New 2-Lane Road (ROW Expandable to 4-Lanes); east of Desoto Blvd
	6	Big Cypress Parkway	Oil Well Road	Immokalee Rd	0	New 2-Lane Road (ROW Expandable to 4-Lanes); east of Desoto Blvd
	7	Camp Keais Road	Immokalee Road	Pope John Paul Blvd	2	2-Lane Roadway to 4 Lanes with Outside Paved Shoulder (Includes milling and resurfacing of existing pavement)
	8	Camp Keais Road	Oil Well Road	Pope John Paul Blvd	2	Expand from 2-Lane Undivided to 4-Lane Divided Arterial
	9	CR 951 (Collier Blvd)	Golden Gate Canal	Green Blvd	4	4-Lane Roadway to 6 Lanes with Sidewalk, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)
	10	CR 951 Extension	Heritage Bay Entrance	Lee/Collier County Line	0	New 2-lane Arterial to Bonita Beach Road
	11	Everglades Boulevard	Randall Blvd	South of Oil Well Road	2	Expand from 2-Lane Undivided to 4-Lane Divided Arterial
	12	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	2	Expand from 2-Lane Undivided to 4-Lane Divided Arterial
	13	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	2	Expand from 2-Lane Undivided to 4-Lane Divided Arterial
	14	Everglades Boulevard	I-75 (SR-93)	Golden Gate Blvd	2	Expand from 2-Lane Undivided to 4-Lane Divided Arterial
	15	Golden Gate Boulevard	Everglades Blvd.	Desoto Boulevard	2	Expand from 2-Lane Undivided to 4-Lane Divided Arterial
	16	Golden Gate Boulevard Ext	Desoto Boulevard	Big Cypress Parkway	0	New 2-Lane Road
	17	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	2	Expand from 2-Lane Undivided to 4-Lane Divided Arterial
	18	Green Boulevard	Santa Barbara/ Logan Boulevard	Sunshine Boulevard	2	Expand from 2-Lane Undivided to 4-Lane Divided Collector
	19	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext (Corridor Study)	0	New 2-Lane Collector (Future Study Area)
	20	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW (Corridor Study)	0	New 4-Lane Divided Collector (Future Study Area)
	21	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard (Corridor Study)	0	New 2-Lane Collector

Attachment B-1

ID	MAP ID	FACILITY	FRON	TO	# of Existing Lanes	PROJECT DESCRIPTION
	22	I-75 (SR-93)	Everglades Blvd		0	New Interchange
	23	I-75 (SR-93)	Golden Gate Parkway		0	(New) 2-Lane Ramp
	24	I-75 (SR-93)	Collier Blvd (CR 951)		0	Interchange, Single Point Urban
	25	I-75 (SR-93)	Immokalee Rd		0	Intersection Traffic Signalization (DDI proposed)
	26	I-75 (SR-93)	Pine Ridge Rd		0	Intersection Traffic Signalization (DDI proposed)
	27	I-75 (SR-93)	Vanderbilt Bch Rd		0	New Interchange - Partial (to / from the North)
	28	I-75 (SR-93)	Collier Blvd (CR 951)	SR 29	4	Expand from 4 to 6-Lane Freeway
	29	I-75 (SR-93) Managed/ Express (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	6	New 4-Lanes Express (Toll) Lanes with slip-ramp locations connecting to general purpose lanes TBD
	30	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	2	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)
	31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	2	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)
	32	Keane Avenue	Inez Rd	Wilson Blvd. Ext.	0	New 2-Lane Undivided Collector - name change at Inez to Brantley for short way (dirt road) <u>(Future Study Area)</u>
	33	Little League Rd. Ext.	SR-82	Westclox St.	0	New 2-lane roadway
	34	Logan Boulevard	Green Boulevard	Pine Ridge Road	4	Expand from 4-Lane Divided to 6-Lane Divided Arterial
	35	Logan Boulevard	Vanderbilt Beach Road	Immokalee Road	2	Expand from 2-Lane Undivided to 4-Lane Divided Major Collector
	36	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	2	Expand from 2-Lane Undivided to 4-Lane Divided Major Collector
	37	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	2	2-Lane Roadway to 6 Lanes with Outside Paved Shoulders
	38	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Road	2	Expand from 2-Lane Undivided to 6-Lane Divided Arterial
	39	Old US 41	US 41 (SR 45)	Lee/Collier County Line	2	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)
	40	Orange Blossom Drive	Airport Pulling Road	Livingston Road	2	Expand from 2-Lane Undivided to 4-Lane Divided Major Collector

Attachment B-1

ID	MAP ID	FACILITY	FRON	TO	# of Existing Lanes	PROJECT DESCRIPTION
	41	Randall Blvd at Immokalee Road	Immokalee Road	8th St NE	0	Ultimate intersection improvement; widening Randall Blvd to 6 lanes
	42	Randall Boulevard	8th St NE	Everglades Blvd	2	2-Lane Roadway to 6 Lanes with Outside Paved Shoulder
	43	Randall Boulevard	Everglades Blvd	Desoto Blvd	2	2-Lane Roadway to 4 Lanes with Outside Paved Shoulder
	44	Randall Boulevard	Desoto Blvd	Big Cypress Parkway	0	New 4-Lane Roadway with Outside Paved Shoulder
	45	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	4	Expand from 4-Lane Divided to 6-Lane Divided Arterial
	46	SR 29	North of SR 82	Collier/Hendry Line	2	2-Lane Roadway to 4 Lanes with Paved Shoulders (Includes milling and resurfacing of existing pavement)
	47	SR 29	Oil Well Rd	SR 82	2	2-Lane Roadway to 4 Lanes with Paved Shoulders (Includes milling and resurfacing of existing pavement)
	48	SR 29	I-75 (SR 93)	Oil Well Rd	2	2-Lane Roadway to 4 Lanes with Paved Shoulders (Includes milling and resurfacing of existing pavement)
	49	SR 29	9th St	Immokalee Rd	2	Expand from 2-Lane Undivided with center turn lane to 4-Lane Divided Arterial
	50	SR 29	New Market Road North	North of SR-82	2	Expand from 2-Lane Undivided to 4-Lane Divided Arterial
	51	SR 29	Immokalee Rd	New Market Road North	2	Expand from 2-Lane Undivided with center turn lane to 4-Lane Divided Arterial

Attachment B-2

ALTERNATIVE 2 - DRAFT updated 5/21/2020

MAP ID	FACILITY	FROM	TO	# of Existing Lanes	# of Alt 1	# of Alt 2	PROJECT DESCRIPTION
1	Benfield Road Extension	US 41 (SR 90) (Tamiami Trail East)	City Gate Boulevard North	0	2	2	New 2 lane roadway in a 4 lane footprint
9	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	4	4	6	Expand to 6 lanes
10	CR 951 Extension (new)	Collier Blvd (CR 951) northern terminus	Lee/Collier County Line	0	2	2	New 2-lane Arterial to Bonita Beach Road
16	Golden Gate Blvd	Desoto Blvd	Big Cypress Parkway	0	2	4	New 4-Lane Road
23	I-75 (SR-93) Interchange (modified)	Golden Gate Parkway					Further Study Required
24	I-75 (SR-93) Interchange (modified)	Collier Blvd (CR 951)					Interchange improvements are in design [SPUI]

Attachment B-2

ALTERNATIVE 2 - DRAFT updated 5/21/2020

MAP ID	FACILITY	FROM	TO	# of Existing Lanes	# of Alt 1	# of Alt 2	PROJECT DESCRIPTION
25	I-75 (SR-93) Interchange (modified)	Immokalee Rd					Reconstruction DDI configuration interchange
26	I-75 (SR-93) Interchange (modified)	Pine Ridge Rd					Reconstruction DDI configuration interchange
41	Randall Blvd Intersection	Immokalee Rd					Intersection Improvement Overpass - 2 lanes WB Randall to WB Immokalee; and Randall Blvd from Immokalee to 8th St. Widen to 6 Lane
51	SR 29/New Market Road W	Immokalee Rd	New Market Road North	2	4	2	2-Lane Undivided
57	US 41 (SR 90) (Tamiami Trail East) intersection	Goodlette Rd					At-grade Intersection improvements
65	Wilson Blvd	Keane Rd	Golden Gate Boulevard	2	2	4	Expand to 4 lanes
66	Immokalee Rd intersection	Livingston Rd					Proposed Overpass (Immokalee over Livingston Rd) [SPUI]

Attachment B-2

ALTERNATIVE 2 - DRAFT updated 5/21/2020

MAP ID	FACILITY	FROM	TO	# of Existing Lanes	# of Alt 1	# of Alt 2	PROJECT DESCRIPTION
67	Veterans Memorial Blvd Extension	Strand Blvd	I-75	0	0	4	New 4 lane
69	Everglades Blvd	Oil Well Rd / CR 858	Immokalee Rd	2	2	2	no improvement
70	Green Boulevard Extension	Everglades Blvd	Big Cypress Parkway	0	0	2	New 2 lanes
71	Golden Gate Blvd	16th	Everglades Blvd	4	2	4	4 lanes (under construction)
73	Immokalee Rd (CR 846) intersection	Collier Blvd (CR 951)					Proposed Overpass (Immokalee over Collier Blvd) [SPUI]
74	Immokalee Rd (CR 846) intersection	Wilson Blvd					Proposed Overpass (Immokalee over Wilson Blvd) [SPUI]
75	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd		-	-	i/c	New Partial interchange
76	Vanderbilt Drive	Immokalee Rd	Woods Edge Parkway	2	2	4	Expand to 4 lanes
77	Pine Ridge Rd intersection	Livingston Rd					Intersection Improvement
78	Golden Gate Parkway intersection	Livingston Rd					Overpass - GGP over Livingston [SPUI]

Attachment B-2

ALTERNATIVE 2 - DRAFT updated 5/21/2020

MAP ID	FACILITY	FROM	TO	# of Existing Lanes	# of Alt 1	# of Alt 2	PROJECT DESCRIPTION
79	Vanderbilt Beach Road	Gulf Pavilion Dr	US 41 (SR 90) (Tamiami Trail East)	4	4	4	Constrained to 4 lanes
81	Bridge @ 47th Avenue NE	West of Everglades Boulevard					New Bridge over Canal
82	Bridge @ Wilson Boulevard	South of 33rd Avenue NE					New Bridge over Canal
83	Bridge @ 18th Ave NE	between Wilson Boulevard N and 8th Street NE					New Bridge over Canal
84	Bridge @ 18th Ave NE	between 8th Street NE and 16th Street NE					New Bridge over Canal
85	Bridge @ 13th Street NW	north end at proposed Vanderbilt Beach Road Extension					New Bridge over Canal
87	Bridge @ Location TBD - Assume 10th Avenue SE	East of Everglades Blvd					New Bridge over Canal
89	Bridge @ 62nd Avenue NE	West of 40th Street NE					New Bridge over Canal

	Correction per Alt 1 (Map ID # is same as Alt 1)
	New Project to Alt 2 (New Map ID #)

Attachment B-3

ALTERNATIVE 3 - DRAFT updated 6/10/2020

MAP ID	FACILITY	FROM	TO	PROJECT DESCRIPTION	ALTERNATIVE 3 INSTRUCTIONS 6/15/2020
1	Benfield Road Extension	US 41 (SR 90) (Tamiami Trail East)	City Gate Boulevard North	New 2 lane roadway in a 4 lane footprint	ALT 3
2	Benfield Road	US 41 (SR 90) (Tamiami Trail East)	Rattlesnake Hammock Ext	New 2 lane roadway in a 4 lane footprint	N/A
3	Big Cypress Parkway	Everglades Blvd north of I-75	Golden Gate Blvd	New 2-Lane Road (ROW Expandable to 4-Lanes); east of Desoto Blvd	ALT 3
4	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (ROW Expandable to 4-Lanes); east of Desoto Blvd	ALT 3
5	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (ROW Expandable to 4-Lanes); east of Desoto Blvd	ALT 3
6	Big Cypress Parkway	Oil Well Road	Immokalee Rd	New 2-Lane Road (ROW Expandable to 4-Lanes); east of Desoto Blvd	ALT 3
7	Camp Keais Road	Immokalee Road	Oil Well Road	2-Lane Roadway to 4 Lanes with Outside Paved Shoulder (Includes M&R of existing pavement)	ALT 3
8	Camp Keais Road	Oil Well Road	Pope John Paul Blvd	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	N/A
9	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	4-Lane Roadway to 6 Lanes with Sidewalk, Bike Lanes, and Curb & Gutter (Includes M&R of existing pavement)	REMOVE IMPROVEMENT
10	CR 951 Extension (new)	Heritage Bay Entrance (Collier Blvd (CR 951) northern terminus)	Lee/Collier County Line	New 2-lane Arterial to Bonita Beach Road	REMOVE IMPROVEMENT
11	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	ALT 3
12	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	ALT 3
13	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	ALT 3
14	Everglades Boulevard	I-75 (SR-93)	Golden Gate Blvd	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	ALT 3
15	Golden Gate Boulevard	Everglades Blvd	Desoto Boulevard	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	REMOVE IMPROVEMENT - CONSIDER FOR ALT 4
16	Golden Gate Boulevard Ext	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	REMOVE IMPROVEMENT - CONSIDER FOR ALT 4
17	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	REMOVE IMPROVEMENT - CONSIDER FOR ALT 4

Attachment B-3

ALTERNATIVE 3 - DRAFT updated 6/10/2020

MAP ID	FACILITY	FROM	TO	PROJECT DESCRIPTION	ALTERNATIVE 3 INSTRUCTIONS 6/15/2020
18	Green Boulevard	Santa Barbara/ Logan Boulevard	Sunshine Boulevard	Expand from 2-Lane Undivided to 4-Lane Divided Collector	REMOVE IMPROVEMENT
19	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext (Corridor Study)	New 2-Lane Collector (Future Study Area)	REMOVE IMPROVEMENT
20	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW (Corridor Study)	New 4-Lane Divided Collector (Future Study Area)	REMOVE IMPROVEMENT
21	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard (Corridor Study)	New 2-Lane Collector	REMOVE IMPROVEMENT
30	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes M&R of existing pavement)	ALT 3
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes M&R of existing pavement)	ALT 3
32	Keane Avenue	Inez Rd	Wilson Blvd. Ext.	New 2-Lane Undivided Collector - name change at Inez to Brantley for short way (dirt road) <u>(Future Study Area)</u>	REMOVE IMPROVEMENT
33	Little League Rd. Ext.	SR-82	Westclox St.	New 2-lane roadway	ALT 3
34	Logan Boulevard	Green Boulevard	Pine Ridge Road	Expand from 4-Lane Divided to 6-Lane Divided Arterial	REMOVE IMPROVEMENT
35	Logan Boulevard	Vanderbilt Beach Road	Immokalee Road	Expand from 2-Lane Undivided to 4-Lane Divided Major Collector	REMOVE IMPROVEMENT
36	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Expand from 2-Lane Undivided to 4-Lane Divided Major Collector	REMOVE IMPROVEMENT
37	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	2-Lane Roadway to 6 Lanes with Outside Paved Shoulders	ALT 3
38	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Road	Expand from 2-Lane Undivided to 6-Lane Divided Arterial	REMOVE IMPROVEMENT
39	Old US 41	US 41 (SR 45)	Lee/Collier County Line	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes M&R of existing pavement)	ALT 3
40	Orange Blossom Drive	Airport Pulling Road	Livingston Road	Expand from 2-Lane Undivided to 4-Lane Divided Major Collector	REMOVE IMPROVEMENT
41	Randall Blvd at Immokalee Road	Immokalee Road	8th St NE	Ultimate Intersection Improvement: Overpass - 2 lanes WB Randall to WB Immokalee; and Randall Blvd from Immokalee to 8th St. <u>Widen to 6 Lane</u>	ALT 3
42	Randall Boulevard	8th St NE	Everglades Blvd	2-Lane Roadway to 6 Lanes with Outside Paved Shoulder	ALT 3

Attachment B-3

ALTERNATIVE 3 - DRAFT updated 6/10/2020

MAP ID	FACILITY	FROM	TO	PROJECT DESCRIPTION	ALTERNATIVE 3 INSTRUCTIONS 6/15/2020
43	Randall Boulevard	Everglades Blvd	Desoto Blvd	2-Lane Roadway to 4 Lanes with Outside Paved Shoulder	ALT 3
44	Randall Boulevard	Desoto Blvd	Big Cypress Parkway	New 4-Lane Roadway with Outside Paved Shoulder	ALT 3
45	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	Expand from 4-Lane Divided to 6-Lane Divided Arterial	REMOVE IMPROVEMENT
56	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	4-Lane Roadway to 6 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes M&R of existing pavement)	ALT 3
61	Vanderbilt Beach Road Ext	Collier Boulevard	16th St	4 lane to 6 lanes (complete 6 laning)	ALT 3
62	Vanderbilt Beach Road Ext	16th St	Big Cypress Parkway	2 lane roadway in a 4 lane footprint	ALT 3
63	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road	REMOVE IMPROVEMENT
64	Wilson Blvd	Golden Gate Boulevard	Immokalee Rd	Expand to 4 lanes	ALT 3
65	Wilson Blvd	Keane Rd	Golden Gate Boulevard	Expand to 4 lanes	ALT 3
66	Immokalee Rd intersection	Livingston Rd		Proposed Overpass (Immokalee over Livingston Rd) [SPUI]	CRITICAL NEED - NOT CODED
67	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4 lane	REMOVE IMPROVEMENT
68	Big Cypress Parkway intersection (new)	Oil Well Grade Rd		New at-grade intersection	ALT 3
69	Everglades Blvd	Oil Well Rd / CR 858	Immokalee Rd	no improvement; TAZ connector corrected.	ALT 3
70	Green Boulevard Extension	Everglades Blvd	Big Cypress Parkway	New 2 lanes	REMOVE IMPROVEMENT
71	Golden Gate Blvd	16th	Everglades Blvd	4 lanes (under construction); part of Existing + Committed	ALT 3
72	Golden Gate Parkway intersection	Airport Pulling Road		Existing Overpass (GGP over Airport BI)	EXISTING INTERCHANGE
73	Immokalee Rd (CR 846) intersection	Collier Blvd (CR 951)		Proposed Overpass (Immokalee over Collier Blvd) [SPUI]	CRITICAL NEED - NOT CODED

Attachment B-3

ALTERNATIVE 3 - DRAFT updated 6/10/2020

MAP ID	FACILITY	FROM	TO	PROJECT DESCRIPTION	ALTERNATIVE 3 INSTRUCTIONS 6/15/2020
74	Immokalee Rd (CR 846) intersection	Wilson Blvd		Proposed Overpass (Immokalee over Wilson Blvd) [SPUI]	CRITICAL NEED - NOT CODED
76	Vanderbilt Drive	Immokalee Rd	Woods Edge Parkway	Expand to 4 lanes	REMOVE IMPROVEMENT
77	Pine Ridge Rd intersection	Livingston Rd		Intersection Improvement	CRITICAL NEED - NOT CODED
78	Golden Gate Parkway intersection	Livingston Rd		Overpass - GGP over Livingston [SPUI]	CRITICAL NEED - NOT CODED
79	Vanderbilt Beach Road	Gulf Pavilion Dr	US 41 (SR 90) (Tamiami Trail East)	Constrained to 4 lanes	ALT 3
80	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Pulling Road	Expand to 6 lanes (in design)	ALT 3
81	Bridge @ 47th Avenue NE	West of Everglades Boulevard		New Bridge over Canal	ALT 3
82	Bridge @ Wilson Boulevard	South of 33rd Avenue NE		New Bridge over Canal	REMOVE IMPROVEMENT
83	Bridge @ 18th Ave NE	between Wilson Boulevard N and 8th Street NE		New Bridge over Canal	REMOVE IMPROVEMENT
84	Bridge @ 18th Ave NE	between 8th Street NE and 16th Street NE		New Bridge over Canal	REMOVE IMPROVEMENT
85	Bridge @ 13th Street NW	north end at proposed Vanderbilt Beach Road Extension		New Bridge over Canal	REMOVE IMPROVEMENT
86	Bridge @ 16th Street SE	South end		New Bridge over Canal	ALT 3
87	Bridge @ Location TBD - Assume 10th Avenue SE	East of Everglades Blvd		New Bridge over Canal	REMOVE IMPROVEMENT
88	Bridge @ Wilson Boulevard South, south end			New Bridge over Canal	ALT 3
89	Bridge @ 62nd Avenue NE	West of 40th Street NE		New Bridge over Canal	REMOVE IMPROVEMENT

COLLIER MPO 2045 LRTP ALTERNATIVE 4

Submitted: 7/15/2020

MAP ID	FACILITY	FROM	TO	DESCRIPTION	ALTERNATIVE 4
1	Benfield Rd Extension	The Lords Way	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
2	Benfield Rd	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake-Hammock Extension	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
3	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
4	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Extension	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
5	Big Cypress Parkway	Vanderbilt Beach Rd Extension	Oil Well Rd	New 2-Lane Road (Expandable to 4-Lanes)	ALTERNATIVE 4
6	Big Cypress Parkway	Oil Well Rd	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
7	Camp Keais Rd	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes	REMOVE
8	Camp Keais Rd	Immokalee Rd	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes	REMOVE
9	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes	ALTERNATIVE 4
10	CR 951 Extension	Collier Blvd (CR 951) (northern terminus)	Lee/Collier County Line	New 2-Lane Road	REMOVE
11	Everglades Blvd	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 4
12	Everglades Blvd	Vanderbilt Beach Rd Extension	Randall Blvd	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 4
13	Everglades Blvd	Golden Gate Blvd	Vanderbilt Beach Rd Extension	Widen from 2-Lanes to 4-Lanes	REMOVE
14	Everglades Blvd	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes	REMOVE
15	Golden Gate Blvd	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	REMOVE
16	Golden Gate Blvd Extension	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	REMOVE
17	Goodlette-Frank Rd	Vanderbilt Beach Rd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 4
18	Green Blvd	Santa Barbara/ Logan Blvd	Sunshine Blvd	Widen from 2-Lane to 4-Lane	ALTERNATIVE 4
19	Green Boulevard Extension (16th Ave SW)	23rd St SW	Wilson Blvd Extension (Corridor Study)	New 2-Lane (Future Study Area)	ALTERNATIVE 4
20	Green Boulevard Extension (16th Ave SW)	CR 951	23rd St SW (Corridor Study)	New 4-Lane (Future Study Area)	ALTERNATIVE 4
21	Green Boulevard Extension (16th Ave SW)	Wilson Blvd Ext	Everglades Blvd (Corridor Study)	New 2-Lane Road	REMOVE
22	I-75 (SR-93) Interchange	Everglades Blvd		New Full Interchange	NOT CODED
23	I-75 (SR-93) Interchange (modified)	Golden Gate Parkway		Interchange Improvements - In design [SPUI]	NOT CODED
24	I-75 (SR-93) Interchange (modified)	Collier Blvd (CR 951)		Interchange Improvements - In design [SPUI]	CODED PER SIS CFP
25	I-75 (SR-93) Interchange (modified)	Immokalee Rd		Intersection Traffic Signalization (DDI proposed)	NOT CODED
26	I-75 (SR-93) Interchange (modified)	Pine Ridge Rd		Intersection Traffic Signalization (DDI proposed)	NOT CODED
27	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd		New Interchange - Partial (to / from the North)	NOT CODED
28	I-75 (SR-93)	Collier Blvd (CR 951)	SR 29	Widen from 4-Lanes to 6-Lanes Freeway	REMOVE
29	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes (with slip-ramp locations connecting to general purpose lanes)	CODED PER SIS CFP
30	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes	REMOVE

Attachment B-4

DRAFT COST FEASIBLE PLAN

MAP ID	FACILITY	FROM	TO	DESCRIPTION	ALTERNATIVE 4
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	REMOVE
32	Keane Ave	Inez Rd	Wilson Blvd Extension	New 2-Lane Road (Future Study Area)	REMOVE
33	Little League Rd Extension	SR-82	Westclox St	New 2-Lane Road	ALTERNATIVE 4
34	Logan Blvd	Green Blvd	Pine Ridge Rd	Widen from 4-Lanes to 6-Lanes	REMOVE
35	Logan Blvd	Vanderbilt Beach Rd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	REMOVE
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 4
37	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	ALTERNATIVE 4
38	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Rd	Widen from 2-Lanes to 6-Lanes	ALTERNATIVE 4
39	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	REMOVE
40	Orange Blossom Dr	Airport Pulling Rd	Livingston Rd	Widen from 2-Lanes to 4-Lanes	REMOVE
41A	Randall Blvd Intersection (Ultimate)	Immokalee Rd		Ultimate Intersection Improvement: Overpass	REMOVE
41B	Randall Blvd	Immokalee Rd	8th St NE	Widen from 4-Lanes to 6-Lanes	ALTERNATIVE 4
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	ALTERNATIVE 4
43	Randall Blvd	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	REMOVE
44	Randall Blvd	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	REMOVE
45	Santa Barbara Blvd	Painted Leaf Ln	Green Blvd	Widen from 4-Lanes to 6-Lanes	REMOVE
46	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes	CODED PER SIS CFP
48	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	PLEASE NOTE AS FDOT PROJECT NOT MPO
50	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane	CODED PER SIS CFP
51	SR 29/New Market Rd W - New Road	Immokalee Rd (CR 846)	New Market Rd N	New 4-Lane Road	CODED PER SIS CFP
52	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lanes to 4-Lanes	CODED PER SIS CFP
53	SR 29 (SEGMENT D)	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lanes to 4-Lanes	CODED PER SIS CFP
54	SR 29 (SEGMENT E)	Oil Well Rd	Sunniland Nursery Rd	Widen from 2-Lanes to 4-Lanes	CODED PER SIS CFP
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6 Lanes	CODED FROM
56	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 4-Lanes to 6 Lanes	ALTERNATIVE 4
57	US 41 (SR 90) (Tamiami Trail E) intersection	Goodlette Rd		At-Grade Intersection Improvements	REMOVE
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4 Lanes	REMOVE
59	US 41 (SR 90) (Tamiami Trail E) intersection	Collier Blvd (SR 951)		Intersection Improvement	REMOVE
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Corridor Study required	REMOVE
62A	Vanderbilt Beach Rd Extension	16th St	Everglades Blvd	New 2-Lane Road (Expandable to 4-Lanes)	ALTERNATIVE 4
62B	Vanderbilt Beach Rd Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road (Expandable to 4-Lanes)	ALTERNATIVE 4
63	Westclox Street Extension	Little League Rd	West of Carson Road	New 2-Lane Road	REMOVE
64	Wilson Blvd	Golden Gate Blvd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 4
65	Wilson Blvd	Keane Ave	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	ALTERNATIVE 4
66	Immokalee Rd Intersection	Livingston Rd		Intersection Improvement	ALTERNATIVE 4
67	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road	REMOVE

Attachment B-4

DRAFT COST FEASIBLE PLAN

MAP ID	FACILITY	FROM	TO	DESCRIPTION	ALTERNATIVE 4
68	Big Cypress Parkway Intersection (new)	Oil Well Grade Rd		New At-Grade Intersection	REMOVE
69	Everglades Blvd	Oil Well Rd / CR 858	Immokalee Rd	Remove Row	REMOVE
70	Green Blvd Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road	REMOVE
71	Golden Gate Blvd	16th	Everglades Blvd	4 lanes (under construction)	CODE FOR E+C
72	Golden Gate Parkway Intersection	Airport Pulling Rd		Existing Overpass (GGP over Airport Bl)	NOT CODED
73	Immokalee Rd (CR 846) Intersection	Collier Blvd (CR 951)		Proposed Overpass (Immokalee over Collier Blvd) [SPUI]	ALTERNATIVE 4
74	Immokalee Rd (CR 846) Intersection	Wilson Blvd		Proposed Overpass (Immokalee over Wilson Blvd) [SPUI]	ALTERNATIVE 4
75	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd		New Partial Interchange	NOT CODED
76	Vanderbilt Dr	Immokalee Rd	Woods Edge Parkway	Widen from 2-Lanes to 4-Lanes	REMOVE
77	Pine Ridge Rd Intersection	Livingston Rd		Intersection Improvement	ALTERNATIVE 4
78	Golden Gate Parkway Intersection	Livingston Rd		Intersection Improvement	ALTERNATIVE 4
79	Vanderbilt Beach Rd	Gulf Pavilion Dr	US 41 (SR 90) (Tamiami Trail E)	Constrained to 4 lanes	CODE FOR E+C
80	Vanderbilt Beach Rd	Goodlette-Frank Road	Airport Pulling Rd	Widen from 4-Lanes to 6-Lanes	CODE FOR E+C
81	Bridge @ 47th Ave NE	West of Everglades Boulevard		New Bridge over Canal	ALTERNATIVE 4
82	Bridge @ Wilson Blvd	South of 33rd Avenue NE		New Bridge over Canal	ALTERNATIVE 4
83	Bridge @ 18th Ave NE	Between Wilson Blvd N and 8th St NE		New Bridge over Canal	ALTERNATIVE 4
84	Bridge @ 18th Ave NE	Between 8th St NE and 16th StNE		New Bridge over Canal	ALTERNATIVE 4
85	Bridge @ 13th St NW	North Terminus at Vanderbilt Beach Rd Extension		New Bridge over Canal	ALTERNATIVE 4
86	Bridge @ 16th St SE	South Terminus		New Bridge over Canal	ALTERNATIVE 4
87	Bridge @ Location TBD - Assume 10th Ave S	East of Everglades Blvd		New Bridge over Canal	ALTERNATIVE 4
88	Bridge @Wilson Blvd S	South Terminus		New Bridge over Canal	ALTERNATIVE 4
89	Bridge @ 62nd Ave NE	West of 40th St NE		New Bridge over Canal	ALTERNATIVE 4
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes	ALTERNATIVE 4
91	SR 82	Gator Slough Lane	SR 29	WIDEN FROM 2-LANES TO 4-LANES IN E+C	CODE FOR E+C
92	SR 82	Hendry Co.Line	Gator Slough Lane	Widen from 2-Lanes to 4-Lanes	CODED
93	Immokalee Rd (CR 846)	43rd Ave NE/Shady Hollow Blvd E	North of 47th Avenue NE/Immokalee	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 4
94	Immokalee Road Rural Village Blvd (new)	Immokalee Rd (CR 846)	Immokalee Rd (CR 846)	New 4-Lane Road	ALTERNATIVE 4
95	Golden Gate Parkway (Intersection)	Goodlette Rd		Intersection Improvements	NOT CODED
96	Pine Ridge Road (Intersection)	Airport Pulling Rd		Intersection Improvements	NOT CODED
97	Immokalee Road (Intersection)	Logan Blvd		Intersection Improvements	NOT CODED
98	Vanderbilt Beach Road (Intersection)	Livingston Rd		Intersection Improvements	NOT CODED
99	Vanderbilt Beach Road (Intersection)	Logan Blvd		Intersection Improvements	NOT CODED
100	Collier Boulevard (Intersection)	Pine Ridge Rd		Intersection Improvements	NOT CODED
101	Pine Ridge Road (Intersection)	Goodlette Rd		Intersection Improvements	NOT CODED
102	US 41 (SR 90) (Tamiami Trail E) intersection	Vanderbilt Beach Rd		Intersection Improvements	NOT CODED
103	US 41 (SR 90) (Tamiami Trail E) intersection	Pine Ridge Rd		Intersection Improvements	NOT CODED
104	US 41 (SR 90) (Tamiami Trail E) intersection	Golden Gate Pkwy		Intersection Improvements	NOT CODED
105	Santa Barbara Blvd	Green Blvd		Intersection Improvements	NOT CODED

Attachment B-4

DRAFT COST FEASIBLE PLAN

MAP ID	FACILITY	FROM	TO	DESCRIPTION	ALTERNATIVE 4
106	Immokalee Rd	Northbrook Dr		Intersection Improvements	NOT CODED
107	Golden Gate Pkwy	Collier Blvd		Intersection Improvements	NOT CODED
108	Vanderbilt Beach Rd	Airport Pulling Rd		Intersection Improvements	NOT CODED
109	Immokalee Rd	Goodlette-Frank Rd		Intersection Improvements	NOT CODED
110	Immokalee Rd	Airport Pulling Rd		Intersection Improvements	NOT CODED
111	US 41	Immokalee Rd		Intersection Improvements	NOT CODED
112	Airport Pulling Rd	Orange Blossom Dr		Intersection Improvements	NOT CODED
113	Airport Pulling Rd	Golden Gate Pkwy		Intersection Improvements	NOT CODED
114	Airport Pulling Rd	Radio Rd		Intersection Improvements	NOT CODED

COLLIER MPO 2045 LRTP ALTERNATIVE 5

Submitted: 8/15/2020

MAP ID	FACILITY	FROM	TO	DESCRIPTION	ALTERNATIVE 5 (REMOVE=NOT INCLUDED IN CFP)
1	Benfield Rd Extension	The Lords Way	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
2	Benfield Rd	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake-Hammock Extension	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
3	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
4	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Extension	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
5	Big Cypress Parkway	Vanderbilt Beach Rd Extension	Oil Well Rd	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE; CST UNFUNDED
6	Big Cypress Parkway	Oil Well Rd	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
7	Camp Keais Rd	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes	REMOVE
8	Camp Keais Rd	Immokalee Rd	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes	REMOVE
9	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes	COMMITTED FY2023/24 [4464121]
10	CR 951 Extension	Collier Blvd (CR 951) (northern terminus)	Lee/Collier County Line	New 2-Lane Road	REMOVE
11	Everglades Blvd	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 5
12	Everglades Blvd	Vanderbilt Beach Rd Extension	Randall Blvd	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 5
13	Everglades Blvd	Golden Gate Blvd	Vanderbilt Beach Rd Extension	Widen from 2-Lanes to 4-Lanes	REMOVE
14	Everglades Blvd	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes	REMOVE
15	Golden Gate Blvd	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	REMOVE
16	Golden Gate Blvd Extension	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	REMOVE
17	Goodlette-Frank Rd	Vanderbilt Beach Rd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	COMMITTED FY2023/24 [4463411]
18	Green Blvd	Santa Barbara/ Logan Blvd	Sunshine Blvd	Widen from 2-Lane to 4-Lane	REMOVE
19	Green Boulevard Extension (16th Ave SW)	23rd St SW	Wilson Blvd Extension (Corridor Study)	New 2-Lane (Future Study Area)	REMOVE
20	Green Boulevard Extension (16th Ave SW)	CR 951	23rd St SW (Corridor Study)	New 4-Lane (Future Study Area)	REMOVE
21	Green Boulevard Extension (16th Ave SW)	Wilson Blvd Ext	Everglades Blvd (Corridor Study)	New 2-Lane Road	REMOVE
22	I-75 (SR-93) Interchange	Everglades Blvd		New Full Interchange	ALTERNATIVE 5 MODEL RUN WITH AND WITHOUT
23	I-75 (SR-93) Interchange (modified)	Golden Gate Parkway		Interchange Improvements - In design [SPUI]	ALTERNATIVE 5
24	I-75 (SR-93) Interchange (modified)	Collier Blvd (CR 951)		Interchange Improvements - In design [SPUI]	COMMITTED FY 20-24 [4258432]
25	I-75 (SR-93) Interchange (modified)	Immokalee Rd		Intersection Traffic Signalization (DDI proposed)	ALTERNATIVE 5
26	I-75 (SR-93) Interchange (modified)	Pine Ridge Rd		Intersection Traffic Signalization (DDI proposed)	COMMITTED [4452962]
27	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd		New Interchange - Partial (to / from the North)	REMOVE
28	I-75 (SR-93)	Collier Blvd (CR 951)	SR 29	Widen from 4-Lanes to 6-Lanes Freeway	REMOVE
29	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes (with slip-ramp locations connecting to general purpose lanes)	FDOT TO VERIFY
30	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes	
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	ALTERNATIVE 5
32	Keane Ave	Inez Rd	Wilson Blvd Extension	New 2-Lane Road (Future Study Area)	REMOVE
33	Little League Rd Extension	SR-82	Westclox St	New 2-Lane Road	REMOVE; CST UNFUNDED
34	Logan Blvd	Green Blvd	Pine Ridge Rd	Widen from 4-Lanes to 6-Lanes	REMOVE
35	Logan Blvd	Vanderbilt Beach Rd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	REMOVE

Attachment B-5

DRAFT COST FEASIBLE PLAN

MAP ID	FACILITY	FROM	TO	DESCRIPTION	ALTERNATIVE 5 (REMOVE=NOT INCLUDED IN CFP)
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 5
37	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	ALTERNATIVE 5
38	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Rd	Widen from 2-Lanes to 6-Lanes	REMOVE
39	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 5
40	Orange Blossom Dr	Airport Pulling Rd	Livingston Rd	Widen from 2-Lanes to 4-Lanes	REMOVE
41A	Randall Blvd Intersection (Ultimate)	Immokalee Rd		Ultimate Intersection Improvement: Overpass	ALTERNATIVE 5
41B	Randall Blvd	Immokalee Rd	8th St NE	Widen from 4-Lanes to 6-Lanes	COMMITTED FY2025
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	ALTERNATIVE 5
43	Randall Blvd	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes	REMOVE
44	Randall Blvd	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road	REMOVE
45	Santa Barbara Blvd	Painted Leaf Ln	Green Blvd	Widen from 4-Lanes to 6-Lanes	REMOVE
46	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes	CODED PER SIS CFP
48	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	CODED PER SIS CFP; PLEASE NOTE AS FDOT PROJECT NOT MPO ON PLOT
50	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane	CODED PER SIS CFP
51	SR 29/New Market Rd W - New Road	Immokalee Rd (CR 846)	New Market Rd N	New 4-Lane Road	CODED PER SIS CFP
52	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lanes to 4-Lanes	CODED PER SIS CFP
53	SR 29 (SEGMENT D)	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lanes to 4-Lanes	CODED PER SIS CFP
54	SR 29 (SEGMENT E)	Oil Well Rd	Sunniland Nursery Rd	Widen from 2-Lanes to 4-Lanes	CODED PER SIS CFP
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6 Lanes	ALTERNATIVE 5
56	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 4-Lanes to 6 Lanes	COMMITTED FY 2023/2024 [435111]
57	US 41 (SR 90) (Tamiami Trail E) intersection	Goodlette Rd		At-Grade Intersection Improvements	ALTERNATIVE 5
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4 Lanes	ALTERNATIVE 5
59	US 41 (SR 90) (Tamiami Trail E) intersection	Collier Blvd (SR 951)		Intersection Improvement	ALTERNATIVE 5
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Corridor Study required	ALTERNATIVE 5
62A	Vanderbilt Beach Rd Extension	16th St	Everglades Blvd	New 2-Lane Road (Expandable to 4-Lanes)	COMMITTED
62B	Vanderbilt Beach Rd Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
63	Westclox Street Extension	Little League Rd	West of Carson Road	New 2-Lane Road	ALTERNATIVE 5
64	Wilson Blvd	Golden Gate Blvd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes	COMMITTED
65	Wilson Blvd	Keane Ave	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	ALTERNATIVE 5
66	Immokalee Rd Intersection	Livingston Rd		Intersection Improvement	ALTERNATIVE 5
67	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road	REMOVE
68	Big Cypress Parkway Intersection (new)	Oil Well Grade Rd		New At-Grade Intersection	REMOVE
69	Everglades Blvd	Oil Well Rd / CR 858	Immokalee Rd	Remove Row	REMOVE
70	Green Blvd Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road	REMOVE
71	Golden Gate Blvd	16th	Everglades Blvd	4 lanes (under construction)	CST UNDERWAY
72	Golden Gate Parkway Intersection	Airport Pulling Rd		Existing Overpass (GGP over Airport BI)	EXISTING
73	Immokalee Rd (CR 846) Intersection	Collier Blvd (CR 951)		Proposed Overpass (Immokalee over Collier Blvd) [SPUI]	REMOVE
74	Immokalee Rd (CR 846) Intersection	Wilson Blvd		Proposed Overpass (Immokalee over Wilson Blvd) [SPUI]	ALTERNATIVE 5
75	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd		New Partial Interchange	REMOVE
76	Vanderbilt Dr	Immokalee Rd	Woods Edge Parkway	Widen from 2-Lanes to 4-Lanes	REMOVE

Attachment B-5

DRAFT COST FEASIBLE PLAN

MAP ID	FACILITY	FROM	TO	DESCRIPTION	ALTERNATIVE 5 (REMOVE=NOT INCLUDED IN CFP)
77	Pine Ridge Rd Intersection	Livingston Rd		Intersection Improvement	COMMITTED
78	Golden Gate Parkway Intersection	Livingston Rd		Intersection Improvement	COMMITTED
79	Vanderbilt Beach Rd	Gulf Pavilion Dr	US 41 (SR 90) (Tamiami Trail E)	Constrained to 4 lanes	COMMITTED
80	Vanderbilt Beach Rd	Goodlette-Frank Road	Airport Pulling Rd	Widen from 4-Lanes to 6-Lanes	COMMITTED
81	Bridge @ 47th Ave NE	West of Everglades Boulevard		New Bridge over Canal	ALTERNATIVE 5
82	Bridge @ Wilson Blvd	South of 33rd Avenue NE		New Bridge over Canal	ALTERNATIVE 5
83	Bridge @ 18th Ave NE	Between Wilson Blvd N and 8th St NE		New Bridge over Canal	ALTERNATIVE 5
84	Bridge @ 18th Ave NE	Between 8th St NE and 16th StNE		New Bridge over Canal	ALTERNATIVE 5
85	Bridge @ 13th St NW	North Terminus at Vanderbilt Beach Rd Extension		New Bridge over Canal	ALTERNATIVE 5
86	Bridge @ 16th St SE	South Terminus		New Bridge over Canal	ALTERNATIVE 5
87	Bridge @ Location TBD - Assume 10th Ave S	East of Everglades Blvd		New Bridge over Canal	ALTERNATIVE 5
88	Bridge @Wilson Blvd S	South Terminus		New Bridge over Canal	ALTERNATIVE 5
89	Bridge @ 62nd Ave NE	West of 40th St NE		New Bridge over Canal	ALTERNATIVE 5
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes	ALTERNATIVE 5
91	SR 82	Gator Slough Lane	SR 29	WIDEN FROM 2-LANES TO 4-LANES IN E+C	COMMITTED FY 2020 [430849]
92	SR 82	Hendry Co.Line	Gator Slough Lane	Widen from 2-Lanes to 4-Lanes	COMMITTED FY23/24 [4308481]
93	Immokalee Rd (CR 846)	43rd Ave NE/Shady Hollow Blvd E	North of 47th Avenue NE/Immokalee	Widen from 2-Lanes to 4-Lanes	ALTERNATIVE 5
94	Immokalee Road Rural Village Blvd (new)	Immokalee Rd (CR 846)	Immokalee Rd (CR 846)	New 4-Lane Road	ALTERNATIVE 5
95	Golden Gate Parkway (Intersection)	Goodlette Rd		Intersection Improvements	ALTERNATIVE 5
96	Pine Ridge Road (Intersection)	Airport Pulling Rd		Intersection Improvements	REMOVE
97	Immokalee Road (Intersection)	Logan Blvd		Intersection Improvements	ALTERNATIVE 5
98	Vanderbilt Beach Road (Intersection)	Livingston Rd		Intersection Improvements	ALTERNATIVE 5
99	Vanderbilt Beach Road (Intersection)	Logan Blvd		Intersection Improvements	ALTERNATIVE 5
100	Collier Boulevard (Intersection)	Pine Ridge Rd		Intersection Improvements	ALTERNATIVE 5
101	Pine Ridge Road (Intersection)	Goodlette Rd		Intersection Improvements	ALTERNATIVE 5
102	US 41 (SR 90) (Tamiami Trail E) intersection	Vanderbilt Beach Rd		Intersection Improvements	ALTERNATIVE 5
103	US 41 (SR 90) (Tamiami Trail E) intersection	Pine Ridge Rd		Intersection Improvements	ALTERNATIVE 5
104	US 41 (SR 90) (Tamiami Trail E) intersection	Golden Gate Pkwy		Intersection Improvements	ALTERNATIVE 5
105	Santa Barbara Blvd	Green Blvd		Intersection Improvements	COMMITTED
106	Immokalee Rd	Northbrook Dr		Intersection Improvements	REMOVED; UNFUNDED NEEDS
107	Golden Gate Pkwy	Collier Blvd		Intersection Improvements	REMOVED; UNFUNDED NEEDS
108	Vanderbilt Beach Rd	Airport Pulling Rd		Intersection Improvements	ALTERNATIVE 5
109	Immokalee Rd	Goodlette-Frank Rd		Intersection Improvements	ALTERNATIVE 5
110	Immokalee Rd	Airport Pulling Rd		Intersection Improvements	ALTERNATIVE 5
111	US 41	Immokalee Rd		Intersection Improvements	ALTERNATIVE 5
112	Airport Pulling Rd	Orange Blossom Dr		Intersection Improvements	ALTERNATIVE 5
113	Airport Pulling Rd	Golden Gate Pkwy		Intersection Improvements	REMOVED; UNFUNDED NEEDS
114	Airport Pulling Rd	Radio Rd		Intersection Improvements	ALTERNATIVE 5

Attachment B-6

Collier MPO 2045 LRTP Cost Feasible Plan Projects FDOT Other Roads Projects and Local Roadway Projects Draft 9/21/2020

ALTERNATIVE 6

Map ID	FACILITY	LIMITS FROM	LIMITS TO	DESCRIPTION	ALTERNATIVE 6
PLAN PERIOD 2 CONSTRUCTION FUNDED PROJECTS					
12	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	INCLUDE
37	Oil Well Road / CR 858[60144]	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	INCLUDE
66	Immokalee Rd intersection	Livingston Rd		Major Intersection Improvement	INCLUDE
78	Golden Gate Parkway (Intersection)	Livingston Rd		Major Intersection Improvement	INCLUDE - ADDED TO CFP
23	I-75 (SR-93) Interchange (new)	Golden Gate Pkwy		Interchange Improvement	INCLUDE
25	I-75	Immokalee Rd		Interchange Improvement (DDI proposed)	INCLUDE
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4 Lanes	INCLUDE
111	US 41	Immokalee Rd		Intersection Innovation/Improvements	INCLUDE
PLAN PERIOD 3 CONSTRUCTION FUNDED PROJECTS					
36	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Widen from 2-Lanes to 4-Lanes	INCLUDE
42	Randall Boulevard	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	INCLUDE
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes	INCLUDE
39	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	INCLUDE
57	US 41 (SR 90) (Tamiami Trail E) intersection	Goodlette-Frank Rd		Major Intersection Improvement	INCLUDE
59	US 41	Collier Blvd		Major Intersection Improvement	INCLUDE
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Further Study Required	INCLUDE
PLAN PERIOD 4 CONSTRUCTION FUNDED PROJECTS					
11	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	INCLUDE
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	INCLUDE
63	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road	INCLUDE
65	Wilson Blvd	Keane Ave	Golden Gate Boulevard	New 2-Lane Road (Expandable to 4-Lanes)	INCLUDE
97	Immokalee Road (Intersection)	Logan Blvd		Major Intersection Improvement	INCLUDE
99	Vanderbilt Beach Road (Intersection)	Logan Blvd		Minor Intersection Improvement	INCLUDE
101	Pine Ridge Rd	Goodlette-Frank Rd		Minor Intersection Improvement	INCLUDE
C1	Connector Roadway from I-75 Interchange (New)	Golden Gate Blvd	Vanderbilt Beach Rd	4-Lane Connector Roadway from New Interchange (Specific Location TBD During Interchange PD&E Study)	NCLUDE EVERGLADES BLVD AS 4-LANES
C2	Connector Roadway from I-75 Interchange (New)	I-75 (SR-93)	Golden Gate Blvd	4-Lane Connector Roadway from New Interchange (Specific Location TBD During Interchange PD&E Study)	INCLUDE EVERGLADES BLVD AS 4-LANES
22	I-75 (SR-93) Interchange (new)	Vicinity of Everglades Blvd		New Interchange	INCLUDE (OA FUNDED)
PARTIALLY FUNDED PROJECTS					
1	Benfield Rd (New) [60129]	The Lords Way	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
5	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (Expandable to 4-Lanes)	REMOVE
33	Little League Rd. Ext.	SR-82	Westclox St.	New 2-Lane Road	REMOVE
62B	Vanderbilt Beach Road Ext	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road (Expandable to 4 Lanes)	REMOVE
93	Immokalee Rd	43rd Ave/Shady Hollow Blvd E	North of 47th Ave NE	Widen from 2-Lanes to 4-Lanes	REMOVE
94	Rural Village Blvd	Immokalee Rd	Immokalee Rd	New 4-Lane Road	REMOVE
98	Vanderbilt Beach Road (Intersection)	Livingston Rd		Minor Intersection Improvement	REMOVE
41A	Randall Blvd Intersection (flyover) [60147]	Immokalee Rd		Ultimate Intersection Improvement: Overpass	REMOVE
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6-Lanes	REMOVE
74	Immokalee Rd (CR 846) intersection	Wilson Blvd		Major Intersection Improvement	REMOVE
102	US 41 (SR 90) (Tamiami Trail E) intersection	Vanderbilt Beach Rd		Major Intersection Improvement	REMOVE
103	US 41 (SR 90) (Tamiami Trail E) intersection	Pine Ridge Rd		Major Intersection Improvement	REMOVE
104	US 41 (SR 90) (Tamiami Trail E) intersection [44645]	Golden Gate Pkwy		Major Intersection Improvement	REMOVE

Attachment C

Needs Plan and Cost Feasible Plan Maps



Figure C-1. Needs Plan Map

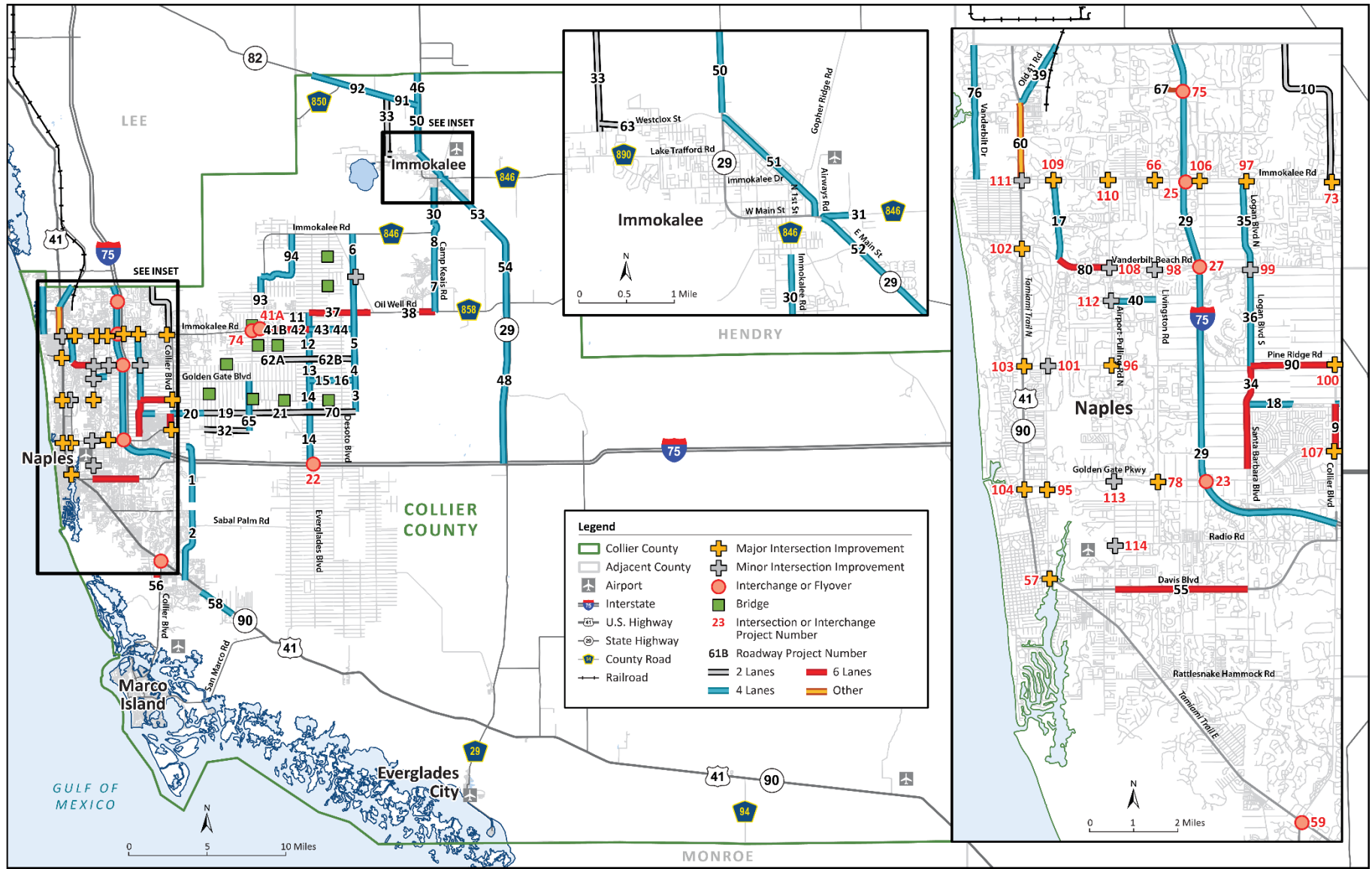
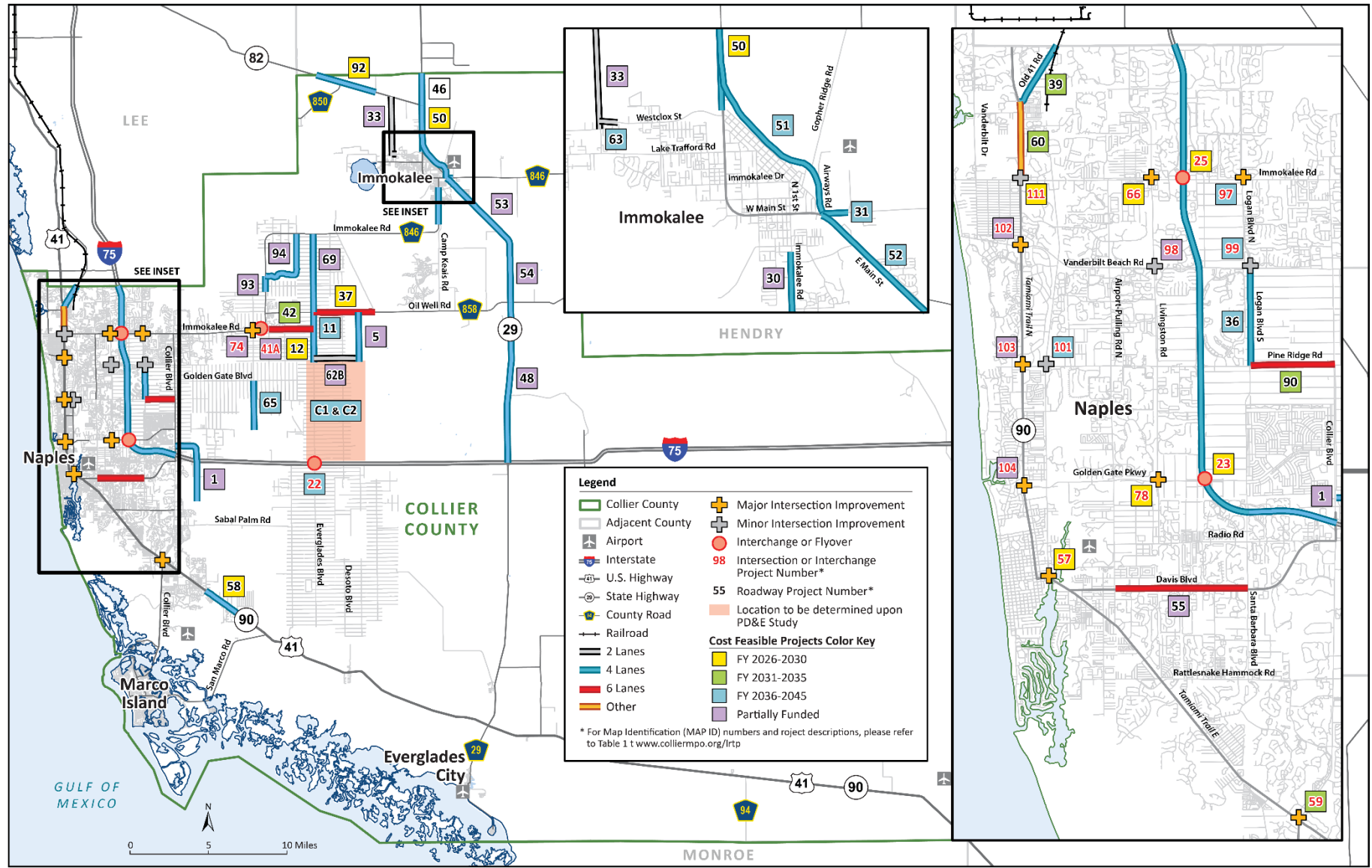


Figure C-2. Cost Feasible Plan Map



Public Involvement Summary



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Public Involvement Summary Report - DRAFT

November 2020



Jacobs



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Public Involvement Summary Report

Introduction

The Collier Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP) envisions the development of an integrated, multimodal transportation system to facilitate the safe and efficient movement of people and goods while addressing environmental sustainability and future transportation demand. Collier MPO aims to ensure that all citizens regardless of race, color, religion, national origin, sex, age, disability, or family status have an equal opportunity to participate in the MPO's decision-making process. As part of the Collier MPO 2045 LRTP update process, the MPO strove to ensure equitable, inclusive participation by involving the potentially affected public in MPO outreach and public involvement programs. MPO activities to inform the 2045 LRTP were designed to develop partnerships and enhance the participation in the transportation planning process, with groups and individuals of "traditionally underserved" communities. These include communities of color, low-income residents, the elderly, and persons with disabilities.

Public outreach methods during the 2045 LRTP update included public meetings, newsletters, social media, surveys, public service announcements, and a project website. Collier MPO developed a Public Involvement Plan (PIP) that provided constructive, collaborative, and inclusive outreach activities throughout the 2045 LRTP process. As a result of the COVID-19 pandemic—which began approximately halfway through the 2045 LRTP update process—some LRTP meetings were moved to a virtual platform, and MPO staff proactively made accommodations to ensure the public could continue to participate in the process.

Title VI

Collier MPO does not discriminate against anyone on the basis of race, color, religion, sex, age, national origin, disability, or family status. Recognizing the importance of addressing environmental justice in all phases of the transportation planning process, the MPO took steps to ensure that all public engagement activities for the 2045 LRTP update were accessible by all community members. This included publishing materials in multiple languages (English, Spanish, and Creole), partnering with community organizations to reach specific communities (for example, Ciclovía Immokalee), and hosting meetings in an online format to provide safer engagement during the COVID-19 pandemic and provide access to a broader swath of the community.

Collier MPO Planning Process

Established in 1982, the Collier MPO is a federally mandated transportation policymaking body comprised of a board of nine voting members and one non-voting adviser from the Florida Department of Transportation (FDOT). The MPO's jurisdiction includes Collier County and the cities of Naples, Marco Island, and Everglades City (refer to [Figure 1](#)). The MPO uses federal, state, and local funds to carry out long-range planning processes that provide a balanced, integrated, and multimodal program that efficiently moves traffic throughout Collier County.

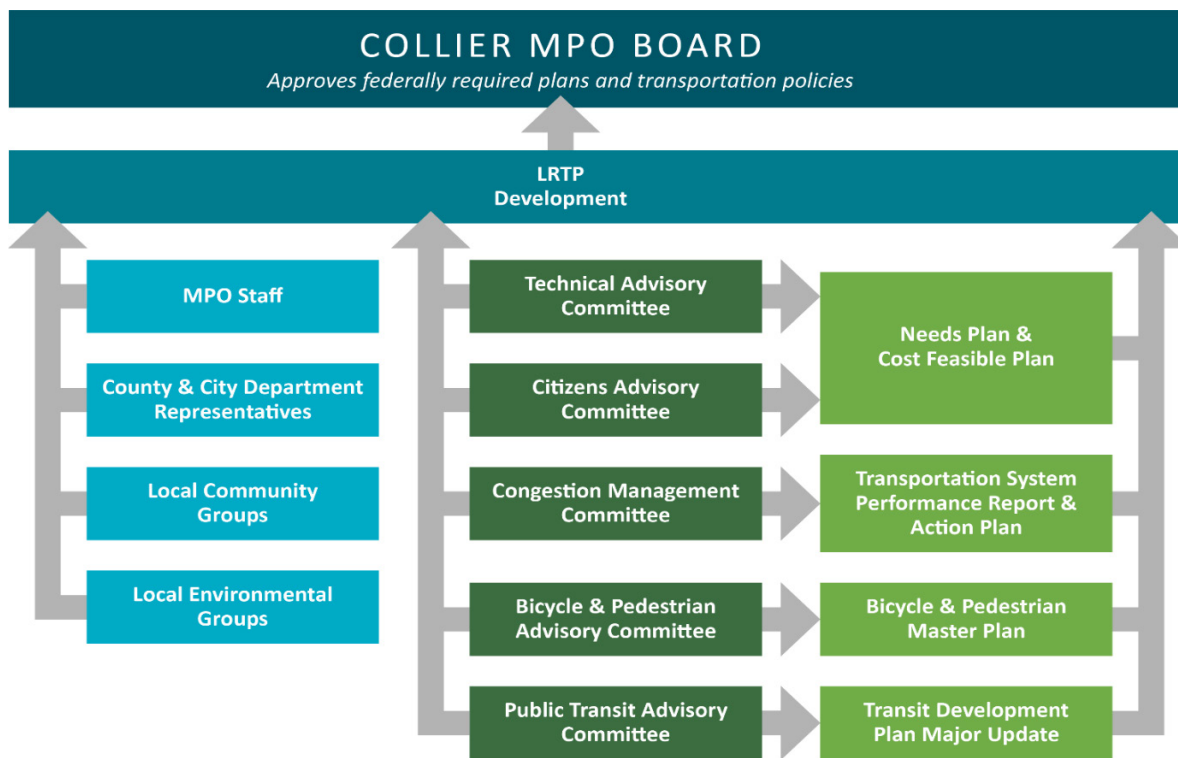
Figure 1. Collier MPO Jurisdiction



In addition to the LRTP, federal funding and state requirements include the development of a 5-year Transportation Improvement Program (TIP), a Unified Planning Work Program (UPWP), and a Public Participation Plan (PPP). The TIP is a fiscally constrained, multimodal program of transportation projects. The UPWP is a 2-year plan that identifies funding sources for each MPO planning activity. The PPP provides a framework for engaging with the public during the development of MPO planning activities. The 2045 LRTP PIP was developed in accordance with the PPP.

The MPO board is assisted by dedicated MPO professional staff who provide technical expertise and manage several advisory committees, including the Technical Advisory Committee (TAC), the Citizens Advisory Committee (CAC), the Bicycle and Pedestrian Advisory Committee (BPAC), the Local Coordinating Board for the Transportation Disadvantaged (LCB), and the Congestion Management Committee (CMC) (refer to [Figure 2](#)).

Figure 2. 2045 LRTP Participation and Process



Updating the LRTP

MPOs are required to develop and update their LRTPs on a 5-year cycle to receive federal funds. These updates maintain a minimum time horizon of 20 years and ensure that the future transportation system is efficient, fosters mobility and access for people and goods, and enhances the overall quality of life for the community. The previous 2040 LRTP update was adopted in December 2015. The Collier MPO 2045 LRTP update began in March 2019, and it will help citizens, businesses, and elected officials collaborate on developing a sustainable transportation system that addresses projected growth through 2045. The LRTP must be multimodal and should include, at a minimum, highway and transit infrastructure improvements.

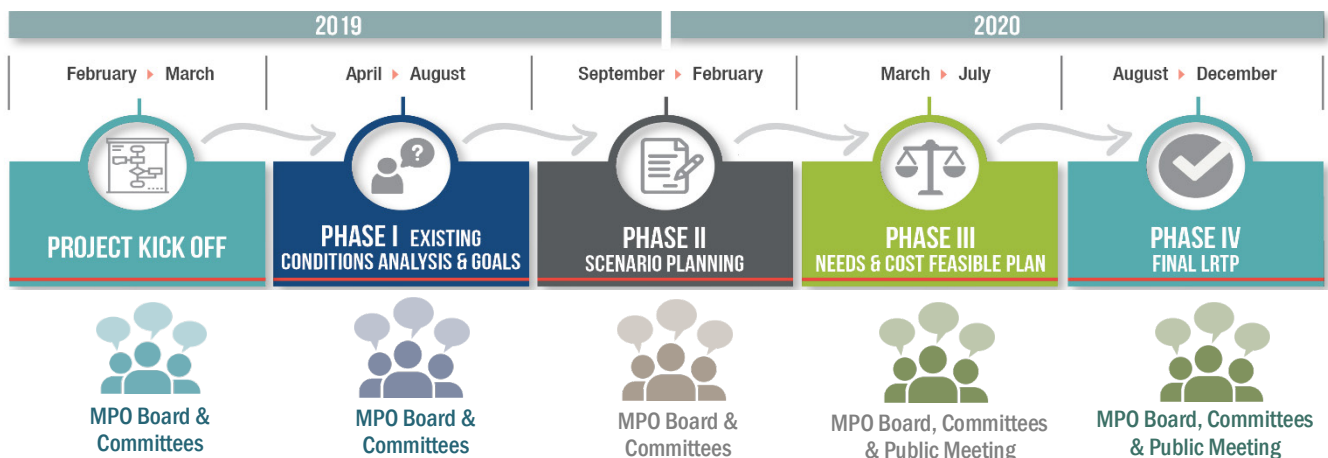
During the development of the 2045 LRTP, the Collier MPO collaborated with its standing committees—particularly the TAC and CAC—who reviewed and commented on every aspect of the plan. The TAC and CAC held a series of monthly meetings through the summer of 2020 to assist the MPO on the Needs and Cost Feasible Plans. The CMC, BPAC, and LCB also helped guide the development of the LRTP by providing their expertise to shape their respective committee’s corresponding elements of the larger LRTP.

The full LRTP update process includes the following steps:

- Land Use and Socioeconomic Data Development
- Data Review and Analysis
- Needs Plan Development
- Transportation Alternatives
- Alternatives Testing
- Financial Resource Analysis
- Cost Feasible Plan
- Draft 2045 LRTP
- Adoption

As shown on **Figure 3**, these steps were organized into five discrete phases from 2019 through 2020, and the MPO sought input and advice from the public throughout the update process.

Figure 3. Phases of 2045 LRTP Development



Public Involvement Principles and Goals

Updated earlier in 2020, the Collier MPO PPP provides a framework for the public involvement process regarding the MPO planning-related activities, including the LRTP. The PPP's primary goal is *to actively engage a broad cross-section of the public in transportation planning and serve as a source of information on MPO transportation planning activities*. It describes the MPO's strategies and techniques to inform and engage the public in transportation planning issues to maximize public involvement and effectiveness.

Drawing from this document, the MPO developed an LRTP-specific PIP to guide its outreach and engagement efforts throughout the LRTP update process. The PIP builds on the content and assumptions within the approved PPP but provides additional information, such as specific stakeholders to be engaged during the LRTP development, a summary of proposed engagement activities throughout the LRTP development, and an engagement milestone schedule.

Guiding principles for public involvement for the 2045 LRTP update include:

- Early and continuous public involvement opportunities throughout the planning and programming process

- Timely information to citizens, affected public agencies, representatives of transportation agencies, private sector transportation entities, and other interested parties including segments of the community affected by transportation plans, programs, and projects
- Adequate public notice of public involvement activities and ample time for public review and comment at key decision points
- Consideration of the needs of the traditionally underserved, including low-income and minority citizens
- Periodic review of public involvement efforts by the MPO to ensure full and open access to all
- Review of public involvement procedures by the Federal Highway Administration and Federal Transit Administration, when necessary
- Coordination of MPO public involvement processes with statewide efforts whenever possible
- Reasonable public access to information
- Consideration and reasonable response to public comments received

Public Involvement Program

The Collier MPO used a variety of methods and activities to engage and collaborate with community residents throughout the 2045 LRTP update process.

Outreach Partners

To assist with public involvement, the MPO relied on several partnerships as follows.

Government Agencies

The MPO coordinated with government agencies to conduct outreach at health care centers, food banks and food stamp offices, schools, and offices on aging, among other locations.

Local Organizations

The MPO built relationships and identified strategies with faith-based institutions, cultural centers, and other community-based organizations.

MPO Adviser Network and Committees

The MPO engaged with and sought advice from its standing committees throughout the LRTP update process. These advisory committee include:

- Technical Advisory Committee
- Citizens Advisory Committee
- Bicycle and Pedestrian Advisory Committee
- Congestion Management Committee
- Local Coordinating Board
- Adviser Network

Intergovernmental Coordination

The MPO consulted with Tribal governments on the LRTP update process, specifically the Miccosukee Tribe and the Seminole Tribe. Moreover, the Collier MPO coordinated with the Lee County MPO to address areas for improvement within the network of regionally significant transportation corridors, facilities, and services.

Outreach Techniques

Visualization Techniques

Collier MPO used a variety of visualization tools to convey complicated transportation scenarios to stakeholders. These included maps generated from geographic information system databases, imagery from computer-aided design software, and pictures and graphics. These techniques communicated complex concepts and promoted understanding of transportation plans and programs.

Social Media

The MPO used the established social media presence of MPO partners and the Adviser Network to organically connect with stakeholders and grow participation during the 2045 LRTP update. The MPO currently posts information on Collier County's Facebook page.

Electronic Newsletters

Electronic newsletters were prepared and distributed during the LRTP update. The MPO posted the newsletters on the LRTP webpage of the MPO website and also distributed them through electronic notifications, social media, public engagement tools, and at information booths.

Electronic Notifications

The MPO maintains a database of contacts, including businesses, residential associations, agencies, Native American Tribes, the Adviser Network, and members of the public. This database includes committee membership and email addresses, and includes individuals who have an established interest in transportation issues in Collier County. The MPO used this existing database to send surveys, electronic and paper newsletters, and upcoming meeting information.

WikiMapping

To help identify community needs, the MPO developed an interactive map that allowed residents to indicate priorities and locations of concern. Through the online WikiMapping Tool, residents could view project descriptions, rate individual projects, add comments, and select up to five priority projects.

Surveys

The MPO implemented one survey during the LRTP update to gather information on the public's transportation needs and help prioritize projects. The surveys were posted on the LRTP webpage of the MPO website and also distributed through electronic notifications, social media, public engagement tools, and at information booths.

Information Booths

To further engage the public on LRTP updates, the MPO hosted an information booth at the Ciclovía Immokalee event. During this event, staff distributed surveys, newsletters, maps, and comment forms.

Public Meetings

General Public Meetings

The MPO held two general meetings during the LRTP update. Because of the ongoing COVID pandemic, these meetings were facilitated in an online format. Handouts were provided before each meeting via the MPO's website, and participants submitted comments and concerns during the meeting using the chat feature.

MPO Board Meetings

The MPO held ten board meetings during the LRTP update. The final meeting allowed individuals who were unable to attend LRTP meetings in person to participate remotely through live broadcasts.

MPO Committee Meetings

The MPO facilitated 19 MPO committee meetings during the LRTP update. Committee members were able to express their preferences or concerns on specific issues or projects.



Additional Stakeholder Meetings

The MPO also held three meetings with community-based agencies and tribes to allow for additional input throughout the LRTP development process. These meetings included members from the Immokalee Community Redevelopment Agency (CRA), the Seminole Tribe, and the Miccosukee Tribe.

Table 1. Provides a summary of public participation events held to aid in the development of the 2045 LRTP.

Table 1. Public Participation Events

Event Details	Group	Date
2045 LRTP Kick-off - Overview of LRTP Tasks	MPO Board	5/10/2019
	TAC/CAC	5/20/2019
Presentation of Draft Evaluation Framework White Paper and Draft PIP	TAC/CAC	8/26/2019
	MPO Board	9/13/2019
Presentation of PIP, and Goals, Objectives, and Decision-Making Framework for endorsement	TAC/CAC	9/30/2019
Presentation of Updates to the Evaluation Framework White Paper and PIP based on MPO input; endorsed by MPO Board	MPO Board	10/11/2019
Presentation of E+C Network and basic Socioeconomic Data (SE); Board approved submittal of the E+C Network to FDOT	TAC/CAC	10/28/2019
	MPO Board	11/8/2019
Attended the Ciclovía Immokalee event at the Immokalee Community Park to present the E+C Network and to distribute the LRTP Kick-off Survey and newsletter	Members of the Public	11/2/2019
Presentation of the 2045 Socioeconomic Forecast Zonal Data (by TAZ); TAC/CAC endorsed the zonal data; MPO Board approved submittal of the zonal data to FDOT	TAC/CAC	11/25/2019
	MPO Board	12/13/2019
Presented a slideshow explaining the 2015 and 2045 SE Data.	TAC/CAC	1/27/2020
Presentation of 2045 LRTP update	TAC/CAC	2/24/2020
Presentation of 2045 LRTP update	MPO Board	3/13/2020
Presentation of Alternative 1 Network Scenario modeling results and Proposed Alternative 2 Network Scenario; TAC/CAC provided input	TAC/CAC	5/18/2020
Presentation of Alternative 2 Network Scenario modeling results and Proposed Alternative 3 Cost Feasible Network; TAC/CAC and MPO Board provided input	TAC/CAC	6/10/2020
	MPO Board	6/12/2020
Presentation of Alternative 3 Cost Feasible Network modeling results, evaluation criteria scoring, and project rankings; TAC/CAC provided input	TAC/CAC	7/8/2020
Virtual Public Meeting Number 1; presentation of the Draft Project Needs List and overview of the LRTP process; panel of Collier MPO Staff, Collier County Staff, and FDOT Staff present for the question-and-answer session	Members of the Public	7/29/2020
Presentation of Alternative 4 Cost Feasible Network modeling results, proposed Alternative 5 Cost Feasible Network, project costs, revenue forecasts, and the 7/29/2020 virtual public meeting results; TAC/CAC provided input	TAC/CAC	8/7/2020
Presentation of the Needs Plan Projects	Immokalee CRA	8/19/2020

Table 1. Public Participation Events

Event Details	Group	Date
Presentation of Draft Cost Feasible Plan Roadway Network, Draft Chapter 4 System-wide Needs Plan, and Draft Financial Resources Technical Memorandum	TAC/CAC	8/31/2020
Presentation of Cost Feasible Plan Roadway Network and Draft Chapter 4 Needs Plan	BPAC	9/5/2020
Presentation of Final Project Needs List, Draft Cost Feasible Plan, revenue forecast, project costs, project rankings, and results of public input; MPO Board provided input	MPO Board	9/11/2020
Overview Draft Needs and Cost Feasible Plan Roadway Network/TDSP	LCB	9/16/2020
Presentation of the Needs Plan Projects	Collier MPO LCB	9/16/2020
Presentation of Draft Cost Feasible List of Projects; presentation of Draft Chapters 4 and 5 for endorsement; presentation of Chapter 6 for comments.	TAC/CAC	9/28/2020
Presented Draft List of Cost Feasible Projects for the 2045 LRTP for concurrence to move forward for Public Outreach. Draft list of Cost Feasible Projects was approved.	MPO Board	10/9/2020
Virtual Public Meeting Number 2; presentation of the Draft Cost Feasible Plan; panel of Collier MPO Staff, Collier County Staff, and FDOT Staff present for the question-and-answer session	Members of the Public	10/14/2020
Presentation of Draft Chapter 6 Cost Feasible Plan	BPAC	10/20/2020
Presentation of the results of public input, Draft Cost Feasible Plan, and Draft LRTP	TAC/CAC	10/26/2020
Presentation of Draft LRTP with focus on Cost Feasible Plan	Seminole Tribe (Staff)	11/4/2020
Presentation of Draft LRTP with focus on Cost Feasible Plan (postponed because of tropical storm)	Miccosukee Tribe (Council & Staff)	Schedule Pending
Presentation of the results of public input, Draft Cost Feasible Plan, and Draft LRTP	MPO Board	11/13/2020
Presentation of Draft LRTP	BPAC	11/17/2020
Presentation of Draft LRTP	CMC	11/18/2020
Presentation of Final LRTP for endorsement	TAC/CAC	11/30/2020
Presentation of the Final Cost Feasible Plan and Final LRTP; MPO Board approved Final LRTP for adoption	MPO Board	12/11/2020

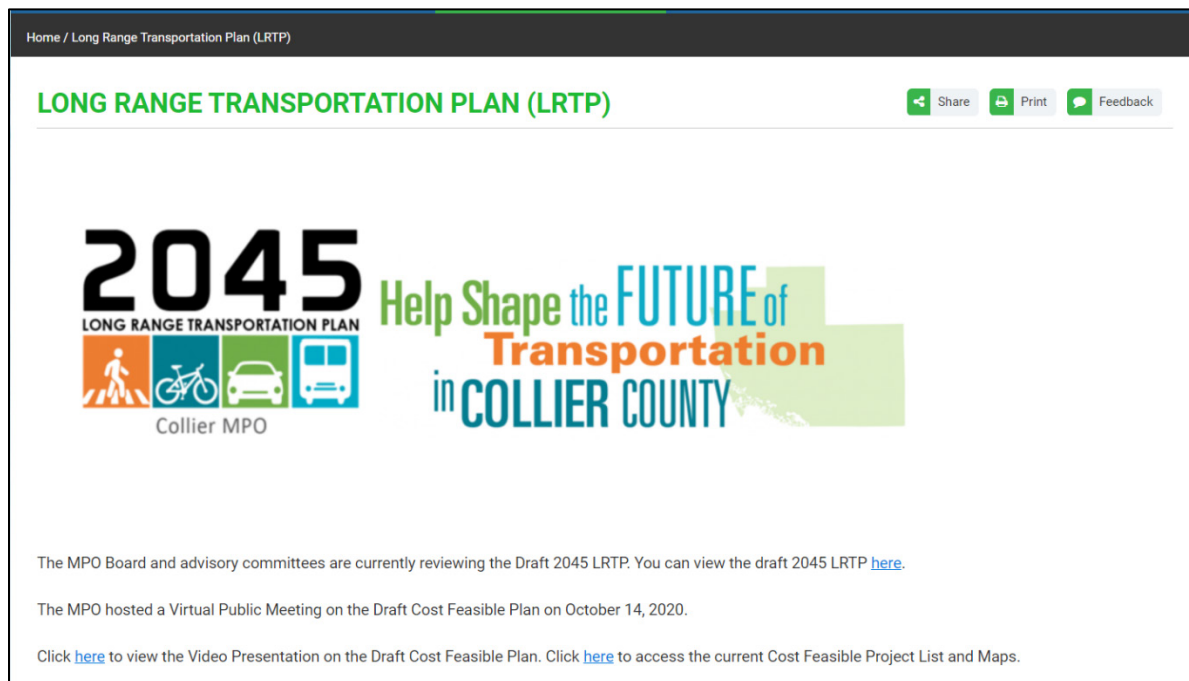
Summary of Outreach Activities

Collier MPO Website

The MPO established a dedicated website under their LRTP tab to update the public on the LRTP's progress, provide links to the survey and WikiMapping Tool, and solicit comments (refer to [Figure 4](#)). The website was updated throughout the LRTP update process with public meeting information and materials, Draft 2045 LRTP, and LRTP-specific presentations to the MPO Board and Committees. The website also allowed for the public to submit comments.



Figure 4. MPO's Website for the 2045 LRTP Update



Public Kick-Off

The first public engagement activity was a Kick-Off Public Survey, which was posted on the Collier MPO website.

The MPO's initial community outreach occurred during Ciclovía Immokalee, a family friendly event to promote health habits and physical activity. The event was held on Saturday, November 2, 2019, at the Immokalee Community Park, and more than 230 families attended. MPO staff representatives engaged with local residents about the LRTP and distributed paper copies of the LRTP survey (in English, Spanish, and Creole), and bilingual MPO staff assisted residents in completing the surveys.



Local Residents View Maps at the Ciclovía Immokalee Event on November 2, 2019

The information booth was advertised on the MPO's website, and Ciclovía Immokalee advertised its event through its own website and on its Facebook page.

As a result of the COVID-19 pandemic, information booths were discontinued during the LRTP development process.

Appendix A provides a summary of the public kick-off activities and results.

At the outset of the 2045 LRTP update, the MPO released a survey to understand the current and long-term needs of area residents. The survey was widely promoted by the Collier MPO and its partners, and numerous counties, cities, and organizations publicized the survey on their respective websites and social media accounts. The survey was also distributed during public events, as discussed in greater detail in the following text.

Newsletters

Collier MPO produced and distributed two newsletters during the public engagement period of the 2045 LRTP update. The first newsletter was issued in July 2019 and announced the launch of the MPO's survey to gather public opinion about transportation needs and challenges. It briefly described the LRTP process and provided links to access the survey (accessible in English, Spanish, and Creole).

The second newsletter was issued in July 2020 and announced the date of the first virtual public meeting. It included information to register for the meeting online, and also provided instructions for submitting comments.

Both newsletters are provided in **Appendix B**.

WikiMapping Tool

To engage the public through an interactive platform, the MPO provided an online WikiMap to allow residents to comment on specific projects. The WikiMap was available from July 22, 2020, through September 14, 2020, and again from October 9, 2020, to November 5, 2020. These timeframes coincided with the MPO's two Virtual Public Meetings, which are discussed in greater detail in the public meetings section. Projects on the WikiMap were identified through development of the Needs Plan, and were categorized as either an intersection, roadway capacity, or a bridge project. The input received through this process helped inform the Cost Feasible Plan. During the first public availability period (Needs Plan), an online survey was available through the WikiMapping Tool.

Public Meetings

At the start of each virtual public meeting, participants were greeted with a prerecorded video presentation. A panel of MPO staff and representatives, Collier County staff, and FDOT staff was available for the question-and-answer portion of the virtual meeting. Participants were asked to submit questions prior to the meeting but could also ask questions using the chat feature during the meeting. A moderator presented the questions to the panel during the question-and-answer portion of the meeting. Meeting participants were asked to complete a comment form after the meeting and to complete the wiki map and survey exercise on the MPO website if they had not already done so. The comment period for the 2045 LRTP Draft Needs Plan, and the 2045 LRTP Cost Feasible Plan remained open through August 12, 2020, and October 31, 2020, respectively.

Virtual Public Meeting No. 1

The MPO held its first virtual public meeting (VPM) for the 2045 LRTP on Wednesday, July 29, 2020. Originally planned to be held in-person, the meeting was changed to a virtual format (using Microsoft Teams) to ensure the safety and well-being of all participants because of the COVID-19 pandemic.

The meeting was advertised using several methods:

- Email to the Collier MPO listserv (MPO Board, Committees, and Adviser Network)
- Announcement on Collier MPO's website
- Posts on social media (Facebook and Instagram)
- Press release issued to the news media and posted in the lobby of the County's Board of Commissioners.

The meeting was recorded and a link to the video was made available on the Collier MPO's website.¹

VPM no. 1 focused primarily on the Needs Plan Summary, and it provided the public and interested parties with information on the development of the LRTP project needs through the year 2045. It began with a narrated video presentation that included an overview of the Collier MPO, the LRTP update process, the 2045 LRTP goals and objectives, the characteristics of Collier County and its associated municipalities, the transportation needs,

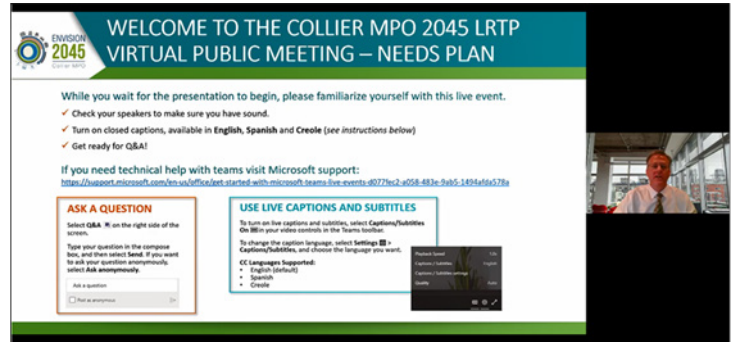
¹ <https://www.colliermop.org/lrtp>



and information on how to make comments. Upon conclusion of the video presentation, a live panel discussion continued the meeting.

VPM no. 1 included the following displays for public review on the Collier MPO website:

- LRTP Process and Schedule
- LRTP Goals and Objectives
- Draft Needs Network
- 2045 Forecasted Growth
- Bicycle and Pedestrian Master Plan
- Proposed Transit Network
- Prerecorded video presentation



Screen Capture from Virtual Public Meeting No. 1

Virtual Public Meeting No. 2

The MPO held its second VPM for the 2045 LRTP on Wednesday, October 14, 2020. As with VPM no. 1, this meeting was changed to a virtual format because of the COVID-19 pandemic (using Zoom).

VPM no. 2 was advertised using several methods:

- Email to the Collier MPO listserv (MPO Board, Committees, and Adviser Network)
- Announcement on Collier MPO's website
- Posts on social media (Facebook and Twitter)
- Press release issued to the news media and posted in the lobby of the County's Board of Commissioners.

The meeting was recorded and a link to the video is on the Collier MPO's website.²

VPM no. 2 provided the public and interested parties with information and updates about the 2045 LRTP Cost Feasible Plan. The meeting began with a narrated video presentation that included an overview of the Collier MPO, the LRTP update process, the 2045 LRTP goals and objectives, the Transportation Cost Feasible Plan, and information on how to make comments. Upon conclusion of the video presentation, a live panel discussion continued the meeting.



Screen Capture from Virtual Public Meeting No. 2

² <https://www.colliermmpo.org/lrtp>

VPM no. 2 included the following displays for public review on the Collier MPO website:

- 2045 Collier MPO Draft LRTP Chapters 1 through 6
- Draft Cost Feasible Plan Roadway Network Map and Table
- Draft Cost Feasible Plan Roadway Network Maps by funding years
- Bicycle and Pedestrian Draft Cost Feasible Map
- Prerecorded video presentation

Summary of Outreach Results

Public Kick-off Survey

A total of 59 surveys were completed at the Ciclovía Immokalee event: 12 in English, 34 in Spanish, and 13 in Creole. In addition, 36 surveys were completed online during the event.

A total of 95 residents in the region participated in the survey: 36 completed the survey online, and 59 completed paper versions of the survey at the Ciclovía Immokalee event. Survey results are summarized in the following text.

There was a fairly even age distribution of survey respondents, with most individuals between the ages of 25 and 70 (refer to [Figure 5](#)). Moreover, most respondents either lived or worked in the Immokalee area (zip code 34142; refer to [Figure 6](#)). This is likely the result of the MPO's outreach during the Ciclovía Immokalee event, described in greater detail in the Information Booth section.

Figure 5. Age of Respondents

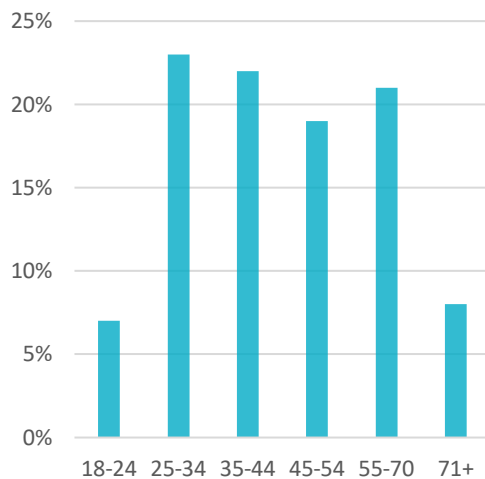
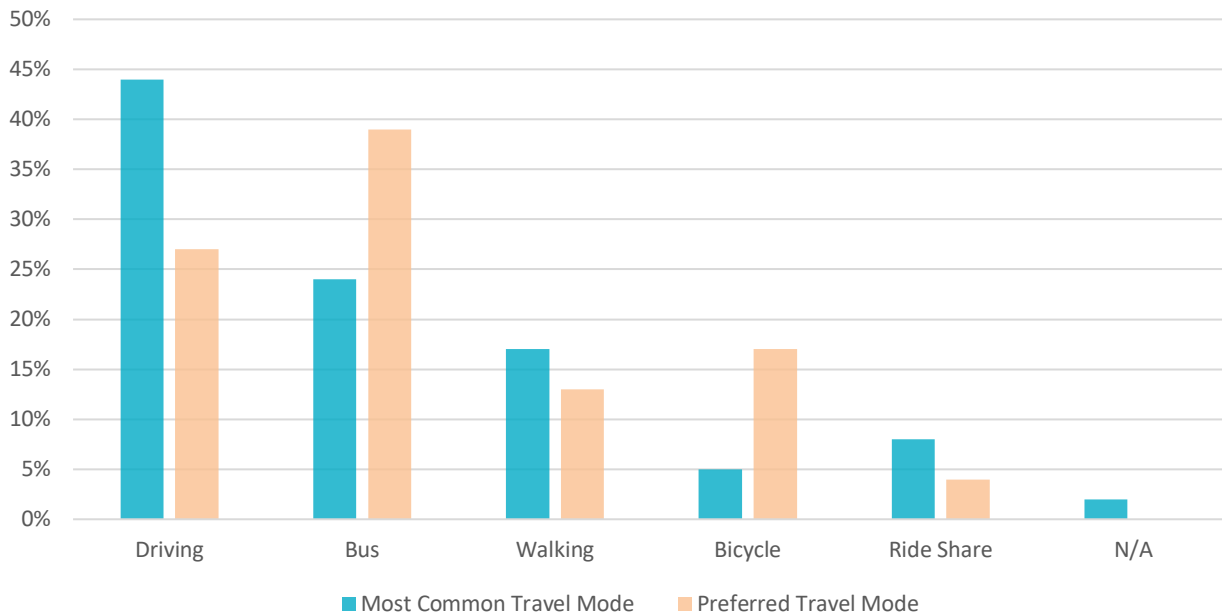


Figure 6. Home and Work Location of Respondents (by Zip Code)



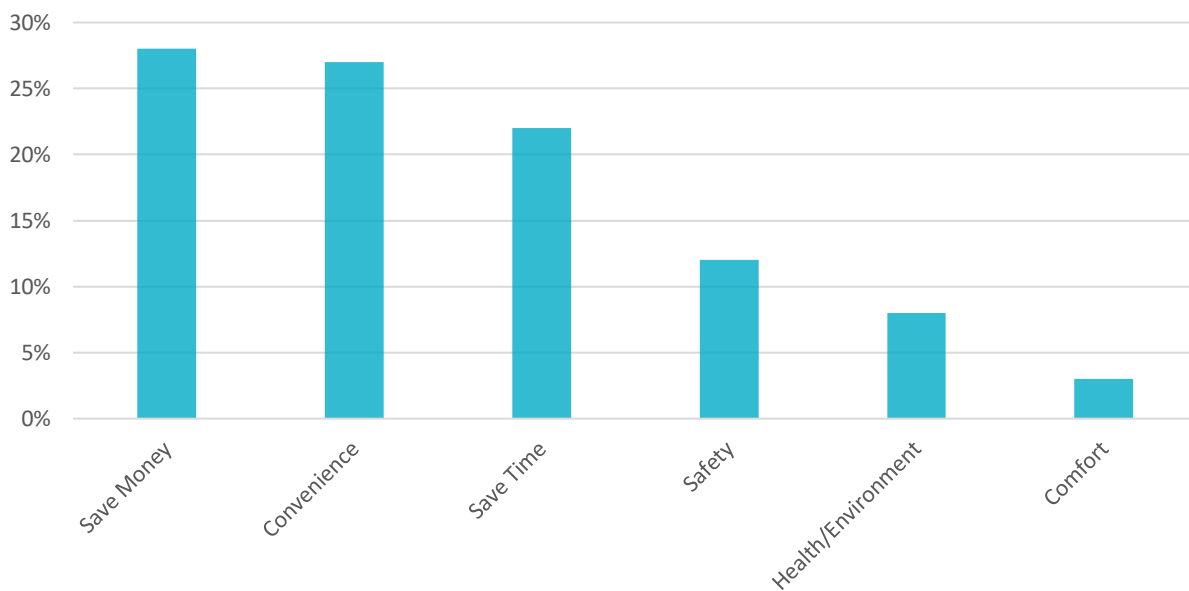
A total of 45 percent of respondents indicated that they typically use a car when traveling in the area. However, this level is far below the countywide estimate of motor vehicle mode share. Nearly 25 percent of survey respondents indicated that the bus is their most common form of transportation and generally prefer the bus to all other forms of transportation. Notably, although only 5 percent of respondents use a bicycle most often, 17 percent indicated that they would prefer to use a bike. The results suggest unmet demand for public transportation and bicycling. [Figure 7](#) shows the survey responses for actual travel vs. preferred travel mode.

Figure 7. Actual Travel Behavior vs. Preferred Travel Mode



As shown on **Figure 8**, cost and convenience were the two most commonly cited reasons for travel choices, followed by saving time. Safety was mentioned by approximately 13 percent of respondents.

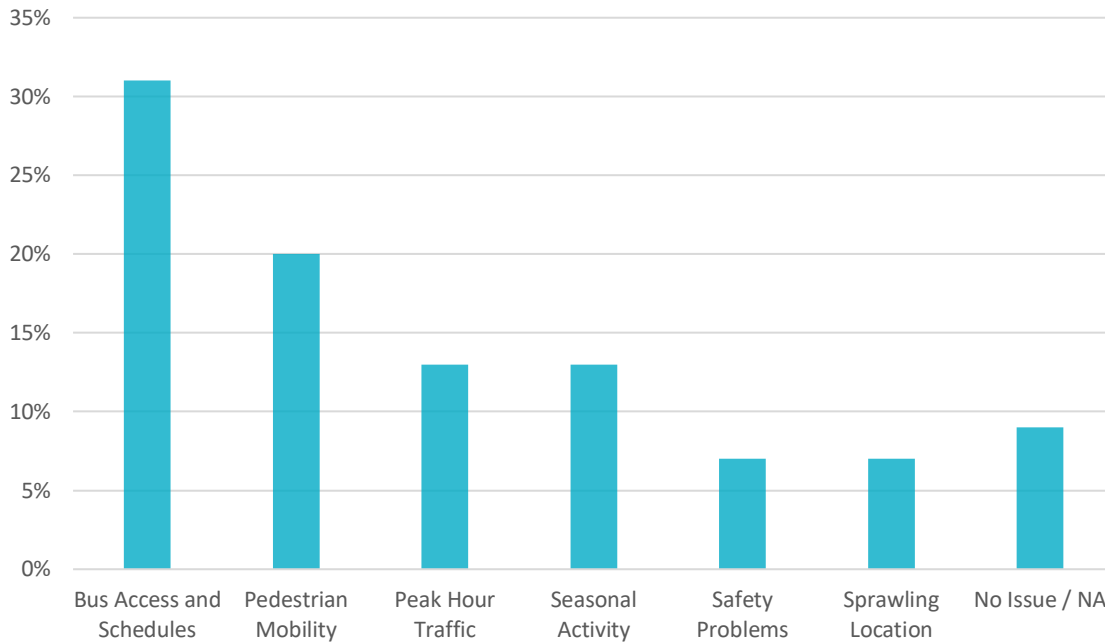
Figure 8. Reason for Preferred Travel Mode



Most respondents identified bus access and schedules as the County's biggest transportation challenge. Pedestrian mobility was the second most-cited challenge, followed by peak hour traffic and seasonable activity (refer to **Figure 9**).

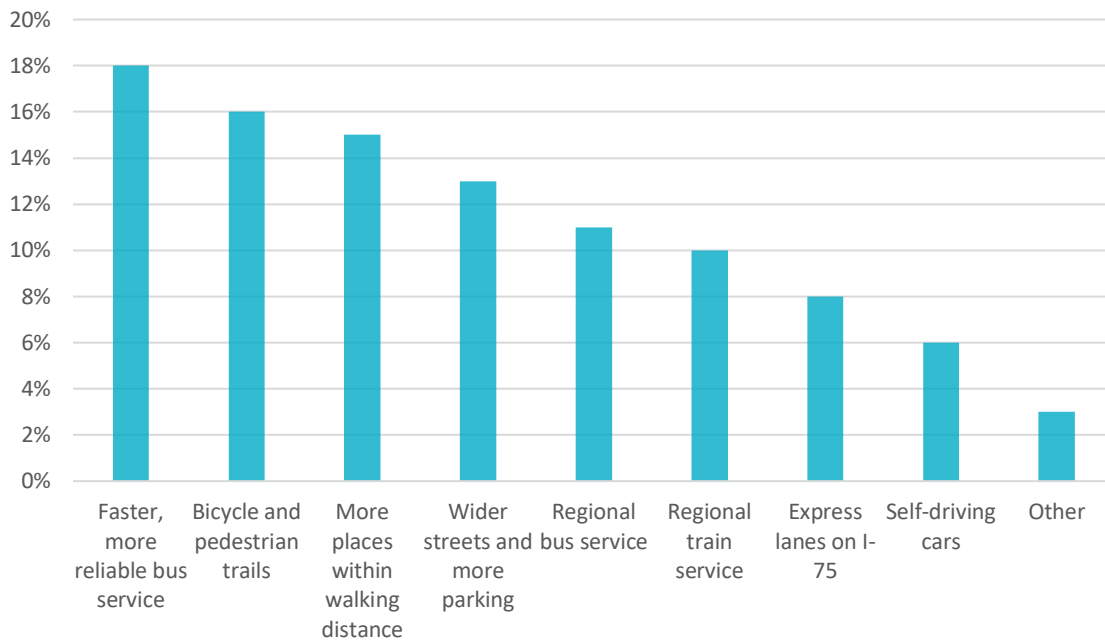


Figure 9. Collier County's Biggest Transportation Problem



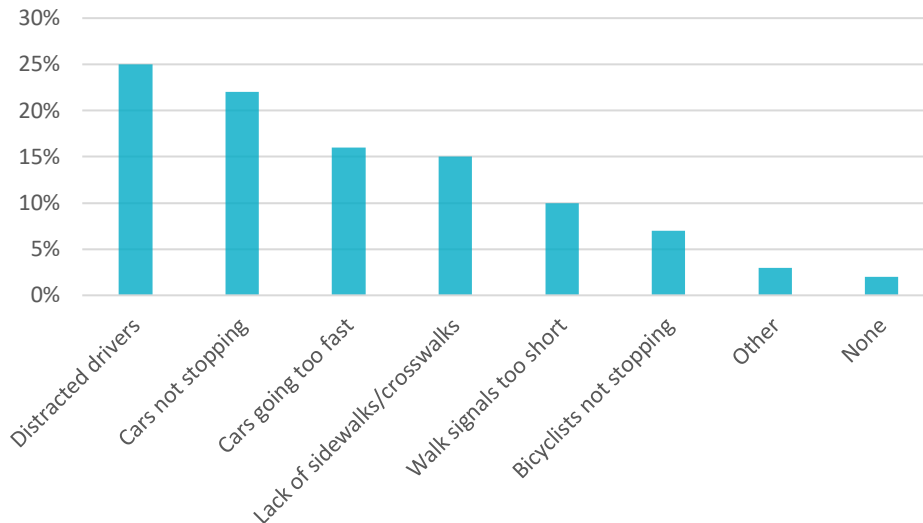
Respondents reinforced the importance of public transportation and travel alternatives in their responses to a question about elements of an ideal transportation system. Faster/more reliable bus service, bicycle and pedestrian trails, and walkable destinations were the most common responses (refer to [Figure 10](#)).

Figure 10. Ideal Transportation System Elements



Various driver behaviors were cited most often as safety challenges for pedestrians, including distracted drivers, drivers not stopping, and drivers going too fast. Absence of sidewalks/crosswalks and short walk signals were also mentioned by 15 percent and 10 percent of respondents, respectively (refer to [Figure 11](#)).

Figure 11. Pedestrian Safety Issues



A majority of respondents travel more than 10 miles each day, with 25 percent traveling more than 20 miles (refer to [Figure 12](#)). However, 26 percent of respondents travel fewer than 3 miles each day, indicating a potential demand for non-motor vehicle travel options. Meanwhile, respondents were somewhat split between a desire for faster travel and shorter-distance travel. Many indicated they want whatever saves them the most time (refer to [Figure 13](#)).

Figure 12. Average Daily Miles Traveled

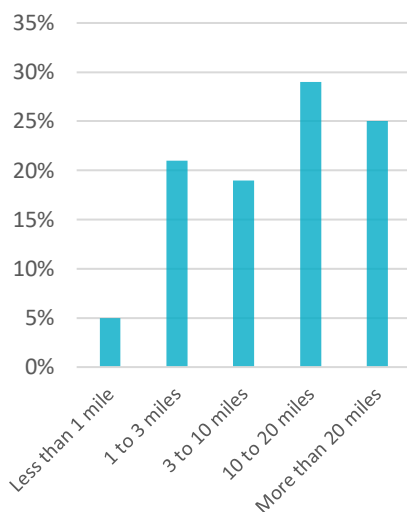
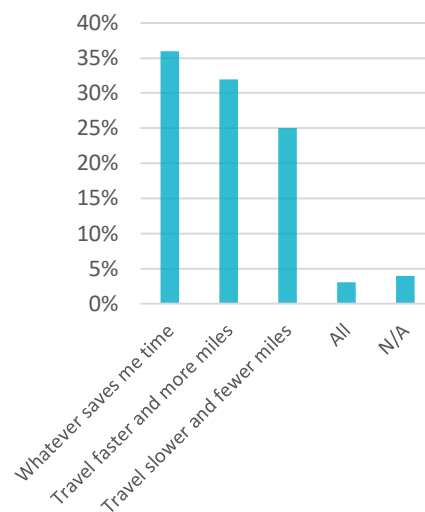


Figure 13. Faster Travel vs. Shorter Distance

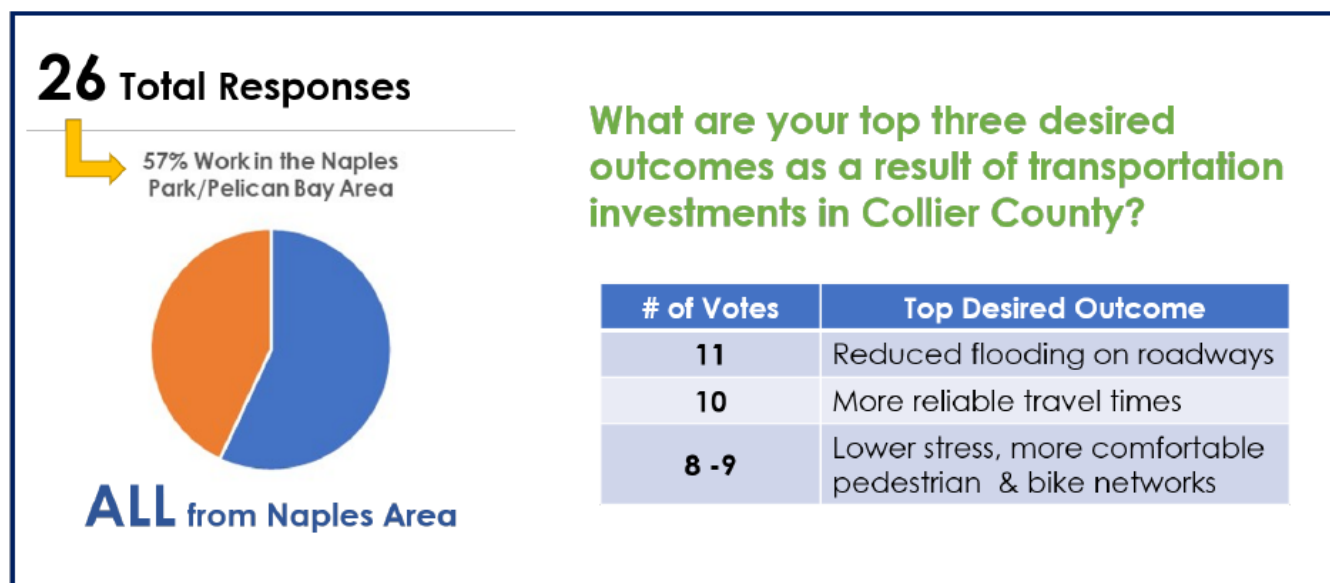


Needs Plan WikiMap Survey Results

Using the MPO website and the newsletters, the public was directed to the WikiMapping Tool. A survey was included on the WikiMapping site that focused on understanding common origins/destinations, desirable LRTP outcomes, and transportation priorities.

A total of 26 individuals completed the WikiMap survey, all from the Naples area (the most populous area of the County) (refer to **Figure 14**). Approximately 42 percent of respondents voted for reduced flooding as a desired outcome of transportation public investment allocation. A total of 38 percent of respondents indicated a desire for more reliable travel times.

Figure 14. Select Results from the WikiMap Survey



Interactive WikiMap Results

Participants were able to either “like” or “dislike” a particular project, and also provide specific comments on each project. A total of 151 responses were received using the WikiMapping Tool for both the Needs and Cost Feasible Plans, and resulted in 125 likes or dislikes to the individual projects. Additionally, 12 comments were noted on individual projects as well. The comments included concerns at intersections, natural environment impacts, and areas for improvement. Of the 125 likes/dislikes received, approximately 80 percent were likes for individual projects in either the Needs and Cost Feasible Plans. Key findings from the online map input are noted below:

- Projects along Immokalee Road, particularly near the I-75 Interchange, received the most “likes” or community support. Related community support highlighted congestion issues along the corridor that needed to be addressed.
- The intersection improvements along Tamiami Trail/US 41 were very well-received.
- The new bridge projects were generally well-received.
- In contrast, the proposed improvements near I-75 and Everglades Boulevard received relatively significant disapproval. The improvement is perceived to negatively impact the Florida Panther National Wildlife environment in that area.

- Some projects received equal support and disapproval, such as the I-75 interchange improvements at Golden Gate Parkway and the improvements along Oil Well Grade Road.
- Many of the roadway widening projects received dislikes, with the exception of Old US 41 to the Lee/Collier county line, Randall Boulevard, and Oil Well Road.
- The comments indicated concerns at certain intersections, ideas for improvement, and other points of multimodal consideration.

A full summary of the WikiMap results are provided in the VPM No. 1 Meeting Summary Report.

Virtual Public Meeting No. 1 (Needs Plan) Results

A total of 44 *people* registered for VPM no. 1, and 24 *people* participated. The MPO accepted comments before, during, and after VPM no. 1 (until August 12, 2020). A total of 25 *comments and questions* were submitted during VPM no. 1.

Appendix C provides the VPM Needs Plan Meeting Summary Report.

Virtual Public Meeting No. 2 (Cost Feasible Plan) Results

A total of 10 *people* registered for VPM no. 2. *Two individuals* submitted comments and questions during the meeting.

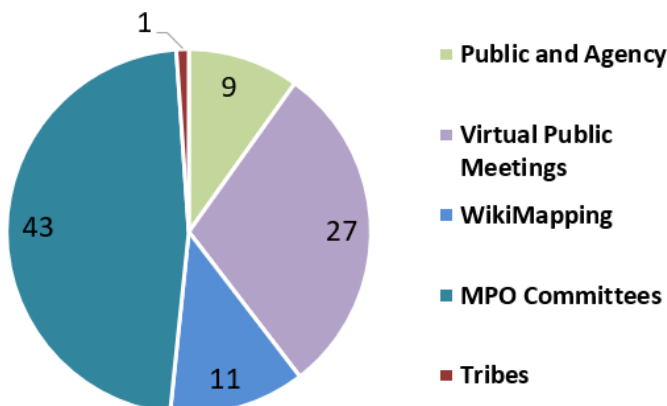
Appendix D provides the VPM Cost Feasible Plan Meeting Summary Report.

Summary of Agency and Public Comments

- As described herein, the LRTP development process involved multiple meetings with the Collier MPO Board, MPO committees, community-based agencies, tribes, and the general public. These meetings provided an opportunity for members and the public to express their preference and concerns or provide input on projects and planning initiatives.
- A total 91 comments were received as a result of ongoing coordination. As a result of the public outreach, five comments were received via email from either an agency or the public, including the Conservancy of Southwest Florida and FDOT District One Freight and Support Coordinator. During the virtual public meetings, a total of 27 comments or questions were made using the chat feature of the virtual meeting platform.

Additionally, the MPO committees provided a total 43 comments. **Figure 15** provides a summary of the comments received throughout the LRTP development process. **Appendix E** presents a summary of all public comments received during the development of the 2045 LRTP.

Figure 15. Summary of Agency and Public Comments



Changes Made as a Result of Public Input

The following components of the LRTP were the direct result of public input:

- For the Evaluation Criteria and Weighting Factors, adjustments were made to differentiate between primary and secondary zone habitat and an objective to minimize impacts to wetland flows was added in response to input from the Conservancy of Southwest Florida.
- Greater emphasis was given to multimodal evaluation criteria, transit, and bike/pedestrian project priorities in response to public input, including input from BPAC and information provided in the Transit Development Plan.
- To address existing seasonal and future congestion noted by the CAC on Vanderbilt Drive, US 41 north of Immokalee Road, Wiggins Pass, and Old 41, the network was corrected to add a planned extension of Veteran's Memorial Parkway west to US 41. Also, project no. 60 was added to the Cost Feasible Plan on US 41 between Immokalee Road and Old US 41 to study potential alternatives for addressing congestion, enhancing bike/pedestrian safety and transit.
- Safety elements were funded through SU Box Allocations in response to public comments on related plans including the Local Roads Safety Plan and Transportation System and Performance Report for bike/pedestrian safety and the need for ongoing public education.
- In response to concerns from the Immokalee CRA, the Little League Road Extension project (project no. 33) was moved from the Needs list to the partially funded list on the Cost Feasible Plan. As an interim improvement, Westclox Street Extension (project no. 63) was added to the Cost Feasible Plan in plan years 2036–2045.
- The Seminole Tribe (and a BPAC member) expressed concern with congestion on South 1st Street in Immokalee near the Seminole Casino. In response, project no. 30 was added to Cost Feasible Plan to study potential alternatives for addressing congestion and enhancing bike/pedestrian safety and transit.
- In response to comments received from the MPO Board, project no. 69 (Everglades Boulevard from Oil Well Road to Immokalee Road) was added to the Cost Feasible Plan as partially funded for pre-engineering because of its importance as a designated evacuation route.

Outreach Effectiveness

Through its combination of surveys, virtual meetings, information booth engagement, newsletters, and online interactive mapping, the Collier MPO interacted with several hundred community members during the 2045 LRTP update process. Residents expressed a wide variety of views on transportation priorities and challenges. Public input was an important part of the development of the 2045 LRTP and helped refine the 2045 Cost Feasible Plan.



Appendix A

Public Kick-Off Activities and Results Summary



Visioning Survey Results

June 2020

Prepared for:



2885 South Horseshoe Drive
Naples, Florida 34104

<http://www.colliermop.org/2045-2/>



INTRODUCTION

This Public Involvement Plan (PIP) identifies the outreach efforts and techniques that will be used to ensure that officials, agencies, local government, interested parties and the public are provided an opportunity to participate in the planning process for the LRTP update. One of the outreach methods are information booths or pop up meetings to go where the people are instead of inviting them to come to a specific event. This document summarizes the survey results from surveys completed online and at the Ciclovía Immokalee event in 2019.

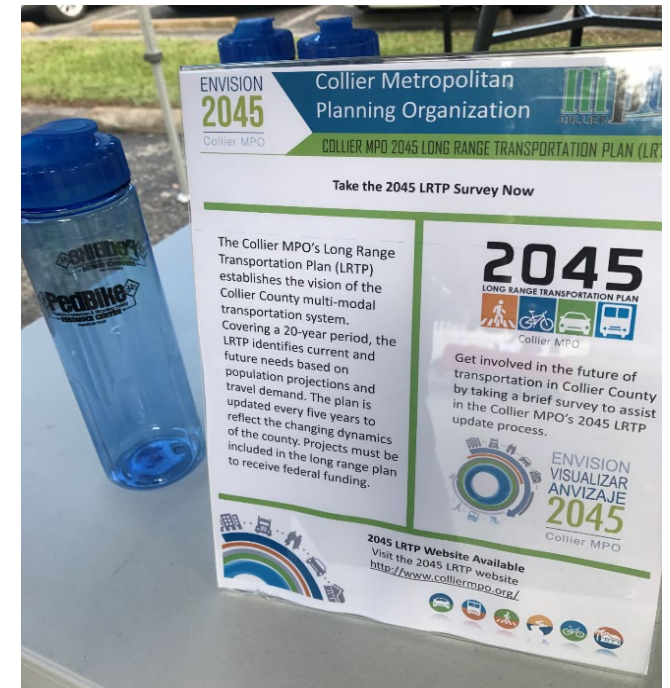
Ciclovía Immokalee

Ciclovía Immokalee is a free family-friendly event to promote family health habits and physical activities. The event is held monthly and representatives from organizations and programs serving Immokalee are on hand to meet the residents, engage with the community, and provide community services. The Collier MPO staff representatives participated as a partner with an information booth on Saturday, November 2nd, 2019 from 10:00 am to 12:00 pm, at the Immokalee Community Park, 321 North 1st Street, Immokalee, FL 34142. Surveys and newsletters were distributed, and maps were on display. Twenty agencies and organizations participated including FDOT District One, Immokalee CRA, UF IFAS Family Nutrition Program, Bikes for Tykes, and Chapin Food Bank. The event was attended by over 230 families, according to the *Ciclovía Immokalee!* Facebook page.



Collier MPO Information Booth

Outreach in the form of an information booth was implemented to engage with the residents of Immokalee. Attendees were invited to: view the existing and committed network, provide input on potential needed transportation projects, and to participate in the LRTP visioning survey. Paper surveys were available in English, Spanish and Creole. Bilingual staff were available to assist attendees in completing the surveys. A total of 59 paper surveys were completed – 12 in English, 34 in Spanish and 13 in Creole. In addition 36 surveys were completed online.



Collier MPO Information Booth



November 2, 2019 PASSPORT



Children in attendance with their parents were also encouraged to participate with coloring books, bags and water bottles. Most of the families in attendance at Ciclovia Immokalee were predominantly Hispanic and Haitian.

Passport cards were distributed by event organizers to encourage attendees to visit all booths at the event.



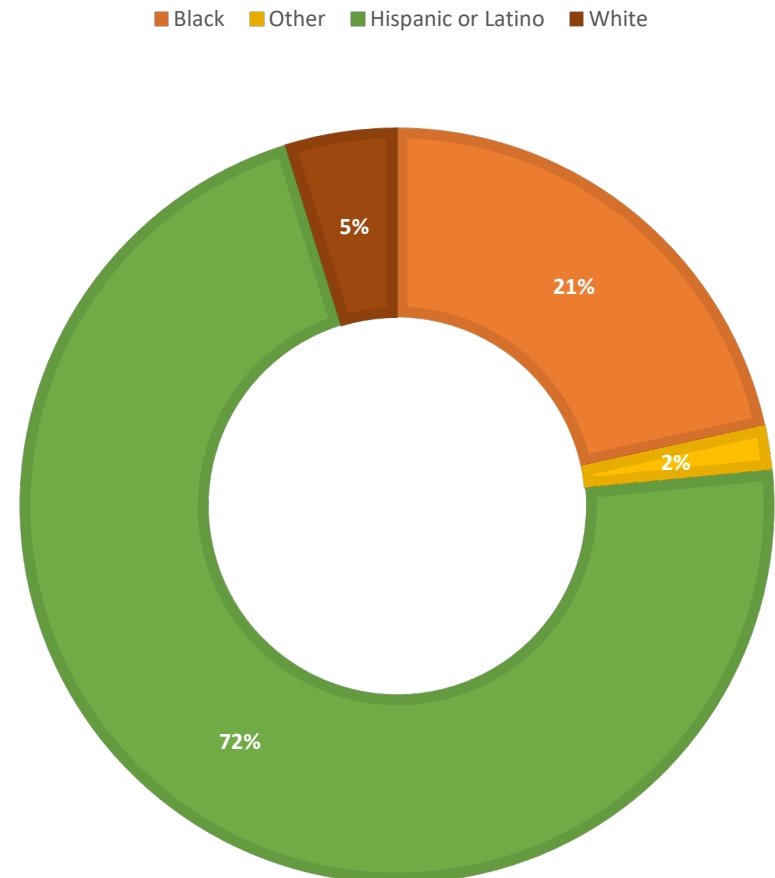
Thank you to our partners and volunteers today!

Immokalee Demographics

The public involvement for the Collier MPO 2045 LRTP considered the needs of the traditionally underserved, including low-income and minority residents in Collier County. Immokalee is a Census Designated Place with a population of 24,154 (US Census 2010). According to the 2010 US Census, the Hispanic or Latino population is 72% and the African American population is 21% of the population within the Immokalee Census Designated Place, with 42% of the person in poverty.



**IMMOKALEE CENSUS DESIGNATED PLACE
BY RACE, PERCENT OF POPULATION**



Survey

July 2019

2045 LONG RANGE
TRANSPORTATION PLAN
Collier MPO

COLLIER MPO LONG RANGE TRANSPORTATION PLAN

BORRADOR DE LA INICIACIÓN DE LA ENCUESTA PUBLICA DE LA PRIMERA FASE 7/8/19

Nú.	Pregunta	Opciones de Respuesta
1	¿Cuál es el código postal donde Ud. vive?	(Escribir la respuesta)
2	¿Cuál es el código postal donde Ud. trabaja?	(Escribir la respuesta)
3	¿Cuál es su edad?	a. 18-24 b. 25-34 c. 35-44 d. 45-54 e. 55-70 f. 71 o de más edad
4	¿Hoy en día, cual modo de transporte utilizas principalmente en el condado de Collier?	a. Caminando b. Montando a bicicleta c. Por autobus d. Viaje compartido (como por Uber o Lyft) e. Manejando
5	¿Cuál modo de transporte te gustaría usar más?	a. Caminando b. Montando a bicicleta c. Por autobus d. Viaje compartido (como por Uber o Lyft) e. Manejando
6	¿Cuál cree Ud. que es el mayor desafío de transporte en el Condado de Collier?	a. Demasiado tráfico en horas de mayor tránsito b. segundo. c. No hay suficientes aceras y carriles para bicicletas. d. Los autobuses no van a donde quiero ir cuando necesito ir. e. Problemas de seguridad f. Grandes incrementos de actividad en ciertas épocas del año. g. Los destinos están demasiado dispersos. h. No creo que haya un problema.
7	¿Cuántas millas viajas en un día típico?	a. Menos de 1 milla b. 1 a 3 miles c. 3 a 10 miles d. 10 a 20 miles e. Mas de 20 millas

A survey was developed to obtain public input on how people travel in Collier County, transportation needs and future transport preferences. The survey was offered in English, Spanish and Creole, and was available on online at www.CollierMPO.org.

The following pages summarize the results of the survey based on a total of 95 surveys completed.

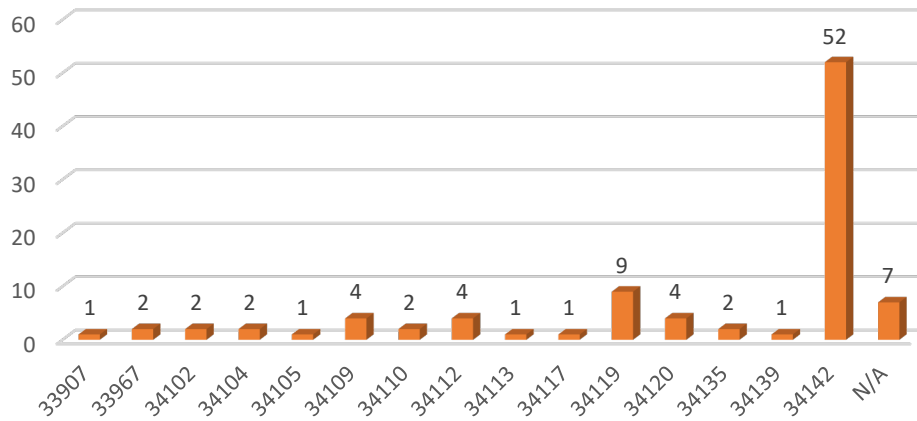
11	Piense en los momentos en que ha sido peatón en los últimos 6 meses. ¿Qué problemas de seguridad enfrentastes?	[Por favor marque todos los que apliquen] a. Coches que no paran b. Personas en bicicletas no paran c. Conductores distraídos (celulares) d. Coches que van demasiado rápido e. Falta de aceras/pasos de peatones f. Señales para caminar no son lo suficientemente largas g. Ninguna h. Otro
----	--	---

Survey Results

01

What is the zip code where you live?

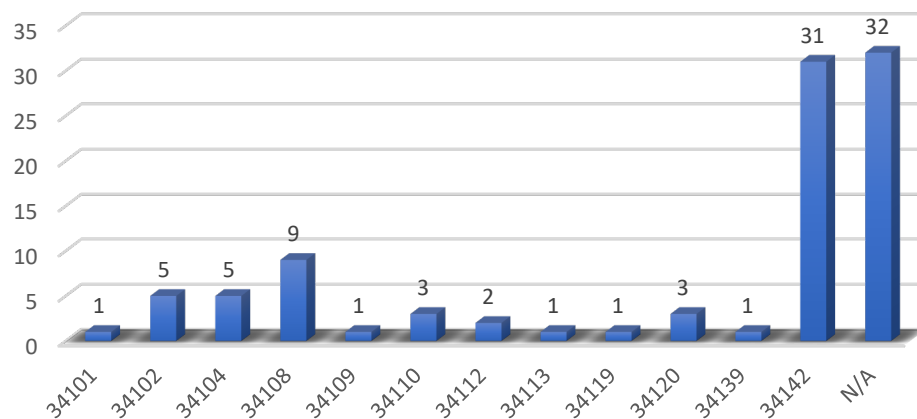
Zip Codes



02

What is the zip code where you work?

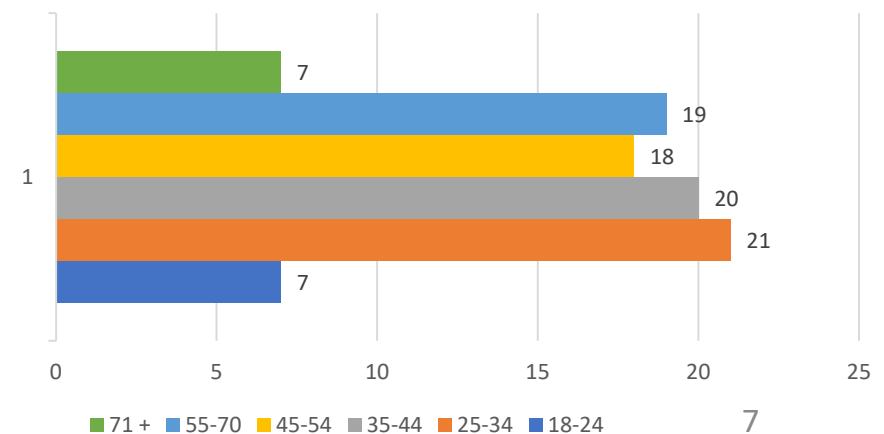
Work Zip Codes



03

What is your age?

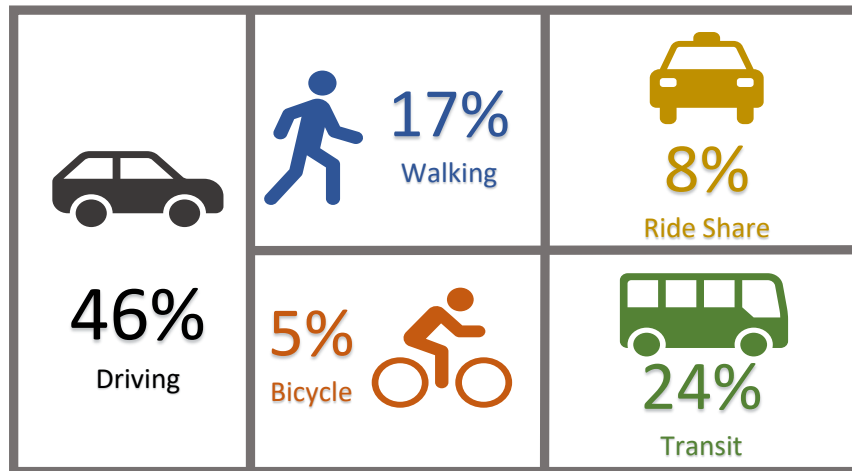
Ages



Survey Results

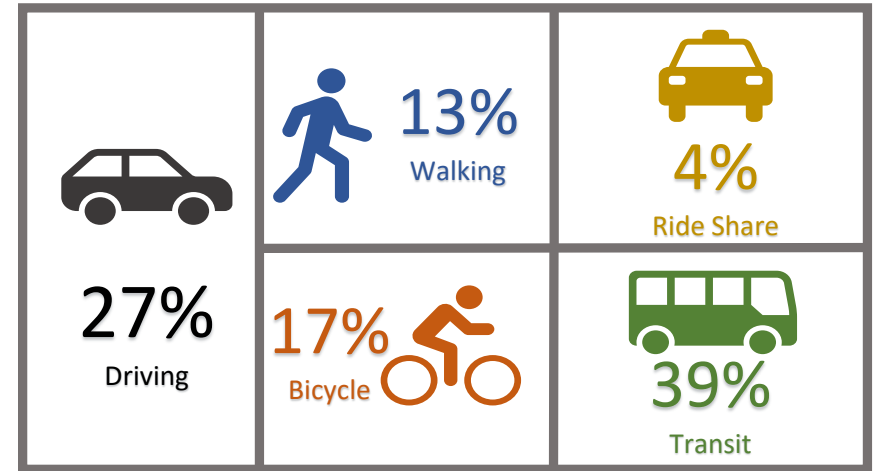
04

Today, which mode of transportation do you mainly use in Collier County?



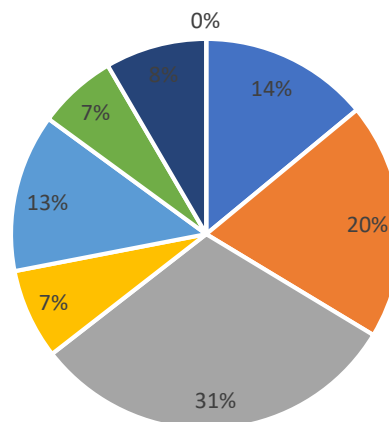
05

Which mode of transportation would you like to use the most?



06

What do you think is Collier County's biggest transportation challenge?



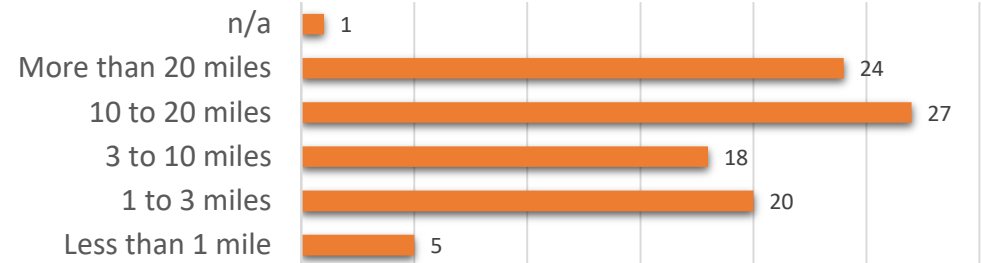
- Peak Hour Traffic
- Pedestrian Mobility
- Bus Access and Schedules
- Safety Problems
- Seasonal Activity Increases
- Sprawling Locations
- No Issue

Survey Results

07

How many miles do you travel on a typical day?

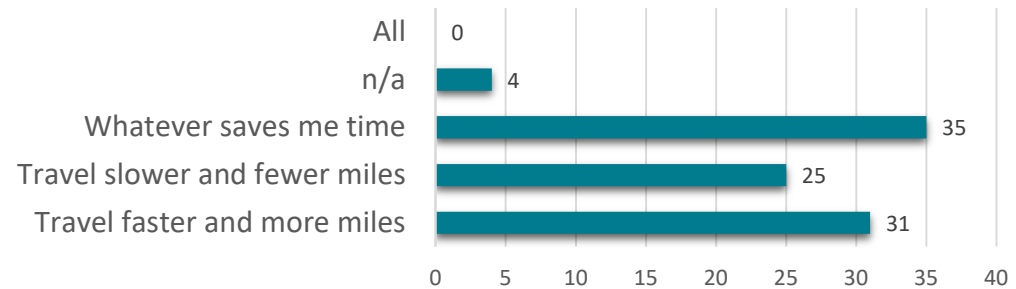
Average Daily Miles Traveled



08

Would you rather be able to travel faster or travel less distance to reach a similar activity?

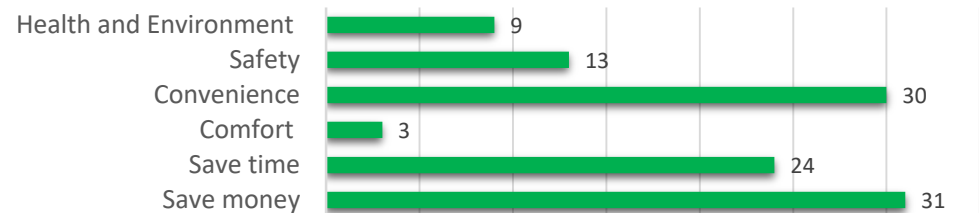
Faster vs. Shorter Distance



09

What is the most important reason you choose a travel mode?

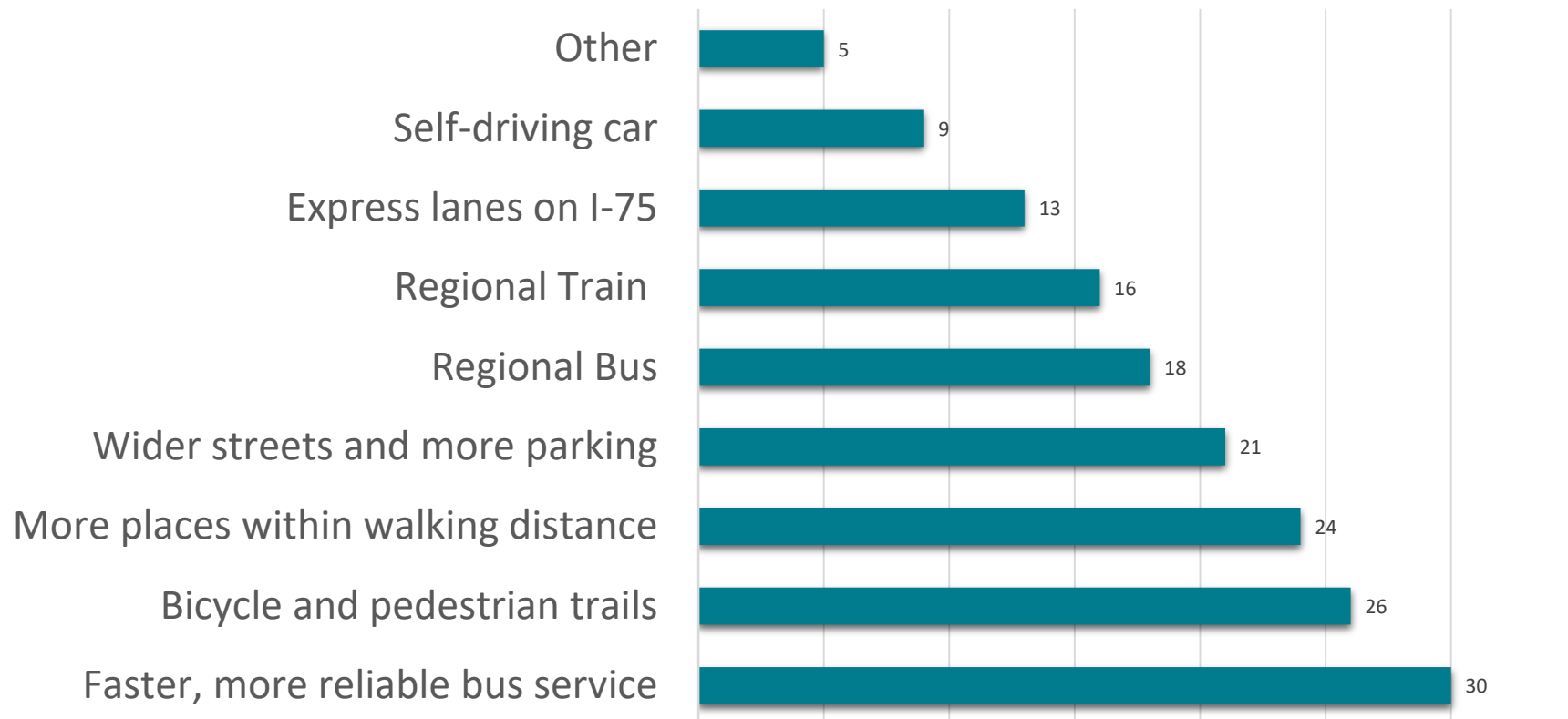
Reason For Preferred Travel Mode



10

Which of the following would you include in your ideal transportation system?

Ideal Transportation System Elements

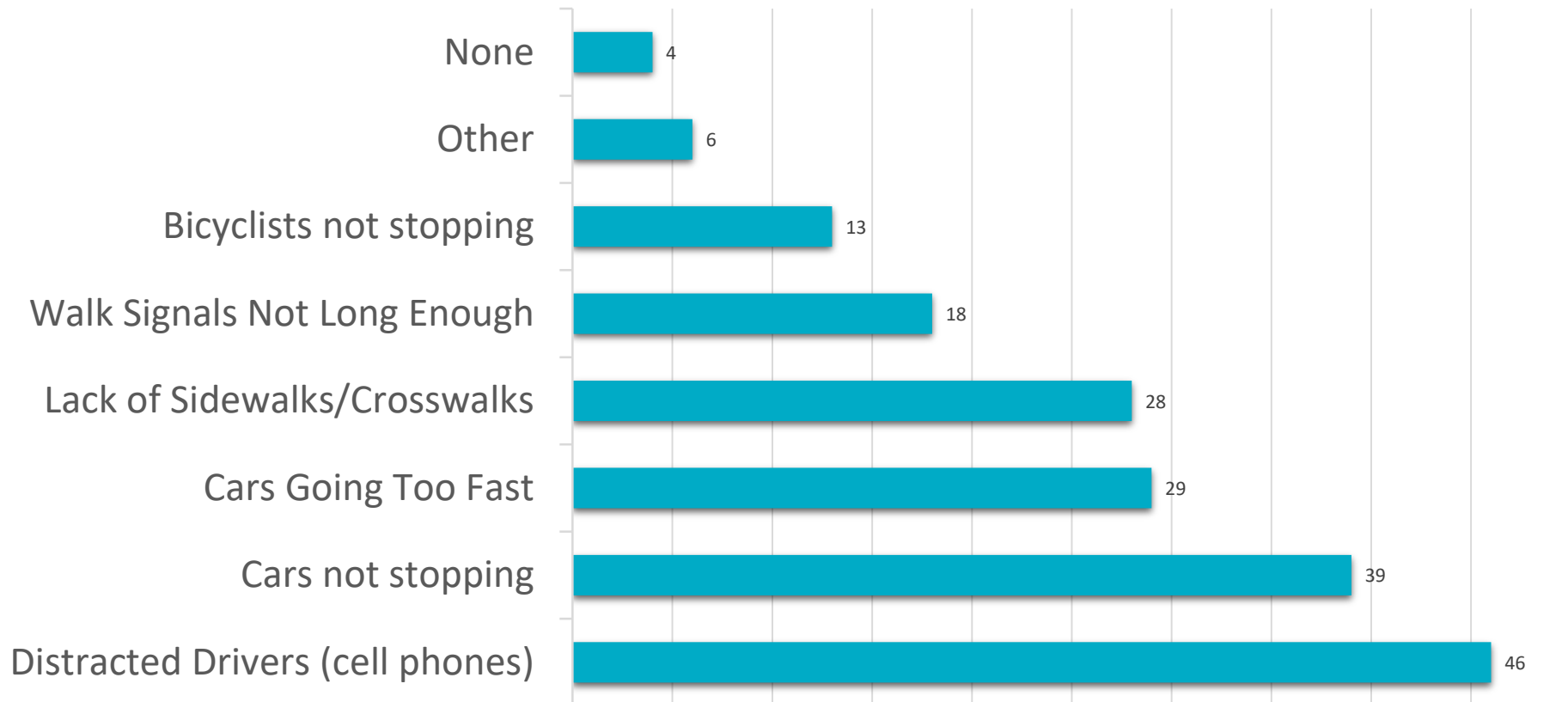


Survey Results

11

Think of the times you have been a pedestrian in the last 6 months. What safety problems did you experience?

Experienced Safety Issues



Notifications

Notification of this event were posted on:

<https://www.colliermmpo.org>

Ciclovía Immokalee! Facebook

<http://www.ciclovaiimmokalee.org>

IMMOKALEE CICLOVIA

Share Print Feedback

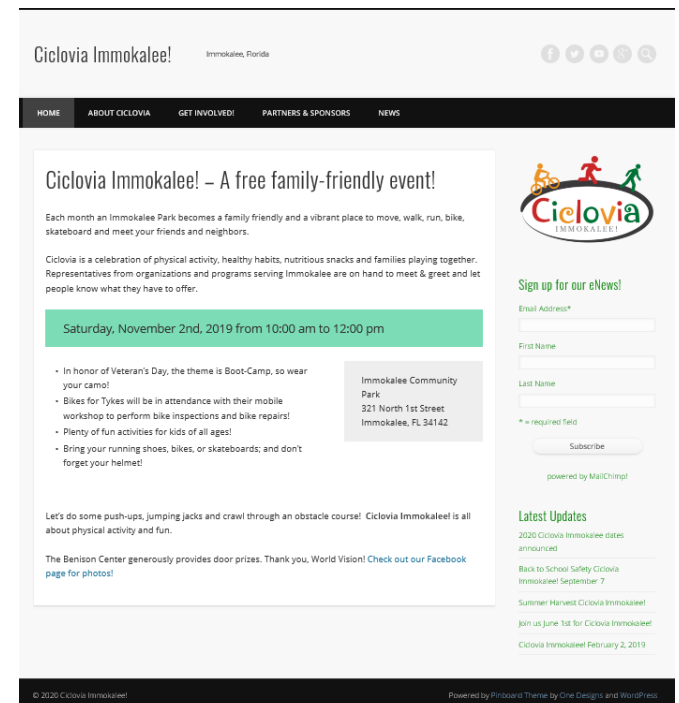
Date/Time

Date(s) - 11/02/2019 10:00 am - 12:00 pm

Ciclovía Immokalee is happening on Saturday, November 2nd from 10:00 am to Noon at the Immokalee Community Park

321 North 1st St. Ciclovías are celebrations of physical activity, healthy habits and families playing together. In honor of Veteran's Day, the theme of the ciclovía will be Boot-Camp so wear your camo. Click [Ciclovía Immokalee](#) for more information.

More Events



Ciclovía Immokalee! Immokalee, Florida

HOME ABOUT CICLOVIA GET INVOLVED! PARTNERS & SPONSORS NEWS

Ciclovía Immokalee! – A free family-friendly event!

Each month an Immokalee Park becomes a family friendly and a vibrant place to move, walk, run, bike, skateboard and meet your friends and neighbors.

Ciclovía is a celebration of physical activity, healthy habits, nutritious snacks and families playing together. Representatives from organizations and programs serving Immokalee are on hand to meet & greet and let people know what they have to offer.

Saturday, November 2nd, 2019 from 10:00 am to 12:00 pm

- In honor of Veteran's Day, the theme is Boot-Camp, so wear your camo!
- Bikes for Tykes will be in attendance with their mobile workshop to perform bike inspections and bike repairs!
- Plenty of fun activities for kids of all ages!
- Bring your running shoes, bikes, or skateboards; and don't forget your helmet!

Immokalee Community Park
321 North 1st Street
Immokalee, FL 34142

Let's do some push-ups, jumping jacks and crawl through an obstacle course! Ciclovía Immokalee! is all about physical activity and fun.

The Benison Center generously provides door prizes. Thank you, World Vision! Check out our Facebook page for photos!

Sign up for our eNews!

Email Address*
First Name
Last Name
* = required field

Subscribe

powered by MailChimp!

Latest Updates

2020 Ciclovía Immokalee dates announced

Back to School Safety Ciclovía Immokalee! September 7

Summer Harvest Ciclovía Immokalee!
Join us June 1st for Ciclovía Immokalee!
Ciclovía Immokalee! February 2, 2019

© 2020 Ciclovía Immokalee! Powered by Pinboard Theme by One Designs and WordPress

Ciclovía Immokalee! Facebook

Ciclovía Immokalee
November 2, 2019 · 🌐

Harry Chapin Food Bank served 227 families by 11:00 and ran out of food. Our attendance is growing!



Ciclovía Immokalee
November 2, 2019 · 🌐

Our friends from Bikes for Tykes were kept busy long after other Ciclovía Immokalee! workers packed up and went home. They inspect, repair and sometimes replace bikes for a lot of people who use them as a way to commute to work. Thank you for donating a bike for the door prize drawings! We had a happy winner.



Ciclovía Immokalee
November 2, 2019 · 🌐

It was another beautiful morning at the Immokalee Community Park!



Ciclovía Immokalee
November 4, 2019 · 🌐

Did you take pictures while at Ciclovía Immokalee? Please feel free to share to this page. Tag yourself on our pictures too! A shout out to two guys who were too busy getting things done to stop for a photo - Giancarlo from Goodwill and Julian Morgan, CRA. Thank you for all that you do!



Ciclovía Immokalee
November 2, 2019 · 🌐

I didn't get a picture of all of the partners who came out for Ciclovía. At least 20 agencies/organizations were there. We can't thank you enough. Thank you! Thank you!



Ciclovía Immokalee
November 2, 2019 · 🌐

Attention all Zumba lovers: we are again going to offer Zumba on a regular basis. Patricia has joined the UF IFAS Family Nutrition Program staff and is certified to teach Zumba.



Community

[See All](#)

👍 440 people like this

📶 473 people follow this

About

[See All](#)

📞 (239) 252-4800 📞

💬 [Contact Ciclovía Immokalee on Messenger](#)

🌐 ciclovaiimmokalee.org

📁 [Community](#)

Contact Information:
Suzanne Fundingsland, MS, LDN
UF/IFAS Extension Family
Nutrition Program
Collier County Extension
14700 Immokalee Road
Naples, FL 34120
239-252-4800; suef@ufl.edu

Appendix B

2045 LRTP Update Newsletters



Take the 2045 LRTP Survey Now

The Collier MPO's Long Range Transportation Plan (LRTP) establishes the vision of the Collier County multi-modal transportation system. Covering a 20-year period, the LRTP identifies current and future needs based on population projections and travel demand. The plan is updated every five years to reflect the changing dynamics of the county. Projects must be included in the long range plan to receive federal funding.



Get involved in the future of transportation in Collier County by taking a brief online survey to assist in the Collier MPO's 2045 LRTP update process:

Click [here](#) for survey in English

Haga clic [aquí](#) para la encuesta en español

Klike [la](#) a pou sondaj an kreyòl

2045 LRTP Website Available
Visit the 2045 LRTP website [here](#)



Please join us for a Virtual Public Meeting

Help Shape the Future of Transportation in Collier County

Date: Wednesday, July 29, 2020

Time: 5:30 p.m. to 7:00 p.m.

[Click Here to Register!](#)

The Collier Metropolitan Planning Organization (MPO) is hosting a virtual public meeting to present information on its 2045 Long Range Transportation Plan (LRTP). The LRTP will identify and address future transportation needs through 2045.

The meeting will provide an overview of the 2045 LRTP Needs Plan. The Needs Plan includes a list of transportation projects assembled from public input and unfunded 2040 LRTP projects, and by analyzing the deficiencies in the system. The projects were evaluated using project evaluation criteria inspired by the LRTP Goals and Objectives.

How You Can Get Involved

Please submit your questions or comments prior to the meeting by:

- Using the online comment form [here](#)
- Emailing your comments to colliermmpo@colliergov.net

You may also submit a comment during the meeting.

The virtual public meeting will begin with a pre-recorded video presentation, and then representatives from Collier MPO and Collier County will be available for a live discussion. Comments submitted both prior to and during the virtual meeting will be addressed as time allows.



About the Virtual Public Meeting

Meeting materials will be available online prior to the meeting at www.colliermmpo.org/lrtp. All registrants will receive an email when the meeting materials are available and a link to the virtual public meeting.

You may register for the meeting online [here](#), or by phone (239) 252-5859, or by email colliermmpo@colliergov.net



Contact Information

If you would like additional information or to be added to the mailing list, please visit our website at www.colliermmpo.org/lrtp

Brandy Otero, Principal Planner

Collier MPO

2885 South Horseshoe Drive, Naples, FL 34104

Phone: (239) 252-5859

Email: colliermmpo@colliergov.net

Un traductor del idioma español está disponible en la oficina de MPO.

Teléfono: (239) 252-5814

Gen yon tradiktè Kreyòl Ayisyen ki disponib nan biwo MPO la.

Telefòn: (239) 252-5884

Anyone requiring special accommodation under the Americans with Disabilities Act or language interpretation services (free of charge) should contact Anne McLaughlin at least ten (10) days prior to the service date:

Anne.McLaughlin@colliercountyfl.gov or by phone (239) 252-5884.



Please join us for a Virtual Public Meeting

Help Shape the Future of Transportation in Collier County

Date: October 14, 2020
Time: 5:30 p.m. to 7:00 p.m.
Click [Here](#) to Register!

The Collier Metropolitan Planning Organization (MPO) is hosting a virtual public meeting to present information on its 2045 Long Range Transportation Plan (LRTP). The LRTP will identify and address future transportation needs through 2045.

The meeting will provide an overview of the 2045 LRTP Cost Feasible Plan. The Cost Feasible Plan includes a financially constrained list of transportation projects assembled from public input, the unfunded 2040 LRTP projects, and by analyzing the deficiencies in the system. The projects were evaluated and prioritized using project evaluation criteria inspired by the LRTP Goals and Objectives.

How You Can Get Involved

Please submit your questions or comments prior to the meeting by:

- Using the online comment form [here](#)
- Emailing your comments to colliermmpo@colliergov.net

You may also submit a comment during the meeting.

The virtual public meeting will begin with a pre-recorded video presentation, and then representatives from Collier MPO and Collier County will be available for a live discussion. Comments submitted both prior to and during the virtual meeting will be addressed as time allows.



About the Virtual Public Meeting

Meeting materials are available online at www.colliermmpo.org/lrtp.

To access the virtual meeting, [click here to](#) be directed to the Zoom Meeting website.

Meeting ID: 812 9390 8876

Passcode: 219862

Or you may attend by phone at 1-646-876-9923



Contact Information

If you would like additional information or to be added to the mailing list, please visit our website at www.colliermmpo.org/lrtp

Brandy Otero, Principal Planner

Collier MPO

2885 South Horseshoe Drive, Naples, FL 34104

Phone: (239) 252-5859

Email: colliermmpo@colliergov.net

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Anne.McLaughlin@colliercountyfl.gov or by phone (239) 252-5884.



Appendix C

Virtual Public Meeting No. 1 (Needs Plan) Summary Report



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Virtual Public Meeting – Needs Plan Summary (July 29, 2020)

November 2020



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Meeting Registration and Attendees3

Comments3

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- Script
- Meeting Screenshots
- MeetingExhibits

Appendix B – Public Notice

- Web Page Notification
- Newsletter
- Social Media Post
- Press Release
- State of Florida Executive Order 20-193

Appendix C – Registration and Attendance

- Registration Page and Summary
- Attendees Report

Appendix D – Comments

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- Recorded Eventbrite Questions and Comments
- WikiMapping Results

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Virtual Public Meeting – Needs Plan Summary (July 29, 2020)

Overview

The Collier Metropolitan Planning Organization (MPO) held a virtual public meeting for the 2045 Long Range Transportation Plan (LRTP) Needs Plan Summary. The meeting was held Wednesday, July 29, 2020, from 5:30 p.m. to 7:00 p.m. using the Microsoft Teams virtual meeting platform. Originally planned to be held in-person, the meeting was changed to a virtual format to ensure the safety and well-being of all participants because of the COVID-19 pandemic.

The purpose of the meeting was to provide the public and interested parties information on the development of the LRTP project needs through the year 2045. The meeting began with a narrated video presentation that included an overview of the Collier MPO, the LRTP update process, the 2045 LRTP goals and objectives, the characteristics of Collier County and its associated municipalities, the transportation needs, and information on how to make comments. Appendix A includes the video presentation and script, as well as screenshots of the virtual public meeting. Upon conclusion of the video presentation, a live panel discussion continued the meeting. The panel and technical advisors included the following members:

Panel Members

- Anne McLaughlin, Collier MPO Executive Director
- Trinity Scott, Collier County Transportation Planning Manager
- Bill Gramer, Jacobs 2045 LRTP Project Manager
- Bill Spikowski, Spikowski Planning Associates Socioeconomic Data Lead

Technical Advisors

- Brandy Otero, Collier MPO Principal Planner
- Tara Jones, PE, Jacobs Deputy Project Manager
- Michelle Arnold, Collier County Director of Public Transit
- Wayne Gaither, FDOT SW Area Office Director
- Victoria Peters, FDOT MPO and Community Liaison
- Mary Ross, FDOT Congestion Management Multi-modal Planner (*did not attend*)

Moderator

- Megan Shimko, Jacobs Public Involvement Advisor

Meeting exhibits are also presented in Appendix A and included a list and map of the proposed 2045 LRTP Roadway Project Needs. Meeting exhibits also included maps of various resources within the MPO boundary overlaid with the proposed roadway needs network. Meeting materials also included the bicycle and pedestrian needs from the Collier MPO Bicycle and Pedestrian Master Plan¹ as well as a draft of the transit needs from the Collier MPO Transit Development Plan².

The meeting was recorded and was made available for viewing on the Collier MPO's website. The Collier MPO makes every reasonable effort to accommodate the needs of the public. The presentation was conducted in English and included closed caption capabilities in English, Spanish, and Creole (instructions were given prior to the presentation commencing). Technical help was also available by visiting Microsoft online support.

Meeting Notifications

The public notice advised the public that Collier MPO would be conducting an online virtual public meeting on

¹ <https://www.colliermpo.org/bp-master-plan/>

² <https://www.colliermpo.org/wp-content/uploads/2020/08/Draft-CAT-TDP-2021-2030-Rev-08.25.2020.pdf>




the 2045 LRTP Needs Plan on Wednesday, July 29, 2020. As shown in Table 1, the public meeting notification was sent by email to the Collier MPO list-serve(s) (MPO Board, Committees, and Adviser Network) posted on the Collier MPO's website, posted on social media, and announced through a press release. Several other Collier County agencies and organizations with social media accounts were identified and asked if they would post the meeting announcement on their social media sites. Almost all declined and those that said they would did not post. The notices included a link or attachment to the Envision 2045 July 2020 Newsletter that included a link register for the virtual public meeting. The newsletter also included a link to the Collier MPO website where the meeting materials could be viewed prior to the meeting, information on how to provide comments, and contact information for the MPO. Appendix B includes copies of the notices and newsletter.

Table 1. Meeting Notifications

Meeting Notifications	Date(s)	Description
Email	7/15/2020	Email to Collier MPO Board, Advisor Network, and Committees - with Envision 2045 July 2020 Newsletter attached
Collier MPO Website	7/15/2020	Announcement on MPO website that included a link to register for the virtual public meeting and meeting materials
Social Media	7/22/20, 7/28/20, 7/29/20	Facebook and Twitter Posts on the Collier County Facebook and Twitter sites
Press Release	7/22/20	Notice sent to the Collier MPO news media list and posted in the Collier County Board of County Commissioners' lobby

In addition to the referenced notifications, the virtual public meeting was announced through a paid advertisement on Facebook and Instagram throughout all of Collier County. Table 2 presents the results of the Facebook advertisement. The ad was viewed by more than 34,000 people and 41 people clicked on the link to register for the meeting.

Table 2. Facebook Advertising Results

Advertisement	Advertisement Run Dates	Demographics	Reach	Clicks
	7/21/2020 to 7/28/2020	Collier County Residents, ages 25+	34,264	41

Meeting Registration and Attendees

An online platform called Eventbrite was used to register attendees for the meeting. Eventbrite reported that 438 people viewed the event on their site and 44 people registered for the virtual public meeting. Some of this traffic could be attributed to the Collier MPO and consultant staff (5) and one person registered three times. Appendix C presents the Eventbrite registration summary. Eventbrite also reported the total number of meeting attendees and meeting questions and comments. A total of 24 people attended the meeting, with a total of 13 joining anonymously. The Eventbrite report summary on registration and attendance is included in Appendix C.

Comments

Comments could be submitted prior, during, or after the virtual public meeting. All questions and comments were due by August 12, 2020, to be included in the assessment for the Roadway Needs Plan. The deadline for comments was extended to August 31, 2020, to allow for greater public participation. There were multiple formats in which comments could be received including the Collier MPO online comment form posted on the 2045 LRTP website, email to colliermmpo@colliergov.net, and through the WikiMapping online tool. WikiMapping is an online interactive tool that collects viewer's ideas through images, discussion, and mapping. As shown on Figure 1, a map of the proposed roadway needs was presented on a WikiMap page set up for the project. A link to the WikiMap was available on the Collier MPO website. The WikiMapping tool allowed the user to Like or Dislike a project and add a comment if desired. The tool also asked each participant to select their top five priority projects and included a survey that included the following questions.

- Are there any projects not shown that you would like to see built?
- What are your top three desired outcomes as a result of transportation investments in Collier County? (select three)
 - More affordable travel options
 - Improved walkable and connections to your neighbors
 - More frequent bus service
 - Easier access to neighborhood destinations, like schools and parks
 - More bus service to more places in Collier County
 - More reliable travel times
 - Lower stress, more comfortable bicycle network
 - Lower stress, more comfortable pedestrian network
 - Easier access to regional destinations, like work or the beaches
 - Shaded bicycle and pedestrian pathways
 - Reduced flooding on roadways
 - Safer and more comfortable to cross streets
- What is your zip code where you live?
- What is your zip code where you work?



As a result of the survey, 26 responses were received. All responses were from the Naples area, the most populous area of the County. Figure 1 presents the key findings from the survey responses.

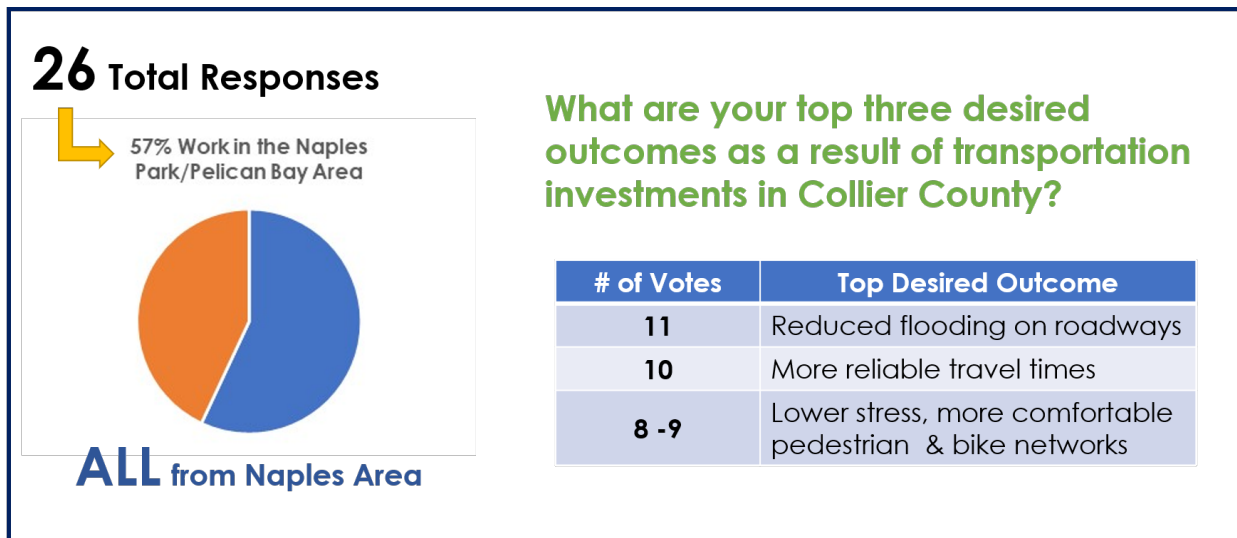


Figure 1. Collier MPO 2045 LRTP Roadway Needs WikiMap Survey Results

Appendix D includes a copy of the Collier MPO comment form and a report from Eventbrite on the comments and questions received (using the chat function) during the meeting. Eventbrite recorded a total of 29 comments and questions received during the virtual public meeting. The results of the Wikimapping outreach are also presented in Appendix D. A total of 88 responses were received as a result of the Wikimapping outreach and the following summarizes the key findings:

- Projects along Immokalee Road, particularly near the I-75 Interchange (Project Numbers 66, 25, and 97), received the most Likes or community support. Related community support highlighted congestion issues along the corridor that needed to be addressed.
- In contrast, the proposed improvements near I-75 and Everglades Boulevard (Project Number 22) received 8 Dislikes and 2 Likes.
- The New Bridge projects were well-received, with six of the bridge projects receiving a total of 12 Likes.
- The comments indicated concerns at certain intersections and natural environment impact concerns.

Appendix A

Presentation, Script, Meeting Screenshots, Exhibits

WELCOME TO THE COLLIER MPO 2045 LRTP VIRTUAL PUBLIC MEETING – NEEDS PLAN


While you wait for the presentation to begin, please familiarize yourself with this live event.

- ✓ Check your speakers to make sure you have sound.
- ✓ Turn on closed captions, available in **English, Spanish** and **Creole** (*see instructions below*)
- ✓ Get ready for Q&A!

If you need technical help with teams visit Microsoft support:

<https://support.microsoft.com/en-us/office/get-started-with-microsoft-teams-live-events-d077fec2-a058-483e-9ab5-1494afda578a>


ASK A QUESTION


Select **Q&A**  on the right side of the screen.

Type your question in the compose box, and then select **Send**. If you want to ask your question anonymously, select **Ask anonymously**.

☐ Post as anonymous

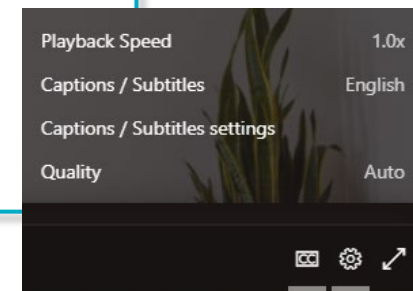
USE LIVE CAPTIONS AND SUBTITLES

To turn on live captions and subtitles, select **Captions/Subtitles On**  in your video controls in the Teams toolbar.

To change the caption language, select **Settings**  > **Captions/Subtitles**, and choose the language you want.

CC Languages Supported:

- English (default)
- Spanish
- Creole





2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO



Jacobs

July 29, 2020

Moderated by Megan Shimko/Jacobs

VIRTUAL PUBLIC MEETING – NEEDS PLAN

Agenda



ENVISION 2045 Collier MPO

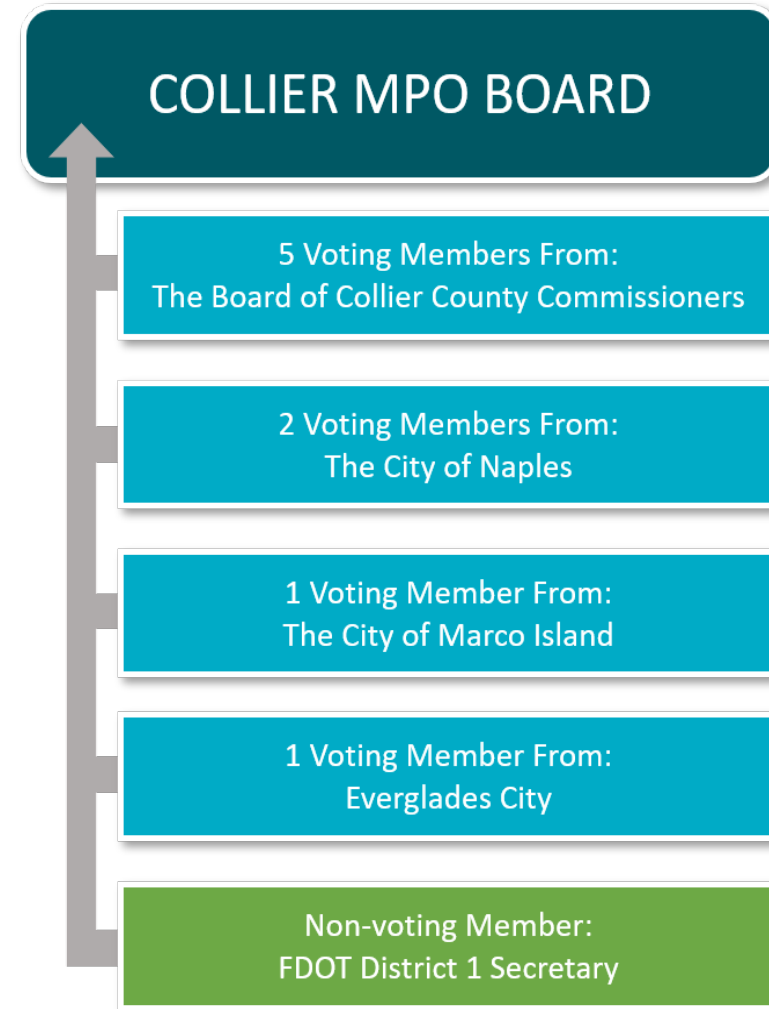
- Introduction
 - Who is the Collier MPO?
 - What is a LRTP?
 - How does the MPO update the LRTP?
- Goals and Objectives
- Collier County Characteristics
- Transportation Needs Plan
- Next Steps
- Live Questions and Comments Discussion
- Adjourn - 7:00 PM

Who is the Collier Metropolitan Planning Organization (MPO)?



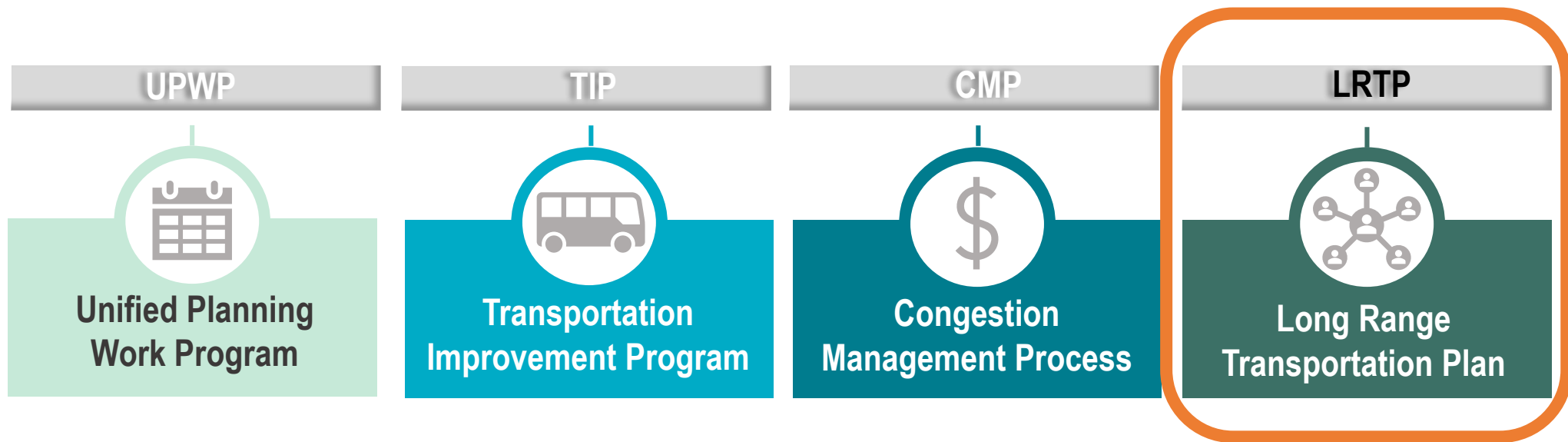
COLLIER MPO & PARTNERS AGENCIES

- Collier MPO is a federally mandated transportation policy-making organization
- MPO Board is comprised of local elected officials



Who is the Collier Metropolitan Planning Organization (MPO)?

- The MPO is responsible for Collier County's current and future transportation system plan.



What is a Long Range Transportation Plan (LRTP)?

Key Requirements of the LRTP:



Multi-modal Transportation System includes:

- Highway
- Transit
- Bicycle and Pedestrian



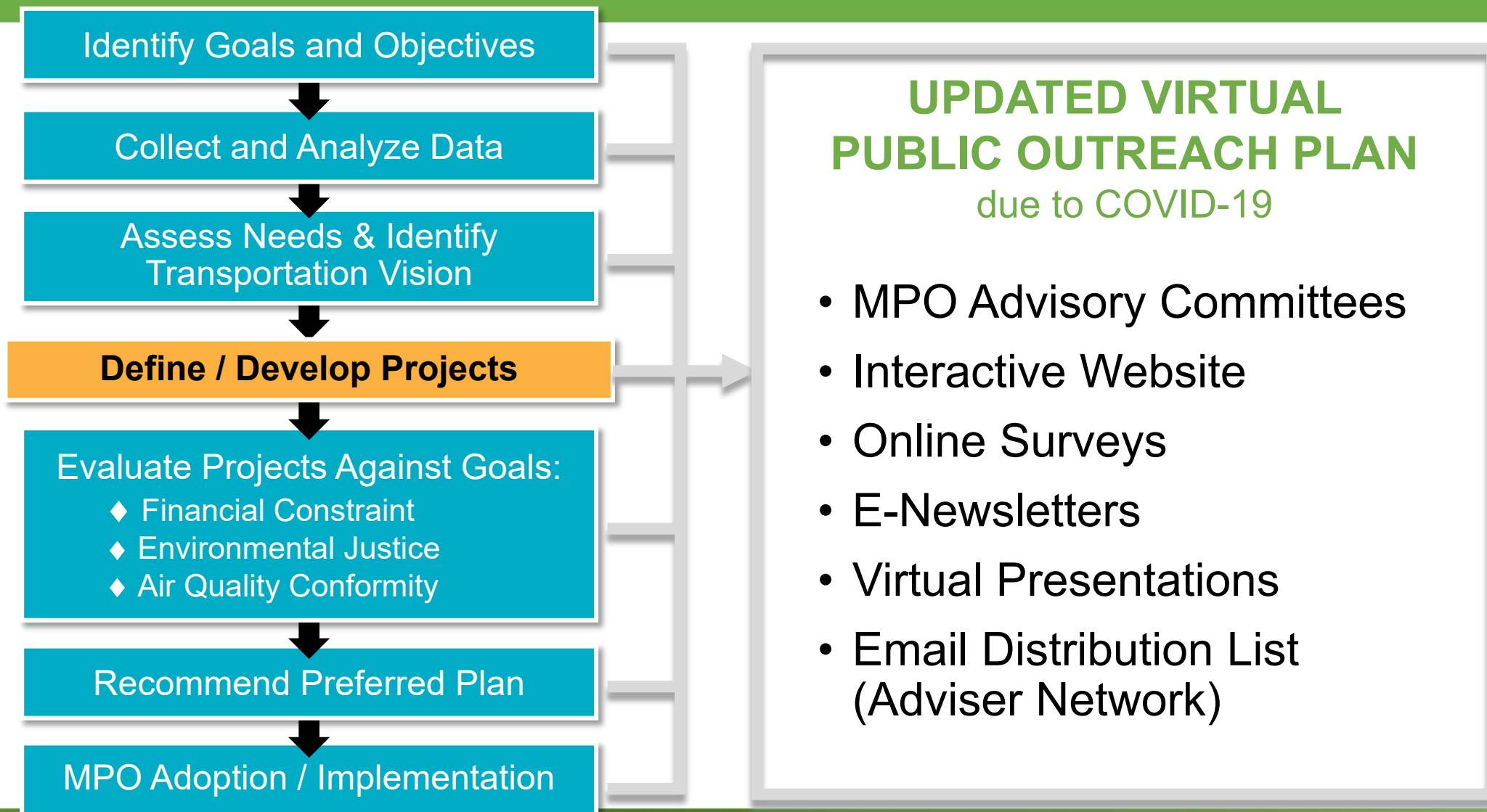
Minimum 20 Year Horizon



Updated on a 5 Year Cycle



What process are we using to update the LRTP?



Goals and Objectives



Evacuation



Environmental
Resources



System Connectivity &
Continuity



Congestion



Freight
Movement



Safety for All
Users



Multi-modal
Solutions



Land Use
Considerations



Sustainability



Climate Change Risks



Connected and Automated
Vehicles (CAV)



Collier County

3
Cities

358,000 Residents
(2015)

15
CDPs

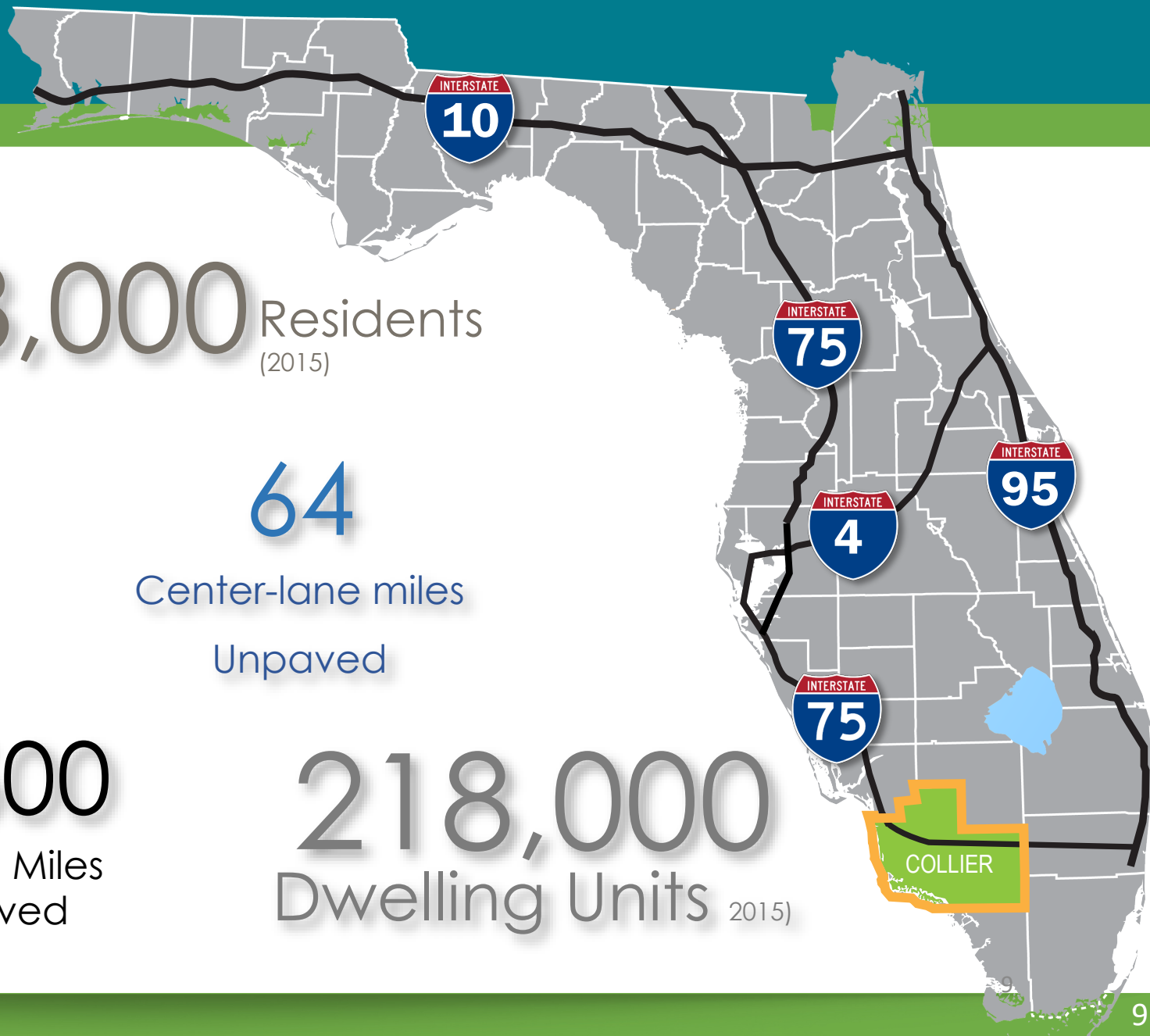
2025
Square mile of
land area

64
Center-lane miles
Unpaved

143,000
JOBS
(2015)

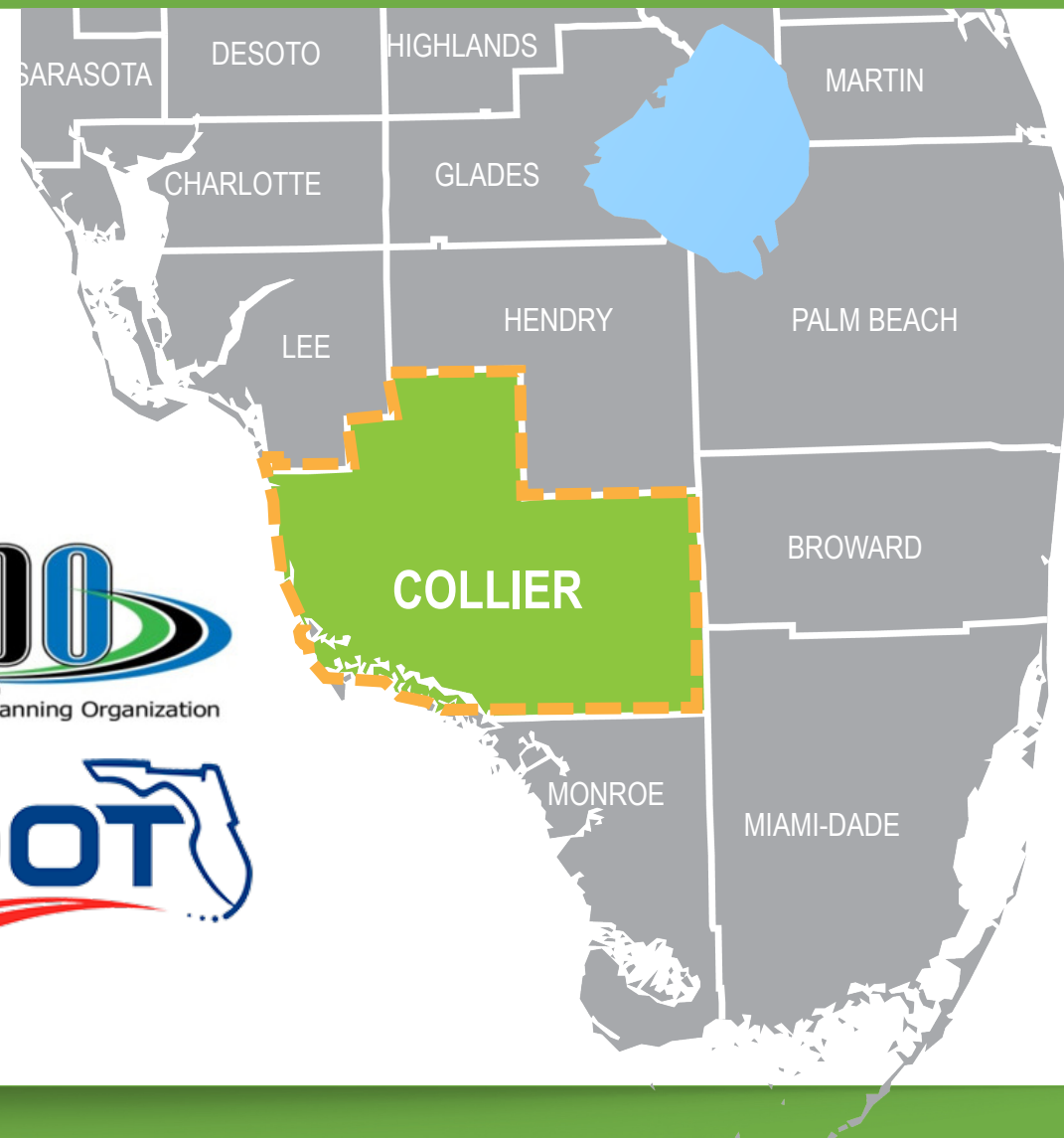
2600
Lane Miles
paved

218,000
Dwelling Units (2015)



How does the MPO determine the needs of the County?

- The MPO must determine the transportation needs of the County based on future travel demand.
- The MPO, in partnership with FDOT, is using the District One Regional Planning Model to determine needs and identify future transportation improvements.

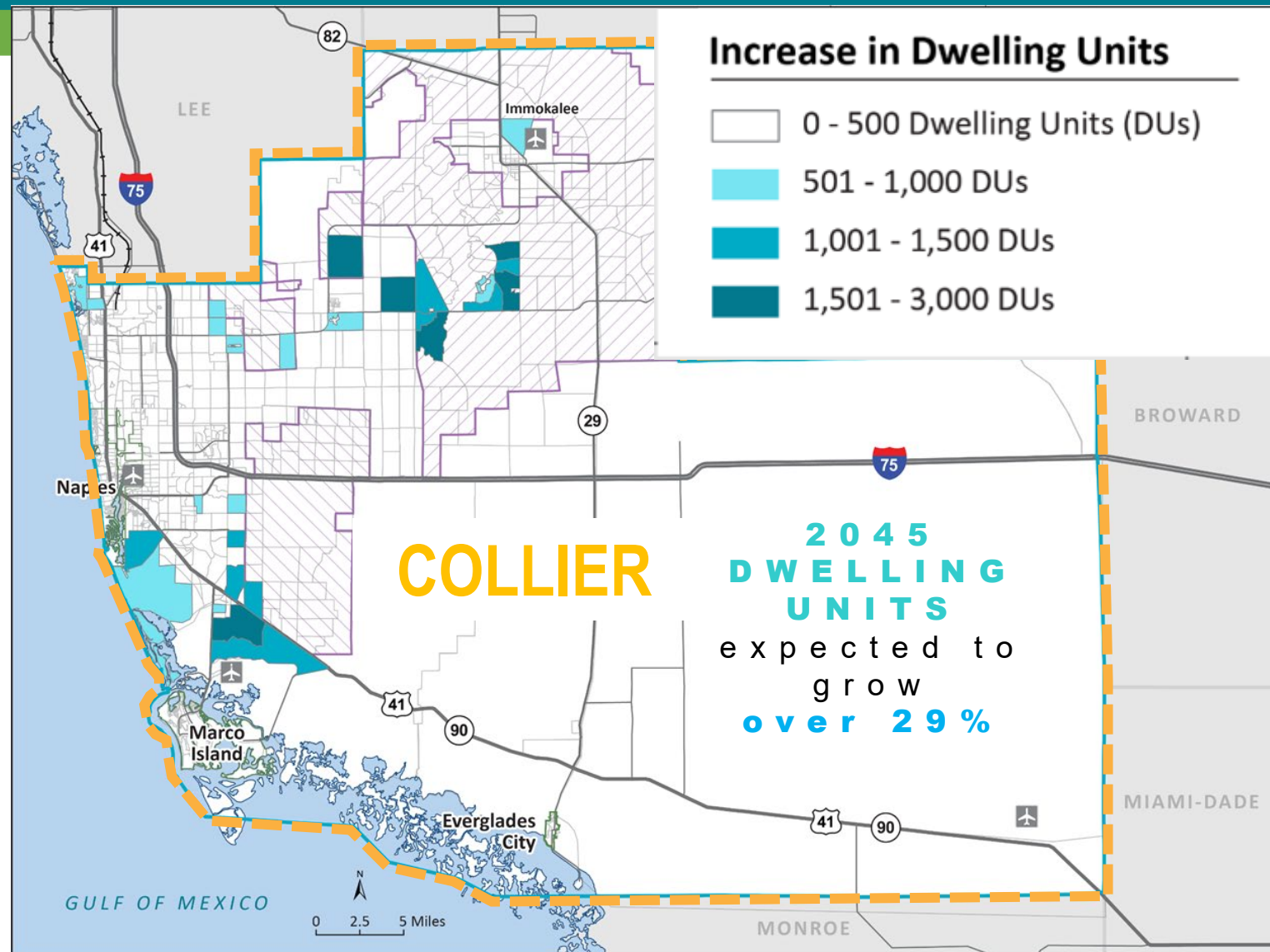
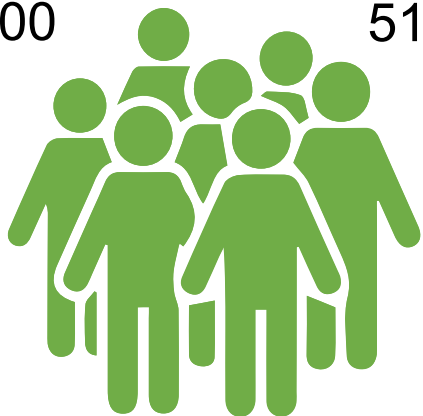


Population Growth

POPULATION
expected to grow
over 40%

2015
Population
358,000

2045
Population
510,000

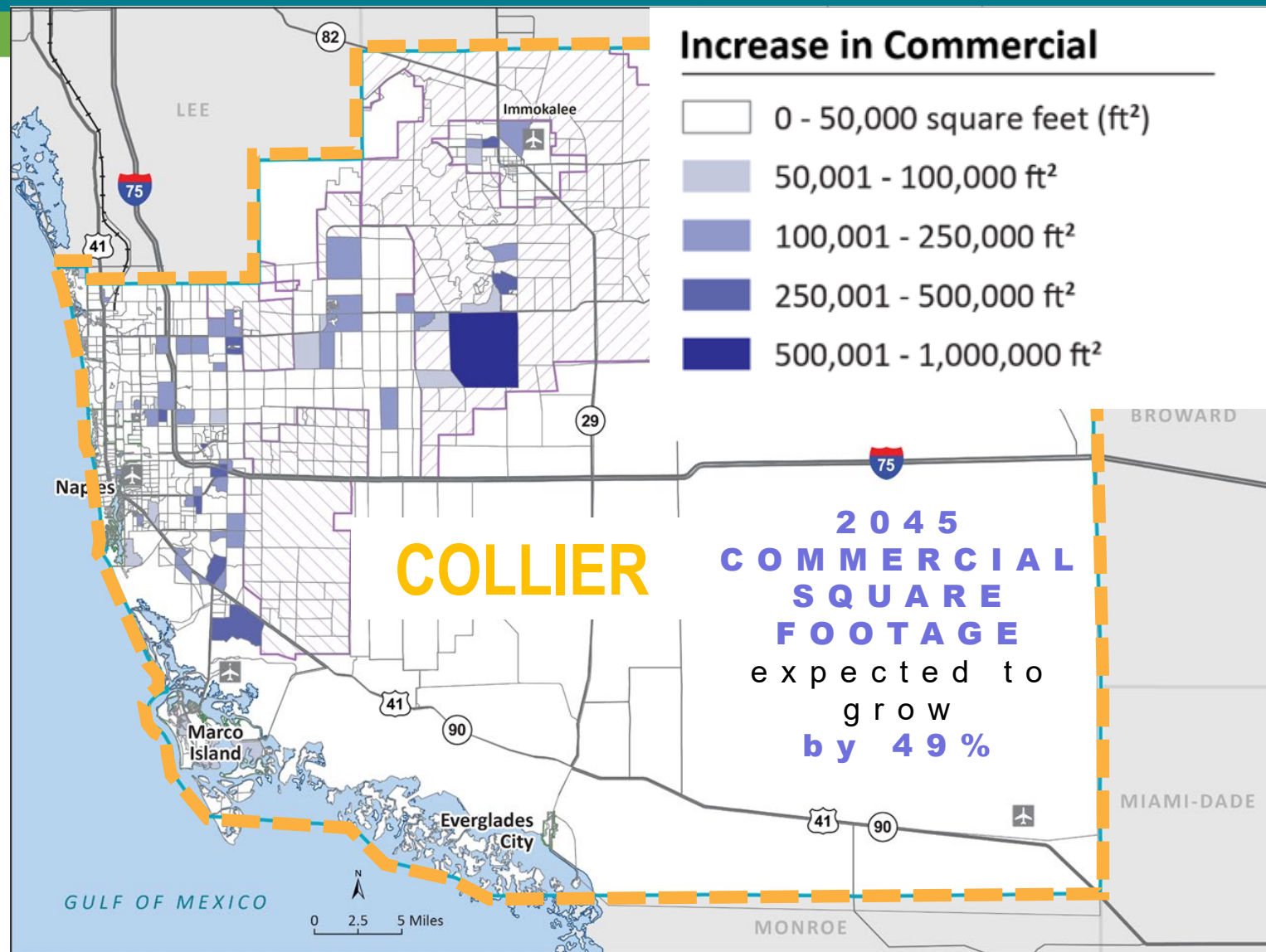


Employment Growth

EMPLOYMENT
expected to grow
by 50%

2015
Employment
141,000

2045
Employment
212,000



2045 LRTP Needs Plan

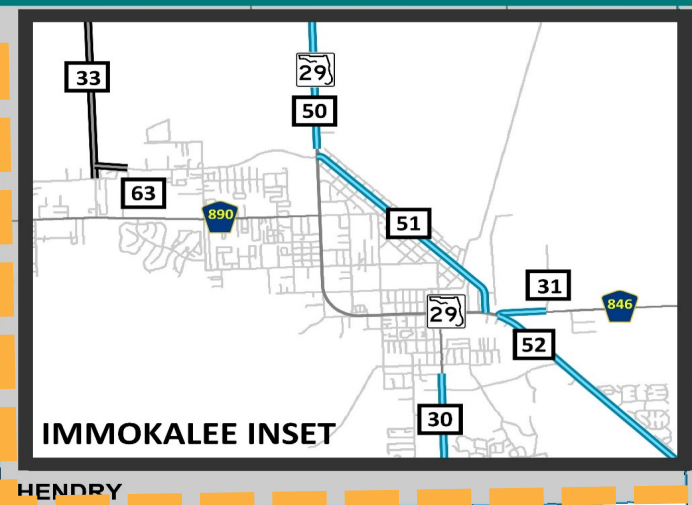
List of projects

Table 1. 2045 Needs Plan List of Projects

Map ID	Project	From	To	Description
1	Benfield Rd Extension	US 41 (SR 90) (Tamiami Trail E)	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)
2	Benfield Rd	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake-Hammock Extension	New 2-Lane Road (Expandable to 4-Lanes)
3	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)
4	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)
5	Big Cypress Parkway	Vanderbilt Beach Rd Extension	Oil Well Rd	New 2-Lane Road (Expandable to 4-Lanes)
6	Big Cypress Parkway	Oil Well Rd	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)
7	Camp Keais Rd	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes
8	Camp Keais Rd	Immokalee Rd	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes
9	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes
10	CR 951 Extension	Collier Blvd (CR 951) (northern terminus)	Lee/Collier County Line	New 2-Lane Road
11	Everglades Blvd	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes
12	Everglades Blvd	Vanderbilt Beach Rd Extension	Randall Blvd	Widen from 2-Lanes to 4-Lanes
13	Everglades Blvd	Golden Gate Blvd	Vanderbilt Beach Rd Extension	Widen from 2-Lanes to 4-Lanes
14	Everglades Blvd	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes
15	Golden Gate Blvd	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes
16	Golden Gate Blvd Extension	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road
17	Goodlette-Frank Rd	Vanderbilt Beach Rd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
18	Green Blvd	Santa Barbara/ Logan Blvd	Sunshine Blvd	Widen from 2-Lane to 4-Lane
19	Green Boulevard Extension (16th Ave SW)	23rd St SW	Wilson Blvd Extension (Corridor Study)	New 2-Lane (Future Study Area)

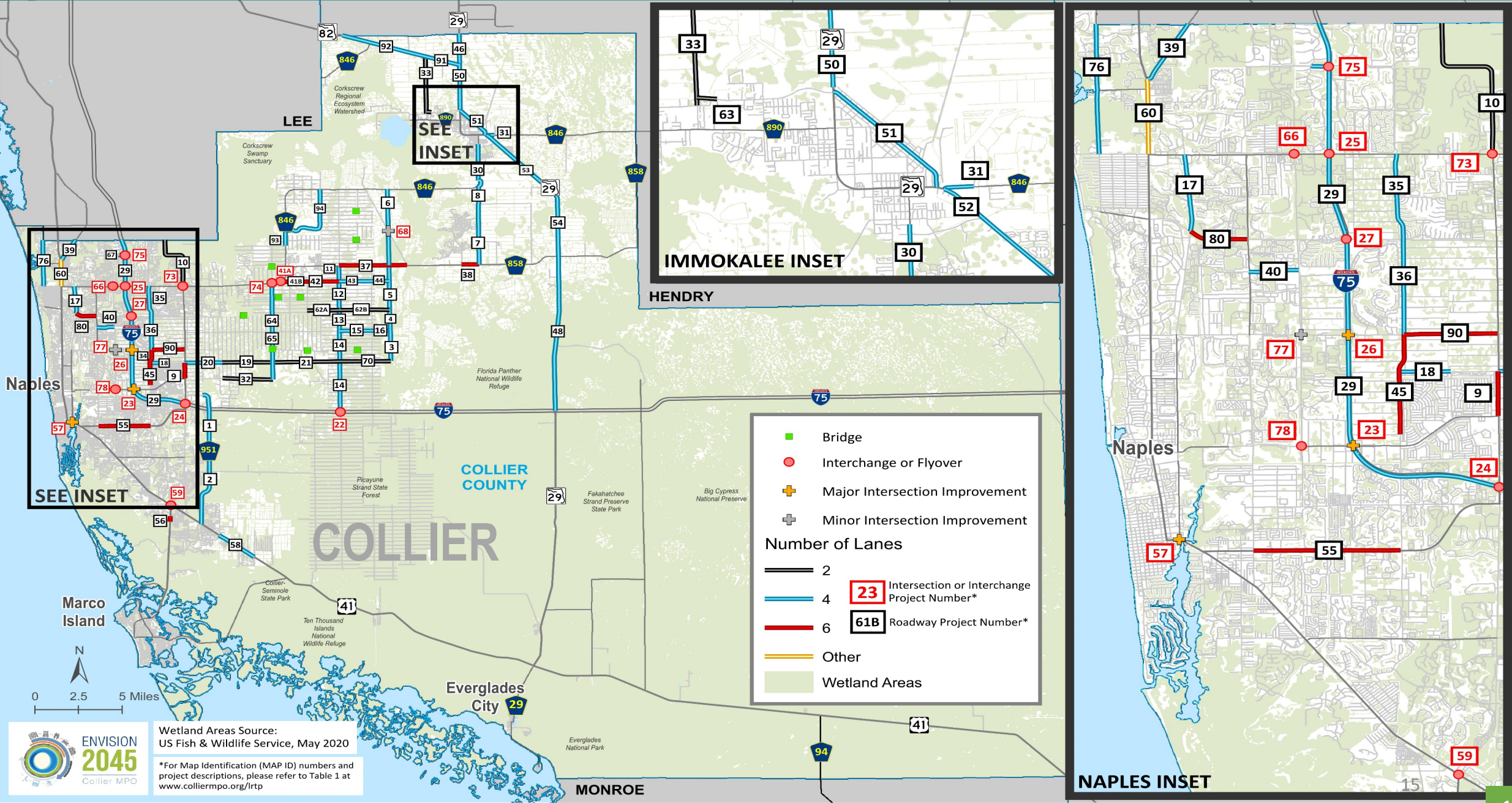
Map ID	Project	From	To	Description
1	Benfield Rd Extension	US 41 (SR 90) (Tamiami Trail E)	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)
2	Benfield Rd	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake-Hammock Extension	New 2-Lane Road (Expandable to 4-Lanes)
3	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)
4	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)
5	Big Cypress Parkway	Vanderbilt Beach Rd Extension	Oil Well Rd	New 2-Lane Road (Expandable to 4-Lanes)
6	Big Cypress Parkway	Oil Well Rd	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)
7	Camp Keais Rd	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes
8	Camp Keais Rd	Immokalee Rd	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes
9	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes
10	CR 951 Extension	Collier Blvd (CR 951) (northern terminus)	Lee/Collier County Line	New 2-Lane Road
11	Everglades Blvd	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes
12	Everglades Blvd	Vanderbilt Beach Rd Extension	Randall Blvd	Widen from 2-Lanes to 4-Lanes
13	Everglades Blvd	Golden Gate Blvd	Vanderbilt Beach Rd Extension	Widen from 2-Lanes to 4-Lanes
14	Everglades Blvd	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes
15	Golden Gate Blvd	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes
16	Golden Gate Blvd Extension	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road
17	Goodlette-Frank Rd	Vanderbilt Beach Rd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
18	Green Blvd	Santa Barbara/ Logan Blvd	Sunshine Blvd	Widen from 2-Lane to 4-Lane
19	Green Boulevard Extension (16th Ave SW)	23rd St SW	Wilson Blvd Extension (Corridor Study)	New 2-Lane (Future Study Area)
20	Green Boulevard Extension (16th Ave SW)	23rd St SW	Wilson Blvd Extension (Corridor Study)	New 4-Lane (Future Study Area)
21	Green Boulevard Extension (16th Ave SW)	23rd St SW	Wilson Blvd Extension (Corridor Study)	New 4-Lane (Future Study Area)
22	I-75 (SR-93) Interchange (modified)	Everglades Blvd	Golden Gate Parkway	New Full Interchange
23	I-75 (SR-93) Interchange (modified)	Collier Blvd (CR 951)	Golden Gate Parkway	Single Point Urban Interchange (SPUI)
24	I-75 (SR-93) Interchange (modified)	Immokalee Rd	Golden Gate Parkway	Intersection Traffic Signalization (DOT proposed)
25	I-75 (SR-93) Interchange (modified)	Pine Ridge Rd	Golden Gate Parkway	Intersection Traffic Signalization (DOT proposed)
26	I-75 (SR-93) Interchange (modified)	Vanderbilt Beach Rd	Golden Gate Parkway	New Interchange - Partial to/from the North
27	I-75 (SR-93) Interchange (modified)	Collier Blvd (CR 951)	Golden Gate Parkway	New 4-Lane Express (Toll) Lanes
28	I-75 (SR-93) Interchange (modified)	Camp Keais Rd	Golden Gate Parkway	Widen from 2-Lanes to 4-Lanes
29	Immokalee Rd (CR 944)	SR 29	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
30	Immokalee Rd (CR 944)	SR 29	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
31	Immokalee Rd (CR 944)	SR 29	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
32	Keane Ave	SR 29	Immokalee Rd	New 2-Lane Road (Future Study Area)
33	Little League Rd Extension	SR 29	Immokalee Rd	New 2-Lane Road
34	Logan Blvd	SR 29	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
35	Logan Blvd	SR 29	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
36	Logan Blvd	SR 29	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
37	Oil Well Road / CR 958	Everglades Blvd	Oil Well Road	Widen from 2-Lanes to 4-Lanes
38	Oil Well Road / CR 958	Ave Maria Extension	Oil Well Road	Widen from 2-Lanes to 4-Lanes
39	Oil Well Road / CR 958	US 41 (SR 90)	Oil Well Road	Widen from 2-Lanes to 4-Lanes
40	Orange Blossom Dr	SR 29	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
41A	Randall Blvd Intersection (Hyover)	Immokalee Rd	Immokalee Rd	Ultimate Intersection Improvement: Overpass
41B	Randall Blvd	Immokalee Rd	Immokalee Rd	Ultimate Intersection Improvement: Overpass
42	Randall Blvd	Immokalee Rd	Immokalee Rd	Ultimate Intersection Improvement: Overpass
43	Randall Blvd	Immokalee Rd	Immokalee Rd	Ultimate Intersection Improvement: Overpass
44	Randall Blvd	Immokalee Rd	Immokalee Rd	Ultimate Intersection Improvement: Overpass
45	Santa Barbara Blvd	Green Blvd	Green Blvd	Widen from 2-Lanes to 4-Lanes
46	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
47	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
48	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
49	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
50	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
51	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
52	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
53	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
54	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
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65	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
66	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
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88	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
89	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
90	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
91	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
92	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
93	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes
94	SR 29	Collier County Line	Collier County Line	Widen from 2-Lanes to 4-Lanes

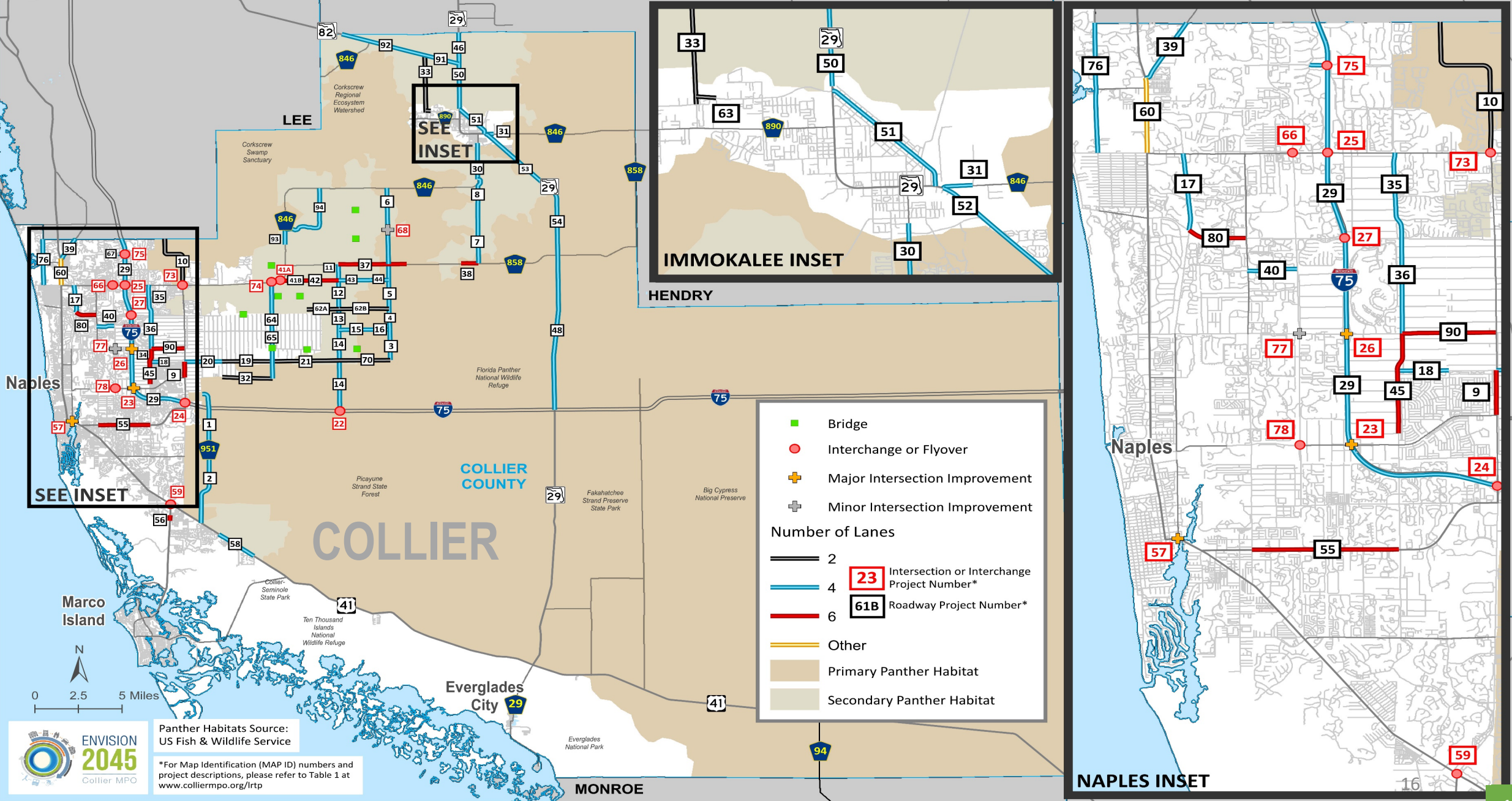
For Table 1. 2045 Needs Plan List of Projects
please visit
www.colliermpo.org/lrtp

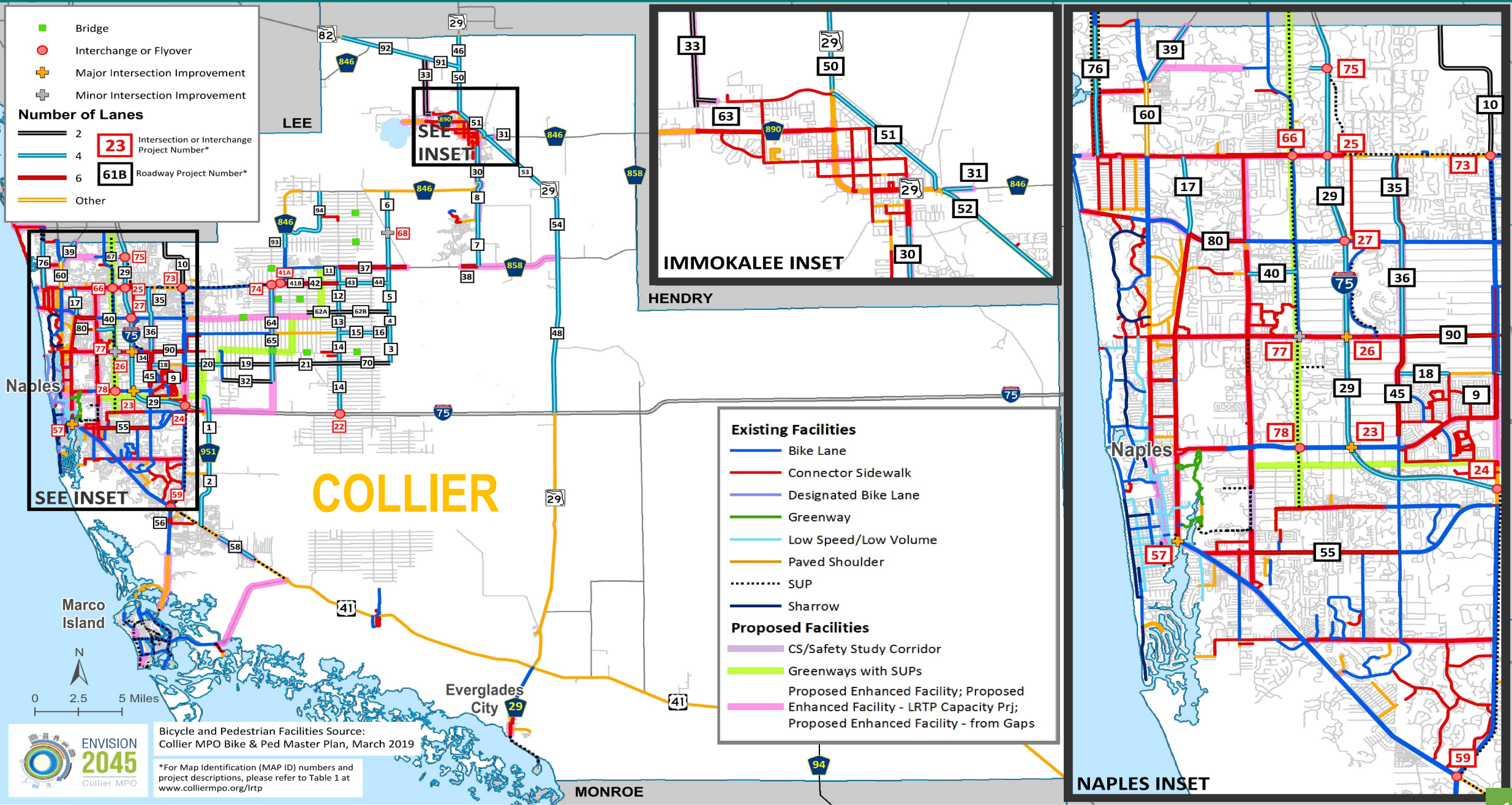


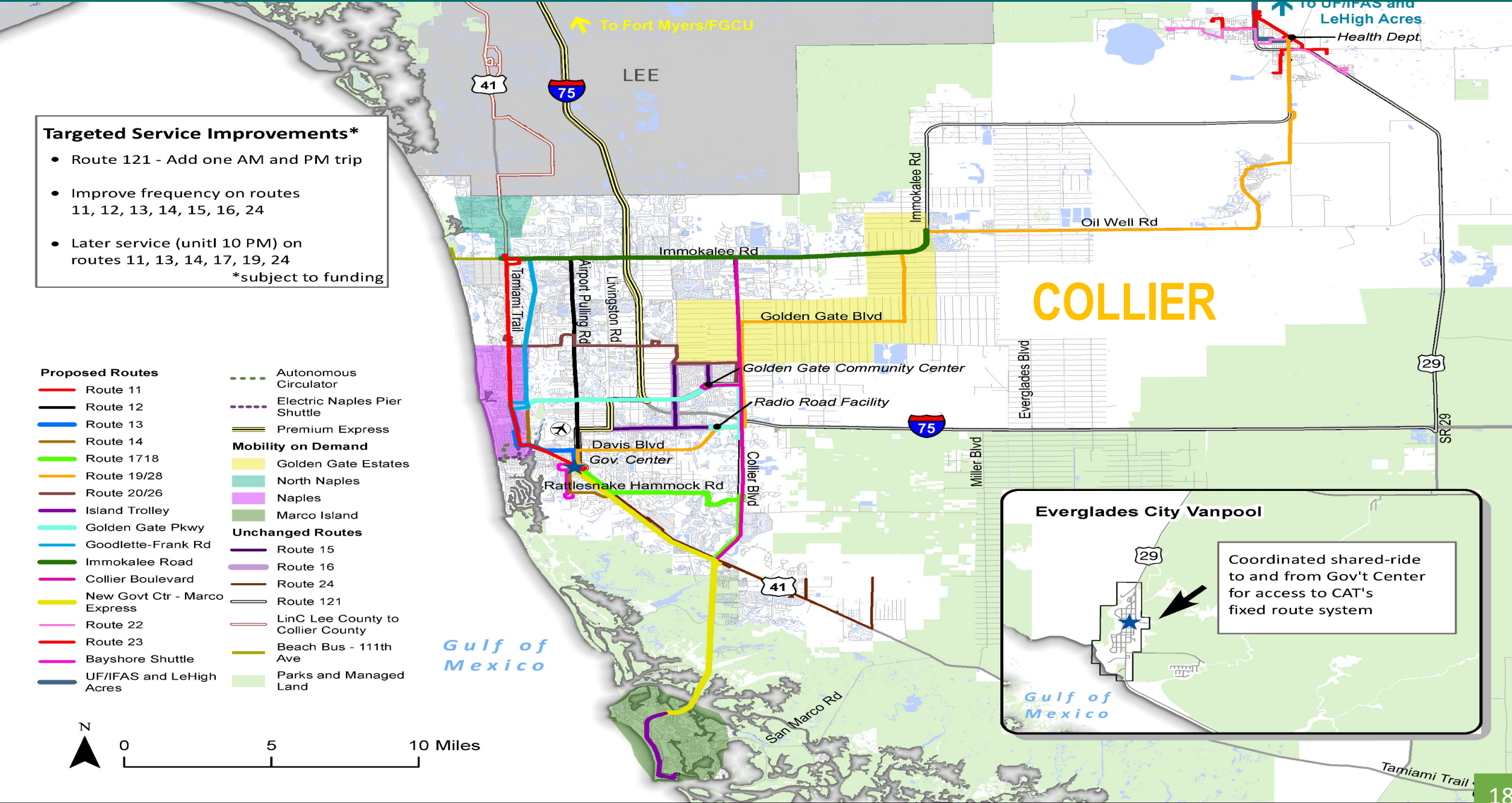
Look here for Map
ID Number

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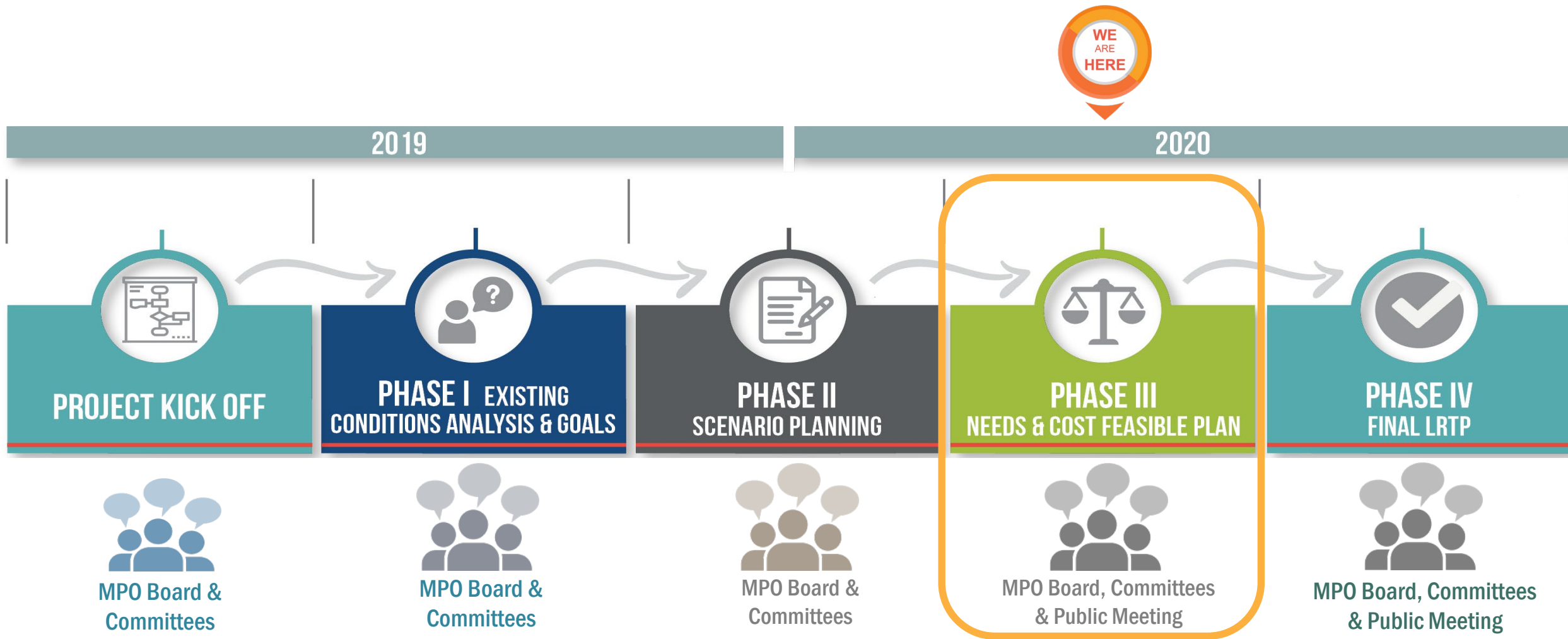








Next Steps in the LRTP Process





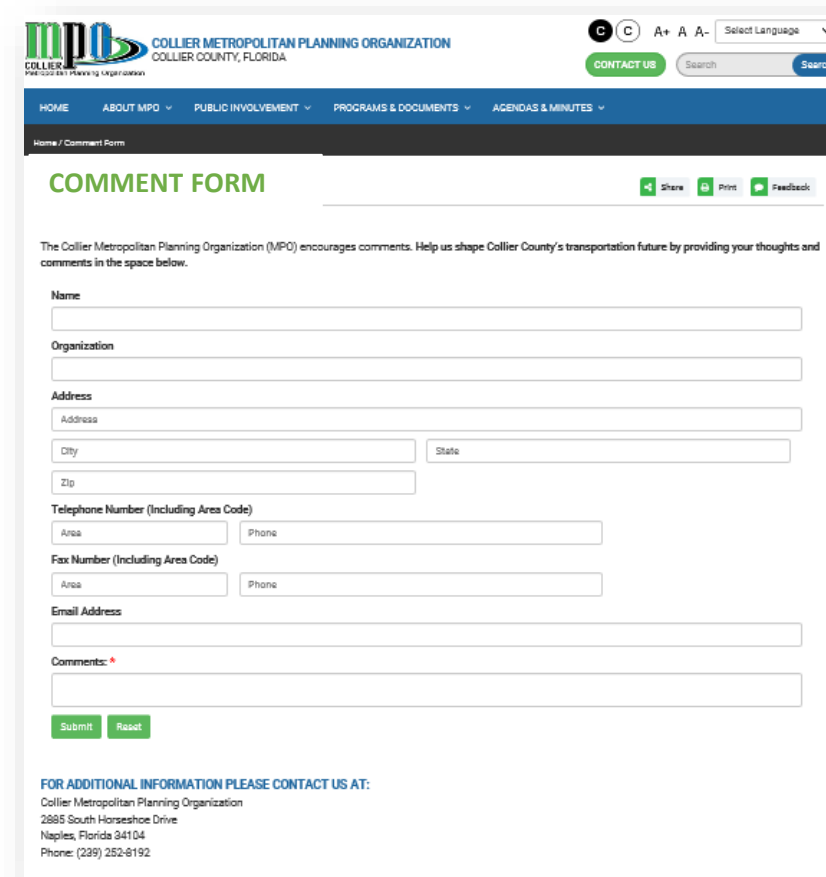
- 
- For more information
and
upcoming events
please visit
www.colliermipo.org



20

Your comments are important

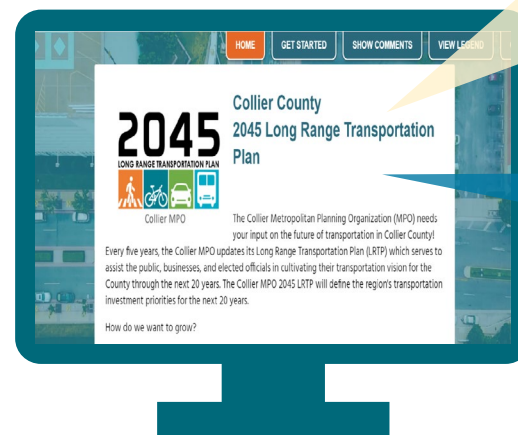
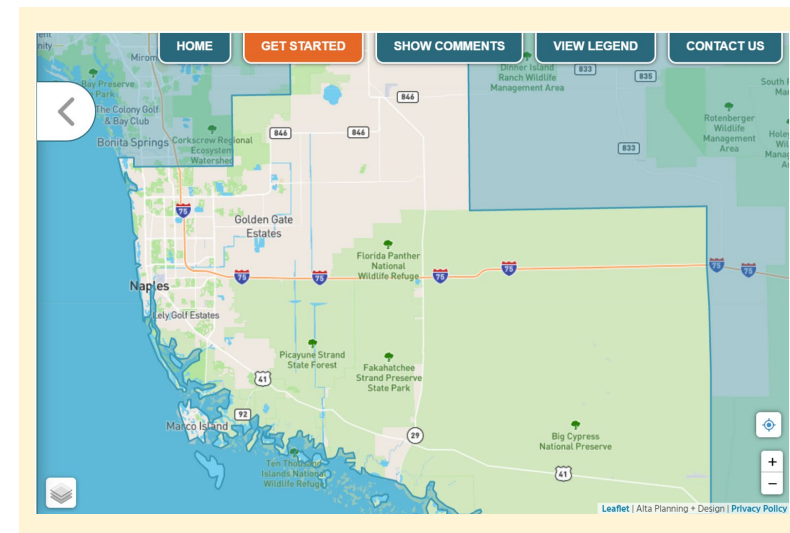
- Please submit your questions or comments by **August 12, 2020** for the Needs Plan:
 - Using the online comment form [here](#)
 - Emailing your comments to colliermmpo@colliergov.net
 - Using the WikiMapping online tool at [LRTP WikiMapping Tool](#)



The screenshot shows the 'COMMENT FORM' page of the Collier Metropolitan Planning Organization (MPO) website. The page header includes the MPO logo, the text 'COLLIER METROPOLITAN PLANNING ORGANIZATION COLLIER COUNTY, FLORIDA', and a 'CONTACT US' button. A navigation menu contains links for HOME, ABOUT MPO, PUBLIC INVOLVEMENT, PROGRAMS & DOCUMENTS, and AGENDAS & MINUTES. The main content area is titled 'COMMENT FORM' and includes a brief introduction: 'The Collier Metropolitan Planning Organization (MPO) encourages comments. Help us shape Collier County's transportation future by providing your thoughts and comments in the space below.' The form fields include: Name, Organization, Address (with sub-fields for Address, City, State, and Zip), Telephone Number (including Area Code), Fax Number (including Area Code), and Email Address. A 'Comments' field with a red asterisk is also present. At the bottom of the form are 'Submit' and 'Reset' buttons. Below the form, contact information for the MPO is provided: 'FOR ADDITIONAL INFORMATION PLEASE CONTACT US AT: Collier Metropolitan Planning Organization, 2885 South Horseshoe Drive, Naples, Florida 34104, Phone: (239) 252-6192'.

Please Browse and Comment on WikiMapping

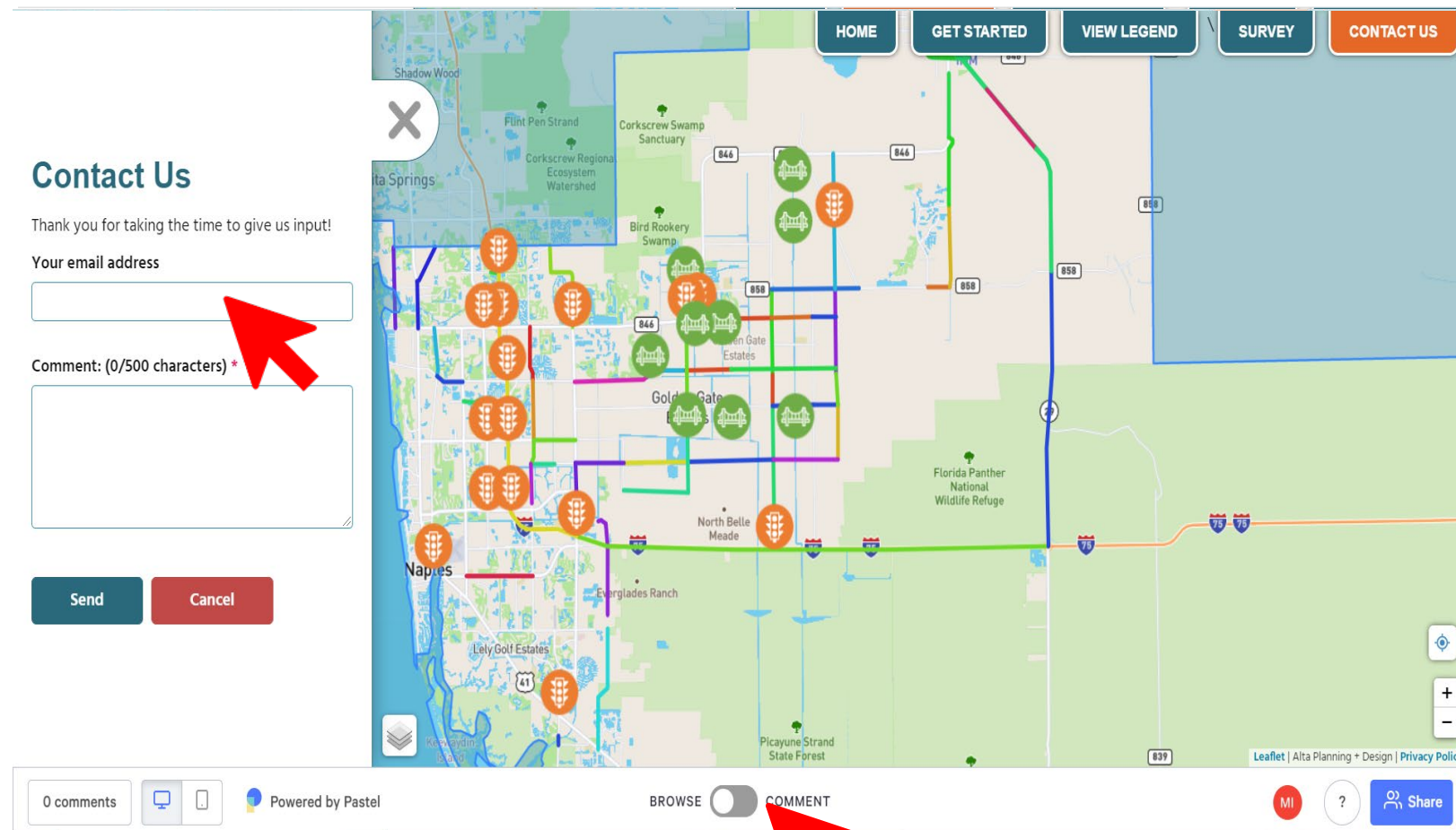
- WikiMapping collects your ideas through images, discussion, and mapping
- Maps entire Needs Plan list of projects
- Allows participation on your own time



www.colliermpo.org/lrtp

Please Browse and Comment on WikiMapping

- **Get Started** to view interactive map
- **Click** on any project to:
 - Read project description
 - Like/Dislike a project
 - View/Add Comment
 - Select your Top 5 Priority Projects
- Take our brief **Survey**
- Submit a **Comment**



Contact Us

Thank you for taking the time to give us input!

Your email address

Comment: (0/500 characters) *

Send **Cancel**

0 comments

Powered by Pastel

BROWSE **COMMENT**

MI ? Share

www.colliermpo.org/lrtp



ENVISION 2045

Collier MPO

Contact Information

Visit us at <https://www.colliermpo.org/lrtp/>
or scan the QR code with your smart phone
to access our website.



Brandy Otero
Principal Planner

2885 S. Horseshoe Drive
Naples, FL 34104
(239) 252-5859
colliermpo@colliergov.net

THANK YOU



Live discussion with representatives from Collier MPO and Collier County

Panel Members



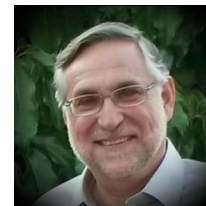
Anne McLaughlin
Collier MPO
Executive Director



Trinity Scott
Collier County
Transportation
Planning Manager

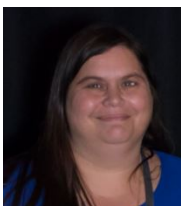


Bill Gramer
Jacobs' 2045 LRTP
Project Manager



Bill Spikowski
Spikowski Planning
Associates Socioeconomic
Data Lead

Technical Advisors



Brandy Otero
Collier MPO
Principal Planner



Tara Jones
Jacobs' Deputy
Project Manager



Michelle Arnold
Collier County
Director Public
Transit &
Neighborhood
Enhancement



Wayne Gaither
FDOT
Southwest Area
Office Director



Victoria Peters
FDOT
MPO &
Community
Liaison



Mary Ross
FDOT
Congestion
Management
Multi-Modal
Planner

ASK A QUESTION

Select **Q&A** on the right side of the screen.

Type your question in the compose box, and then select **Send**. If you want to ask your question anonymously, select **Ask anonymously**.

☐ Post as anonymous


Moderator



Megan Shimko
Jacobs' Public Involvement

2045 Long Range Transportation Plan PRESENTATION VIDEO SCRIPT Virtual Public Meeting July 29, 2020

Version 2
July 17, 2020

1 INTRODUCTION *(MEGAN to read live)*

2 *(Screen on display will show register view with comment box)*

3 Hello and thank you for joining the Collier Metropolitan Planning Organization's virtual
4 public meeting for the 2045 Long Range Transportation Plan. My name is Megan
5 Shimko of Jacobs Engineering and I will be moderating today's meeting. Originally
6 planned to be held in-person, the 2045 Long Range Transportation Plan Public Meeting
7 was changed to a virtual format to ensure the safety and well-being of all participants.

8 PRIVACY DISCLOSURE

9 *Please be advised that under Florida law, e-mail addresses, phone numbers, and*
10 *certain home addresses are public record once received by a government agency. If*
11 *you do not want your e-mail address, phone number, and home address released if the*
12 *Collier MPO receives a public records request, you can refrain from including such*
13 *information in your comment. You have the option of checking the Collier MPO website*
14 *for additional information. [Note: this statement is usually included on the sign in sheet]*

15 VIRTUAL MEETING INSTRUCTIONS

16 Tonight's meeting is being recorded and will be made available for you to view on the
17 Collier MPO Website. We will begin with a pre-recorded video presentation, followed by
18 a live discussion with representatives from Collier MPO, Collier County and FDOT to

19 address your comments and questions. Throughout tonight's meeting you can enter
20 your comments and questions in the Q&A text box on your computer screen or smart
21 device (as seen here). All participant phones and microphones are muted. Tonight's
22 presentation will be closed captioned in English, Spanish, and Creole. To access closed
23 captioning, please select CC in the Teams toolbar on your browser.

24 We will now begin the presentation.

25 **START PRE-RECORDED VIDEO**

26 **Slide 1 - Cover Page**

27 The Collier Metropolitan Planning Organization, or Collier MPO, welcomes you to this
28 virtual public meeting for the 2045 Long Range Transportation Plan.

29 **Slide 2 - Agenda**

30 Tonight's meeting will introduce you to the Long Range Transportation Plan process,
31 goals and objectives, Collier County characteristics, the Transportation Needs Plan, and
32 provide information on how you can offer your input.

33 **Slide 3 – Who is the Collier MPO?**

34 The Collier Metropolitan Planning Organization or M-P-O is a federally mandated
35 transportation policy-making organization made up of representatives from local
36 government and other transportation authorities. The MPO board members include local
37 elected officials representing Collier County, the City of Naples, the City of Marco
38 Island, and Everglades City. The Florida Department of Transportation's District 1
39 Secretary serves as a non-voting advisor to the MPO Board.

40 **Slide 4 – Who is the Collier MPO?**

The MPO is responsible for coordinating the current and future transportation system plan for the three local municipalities and unincorporated Collier County. To receive federal transportation dollars for investment in this region, the MPO is required to complete four key transportation planning studies, they are:

1. **The Unified Planning Work Program** which is the MPO's two-year budget for transportation planning studies and activities.
2. **The Transportation Improvement Program** which is the 5-year funding program for transportation.
3. **The Congestion Management Process** which improves the performance of the transportation system by reducing the negative impacts of traffic congestion.
4. And the **Long Range Transportation Plan** which addresses growth and transportation funding through the year 2045 and is the focus of Tonight's presentation.

Slide 5 – What is a Long-Range Transportation Plan?

The Collier MPO's Long Range Transportation Plan or L-R-T-P establishes the vision of the Collier County multi-modal transportation system, including highway, transit and bicycle and pedestrian infrastructure improvements, over a 20-year period. In compliance with federal and state requirements, the plan is updated every five years to reflect the changing dynamics of the county. This LRTP extends through the year 2045.

Slide 6 – What process are we using to update the LRTP?

The 2045 Long Range Transportation Plan's development process builds upon the 2040 LRTP as well as input from the MPO Board, advisory committees, planning partners and public input. Your ideas and comments Tonight will inform the development of the 2045 LRTP and are important to help us plan for the future. Our updated Virtual Public Outreach Plan offers options for the public to stay connected and virtually participate in the LRTP process due to COVID-19.

Slide 7 – Goals and Objectives

The Goals, Objectives and Decision-Making Framework, approved by the MPO Board in October 2019, were established to help guide the development of the plan, creating a process through which projects can be evaluated and ranked against one another to define and document project priorities. The goals and objectives are reflected in the project evaluation criteria and cover a broad range of issues including environmental impact, economic development, mobility, safety, security, quality of life, climate change risks and new technology such as Connected and Automated Vehicles.

Slide 8 – Collier County Characteristics

Collier County is a wonderful place to live and we are growing. The MPO is responsible for identifying the future transportation needs that result from the growth projected to occur in the region.

Slide 9 – How does the MPO determine the needs of the County?

The MPO determines the transportation needs of the County based on future travel demand. The MPO works in partnership with the Florida Department of Transportation (FDOT) to use the District One Regional Planning Model - a computer model that

simulates human behavior while traveling to identify future transportation needs and improvements. Inputs into the model include projected population and employment growth, proposed land uses, existing traffic counts, and socio-economic information about the region.

Slide 10 – Population Growth

As shown here, the population in Collier County is expected to grow by over 40 percent by 2045.

Slide 11 – Employment Growth

...and employment, spurred by an increase in commercial development, is expected to grow by over 50% percent by 2045.

Slide 12 – Needs Plan

The LRTP Transportation Needs Plan is financially unconstrained. It is a list of projects that should be built by 2045 to accommodate projected growth if money is not an issue. The projects on the list were assembled from advisory committee and public input, partially funded and unfunded 2040 LRTP projects, and a System-wide Needs Assessment analyzing the deficiencies in the system as well as identified potential highway and transit improvements. To view this Table and Exhibits including maps and the evaluation matrix of initial rankings, please visit the Collier MPO website.

Slide 13 – Needs Plan

The **maps** provide project numbers (red for intersections and black for road segments) that appear in the first column of the List of Project and Evaluation Matrix. The projects identified in the Transportation Needs Plan were assessed using project evaluation

107 criteria identified in the *L RTP Goals, Objectives and Decision-Making Framework*
108 including considerations for...

109 **Slide 14 – Needs Plan**

110 ... sensitive environmental resources such as wetlands...

111 **Slide 15 – Needs Plan**

112 ...panther habitat, and conservation areas.

113 **Slide 16 – Needs Plan**

114 The project evaluation criteria also include considerations for multi-modal
115 accommodations and consistency with the *Collier MPO Bicycle and Pedestrian Master*
116 *Plan* facilities, as well as...

117 **Slide 17 – Needs Plan**

118 ...consistency with the *Transit Development Plan*. These are just a few of the exhibits
119 related to the Needs Plans development and evaluation. To view the other exhibits,
120 please visit the Collier MPO website.

121 **Slide 18 – Next Steps in the LRTP Process**

122 As the next step in the LRTP Process, the MPO will identify the proposed transportation
123 projects in the Transportation Needs Plan that the region can afford to build with
124 available funds by 2045. Once identified, these projects will be shown on a “Cost
125 Feasible” map. Prioritizing projects based on funding is a very difficult decision and
126 does not satisfy all the transportation needs of the region. However, the process
127 ensures that the most critical transportation improvement needs are built. Based on the

128 current LRTP schedule, we anticipate holding another public meeting later this year to
129 review the Cost Feasible Plan. The Final LRTP will be adopted by the MPO Board in
130 December 2020.

131 **Slide 19 – Stay connected**

132 Public involvement activities are ongoing, and your comments are welcome throughout
133 the LRTP process. For more information, updates on upcoming events, and to be added
134 to the mailing list please visit the Collier MPO website.

135 **Slide 20 – Your comments are important**

136 Your comments are important. Please submit all questions or comments by **August 12,**
137 2020 to be included in the assessment for the Transportation Needs Plan. Comments
138 can be submitted by using the online comment form, emailing your comments to
139 colliermmpo@colliergov.net; or using the Wikimapping online tool.

140 **Slide 21 – Please Browse and Comment on WikiMapping**

141 WikiMapping is an online interactive tool that collects your ideas through images,
142 discussion, and mapping. Maps showing the entire Transportation Needs Plan list of
143 projects are available, and you may participate on your own time.

144

145 **Slide 22 – Please Browse and Comment on WikiMapping**

146 In Wikimapping, you can “browse” information or submit “comments” by using this
147 toggle button on the bottom of the screen.

148 To view the interactive map, click on the “Get Started” page.

149 On this page, you can read the project description, like or dislike a project, view and add
150 comments, and select your top 5 priority projects.

151 Then, you can click to the next page and complete a brief survey.

152 Next, you can click on the “Contact Us” page to submit a comment.

153 This interactive map and survey will help us identify the project priorities. Please visit
154 the Collier MPO website to find the link to the Wikimapping tool and tell us your
155 transportation needs and priorities for the future.

156 **Slide 23 – Thank You**

157 This concludes our presentation. For more information on the LRTP and other activities
158 of the Collier MPO please visit www.colliermpo.org. We appreciate your attendance and
159 participation. Thank you.

160 **END RECORDING**

161

162 *(Megan live read)*

163 Now we will open up the meeting to hear your input. A team of subject-matter experts
164 are on standby and will be available to answer your questions and provide responses to
165 written comments, as time allows. If we do not get to your specific comment, please
166 know that we will post a response on the project Collier MPO website at
167 www.colliermmpo.org. Before we start the discussion, allow me to introduce the panel
168 members here today.

169 *Begin Discussion. Megan will field questions to panel.*

Meeting Screenshots



WELCOME TO THE COLLIER MPO 2045 LRTP VIRTUAL PUBLIC MEETING – NEEDS PLAN

While you wait for the presentation to begin, please familiarize yourself with this live event.

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Panel Members



Anne McLaughlin
Collier MPO
Executive Director



Trinity Scott
Collier County
Transportation
Planning Manager



Bill Gramer
Jacobs' 2045 LRTP
Project Manager



Bill Spikowski
Spikowski Planning
Associates Socioeconomic
Data Lead

Technical Advisors



Brandy Otero
Collier MPO
Principal Planner



Tara Jones
Jacobs' Deputy
Project Manager



Michelle Arnold
Collier County
Director Public
Transit &
Neighborhood
Enhancement



Wayne Gaither
FDOT
Southwest Area
Office Director



Victoria Peters
FDOT
MPO &
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Mary Ross
FDOT
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Management
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Data Lead

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Tara Jones
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Project Manager



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Enhancement



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Associates Socioeconomic
Data Lead

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


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Jacobs' 2045 LRTP
Project Manager



Bill Spikowski
Spikowski Planning
Associates Socioeconomic
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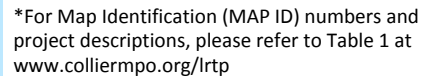
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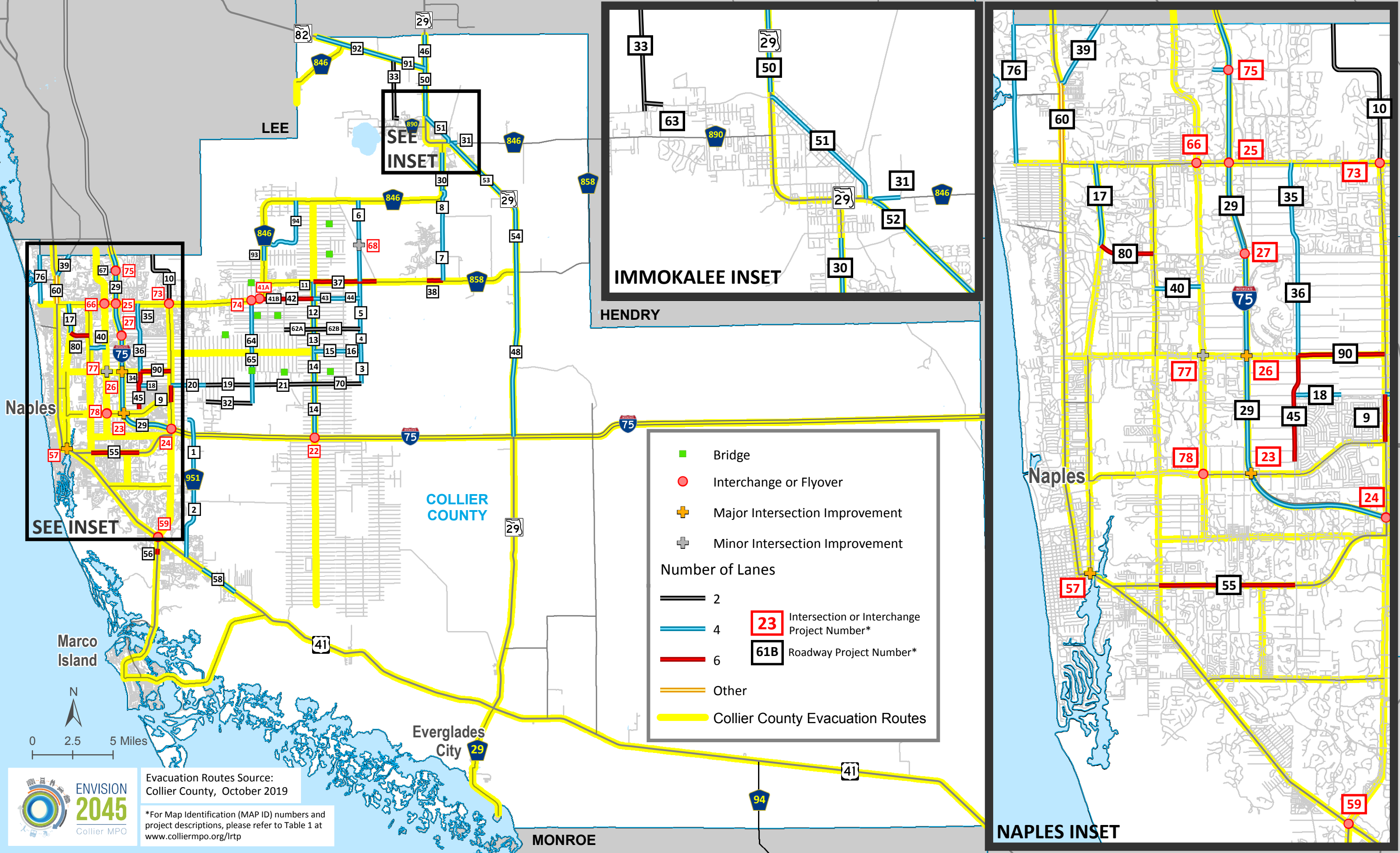


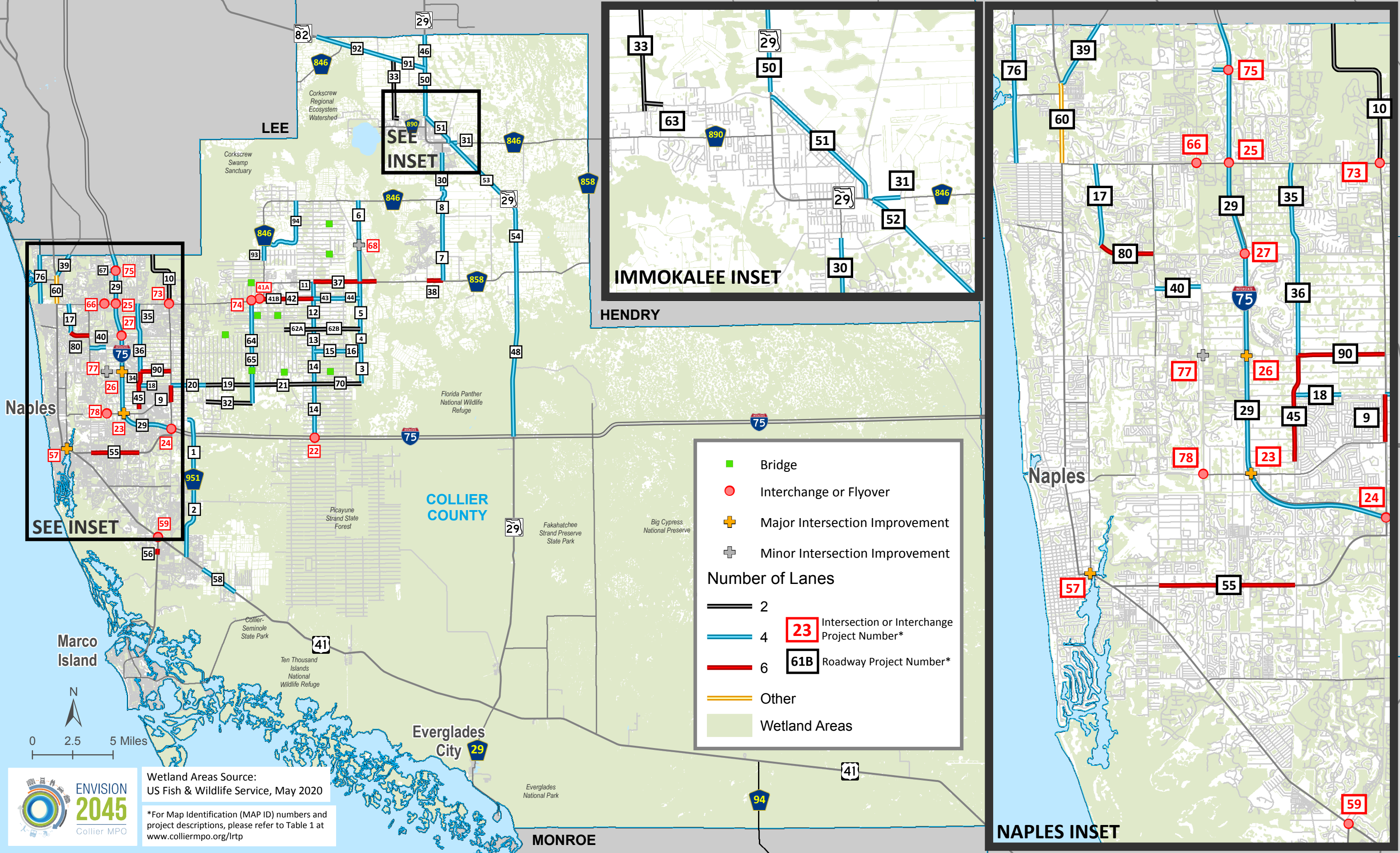
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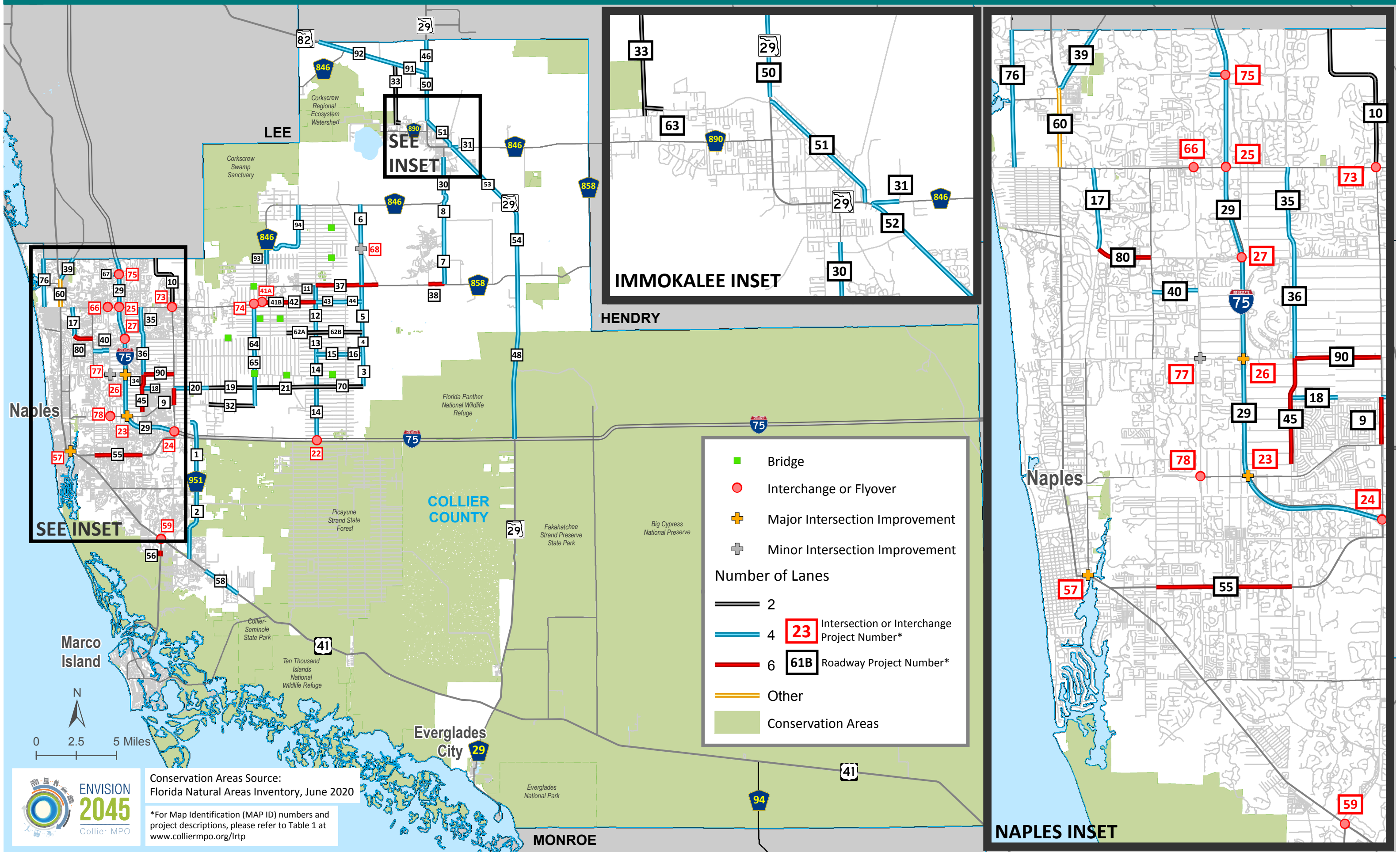
Table 1. 2045 Needs Plan List of Projects

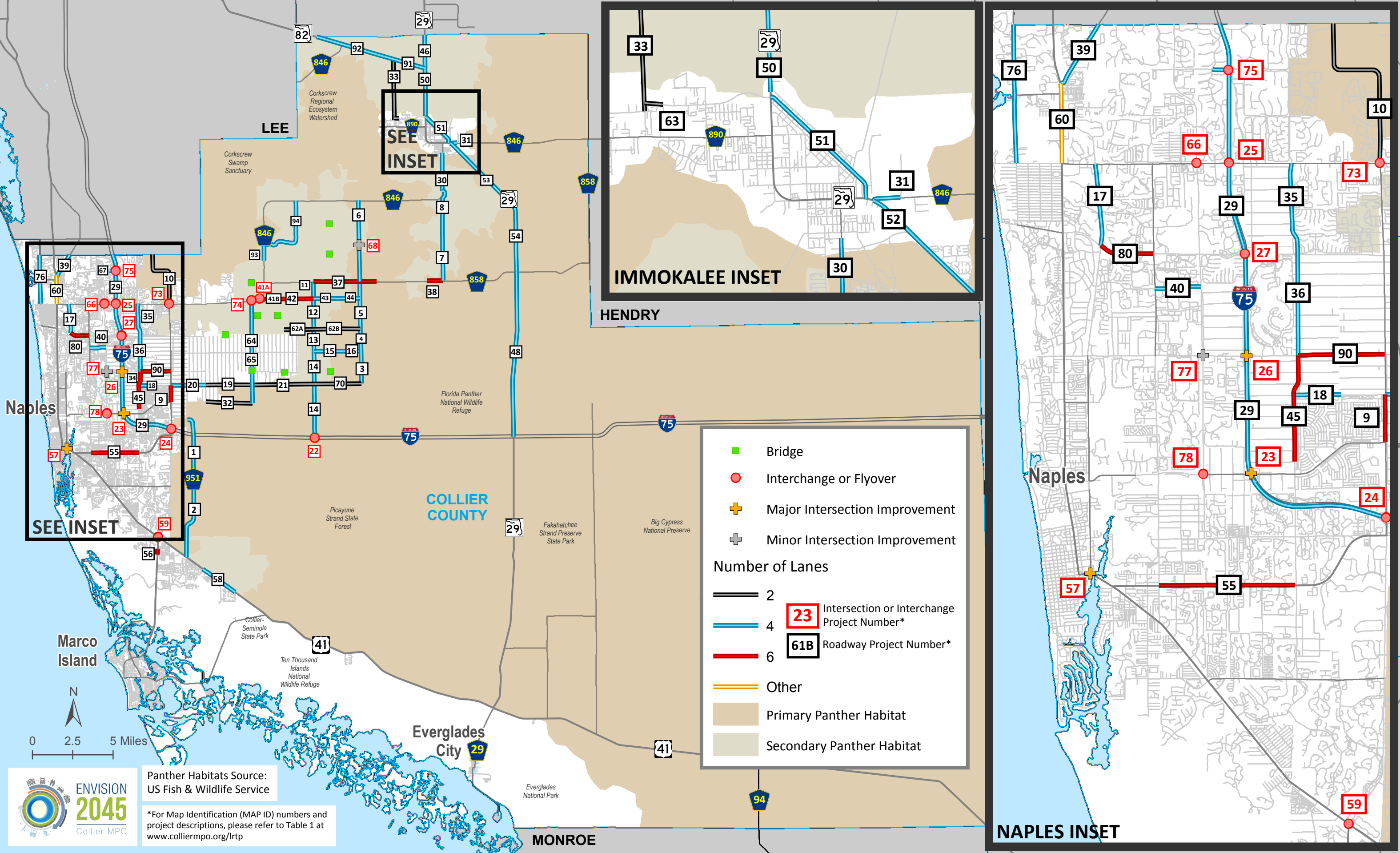
Map ID	Project	From	To	Description
1	Benfield Rd Extension	US 41 (SR 90) (Tamiami Trail E)	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)
2	Benfield Rd	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake-Hammock Extension	New 2-Lane Road (Expandable to 4-Lanes)
3	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)
4	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)
5	Big Cypress Parkway	Vanderbilt Beach Rd Extension	Oil Well Rd	New 2-Lane Road (Expandable to 4-Lanes)
6	Big Cypress Parkway	Oil Well Rd	Immokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)
7	Camp Keais Rd	Pope John Paul Blvd	Oil Well Road	Widen from 2-Lane to 4 Lanes
8	Camp Keais Rd	Immokalee Rd	Pope John Paul Blvd	Widen from 2-Lane to 4-Lanes
9	Collier Blvd (CR 951)	Golden Gate Main Canal	Green Blvd	Widen from 4-Lanes to 6 Lanes
10	CR 951 Extension	Collier Blvd (CR 951) (northern terminus)	Lee/Collier County Line	New 2-Lane Road
11	Everglades Blvd	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes
12	Everglades Blvd	Vanderbilt Beach Rd Extension	Randall Blvd	Widen from 2-Lanes to 4-Lanes
13	Everglades Blvd	Golden Gate Blvd	Vanderbilt Beach Rd Extension	Widen from 2-Lanes to 4-Lanes
14	Everglades Blvd	I-75 (SR-93)	Golden Gate Blvd	Widen from 2-Lanes to 4-Lanes
15	Golden Gate Blvd	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes
16	Golden Gate Blvd Extension	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road
17	Goodlette-Frank Rd	Vanderbilt Beach Rd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
18	Green Blvd	Santa Barbara/ Logan Blvd	Sunshine Blvd	Widen from 2-Lane to 4-Lane
19	Green Boulevard Extension (16th Ave SW)	23rd St SW	Wilson Blvd Extension (Corridor Study)	New 2-Lane (Future Study Area)
20	Green Boulevard Extension (16th Ave SW)	CR 951	23rd St SW (Corridor Study)	New 4-Lane (Future Study Area)
21	Green Boulevard Extension (16th Ave SW)	Wilson Blvd Ext	Everglades Blvd (Corridor Study)	New 2-Lane Road
22	I-75 (SR-93) Interchange	Everglades Blvd		New Full Interchange
23	I-75 (SR-93) Interchange (modified)	Golden Gate Parkway		Further Study Required [(New) 2-Lane Ramp]
24	I-75 (SR-93) Interchange (modified)	Collier Blvd (CR 951)		Single Point Urban Interchange (SPUI)
25	I-75 (SR-93) Interchange (modified)	Immokalee Rd		Intersection Traffic Signalization (DDI proposed)
26	I-75 (SR-93) Interchange (modified)	Pine Ridge Rd		Intersection Traffic Signalization (DDI proposed)
27	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd		New Interchange - Partial (to / from the North)
29	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd (CR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes
30	Immokalee Rd (CR 846)	Camp Keais Rd	Carver St	Widen from 2-Lanes to 4 Lanes
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes
32	Keane Ave	Inez Rd	Wilson Blvd Extension	New 2-Lane Road (Future Study Area)
33	Little League Rd Extension	SR-82	Westclox St	New 2-Lane Road
34	Logan Blvd	Green Blvd	Pine Ridge Rd	Widen from 4-Lanes to 6-Lanes
35	Logan Blvd	Vanderbilt Beach Rd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes
37	Oil Well Road / CR 858	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes
38	Oil Well Road / CR 858	Ave Maria Entrance	Camp Keais Rd	Widen from 2-Lanes to 6-Lanes
39	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes
40	Orange Blossom Dr	Airport Pulling Rd	Livingston Rd	Widen from 2-Lanes to 4-Lanes
41A	Randall Blvd Intersection (flyover)	Immokalee Rd		Ultimate Intersection Improvement: Overpass
41B	Randall Blvd	Immokalee Rd	8th St NE	Widen from 2-Lanes to 6-Lanes
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes
43	Randall Blvd	Everglades Blvd	Desoto Blvd	Widen from 2-Lanes to 4-Lanes
44	Randall Blvd	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road
45	Santa Barbara Blvd	Painted Leaf Ln	Green Blvd	Widen from 4-Lanes to 6-Lanes
46	SR 29	SR 82	Collier/Hendry Line	Widen from 2-Lane to 4 Lanes
48	SR 29	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes
50	SR 29	New Market Road North	North of SR-82	Widen from 2-Lane to 4-Lane
51	SR 29/New Market Rd W - New Road	Immokalee Rd (CR 846)	New Market Rd N	New 4-Lane Road
52	SR 29	Agriculture Way	CR 846 E	Widen from 2-Lanes to 4-Lanes
53	SR 29	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lanes to 4-Lanes
54	SR 29	Oil Well Rd	Sunniland Nursery Rd	Widen from 2-Lanes to 4-Lanes
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6 Lanes
56	Collier Blvd (SR 951)	South of Manatee Rd	North of Tower Rd	Widen from 4-Lanes to 6 Lanes
57	US 41 (SR 90) (Tamiami Trail E) intersection	Goodlette Rd		At-Grade Intersection Improvements
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4 Lanes
59	US 41 (SR 90) (Tamiami Trail E) intersection	Collier Blvd (SR 951)		Single Point Urban Interchange (SPUI)
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Further Study Required
62A	Vanderbilt Beach Rd Extension	16th St	Everglades Blvd	New 2-Lane Road (Expandable to 4-Lanes)
62B	Vanderbilt Beach Rd Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road (Expandable to 4 Lanes)
63	Westclox Street Extension	Little League Rd	West of Carson Road	New 2-Lane Road
64	Wilson Blvd	Golden Gate Blvd	Immokalee Rd	Widen from 2-Lanes to 4-Lanes
65	Wilson Blvd	Keane Ave	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)
66	Immokalee Rd Intersection	Livingston Rd		Single Point Urban Interchange (SPUI)
67	Veterans Memorial Blvd Extension	Strand Blvd	I-75	New 4-Lane Road
68	Big Cypress Parkway Intersection (new)	Oil Well Grade Rd		New At-Grade Intersection
70	Green Blvd Extension	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road
73	Immokalee Rd (CR 846) Intersection	Collier Blvd (CR 951)		Single Point Urban Interchange (SPUI)
74	Immokalee Rd (CR 846) Intersection	Wilson Blvd		Single Point Urban Interchange (SPUI)
75	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd		New Partial Interchange
76	Vanderbilt Dr	Immokalee Rd	Woods Edge Parkway	Widen from 2-Lanes to 4-Lanes
77	Pine Ridge Rd Intersection	Livingston Rd		Intersection Improvement
78	Golden Gate Parkway Intersection	Livingston Rd		Single Point Urban Interchange (SPUI)
80	Vanderbilt Beach Rd	Goodlette-Frank Road	Airport Pulling Rd	Widen from 4-Lanes to 6-Lanes
81	Bridge @ 47th Ave NE	West of Everglades Boulevard		New Bridge over Canal
82	Bridge @ Wilson Blvd	South of 33rd Avenue NE		New Bridge over Canal
83	Bridge @ 18th Ave NE	Between Wilson Blvd N and 8th St NE		New Bridge over Canal
84	Bridge @ 18th Ave NE	Between 8th St NE and 16th St NE		New Bridge over Canal
85	Bridge @ 13th St NW	North Terminus at Vanderbilt Beach Rd Extension		New Bridge over Canal
86	Bridge @ 16th St SE	South Terminus		New Bridge over Canal
87	Bridge @ Location TBD - Assume 10th Ave SE	East of Everglades Blvd		New Bridge over Canal
88	Bridge @ Wilson Blvd S	South Terminus		New Bridge over Canal
89	Bridge @ 62nd Ave NE	West of 40th St NE		New Bridge over Canal
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes
92	SR 82	Gator Slough Lane	Hendry County Line	Widen from 2-Lanes to 4-Lanes
93	Immokalee Rd	Shady Hollow Blvd E	Rural Village Rd (new)	Widen from 2-Lanes to 4-Lanes
94	Rural Village Rd	Immokalee Rd	Immokalee Rd	New 4-Lane Road

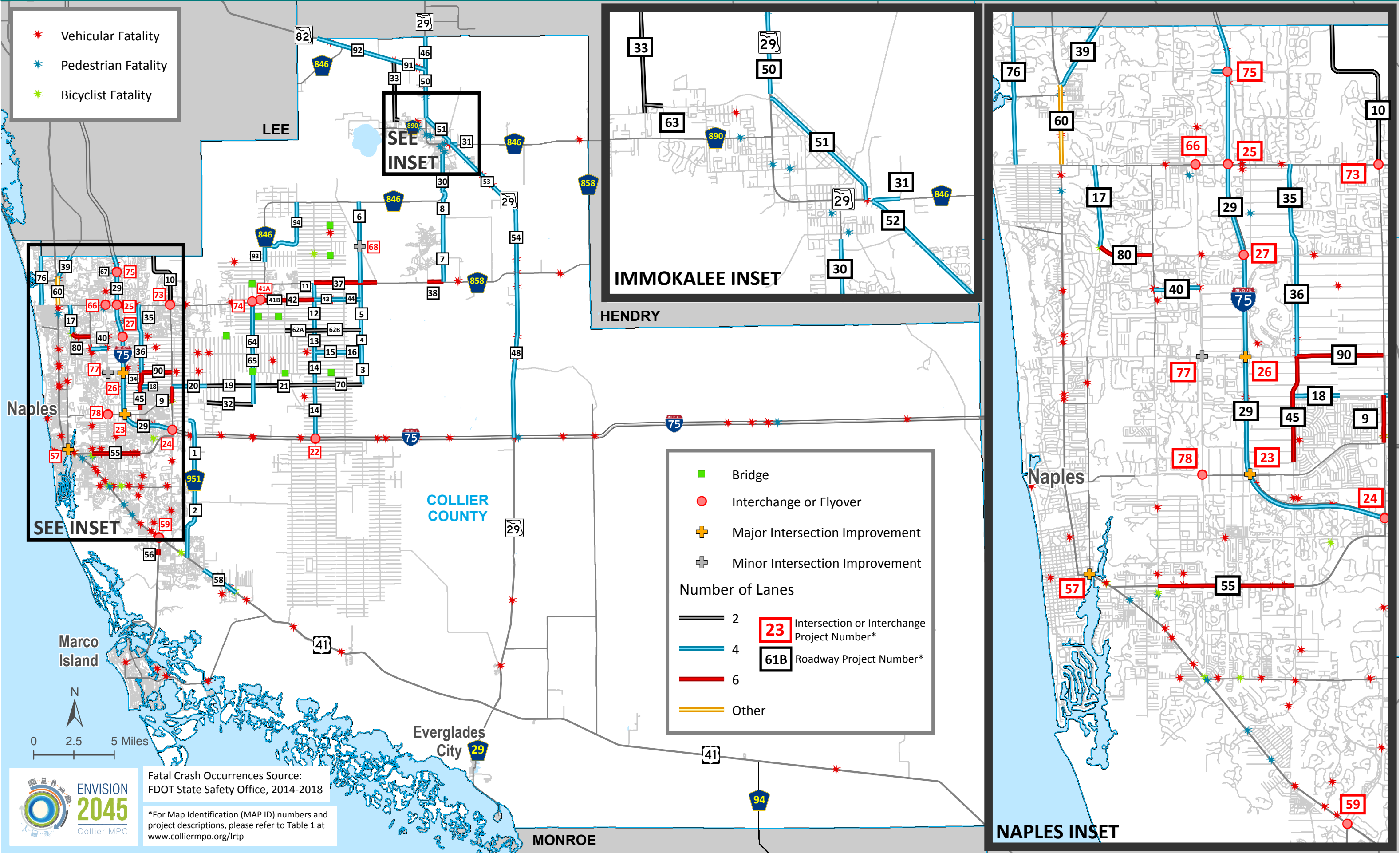


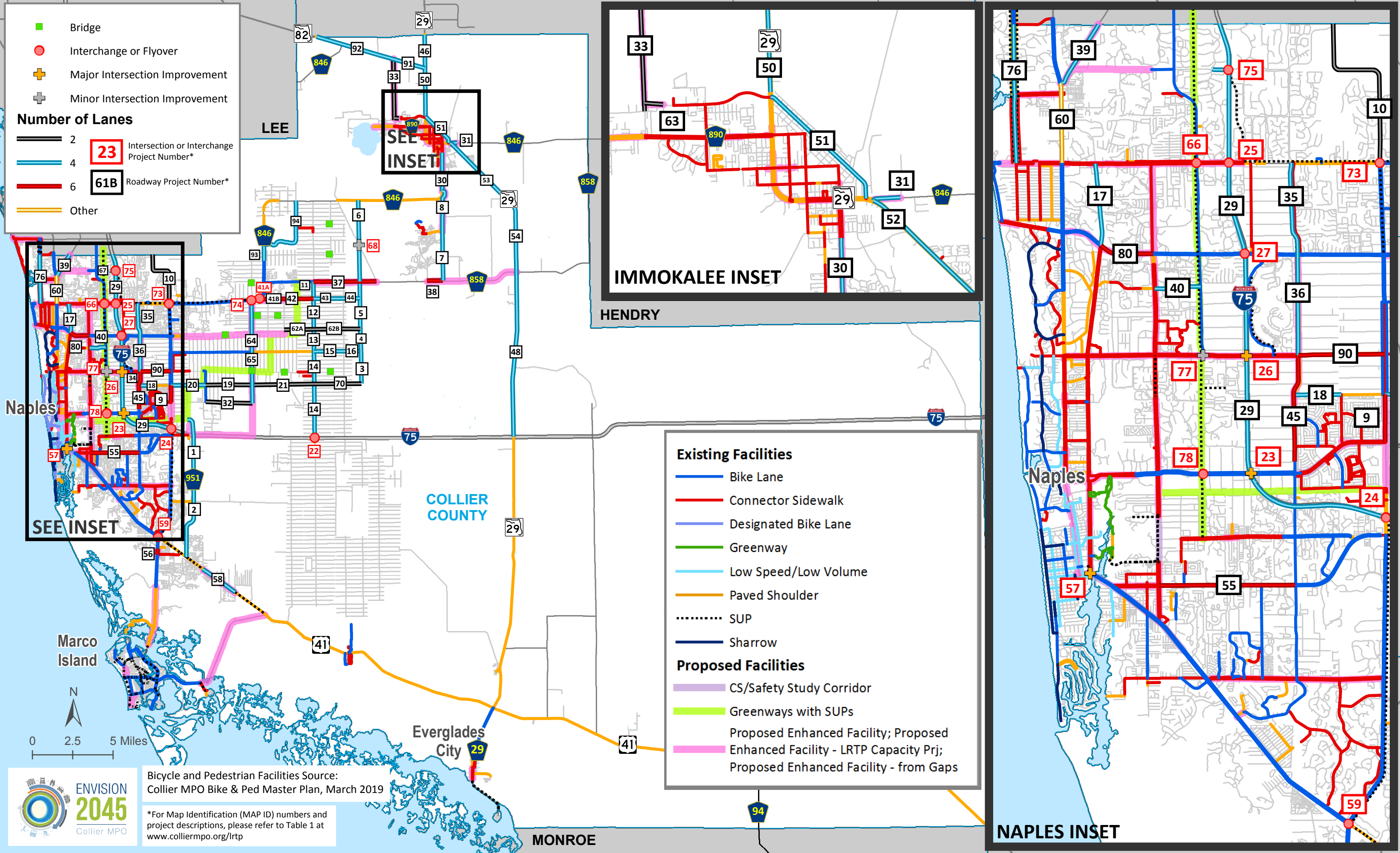


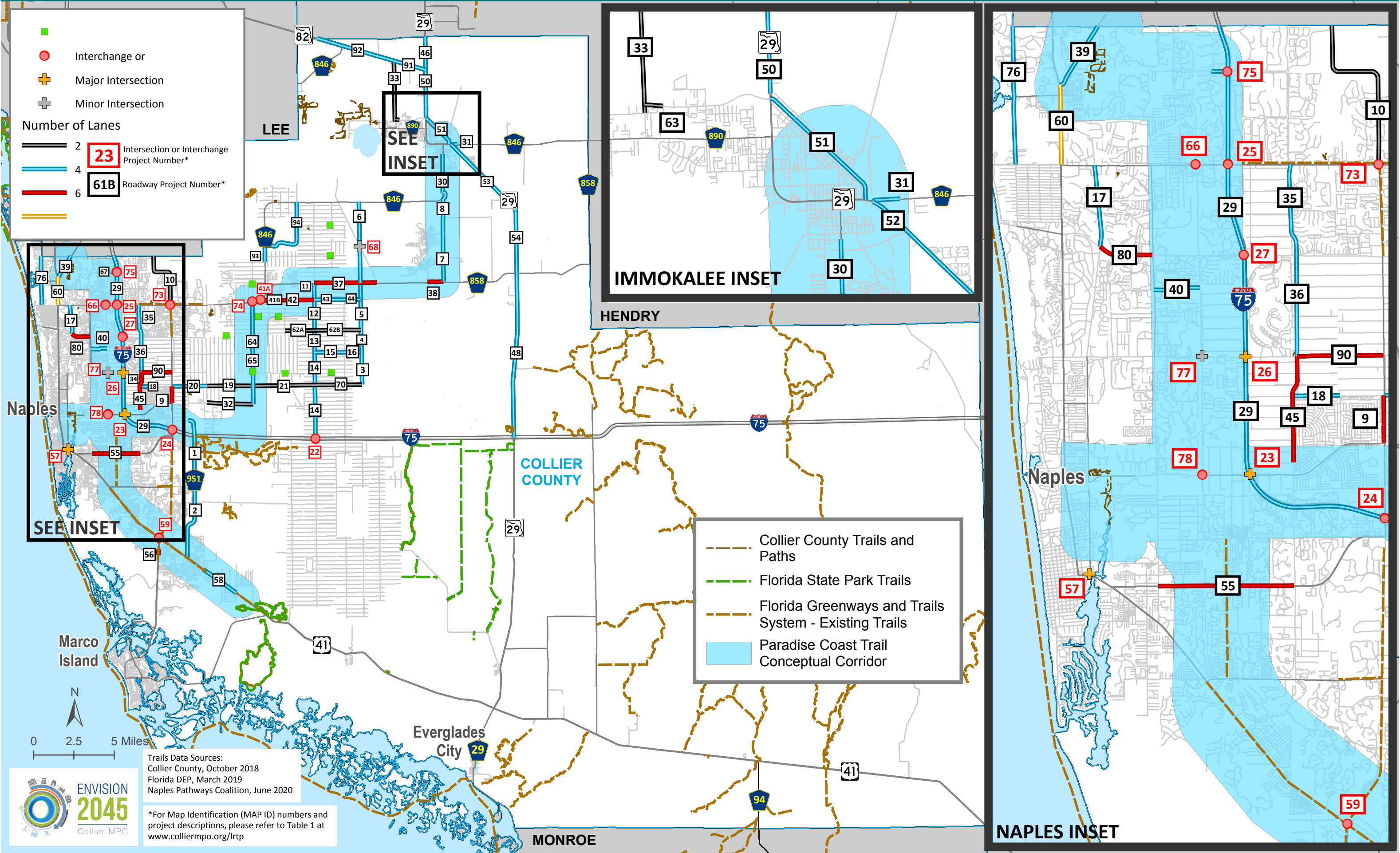


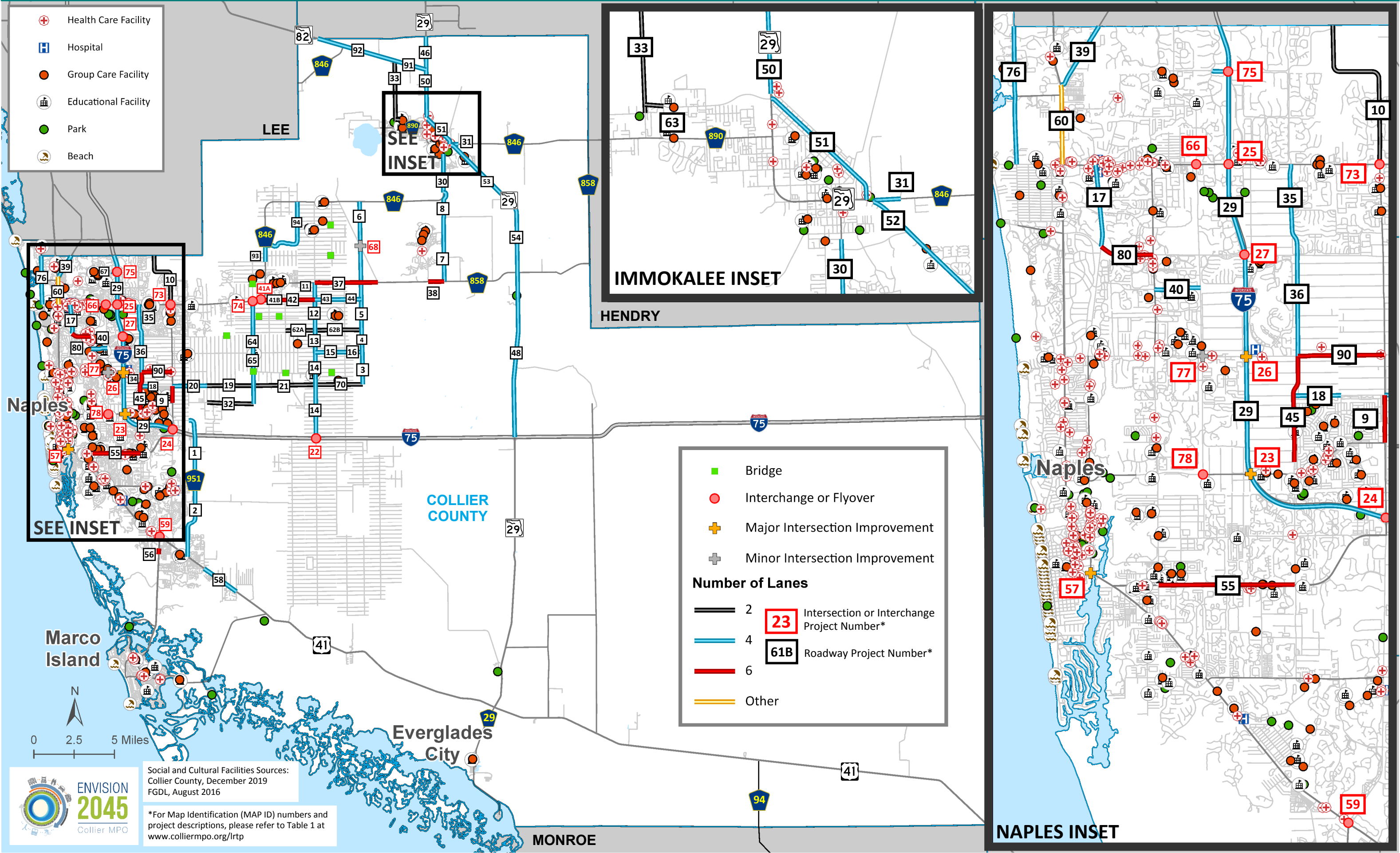


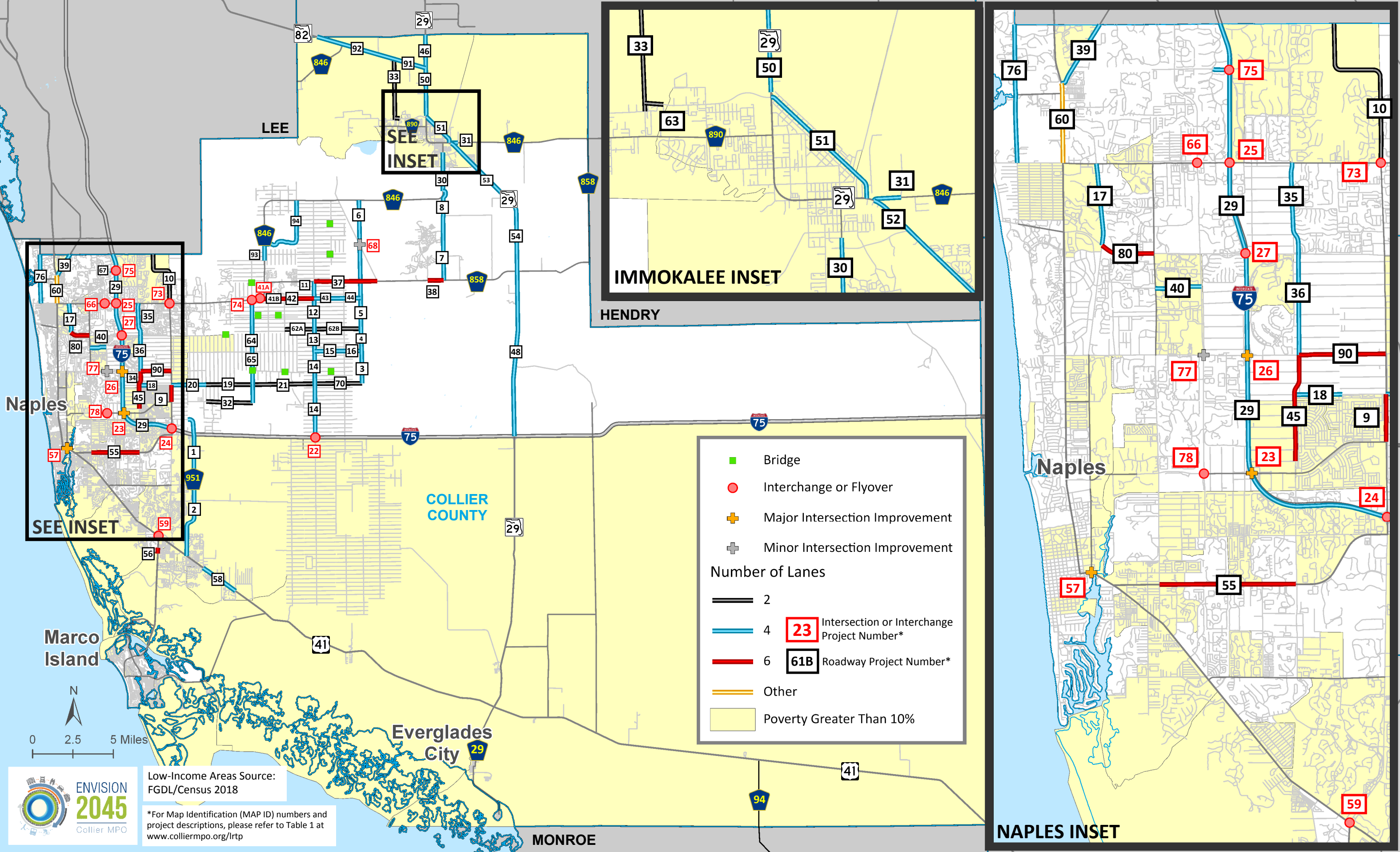


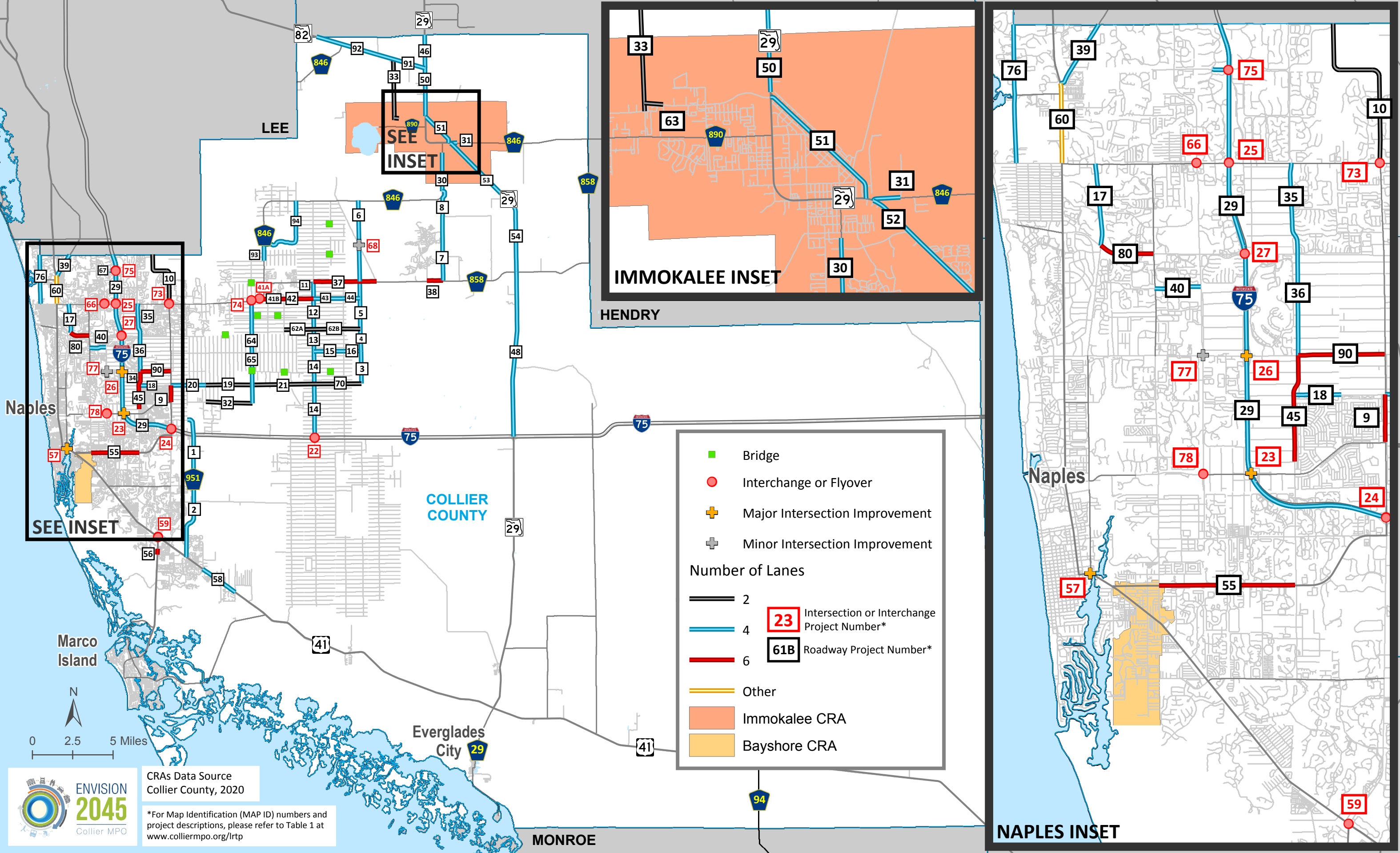








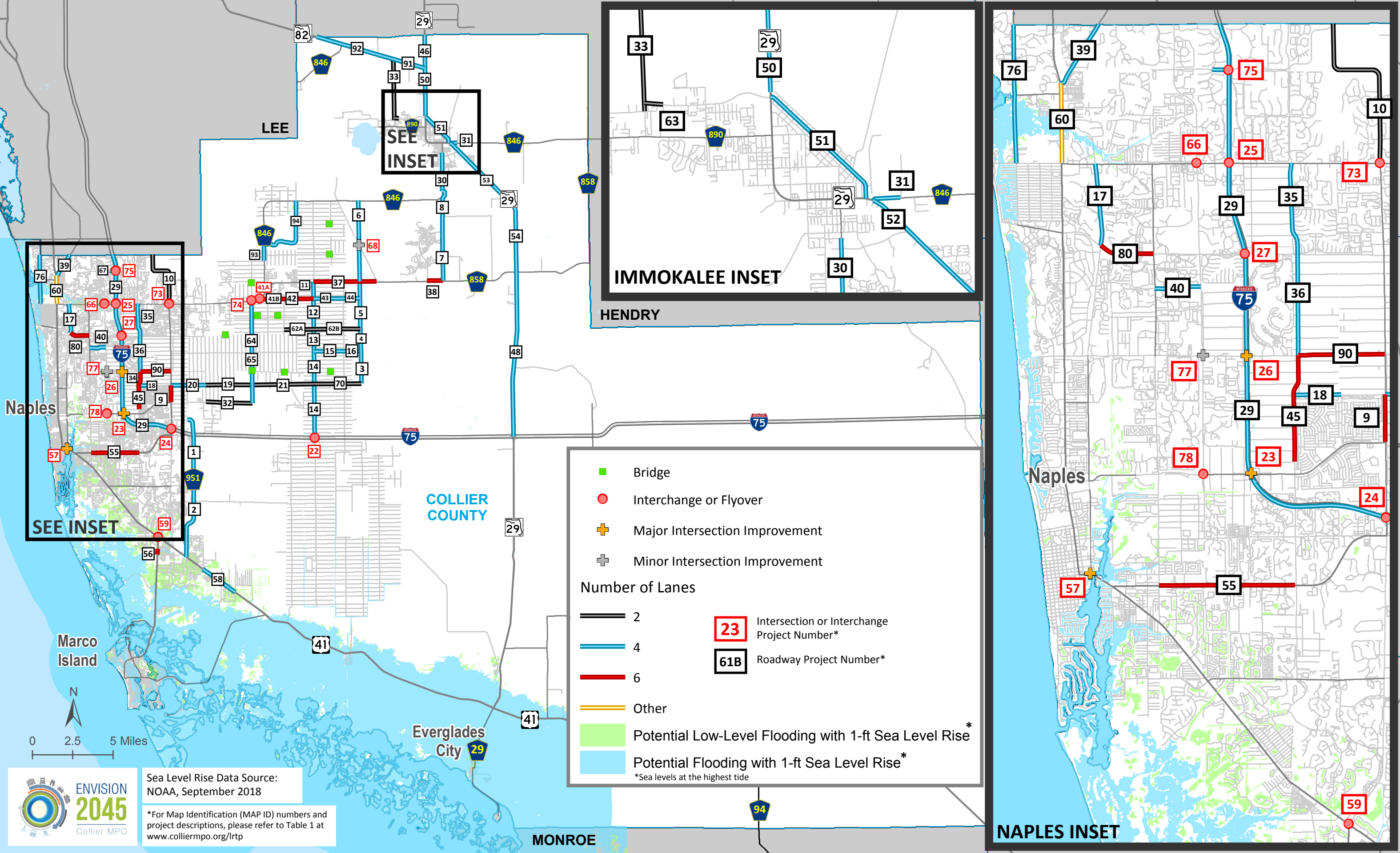




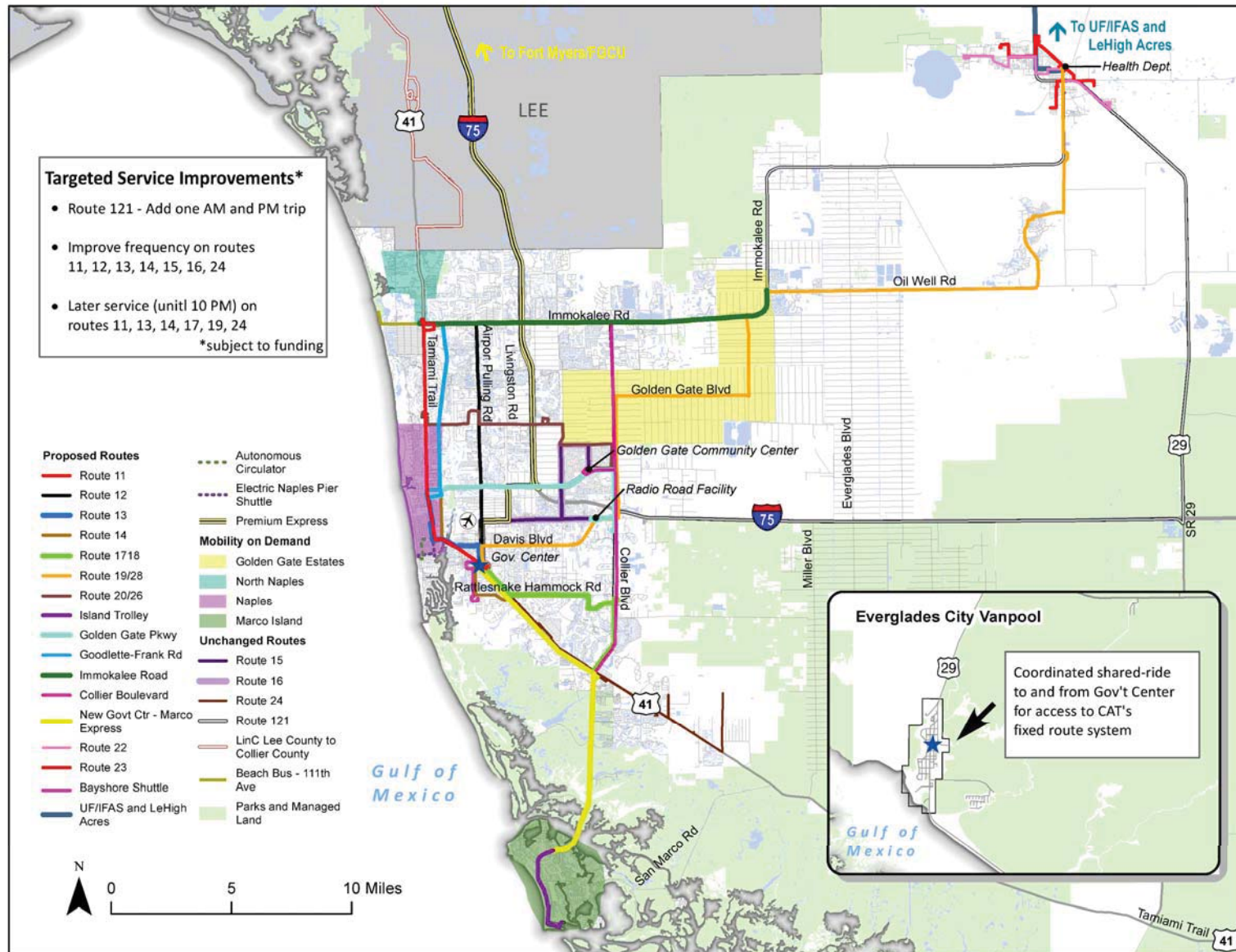
CRAs Data Source
Collier County, 2020

*For Map Identification (MAP ID) numbers and project descriptions, please refer to Table 1 at www.colliermpo.org/lrtp





New Network



Appendix B

Public Notice

<https://www.colliermopo.org/lrtp/>.

VIRTUAL PUBLIC MEETING IS SCHEDULED

DATE AND TIME: Wednesday, July 29, 2020 from 5:30 PM to 7:00 PM

Duration: 1 hour, 30 minutes

You are invited to participate in a Virtual Public Meeting

A public meeting is being conducted by Collier MPO to give interested persons an opportunity to express their views on the development and evaluation of the 2045 LRTP Draft Needs Assessment Plan for the transportation system needs in Collier County. The system needs is list of transportation projects assembled from public input, unfunded 2040 LRTP projects, and by analyzing the deficiencies in the system. The projects were evaluated using project evaluation criteria inspired by the LRTP Goals and Objectives. During the meeting, an information video, exhibits, and maps and other information will be available for review. This public meeting will be held remotely in accordance with recommendations from the CDC and Department of Health to avoid public gatherings when possible and practice social distancing.

To register to participate: [insert Virtual Public Meeting Link]

To register to attend via phone or email, please contact [insert name] at [insert phone] or [insert email].

Your Input is Important!

Your ideas and opinions are important to help build the vision for transportation in Collier County and inform the development of the 2045 LRTP.

During the virtual public meeting, there will be a pre-recorded video presentation and then representatives from Collier MPO and Collier County will respond to some of the comments submitted in advance of the meeting. Questions and comments may also be submitted during the meeting. The comment period for the Needs Assessment Plan will end August 19, 2020.

The 2045 LRTP Wikimapping Tool and Survey will be posted on the Collier MPO LRTP website at <https://www.colliermopo.org/lrtp/>.

Notifications:

Sign up to receive to be added to the project mailing list

Contact Us:

All interested parties are invited to attend, and to register to speak. All registered public speakers will be limited to three minutes. Visit [Insert Link] to register to speak at the public meeting prior to July 29, 2020 at 5:00 PM.

Anyone who requires an auxiliary aid or service for effective communication, or other reasonable accommodations to participate in this proceeding, should contact the Collier County Facilities Management Division, located at 3335 Tamiami Trail E., Suite 101, 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.

07/29/2020 @ 5:30 PM - Virtual Meeting Access: To access the virtual meeting click here to be directed to the GoTo Meeting website. As part of an ongoing initiative to promote social distancing during the COVID-19 pandemic, the public will have the opportunity to participate and provide public comments remotely. Individuals who would like to participate remotely, may register through the link [here](#).

Please join us for a Virtual Public Meeting

Help Shape the Future of Transportation in Collier County

Date: Wednesday, July 29, 2020

Time: 5:30 p.m. to 7:00 p.m.

[Click Here to Register!](#)

The Collier Metropolitan Planning Organization (MPO) is hosting a virtual public meeting to present information on its 2045 Long Range Transportation Plan (LRTP). The LRTP will identify and address future transportation needs through 2045.

The meeting will provide an overview of the 2045 LRTP Needs Plan. The Needs Plan includes a list of transportation projects assembled from public input and unfunded 2040 LRTP projects, and by analyzing the deficiencies in the system. The projects were evaluated using project evaluation criteria inspired by the LRTP Goals and Objectives.

How You Can Get Involved

Please submit your questions or comments prior to the meeting by:

- Using the online comment form [here](#)
- Emailing your comments to colliermmpo@colliergov.net

You may also submit a comment during the meeting.

The virtual public meeting will begin with a pre-recorded video presentation, and then representatives from Collier MPO and Collier County will be available for a live discussion. Comments submitted both prior to and during the virtual meeting will be addressed as time allows.



About the Virtual Public Meeting

Meeting materials will be available online prior to the meeting at www.colliermmpo.org/lrtp. All registrants will receive an email when the meeting materials are available and a link to the virtual public meeting.

You may register for the meeting online [here](#), or by phone (239) 252-5859, or by email colliermmpo@colliergov.net



Contact Information

If you would like additional information or to be added to the mailing list, please visit our website at www.colliermmpo.org/lrtp

Brandy Otero, Principal Planner

Collier MPO

2885 South Horseshoe Drive, Naples, FL 34104

Phone: (239) 252-5859

Email: colliermmpo@colliergov.net

Un traductor del idioma español está disponible en la oficina de MPO.

Teléfono: (239) 252-5814

Gen yon tradiktè Kreyòl Ayisyen ki disponib nan biwo MPO la.

Telefòn: (239) 252-5884

Anyone requiring special accommodation under the Americans with Disabilities Act or language interpretation services (free of charge) should contact Anne McLaughlin at least ten (10) days prior to the service date:



Anne.McLaughlin@colliercountyfl.gov or by phone (239) 252-5884.

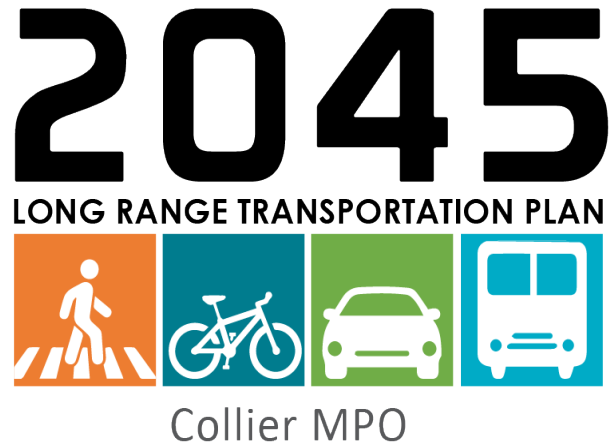



Social Media Calendar

July 2020						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22  	23	24	25
26	27	28  	29 Public Meeting  	30	31	

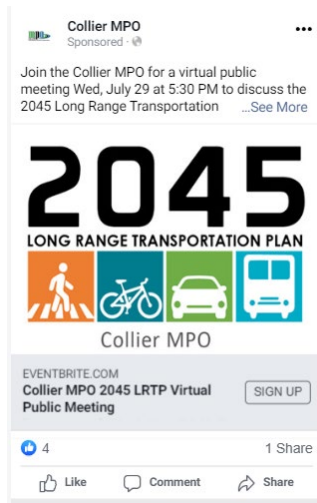
Social Media Posts

Date/Time	App	Post
<p>Wednesday, July 22, 2020 @ 1:00 PM</p>	<p>Twitter Facebook</p>	 <p>Help Shape the FUTURE of Transportation in COLLIER COUNTY</p> <p>Join the Collier MPO for a virtual public meeting July 29 to discuss the 2045 Long Range Transportation Plan. Your input is important to help build the vision for transportation in Collier County. Register Today!</p>
<p>Tuesday, July 28, 2020 @ 1:00 PM</p>	<p>Twitter Facebook</p>	<p>Learn more about the Collier MPO 2045 Long Range Transportation Plan. Join TOMORROW's virtual public meeting – Wed, July 29 at 5:30 PM. Register Today!</p>  <p>ENVISION VISUALIZAR ANVIZAJE 2045 Collier MPO</p>

<p>Wednesday, July 29, 2020 @ 1:00 PM</p>	<p>Twitter Facebook</p>	<p>Happening TODAY! Collier MPO is hosting a virtual public meeting on its 2045 Long Range Transportation Plan (LRTP). Get involved in the future of transportation in Collier County by joining today at 5:30 PM. Register Now!</p> <div>  <p>2045 LONG RANGE TRANSPORTATION PLAN</p> <p>Collier MPO</p> </div>
<p>Ongoing</p>	<p>Facebook Ad</p> <p>Account Name: Collier MPO</p> <p>Password: LRTP2020</p>	<div>  <p>2045 LONG RANGE TRANSPORTATION PLAN</p> <p>Collier MPO</p> </div> <p>Join the Collier MPO for a virtual public meeting Wed, July 29 at 5:30 PM to discuss the 2045 Long Range Transportation Plan. Your input is important to help build the vision for transportation in Collier County. Register Today!</p>

Facebook and Instagram Advertisement

Advertisement



Performance

- Live: July 21, 2020 – July 28, 2020
- 32,264 people reached
 - Facebook: 25,272
 - Instagram: 8,789
- Link Clicks: 41

Cost: **\$64.37**

Potential Social Media Outlets

Group	Number of Followers	Social Media Contact	Reason for Outreach	Status
Collier County				

Group	Number of Followers	Social Media Contact	Reason for Outreach	Status
Collier County Public School District	12,469	Leanne Zinser-Communications Director 239-377-0180 Communications@collierschools.com	Outreach to a broad group of Collier County citizens, particularly those with children.	Called on 7/21/20 - Send invite via email and they will determine if they post or not. Sent social media content (7/23)
Collier County Public Library	2,400	Rose LaBarge-Marketing, Senior Librarian 239-252-7311 Rosemary.labarge@colliercountyfl.gov	Outreach to a broad group of Collier County citizens.	Called on 7/21/20 – No one answered; Left voice message. Returned call; does not post anything unless is public library info related.
Collier County Parks & Recreation FB	12,280	239-252- 6956 Daniel Christianbury museums@colliergov.net	Outreach to a broad group of Collier County citizens.	Called on 7/21/20 – No one answered; Left voice message.

Group	Number of Followers	Social Media Contact	Reason for Outreach	Status
Collier County Museums FB	3,500	239-252- 6956 Daniel Christianbury museums@colliergov.net	They have 5 museums in Collier County and appeal to a broad range of audiences	Called on 7/21/20 – No one answered; Left voice message.
Municipalities				
City of Naples FB	5,406	Monique Barnhart mbarnhart@naplesgov.com 239-213-1000	Outreach to citizens in Naples	Called on 7/21/20 - Send invite via email and they will determine if they post or not. Sent social media content (7/23)
City of Marco Island Twitter/Facebook Page	3,395	Social Media Contact 239-389-5000 Casey Lucius clucius@cityofmarcoisland.com	Outreach to citizens in Marco Island	Called on 7/21/20 - Send invite via email and they will post. Sent social media content (7/23)
Everglades City FB	1,267	City Clerk (not sure who runs FB page) 239-695-4558	Outreach to citizens in Everglades City	Called on 7/21/20 – No one answered; Left voice message.

Group	Number of Followers	Social Media Contact	Reason for Outreach	Status
Community				
Go-CAT FB Followers	703	CAT Admin office/FB Contact 239-252-7777	Outreach to potentially transit-dependent or low-income population	Elena Ortiz Called on 7/21/20.
Pelican Bay FB	1959	Pelican Bay Staff 239-597-8081	Outreach to North Naples	Amanda Emory Called on 7/21/20 – She said no.
Immokalee Bulletin FB	1,780	Dale Conyers-News & Advertising Services dconyers@newszap.com	Newspaper that serves northeastern Collier County, particularly Immokalee residents.	
Environmental Justice				
First Haitian Baptist Church of Naples FB	140	239-417-5100	Outreach to Haitian community	Called on 7/21/20 – No one answered; Left voice message.
Collier Child Care Resources, Inc.	2,900	Suzette Smith 239-643-3908 Suzettes@collierchildcare.org	A private, non-profit organization that focuses on the education of young children and preparing teachers, through professional	Called on 7/21/20 – Child care is closed due to COVID-19; still

Group	Number of Followers	Social Media Contact	Reason for Outreach	Status
			development services, that work with children ages 0-5. They have four different programs in Collier County since 2008.	left voice message.
Coalition of Immokalee Workers	21,706	239-657-8311 workers@ciw-online.org	Nonprofit community organization; reach out to low-income/agricultural population	natali@ciw-online.org Called on 7/21/20 – Send invite via email and they will post. Sent social media content (7/23)
Immokalee Foundation FB	1,485	239-430-9122 Fiona.mcleod@immokaleefoundation.org	Founded in 1991. Operates programs serving Immokalee's students from kindergarten to career.	Called on 7/21/20 – No one answered; Left voice message. Returned call. Send info to Fiona Mcleod and she will forward to the right person and determine if they post or not.

Group	Number of Followers	Social Media Contact	Reason for Outreach	Status
				Sent social media content (7/23)
Naples Haitian Church of Nazarene	143	239-793-0003	Outreach to Haitian community	Called on 7/21/20 – Mailbox is full; couldn't leave voice message.
Publications				
Naples Daily News FB	97,375	239-213-6000	Outreach to a broad group of Collier County citizens and possibly to those that commute	Called 3 times on 7/21/20 – No one picks up nor can I leave a voice message.
Florida Weekly (Naples Edition)	9,985	239-325-1960 Megan Roberts mroberts@floridaweekly.com	Outreach to a broad group of Collier County citizens and possibly to those that commute	Called on 7/21/20 - Send invite via email and they will determine if they post or not. Sent social media content (7/23)

Group	Number of Followers	Social Media Contact	Reason for Outreach	Status
News Press (Ft Myers)	118,474	239-335-0200	Outreach to a broad group that possibly commutes to Collier County	Called on 7/21/20 – Called 3 times; couldn't get through.
Haiti News FB Page	4,021	239-400-3333 Fgaston77@gmail.com	Outreach to Haitian community	Called on 7/21/20 - Send invite via email and they will post. Sent social media content (7/23)
Vista Semanal FB	833	239-263-4785	Weekly newspaper that serves the South Florida Hispanic community	Called on 7/21/20 – No one answered; Left voice message.
Immokalee Bulletin FB	1,780	Dale Conyers-News & Advertising Services dconyers@newszap.com	Newspaper that serves northeastern Collier County, particularly Immokalee residents.	
Other				
Downtown Naples		https://www.naplesdowntown.com/home.htm Email Addresses:		No social media presence

Group	Number of Followers	Social Media Contact	Reason for Outreach	Status
		General Email: moreinfo@cyberisle.com Bob Bailey Email: bobb@cyberisle.com Patti Bailey-Design Email: patti@cyberisle.com		
ACE Adult and Community Education				
El Mensajero de SWFL		https://www.facebook.com/elmensajeroGG http://www.elmensajerodeswfl.com/en#about-us		Sent email from website contact information. 7/23
Nuevos Ecos				
Golden Gate Estates Area Civic Association		Golden Gate Civic Association 4701 Golden Gate Parkway Golden Gate, FL 34116 Email: secretary@goldengateisgreat.com		Requested on 7/23



News Media Contact:

Anne McLaughlin
MPO Executive
Director
239-252-5884
Colliermpo.org

2885 S. Horseshoe Drive, Naples, Florida 34104 • (239) 252-5814 • Fax (239) 252-5815

July 22, 2020

FOR IMMEDIATE RELEASE

Notice of Virtual Public Meeting
Collier Metropolitan Planning Organization (MPO)
2045 Long Range Transportation Plan – Needs Plan

Wednesday, July 29, 2020
5:30 p.m. to 7:00 p.m.

Notice is hereby given that the Collier Metropolitan Planning Organization (MPO) will hold a virtual public meeting on the 2045 Long Range Transportation Plan – Needs Plan beginning at 5:30 p.m. on Wednesday, July 29, 2020. The public may attend electronically. To register, visit <https://www.eventbrite.com/e/collier-mpo-2045-lrtp-virtual-public-meeting-tickets-113397805890> prior to July 29, 2020 at 5:00 P.M. The meeting exhibits are posted and may be viewed on the Collier MPO website at <https://www.colliermpo.org/lrtp/>

This public meeting will be held remotely in accordance with the Governor's Executive Order Number 20-150 (Emergency Management – COVID-19 – Local Government Public Meetings extending Executive Order 20-19). One or more members of the Collier MPO Board, the County Board of County Commissioners, Naples City Council, Marco Island City Council, Everglades City Council and the Florida Department of Transportation (FDOT) may be present and may participate in the meeting. The subject matter of this meeting will be an item for discussion and action at a future Collier MPO board meeting.

The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and related statutes. The MPO's Civil Rights policy and procedures can be viewed at <https://www.colliermpo.org/get-involved/civil-rights/>. Any person or beneficiary who believes that he or she has been discriminated against as part of the MPO planning process because of race, color, religion, sex, age, national origin, disability or familial status may file a complaint with the MPO by calling MPO Executive Director Anne McLaughlin or by writing to Ms. McLaughlin at 2885 S. Horseshoe Drive, Naples, Florida 34104.

Any person requiring auxiliary aid or service for effective communication, language translation services, or other reasonable accommodations to participate in the meeting, as well as anyone with general questions, should contact Ms. McLaughlin at least 72 hours prior to the meeting by calling 239-252-5884.

###

STATE OF FLORIDA

OFFICE OF THE GOVERNOR EXECUTIVE ORDER NUMBER 20-193

(Amending Executive Order 20-179)

WHEREAS, on March 9, 2020, I issued Executive Order 20-52 declaring a state of emergency for the entire State of Florida due to COVID-19; and

WHEREAS, Executive Order 20-69, as amended by Executive Order 20-179, requires amendment to provide local government bodies with additional time to notice their meetings.

NOW, THEREFORE, I, RON DESANTIS, as Governor of Florida, by virtue of the authority vested in me by Article IV, Section (1)(a) of the Florida Constitution, Chapter 252, Florida Statutes, and all other applicable laws, promulgate the following Executive Order to take immediate effect:

Section 1.

Section 3. of Executive Order 20-179 is amended to read, as follows:

Except as amended herein, I hereby extend Executive Order 20-69, as extended by Executive Orders 20-112, 20-123, 20-139 and 20-150, until 12:01 a.m. on October 1, 2020.



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Florida to be affixed, at Tallahassee, this 7th day of August, 2020.


RON DESANTIS, GOVERNOR

ATTEST:


SECRETARY OF STATE

DEPARTMENT OF STATE
TALLAHASSEE, FLORIDA

2020 AUG - 7 PM 4:32

FILED

Appendix C

Registration & Attendance

Eventbrite Registration

Registration Page

2045
LONG RANGE TRANSPORTATION PLAN

Collier MPO

JUL 29

Collier MPO 2045 LRTP Virtual Public Meeting
by Collier MPO [Follow](#)

Free

Sales Ended [Details](#)

Please join us for the Collier MPO 2045 LRTP Virtual Public Meeting

About this Event

The Collier Metropolitan Planning Organization (MPO) is currently updating its Long Range Transportation Plan (LRTP) for 2045 and is hosting a virtual public meeting to present information on the Plan update. The virtual meeting will provide an overview of the LRTP update process, as well as the evaluation of the 2045 LRTP Draft Needs Assessment Plan for the transportation system needs in Collier County.

This public meeting will be held virtually in accordance with recommendations from the CDC and Department of Health to avoid public gatherings when possible and to practice social distancing.

Your ideas and opinions are important to help us build the vision for transportation in Collier County and inform the development of the 2045 LRTP. Prior to the meeting, all meeting materials will be available on the Collier MPO website. We will inform all registrants via email when the meeting materials are available along with a link to the virtual meeting. The virtual public meeting will begin with a pre-recorded video presentation, and then representatives from Collier MPO and Collier County will be available for a live Q&A. Comments submitted both prior to and during the virtual meeting will be addressed as time allows. We encourage you to submit your question or comment prior to the meeting using the comment form provided below. *Comments for the 2045 LRTP Draft Needs Assessment Plan will be accepted until August 12, 2020.*

Comment Form: <https://www.colliermopo.org/electronic-comment-form-general/>

For additional information about the 2045 LRTP update:
Email: colliermopo@colliergov.net
Phone: 239-252-5859
Visit: <https://www.colliermopo.org/lrtp/>

We look forward to your comments, questions and participation at our 2045 LRTP Virtual Public Meeting.

Date And Time
Wed, July 29, 2020
4:30 PM - 6:00 PM CDT
[Add to Calendar](#)

Location
Online Event

Link: <https://www.eventbrite.com/e/collier-mpo-2045-lrtp-virtual-public-meeting-tickets-113397805890#>

Registration Summary

- Tickets Sold – 44
- Page Views – 438

Attendee Report

Order #	Order Date	First Name	Last Name	Email
1395617796	2020-07-14	Megan	Shimko	megan.shimko@jacobs.com
1395617824	2020-07-14	Colleen	Ross	colleen.ross@jacobs.com
1396181448	2020-07-15	Brandy	Otero	brandy.otero@colliercountyfl.gov
1396244050	2020-07-15	Anne	McLaughlin	anne.mclaughlin@colliercountyfl.gov
1396704654	2020-07-15	luis	melo	solidworkproperties@gmail.com

Order #	Order Date	First Name	Last Name	Email
1396728152	2020-07-15	Debrah	Forester	debrah.forester@colliercountyfl.gov
1396732688	2020-07-15	Micael	Seef	mdslogistics@aol.com
1397208490	2020-07-16	Meredith	Budd	meredithb@fwfonline.org
1397292880	2020-07-16	michele	mosca	michele6060@yahoo.com
1397619530	2020-07-16	Andrea	Halman	andean09@me.com
1397630880	2020-07-16	Fred	Sasser	crdx@sprynet.com
1397675142	2020-07-16	Paul	Perry	paul.perry5@icloud.com
1397685632	2020-07-16	Gladys	Delgadillo	gladysd@conservancy.org
1397708400	2020-07-16	Commissioner Penny	Taylor	penny.taylor@colliercountyfl.gov
1397740092	2020-07-16	Michelle	Arnold	Michelle.Arnold@colliercountyfl.gov
1397929548	2020-07-16	bowen	broock	broockies@gmail.com
1398435780	2020-07-17	Anne	Condon	amm.gsc@gmail.com
1398479950	2020-07-17	Michelle	avola	michelle@naplespathways.org
1398497086	2020-07-17	Chris	Rozansky	crozansky@flynaples.com
1398830538	2020-07-17	Michael	McGrath	michael.mcgrath@sierraclub.org
1399340856	2020-07-18	Susan	Sonnenschein	sonnenscheinsusan@yahoo.com
1400698450	2020-07-20	Brad	Cornell	bcornell@audubonWE.org
1400790350	2020-07-20	Ada	Vargas	ada.vargas@jacobs.com
1402339494	2020-07-21	Isrrael	Pena	isrrael_pena_jr@yahoo.com
1403201792	2020-07-22	Kyle	Fritsch	robotvs.gorilla@gmail.com
1403683240	2020-07-23	Dianna	Dohm	dianna@marcoislandchamber.org
1403915562	2020-07-23	Kim	Jacob	kimjacobfl01@gmail.com
1404760836	2020-07-24	Leah	Watson	Leah.Watson@apdcares.org
1406305724	2020-07-26	Kari	Hodgson	kari.hodgson@colliercountyfl.gov
1408152660	2020-07-28	Amelia	Vasquez	amelia@cbia.net
1408224690	2020-07-28	Dayna	Fendrick	dayna@urbangreenstudio.com
1408482698	2020-07-28	Candice	Smith	candicemariesmith@gmail.com
1408765174	2020-07-29	Josephine	Medina	josephine.medina@colliercountyfl.gov
1408855404	2020-07-29	Christie	Betancourt	Christie.Betancourt@colliercountyfl.gov
1408915358	2020-07-29	William	McDaniel	bill.mcdaniel@colliercountyfl.gov
1409013088	2020-07-29	Laura	Novosad	LauraNovosad4HD80@gmail.com
1409058050	2020-07-29	Donald	Scott	dscott@leempo.com
1409127780	2020-07-29	Frank	Nappo	fnnaples1@gmail.com
1409267168	2020-07-29	Joan	Garner	buccaneers48to21@yahoo.com
1409277564	2020-07-29	andrea	halman	andean09@me.com
1409283906	2020-07-29	Andrea	Halman	andean09@me.com
1409285762	2020-07-29	Kelly	Andrew	kellyandrew49@gmail.com
1409287548	2020-07-29	Debrah	Forester	debrah.forester@colliercountyfl.gov
1409290726	2020-07-29	Nathan	Lunsford	nathan.lunsford@jacobs.com

Participant ID	Full Name	UTC Event Timestamp	Action	Role
Ada.Vargas@jacobs.com Mary.Ross@dot.state.fl.us Robert.Grubel@jacobs.com carla.mykytiuk@jacobs.com Fsasser@sasser.com	Ada Vargas Mary Ross Robert Grubel Carla Mykytiuk Fred Sasser	7/29/2020 9:21:34 PM	Joined	Attendee
		7/29/2020 9:24:28 PM	Joined	Attendee
		7/29/2020 9:25:46 PM	Joined	Attendee
		7/29/2020 9:26:27 PM	Joined	Attendee
		7/29/2020 9:27:14 PM	Joined	Attendee
dscott@Leempo.com	Don Scott	7/29/2020 9:28:28 PM	Joined	Attendee
		7/29/2020 9:28:53 PM	Joined	Attendee
		7/29/2020 9:29:35 PM	Joined	Attendee
		7/29/2020 9:30:55 PM	Joined	Attendee
		7/29/2020 9:31:01 PM	Joined	Attendee
Emma@cbia.net	Emma Cordova	7/29/2020 9:31:23 PM	Joined	Attendee
		7/29/2020 9:32:50 PM	Joined	Attendee
		7/29/2020 9:33:21 PM	Joined	Attendee
		7/29/2020 9:33:35 PM	Joined	Attendee
		7/29/2020 9:35:57 PM	Joined	Attendee
dayna@urbangreenstudio.com pperry@naplesgov.com	dayna urbangreenstudio.com Paul Perry	7/29/2020 9:37:14 PM	Joined	Attendee
		7/29/2020 9:38:14 PM	Joined	Attendee
		7/29/2020 9:42:38 PM	Joined	Attendee
		7/29/2020 9:47:07 PM	Joined	Attendee
		7/29/2020 9:51:12 PM	Joined	Attendee
Colleen.Ross@jacobs.com 0414638085@FEMA.DHS.GOV	Colleen Ross Carla Mykytiuk	7/29/2020 10:07:42 PM	Joined	Attendee
		7/29/2020 10:09:40 PM	Joined	Attendee
		7/29/2020 10:11:34 PM	Joined	Attendee
		7/29/2020 10:34:19 PM	Joined	Attendee

Appendix D

Comments



COMMENT FORM

[Share](#) [Print](#) [Feedback](#)

The Collier Metropolitan Planning Organization (MPO) encourages comments. Help us shape Collier County's transportation future by providing your thoughts and comments in the space below.

Name

Organization

Address

City

State

Zip

Telephone Number (Including Area Code)

Area

Phone

Fax Number (Including Area Code)

Area

Phone

Email Address

Comments: *

Submit

Reset

FOR ADDITIONAL INFORMATION PLEASE CONTACT US AT:


Collier Metropolitan Planning Organization
2885 South Horseshoe Drive
Naples, Florida 34104
Phone: (239) 252-8192

Eventbrite Registration

Registration Page

2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

JUL 29

Collier MPO 2045 LRTP Virtual Public Meeting

by Collier MPO [Follow](#)

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Please join us for the Collier MPO 2045 LRTP Virtual Public Meeting

About this Event

The Collier Metropolitan Planning Organization (MPO) is currently updating its Long Range Transportation Plan (LRTP) for 2045 and is hosting a virtual public meeting to present information on the Plan update. The virtual meeting will provide an overview of the LRTP update process, as well as the evaluation of the 2045 LRTP Draft Needs Assessment Plan for the transportation system needs in Collier County.

This public meeting will be held virtually in accordance with recommendations from the CDC and Department of Health to avoid public gatherings when possible and to practice social distancing.

Your ideas and opinions are important to help us build the vision for transportation in Collier County and inform the development of the 2045 LRTP. Prior to the meeting, all meeting materials will be available on the Collier MPO website. We will inform all registrants via email when the meeting materials are available along with a link to the virtual meeting. The virtual public meeting will begin with a pre-recorded video presentation, and then representatives from Collier MPO and Collier County will be available for a live Q&A. Comments submitted both prior to and during the virtual meeting will be addressed as time allows. We encourage you to submit your question or comment prior to the meeting using the comment form provided below. *Comments for the 2045 LRTP Draft Needs Assessment Plan will be accepted until August 12, 2020.*

Comment Form: <https://www.colliermmpo.org/electronic-comment-form-general/>

For additional information about the 2045 LRTP update:

Email: colliermmpo@colliergov.net

Phone: 239-252-5859

Visit: <https://www.colliermmpo.org/lrtp/>

We look forward to your comments, questions and participation at our 2045 LRTP Virtual Public Meeting.

Date And Time

Wed, July 29, 2020
4:30 PM - 6:00 PM CDT
[Add to Calendar](#)

Location

Online Event

Meeting Comments/Questions

Source	Type	Identity	Timestamp	Content
Attendee	Question	Anonymous (Unverified)	7/29/2020 21:46	will you be using the new census as a basis for population projections? how will you proceed via TAZ populations?
Attendee	Question	Anonymous (Unverified)	7/29/2020 21:48	will these projects began in 2045 or will they began from now until 2045. is 2045 the start date or end date.
Attendee	Question	andrea halman (Unverified)	7/29/2020 21:50	is 2045 the begin date or end date.
Attendee	Question	Anonymous (Unverified)	7/29/2020 21:52	How does the MPO account for new technologies such as autonomous vehicles or computer assisted traffic flow or even hyperloop freight?
Attendee	Question	Anonymous (Unverified)	7/29/2020 21:54	Please clarify - are comments being collected on the Needs Plan or the Cost Feasible Plan?
Attendee	Question	Anonymous (Unverified)	7/29/2020 21:56	What are you doing to address the reduction in funding projections due to Covid impacts to the economy?
Attendee	Question	Anonymous (Unverified)	7/29/2020 21:59	How is transit improved (larger area, more frequent stops) when residential density is too low? Subsidy seems needed.
Attendee	Question	andrea halman (Unverified)	7/29/2020 22:00	there are numerous needs in immokalee. how will decisions be made as to where to begin
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:04	What is the I-75 managed lanes project and when is that planned to happen?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:06	Is the MPO interested in FDOT's opportunity to restore OK Slough water flows under SR29 into Fla Panther Refuge as they widen SR29 to four lanes soon?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:12	What do you mean by SR 29 being widened soon and what section are you talking about? Historically in Collier County, we have a low-density growth pattern, which leads to a lack of connectivity and 6-lane, high speed arterial roadways, which are not bike or pedestrian-friendly.
Attendee	Question	Dayna Fendrick (Unverified)	7/29/2020 22:17	How can the LRTP address the connection between land use and the transportation network in the eastern growth area of the County to encourage more smart growth and walkable private development pattern?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:18	Does the Efficient Transport Decision Making process affect the LRTP?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:20	Does the County's Master Mobility Plan get considered in LRTP? Historically in Collier County, we have a low-density growth pattern, which leads to a lack of connectivity and 6-lane, high speed arterial roadways, which are not bike or pedestrian-friendly.
Attendee	Question	Dayna Fendrick (Unverified)	7/29/2020 22:27	How can the LRTP address the connection between land use and the transportation network in the eastern growth area of the County to encourage more smart growth and walkable private development pattern?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:29	Bill-how can urban coastal area roads be protected as sea level rise and storms are worsened? How will financing applied?
Attendee	Question	Dayna Fendrick (Unverified)	7/29/2020 22:32	Goal 10 language reads "avoid making investments in Hi -risk areas" - would that mean the coastal areas would not receive assistance with resiliency improvements? It seems to be at odds with the Table 1 scoring criteria for the same issue.

Attendee	Question	Anonymous (Unverified)	7/29/2020 22:35	With a storm potentially coming this weekend, how does the LRTP address facilities for hurricane evacuation?
Attendee	Question	Dayna Fendrick (Unverified)	7/29/2020 22:41	How does the LRTP intersect w/ the MCORES toll roads in terms of location and process?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:42	Great presentation and discussion, very informative.
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:42	Is the LRTP taking into consideration the possible development of M-CORES?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:42	When are the TDP meetings scheduled?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:43	I will be submitting written separate comments. But, I do hope to see the MPO and County move toward proactive planning for mitigation of federal impacts to listed species, such as a public project Habitat Conservation Plan under the Endangered Species Act. That gives a more affordable and effective result.
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:44	I would like Collier to be more walkable. Unfortunately, most of the sidewalks in my neighborhood are flooded in the rainy season so I have to walk in the street and don't feel safe.
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:46	What precautions are being taken into consideration to limit roadside collisions for wildlife such as the FL panther? Can you clarify if there are any projects that would go through primary and secondary panther habitat?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:48	Next M Cores meeting is August 25th.
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:54	Are there any projects that might bring more public transit options for residents such as light rail, buses, and the like and that would improve urban and rural connectivity?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:54	Is there a quick train ride I can take from Naples to Fort Myers, esp with a stop at the airport?
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:55	What are the train hours? If this doesn't exist, is it something you're looking into? It would be great to have a nice train with wifi.
Attendee	Question	Anonymous (Unverified)	7/29/2020 22:55	I will be submitting written separate comments. But, I do hope to see the MPO and County move toward proactive planning for mitigation of federal impacts to listed species, such as a public project Habitat Conservation Plan under the Endangered Species Act. That gives a more affordable and effective result.



Collier MPO 2045 LRTP

Needs Assessment Survey Summaries

Date: Monday, September 28, 2020

As a part of the public input activities undertaken during the 2045 LRTP Needs Assessment phase, two interactive surveys were disseminated through the MPO's website. The first survey consisted of a set of four simple questions that aided the MPO in identifying the key needs of the community. The second survey was conducted through an interactive map that allowed for providing comments to specific projects. Both surveys were open for public comments between July 22, 2020 and September 14, 2020. The following is a summary of the survey results.

Survey Questionnaire

The survey questionnaire focused on identifying survey respondent origins and destinations (where they live and work), and understanding the community's top desired outcomes of future transportation investment in Collier County. Origin and destination questions were based on zip code. The survey allowed respondents to choose multiple desired outcomes. The desired outcomes covered elements related to enhancing safety, bicycle and pedestrian connectivity, transit options, and vehicle travel. The following image depicts the survey interface that the community used to select their desired outcomes.

Survey

Please take a minute to share more about your priorities for the project.

Are there any projects not shown that you would like to see built?

What are your top three desired outcomes as a result of transportation investments in Collier County? (select three)

- ☐ More affordable travel options
- ☐ Improved walkable connections to your neighbors
- ☐ More frequent bus service
- ☐ Easier access to neighborhood destinations, like schools and parks
- ☐ More bus service to more places in Collier County
- ☐ More reliable travel times
- ☐ Lower stress, more comfortable bicycle network
- ☐ Lower stress, more comfortable pedestrian network
- ☐ Easier access to regional destinations, like work or the beaches
- ☐ Shaded bicycle and pedestrian pathways
- ☐ Reduced flooding on roadways
- ☐ Safer and more comfortable to cross streets

What is your zipcode where you live?

What is your zipcode where you work?

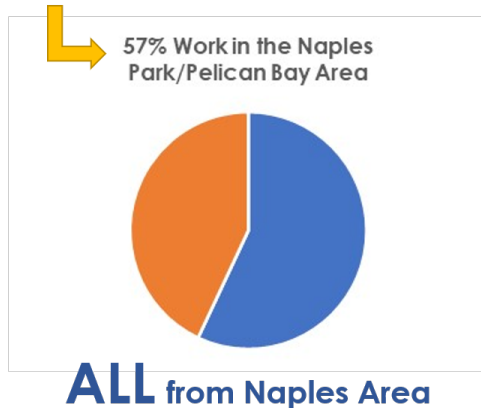
Submit [Cancel](#)

During the time the public survey was open, **26 survey responses were received**. All responses were from the Naples area, the most populous area of the County. Key findings from the survey responses include:

- Approximately 42% of respondents voted for reduced flooding as a desired outcome of transportation public investment allocation. A close second was the desire for more reliable travel times.
- Survey respondents also chose safer bike and pedestrian networks high on their desired outcomes' list.
- Safer and more convenient access to local and regional destinations received equal votes (7 votes each). More specifically, easier access to regional destinations, improved neighborhood walkable connections, and safer street crossings received the same number of votes.
- Shaded bike and pedestrian pathways and more affordable travel options were also selected by some survey respondents (6 votes each).

- Some respondents voted for easier access to neighborhood destinations, like schools and parks (5 votes), more bus service to more places in Collier County (4 votes), and more frequent bus service (3 votes).

26 Total Responses



What are your top three desired outcomes as a result of transportation investments in Collier County?

# of Votes	Top Desired Outcome
11	Reduced flooding on roadways
10	More reliable travel times
8 -9	Lower stress, more comfortable pedestrian & bike networks

On-line Map

In addition to the 4-question survey, the public input process included an interactive on-line/web map component that allowed the community to provide input on specific projects on a map of Collier County. These projects were identified through the LRTP's Needs Assessment process. The input received through this process will help inform the next phase of the LRTP, the Cost Feasible phase. The projects on the map were categorized as either an "intersection" or a "bridge" project.

Participants were able to either "like" or "dislike" a particular project, and also provide specific comments to each project. **A total of 88 responses were received.** Key findings from the on-line map input are noted below:

- Projects along Immokalee Road, particularly near the I-75 Interchange, received the most "likes" or community support. Related community support highlighted congestion issues along the corridor that needed to be addressed.
- In contrast, the proposed improvements near I-75 and Everglades Boulevard received relatively significant disapproval. The improvement is perceived to negatively impact the Florida Panther National Wildlife environment in that area.
- Some projects received equal support and disapproval, such as the intersection improvements at Tamiami Trail/SR 41 and Collier Boulevard, I-75 interchange improvements at Golden Gate Parkway, and the improvements along Oil Well Grade Road.

The following map is an image of the online interactive map that captured the comments and community support and disapproval indications. Bridge-related projects are depicted by the green symbol, and intersection-related projects are shown in orange and auburn icons. Orange icons represent intersection projects that did not receive any comments, but may have received "likes" or "dislikes". Auburn icons represent intersection projects that have received comments. All bridge projects received the same comment; which is that *"All bridge projects should incorporate a bridge shelf structure to act as a panther underpass"*. The comments received on all projects are summarized on the map in a callout format.

The blue numbers on the map represent the unique survey responses that approved (liked) a particular project, and the red numbers represent instances where the community conveyed disapproval (dislikes) of the project. Generally, the intersection projects along major corridors that cross I-75 received at least partial, if not full support. Some of the bridge projects east of I-75 and south of Immokalee Road received support.

Collier Metropolitan Planning Organization Long Range Transportation Plan

Comments Received through the Online Map and Public Survey

"Improve Immokalee Rd congestion"

"Reduce Immokalee Rd congestion"

"Dislike as Vanderbilt Beach Rd is the best road to get across the County without several lights."

"Pine Ridge is backing up at 4 pm very badly. Need to move traffic east while still allowing NS traffic to cross it."

"Traffic flow backs up in this area"






"This intersection needs improvement. In season it is now taking 4-5 lights to get from Davis and 41 to Goodlette Frank. Need more access from 41E to Goodlette Frank- maybe a permanent turn lane?"

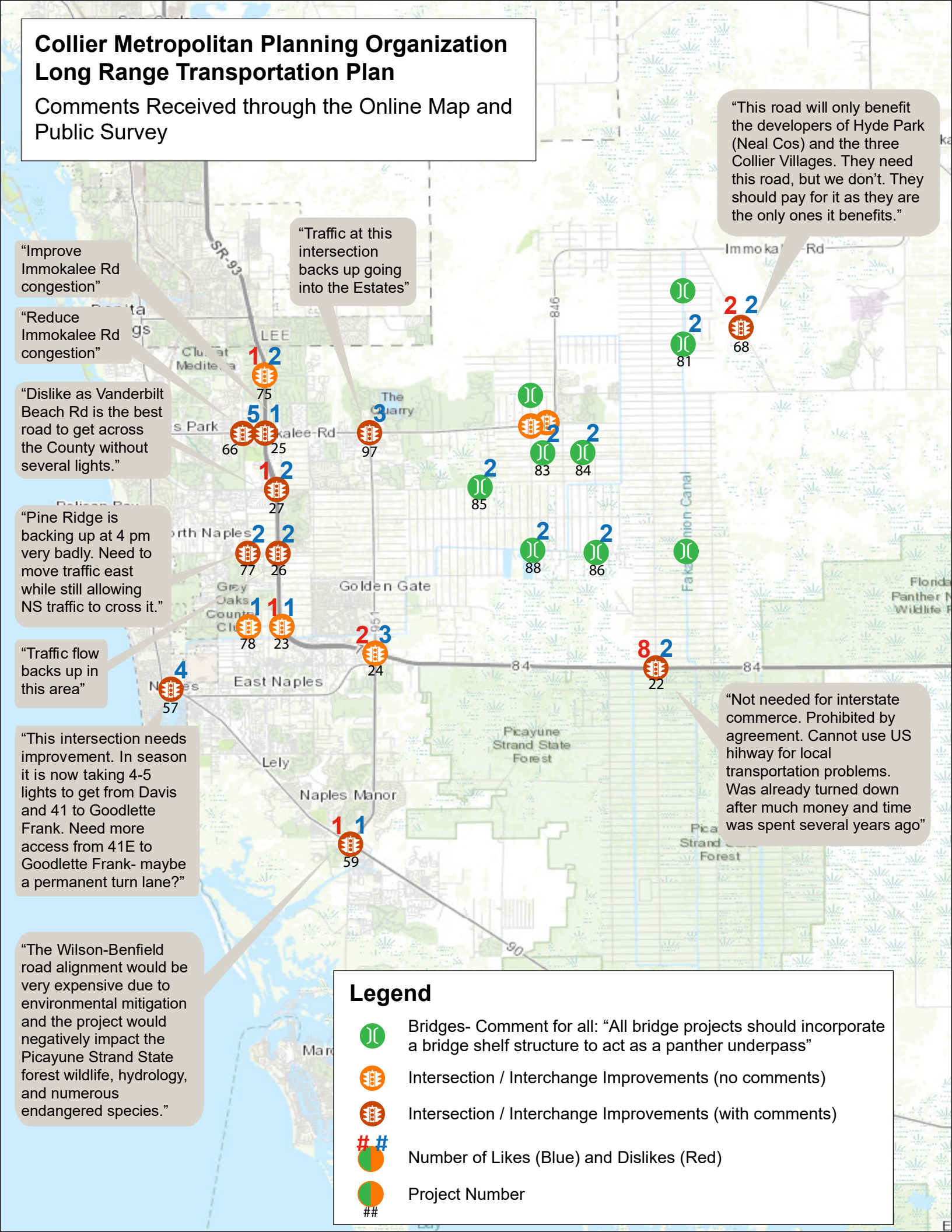
"The Wilson-Benfield road alignment would be very expensive due to environmental mitigation and the project would negatively impact the Picayune Strand State forest wildlife, hydrology, and numerous endangered species."

"Traffic at this intersection backs up going into the Estates"

"This road will only benefit the developers of Hyde Park (Neal Cos) and the three Collier Villages. They need this road, but we don't. They should pay for it as they are the only ones it benefits."

Legend

-  Bridges- Comment for all: "All bridge projects should incorporate a bridge shelf structure to act as a panther underpass"
-  Intersection / Interchange Improvements (no comments)
-  Intersection / Interchange Improvements (with comments)
-  Number of Likes (Blue) and Dislikes (Red)
-  Project Number



Appendix D

Virtual Public Meeting No. 2 (Cost Feasible Plan) Summary Report



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

Virtual Public Meeting – Cost Feasible Plan (October 14, 2020)

November 2020



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- Meeting Screenshots
- Meeting Exhibits

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- Website Notification
- Social Media Post
- Press Release
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Virtual Public Meeting – Cost Feasible Plan (October 14, 2020)

Overview

The Collier Metropolitan Planning Organization (MPO) held a virtual public meeting for the 2045 Long Range Transportation Plan (LRTP) Cost Feasible Plan. The meeting was held Wednesday, October 14, 2020, from 5:30 p.m. to 7:00 p.m. using the Zoom virtual meeting platform. Originally planned to be held in-person, the meeting was changed to a virtual format to ensure the safety and well-being of all participants because of the COVID-19 pandemic.

The purpose of the meeting was to provide the public and interested parties information on the 2045 LRTP Cost Feasible Plan. The meeting began with a narrated video presentation that included an overview of the Collier MPO, the LRTP update process, the 2045 LRTP goals and objectives, project evaluation criteria, the Needs Plan, the traffic model scenario exhibits, the Cost Feasible Plan, and information on how to make comments. Appendix A includes the video presentation and script, as well as screenshots of the virtual public meeting. Upon conclusion of the video presentation, a live panel discussion continued the meeting. The panel and technical advisors included the following members:

Panel Members

- Anne McLaughlin, Collier MPO Executive Director
- Trinity Scott, Collier County Transportation Planning Manager
- Bill Gramer, Jacobs 2045 LRTP Project Manager

Technical Advisors

- Brandy Otero, Collier MPO Principal Planner
- Tara Jones, PE, Jacobs Deputy Project Manager
- Michelle Arnold, Collier County Director of Public Transit
- Victoria Peters, FDOT MPO and Community Liaison

Moderator

- Megan Shimko, Jacobs Public Involvement Advisor

Meeting exhibits are presented in Appendix A and included the list of cost feasible roadway projects by plan period and the associated maps, as well as maps of the draft transit cost feasible projects and bicycle and pedestrian needs.

The meeting was recorded by the Collier MPO. The Collier MPO makes every reasonable effort to accommodate the needs of the public. Anyone requiring special accommodation under the Americans with Disabilities Act or language interpretation services were asked to contact the MPO prior to the virtual public meeting.

Meeting Notifications

The public notice advised the public that Collier MPO would be conducting an online virtual public meeting on the 2045 LRTP Cost Feasible Plan on Wednesday, October 14, 2020. As shown in Table 1, the public meeting notification was sent by email to the Collier MPO list-serve(s) (MPO Board and committees, and Adviser Network), posted on the Collier MPO's website, posted on social media, and announced through a press release. The notices included a link or attachment to the Envision 2045 September 2020 Newsletter that included a link to register for the virtual public meeting. The newsletter also included a link to the Collier MPO website which included the meeting materials that could be viewed prior to the meeting, information on how to provide comments, and contact information for the MPO. Appendix B includes copies of the notices and newsletter.

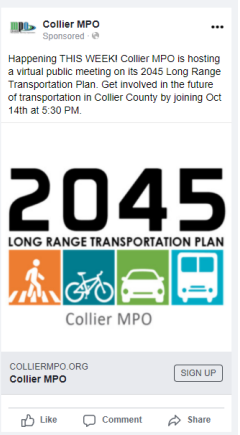



Table 1. Meeting Notifications

Meeting Notifications	Date(s)	Description
Email	9/30/2020	Email to Collier MPO Board, Advisor Network, and Committees - with Envision 2045 September 2020 Newsletter attached
Collier MPO Website	09/30/2020	Announcement on MPO website that included a link to register for the virtual public meeting and meeting materials
Social Media	10/2/2020, 10/7/2020, 10/13/2020, 10/14/2020	Facebook and Twitter Posts on the Collier County Facebook and Twitter sites
Press Release	10/13/20	Notice sent to the Collier MPO news media list and posted in the Collier County Board of County Commissioners' lobby

In addition to the referenced notifications, the virtual public meeting was announced through paid advertisements on Facebook and Instagram throughout all of Collier County. Table 2 presents the results of the Facebook advertisements.

Table 2. Facebook Advertising Results

Advertisement	Advertisement Run Dates	Demographics	Reach	Clicks
	10/7/2020 to 10/14/2020	Collier County Residents, ages 18+	1,280	11
	10/7/2020 to 11/5/2020	Collier County Residents, ages 18+	6,041	91

Meeting Registration and Attendees

Attendees registered for the meeting via Zoom. A total of 10 people registered to attend the meeting. Appendix C presents the Zoom registration summary. Approximately 9 people attended the meeting.

Comments

Comments could be submitted prior, during, or after the virtual public meeting. All questions and comments were due by November 6, 2020 for consideration in the assessment of the cost feasible projects. There were multiple formats in which comments could be received including the Collier MPO online comment form posted on the 2045 LRTP website, email to colliermmpo@colliergov.net, and through the WikiMapping online tool. WikiMapping is an online interactive tool that collects viewer's ideas through images, discussion, and mapping. As shown on Figure 1, a map of the cost feasible projects was presented on a WikiMap page set up for the project. A link to the WikiMap was available on the Collier MPO website. The WikiMapping tool allowed the user to Like or Dislike a project and add a comment if desired. The tool also asked each participant to select their top five priority projects and included an opportunity to provide additional feedback.

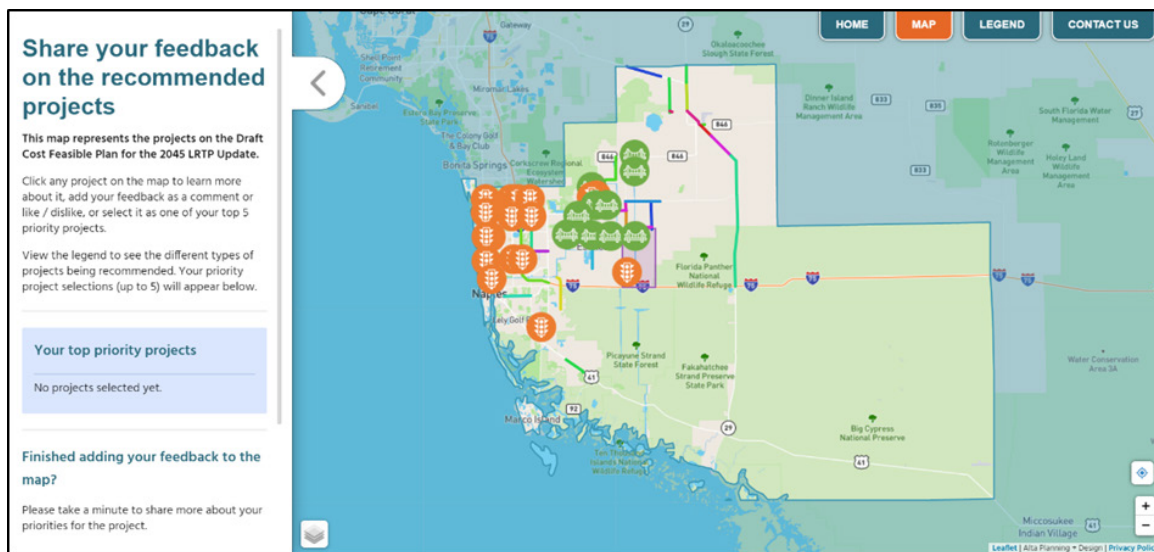


Figure 1. Collier MPO 2045 LRTP Cost Feasible Plan WikiMap

Appendix D includes a copy of the Collier MPO comment form and questions received prior to the October 14, 2020 virtual public meeting. The results of the Wikimapping outreach are also presented in Appendix D. A total of 63 responses were received as a result of the Wikimapping outreach and the following summarizes the key findings:

- The project that received the most interaction was the Goodlette-Frank Rd and US 41 and Intersection improvement. This project received 6 Likes, 0 Dislikes, and 1 comment. The comment received noted that this is a dangerous intersection.
- The intersection improvements along Tamiami Trail/US 41 were very well-received, with the 6 projects garnering a total of 17 Likes and 0 Dislikes.
- The New Bridge projects were generally well-received, with the 10 bridge projects receiving a total of 7 Likes and 2 Dislikes.
- The three I-75 Interchange Improvement/New Interchange projects received 8 Likes, with the interchange at I-75 and Everglades Boulevard receiving 1 Dislike.
- Some comments indicated concerns at certain intersections and areas for improvement
- One multimodal comment included the intersection project at US 41 and Golden Gate Parkway and noted that the Gordon River Greenway and Freedom Park are difficult to reach on foot or bicycle using this crossing.

Appendix A

Presentation, Script, Screenshots, Exhibits



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO



Jacobs

October 14, 2020

Moderated by Megan Shimko/Jacobs

VIRTUAL PUBLIC MEETING #2 – COST FEASIBLE PLAN

Agenda



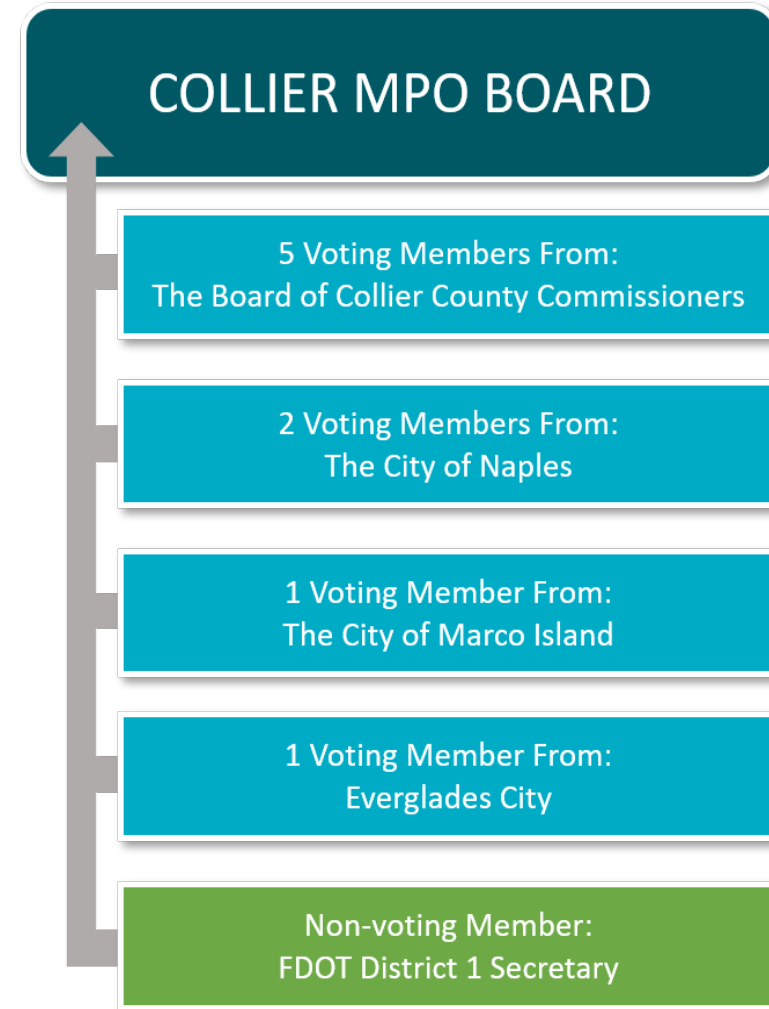
ENVISION
2045
Collier MPO

- Introduction
- LRTP Process
- Goal and Objectives
- Transportation Cost Feasible Plan
 - Highway
 - Transit
 - Bicycle and Pedestrian
 - Other
- Next Steps
- Live Questions and Comments Discussion
- Adjourn - 7:00 PM

Who is the Collier Metropolitan Planning Organization (MPO)?



- Collier MPO is a federally mandated transportation policy-making organization
- MPO Board is comprised of local elected officials



What is a Long Range Transportation Plan (LRTP)?

Key Requirements of the LRTP:



Multi-modal Transportation System includes:

- Highway
- Transit
- Bicycle and Pedestrian



Minimum 20 Year Horizon



Updated on a 5 Year Cycle



What process are we using to update the LRTP?

Identify Goals and Objectives

Collect and Analyze Data

Assess Needs & Identify
Transportation Vision

Define / Develop Projects

Evaluate Projects Against Goals:

- ◆ Financial Constraint
- ◆ Environmental Resources
- ◆ Multimodal

Recommend Preferred Plan

MPO Adoption / Implementation

UPDATED VIRTUAL PUBLIC OUTREACH PLAN due to COVID-19

- MPO Advisory Committees
- Interactive Website
- Online Surveys
- E-Newsletters
- Virtual Presentations
- Email Distribution List
(Adviser Network)



Goals and Objectives



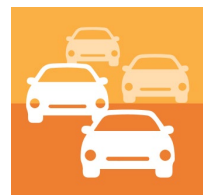
Evacuation



Environmental
Resources



System Connectivity &
Continuity



Congestion



Freight
Movement



Safety for All
Users



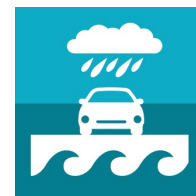
Multi-modal
Solutions



Land Use
Considerations



Sustainability



Climate Change Risks

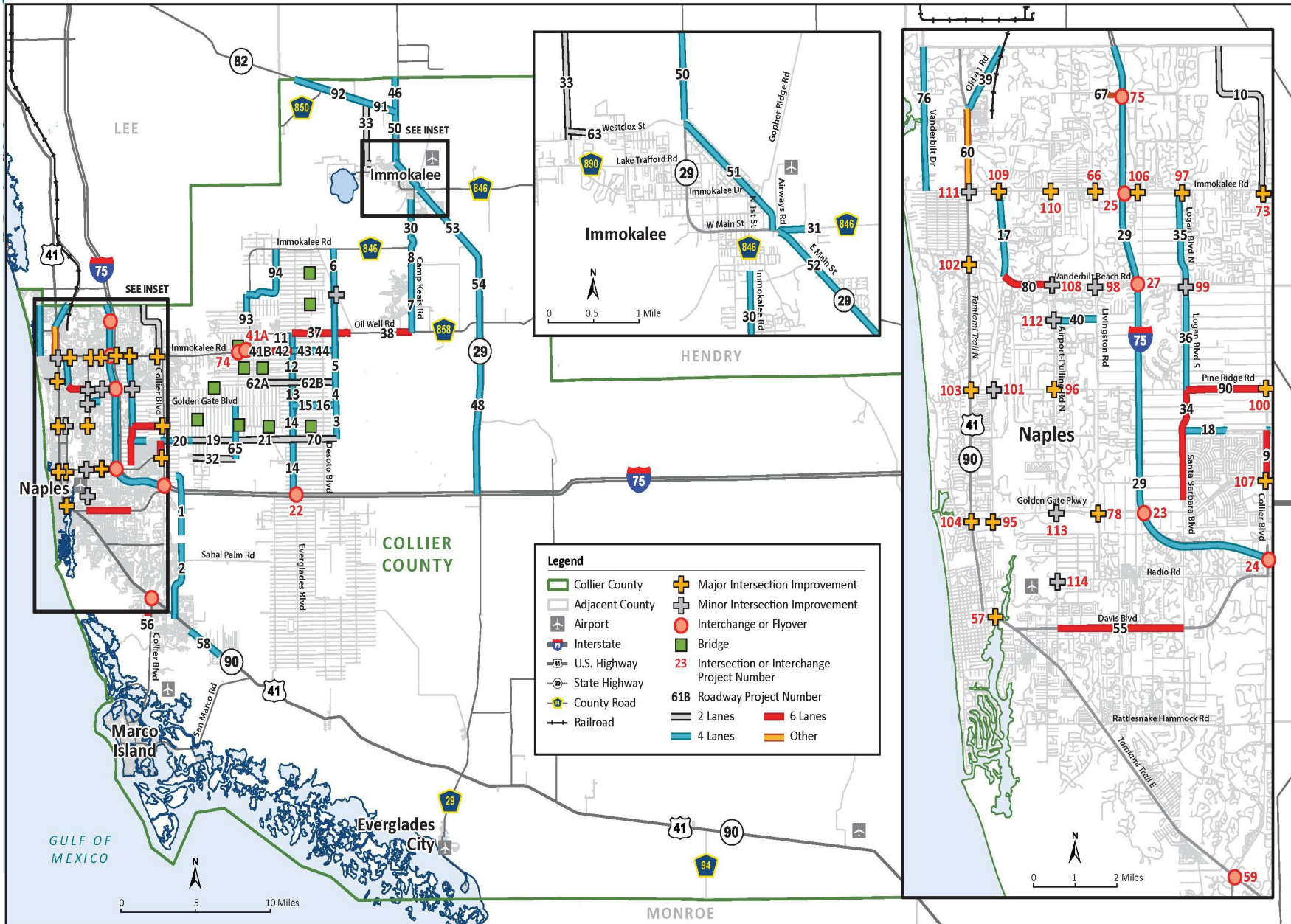


Connected and Automated
Vehicles (CAV)



Project Evaluation Criteria

Goals	Scoring Range	Score Weighting
Improve Evacuation Routes	0 to 5	8%
Protect Environmental Resources	-5 to 0	12%
Improve System Connectivity & Continuity	0 to 5	10%
Reduce Congestion	0 to 5	18%
Promote Freight Movement	0 to 5	6%
Increase Safety for All Users	0 to 5	10%
Promote Multi-modal Solutions	0 to 5	10%
Integrate Land Use Considerations	0 to 5	10%
Promote Sustainability	0 to 5	8%
Climate Change Risks	0 to 5	4%
Connected and Automated Vehicles (CAV) Considerations	0 to 5	4%



Look here for Map ID Number

Map ID	Project	From	To	Description
1	Bierfield Rd Extension	US 41 (SR 90) (Tamiami Trail E)	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)
2	Bierfield Rd	US 41 (SR 90) (Tamiami Trail E)	Plattenville-Hammock Extension	New 2-Lane Road (Expandable to 4-Lanes)
3	Big Cypress Parkway	North of I-75	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)
4	Big Cypress Parkway	Golden Gate Blvd	Vanderbilt Beach Road Ext.	New 2-Lane Road (Expandable to 4-Lanes)
5	Big Cypress Parkway	Vanderbilt Beach Rd Extension	Oil Well Rd	New 2-Lane Road (Expandable to 4-Lanes)
6	Big Cypress Parkway	Oil Well Rd	Imkokalee Rd	New 2-Lane Road (Expandable to 4-Lanes)
7	Camp Kears Rd	Pope John Paul Blvd	Imkokalee Rd	Video from 2-Lane to 4-Lanes
8	Camp Kears Rd	Imkokalee Rd	Imkokalee Rd	Video from 2-Lane to 4-Lanes
9	Collier Blvd (CR 95)	Golden Gate Main Canal	Green Blvd	Video from 4-Lanes to 6-Lanes
10	CR 95 Extension	Collier Blvd (CR 95) (Northern terminus)	Lee/Collier County Line	New 2-Lane Road
11	Everglades Blvd	Floral Blud	South of Oil Well Road	Video from 2-Lanes to 4-Lanes
12	Everglades Blvd	Vanderbilt Beach Rd Extension	Floral Blud	Video from 2-Lanes to 4-Lanes
13	Everglades Blvd	Golden Gate Blvd	Vanderbilt Beach Rd Extension	Video from 2-Lanes to 4-Lanes
14	Everglades Blvd	175 (SR 93)	Golden Gate Blvd	Video from 2-Lanes to 4-Lanes
15	Everglades Blvd	Everglades Blvd	Desoto Blvd	Video from 2-Lanes to 4-Lanes
16	Golden Gate Blvd Extension	Desoto Blvd	Big Cypress Parkway	New 4-Lane Road
17	Goodlette-Frank Rd	Vanderbilt Beach Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
18	Green Blvd	Santa Barbara Logan Blvd	Sunshine Blvd	Video from 2-Lane to 4-Lane
19	Green Boulevard Extension (18th Ave SW)	23rd St SW	Wilson Blvd Extension (Corridor)	New 4-Lane Road (Future Study Area)
20	Green Boulevard Extension (18th Ave SW)	CR 95	New 4-Lane Road (Future Study Area)	
21	Green Boulevard Extension (18th Ave SW)	Wilson Blvd Ext	Everglades Blvd (Corridor Study)	
22	175 (SR 93) Interchange	Everglades Blvd	Further Study Required (New) 2-Lane Ramp	
23	175 (SR 93) Interchange (modified)	Golden Gate Parkway	Single Point Urban Interchange (SPUI)	
24	175 (SR 93) Interchange (modified)	Collier Blvd (CR 95)	Intersection Traffic Signalization (DOT proposed)	
25	175 (SR 93) Interchange (modified)	Imkokalee Rd	Intersection Traffic Signalization (DOT proposed)	
26	175 (SR 93) Interchange (modified)	Pine Ridge Rd	New Interchange - Partial (To/From the North)	
27	175 (SR 93) Interchange (new)	Vanderbilt Beach Rd	Video from 2-Lanes to 4-Lanes	
28	175 (SR 93) Managed T-0/Lanes	Collier Blvd (CR 95)	Video from 2-Lanes to 4-Lanes	
29	Imkokalee Rd (CR 94)	Camp Kears Rd	Video from 2-Lanes to 4-Lanes	
30	Imkokalee Rd (CR 94)	SR 92	New 2-Lane Road (Future Study Area)	
31	Link Leagues Rd Extension	Imkokalee Rd	Imkokalee Rd	Video from 4-Lanes to 6-Lanes
32	Logan Blvd	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
33	Logan Blvd	Vanderbilt Beach Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
34	Logan Blvd	Pine Ridge Rd	Oil Well Road	Video from 2-Lanes to 4-Lanes
35	Logan Blvd	Everglades Blvd	Camp Kears Rd	Video from 2-Lanes to 4-Lanes
36	Logan Blvd	Ave Main Entrance	US 41 (SR 45)	Video from 2-Lanes to 4-Lanes
37	Oil Well Road / CR 95	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
38	Oil Well Road / CR 95	Ave Main Entrance	US 41 (SR 45)	Video from 2-Lanes to 4-Lanes
39	Old US 41	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
40	Orange Blossom Dr	Airport Pulling Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
41A	Floral Blud Intersection (Hwyover)	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
41B	Floral Blud	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
42	Floral Blud	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
43	Floral Blud	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
44	Floral Blud	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
45	Santa Barbara Blvd	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
46	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
47	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
48	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
49	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
50	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
51	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
52	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
53	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
54	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
55	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
56	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
57	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
58	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes
59	SR 92	Imkokalee Rd	Imkokalee Rd	Video from 2-Lanes to 4-Lanes

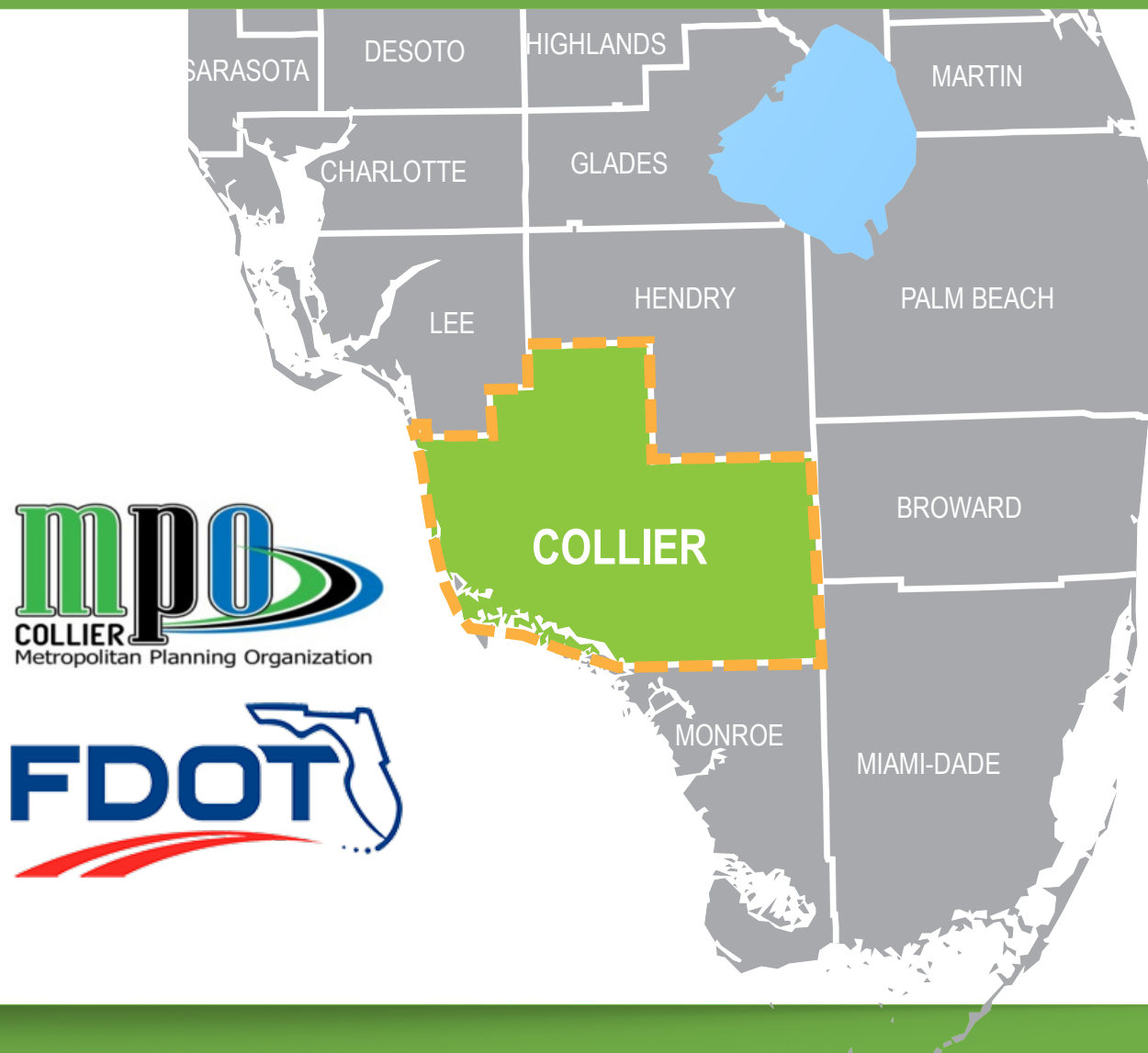
List of Projects on Collier MPO Website

What is a Cost Feasible Plan ?

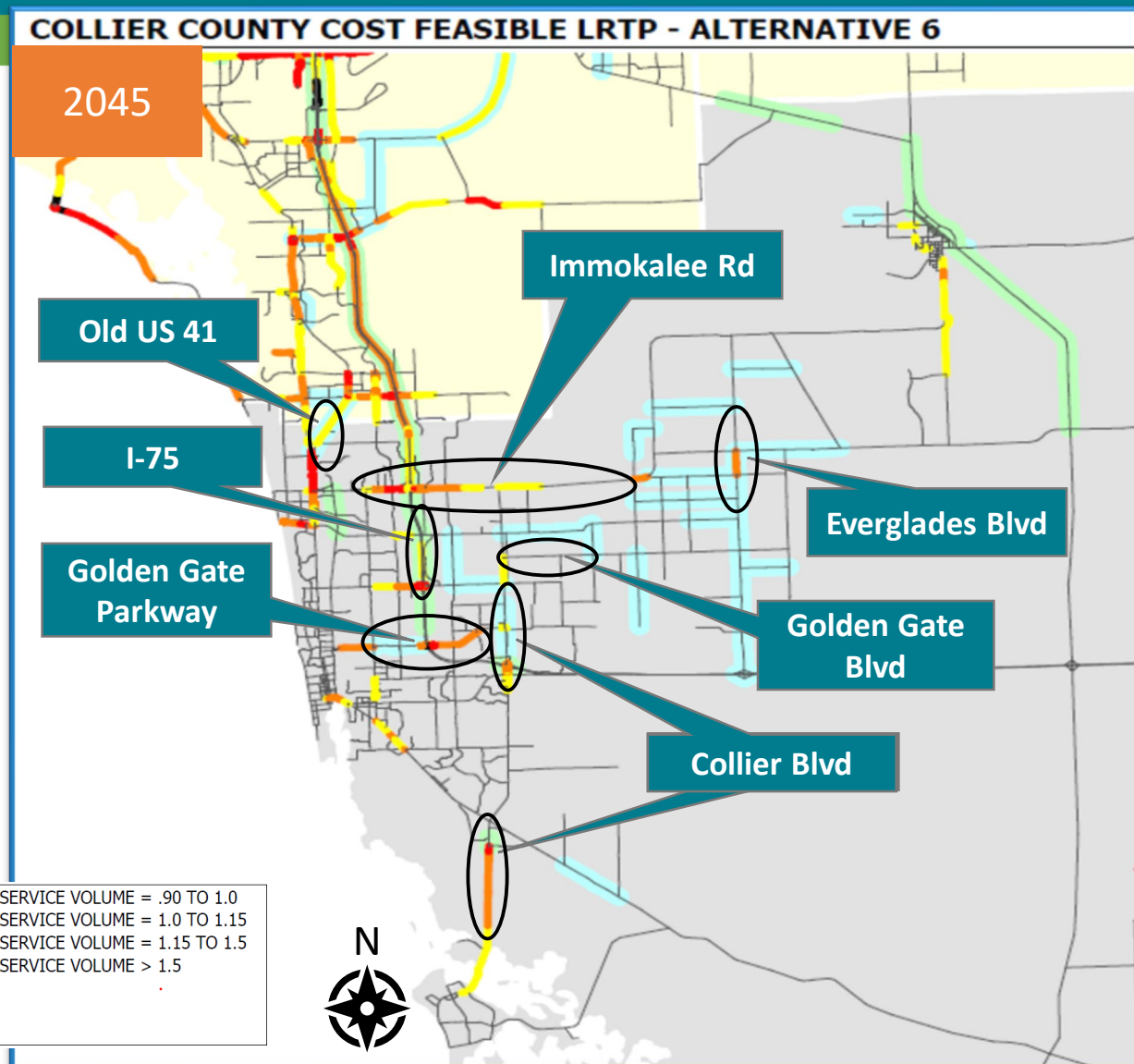
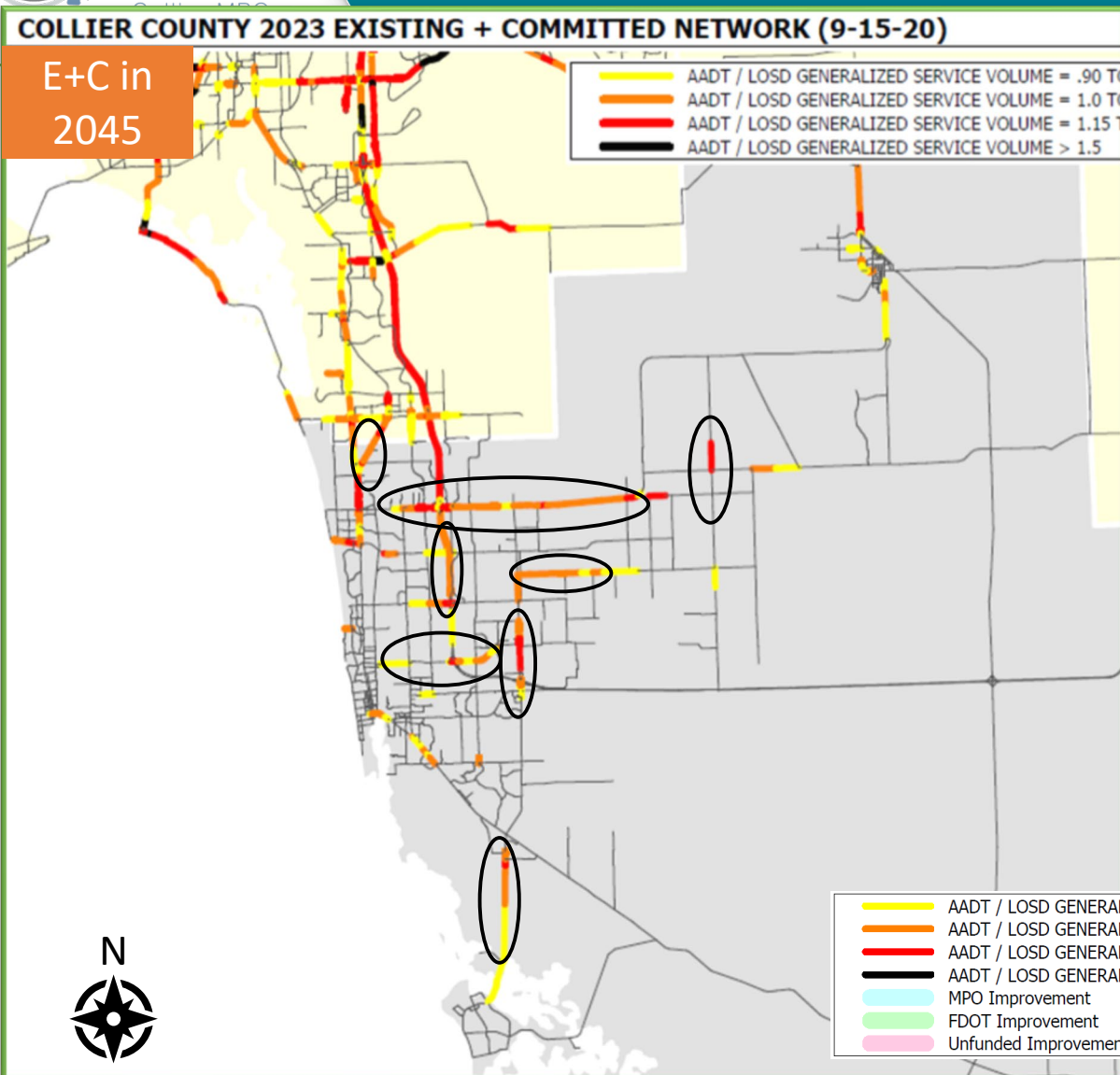
- Financially Constrained
- List of Projects to build by 2045
- Based on Draft Revenue Forecast for 2026 - 2045
- Funding Sources: Federal, State, County and Local
- Identified through a combined process involving:
 - Local government coordination
 - Project screening (includes modeling of transportation alternatives)
 - Stakeholder input
 - Advisory Committees
 - Public input and review

Future Travel Demand

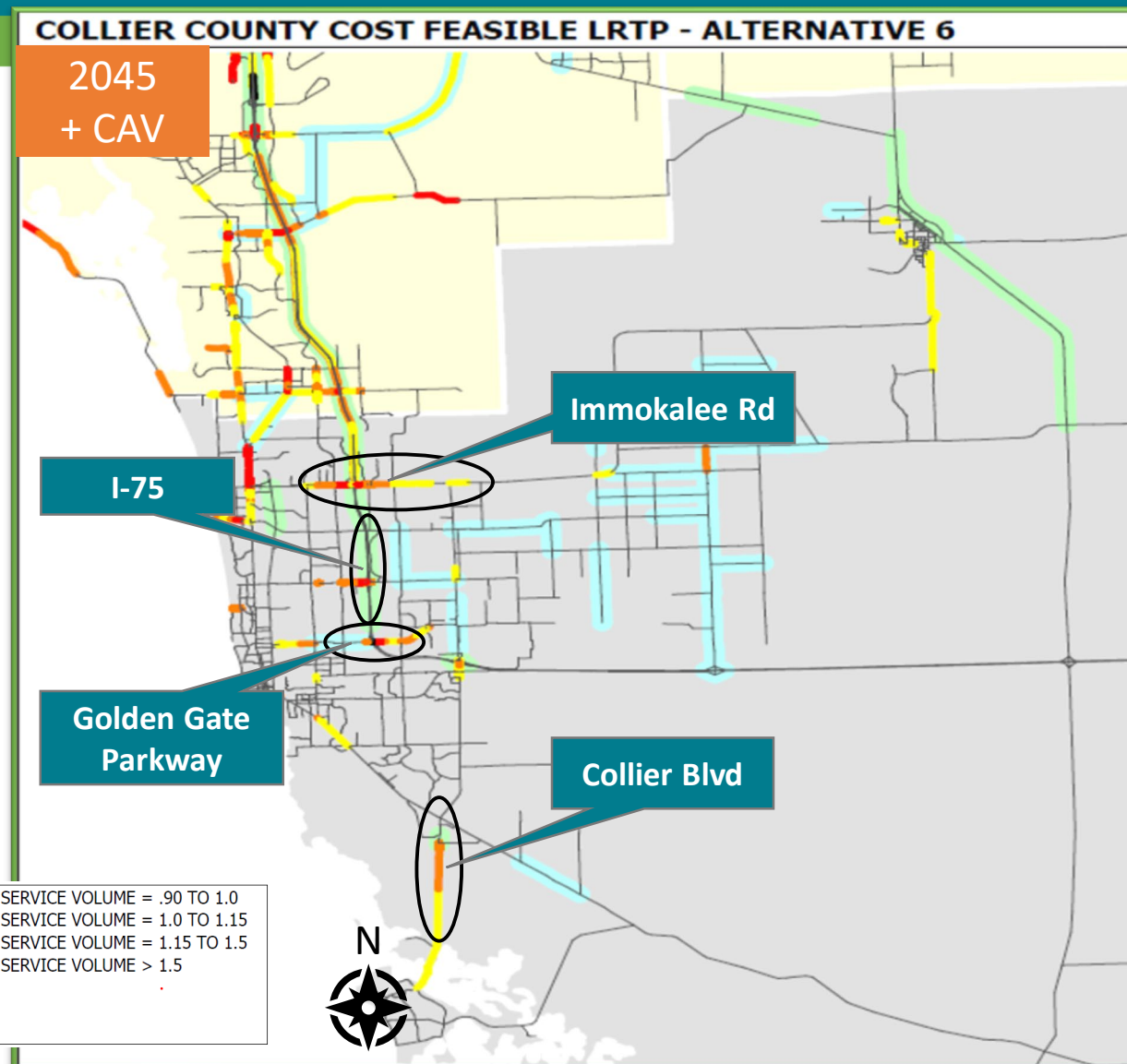
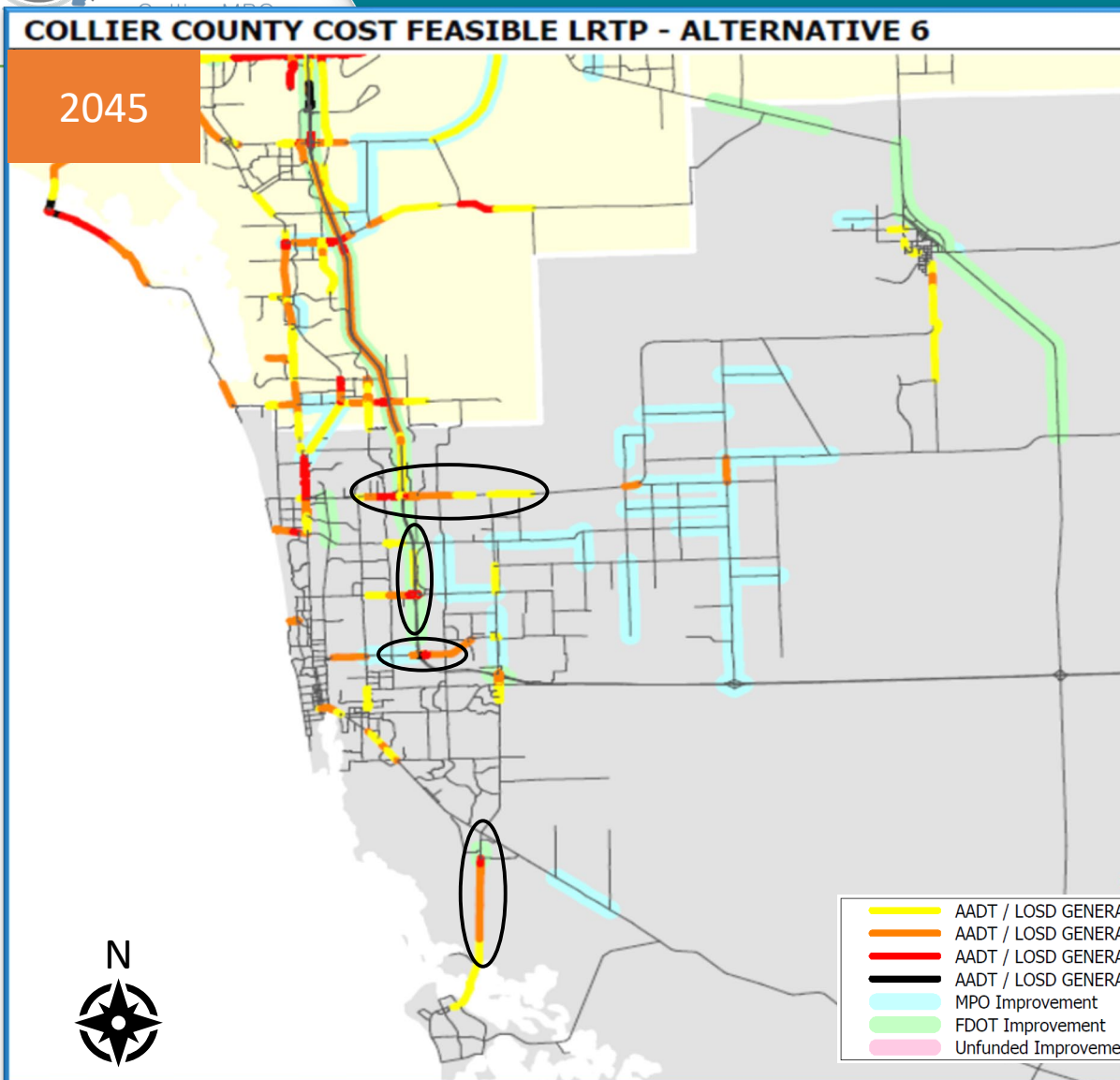
- The MPO must determine the transportation needs of the County based on future travel demand.
- The MPO, in partnership with FDOT, is using the District One Regional Planning Model to determine needs and identify future transportation improvements.



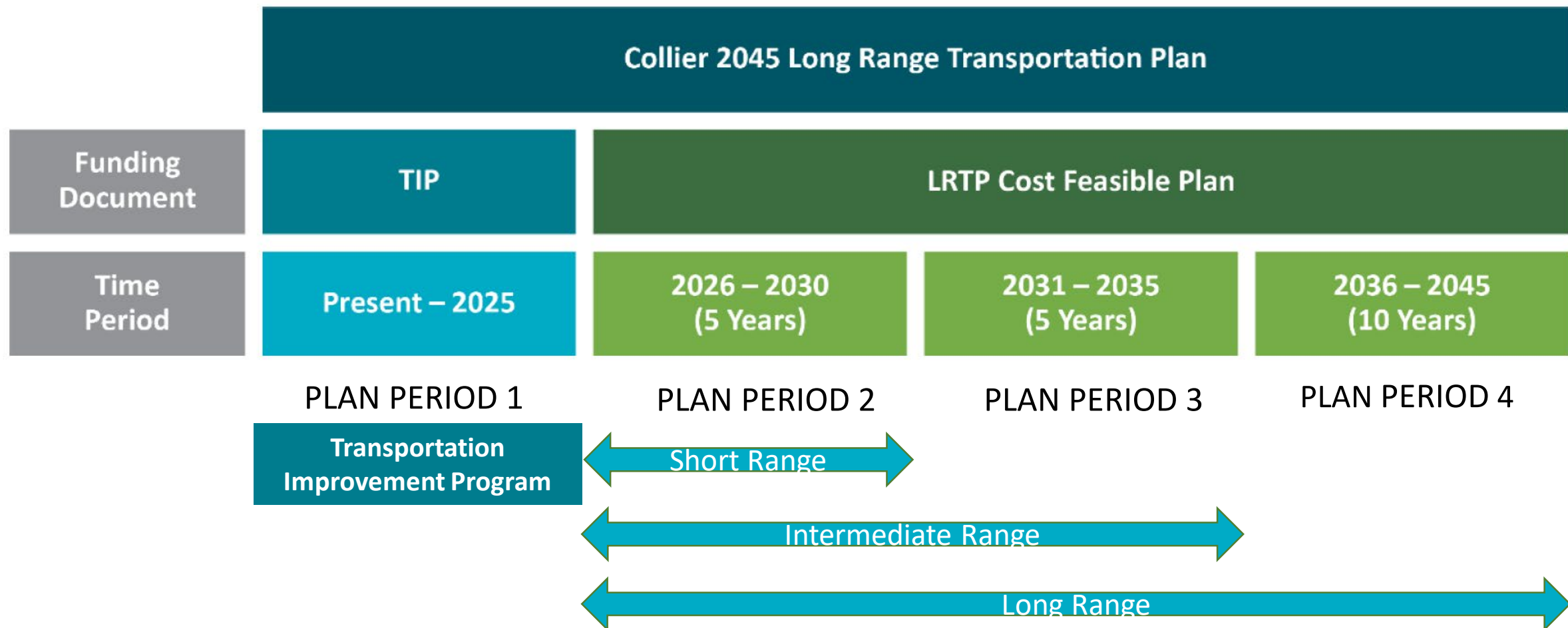
Draft Cost Feasible Network (2045) Compared to Existing + Committed Network (2023)



Draft Cost Feasible Network (2045) Without CAV compared to With CAV



Plan Periods



Draft Cost Feasible Plan Projects

- Highway
 - Local Roadway
 - FDOT Other Roadway
 - FDOT SIS Roadway
- Transit
- Bicycle and Pedestrian
- Other
 - Congestion Management
 - Bridges
 - Airports

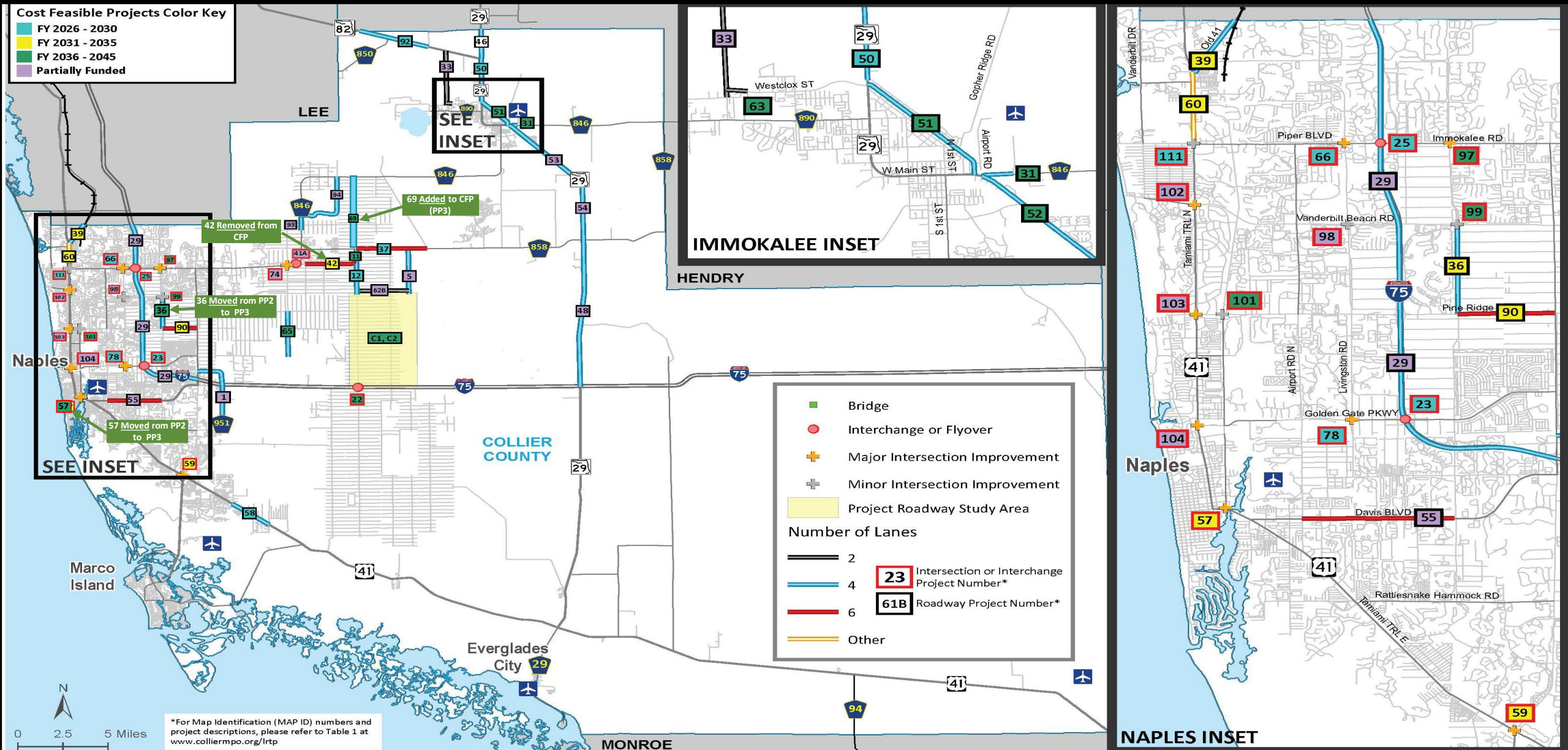


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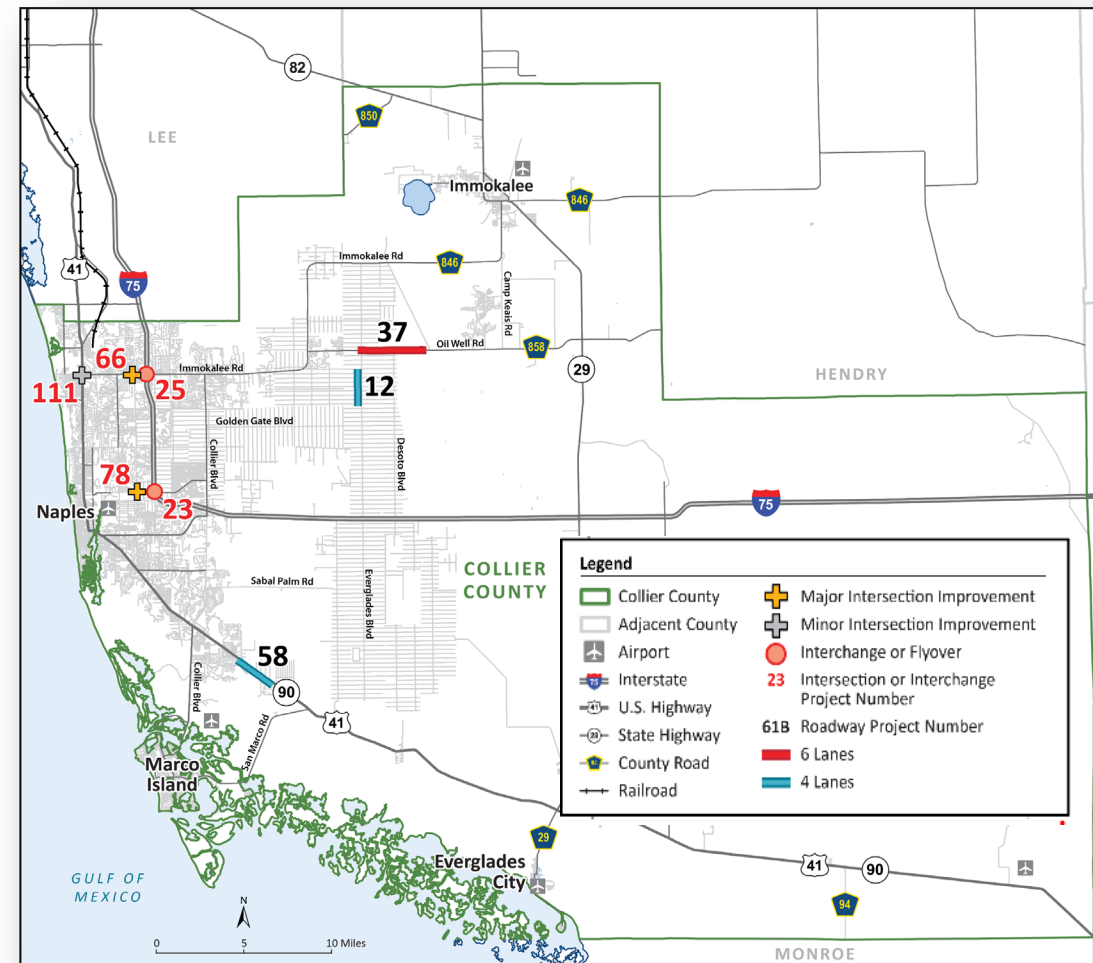
Highway

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2045 LRTP Draft Cost Feasible Plan Projects



2045 LRTP Draft Cost Feasible Plan - Plan Period 2 from 2026-2030

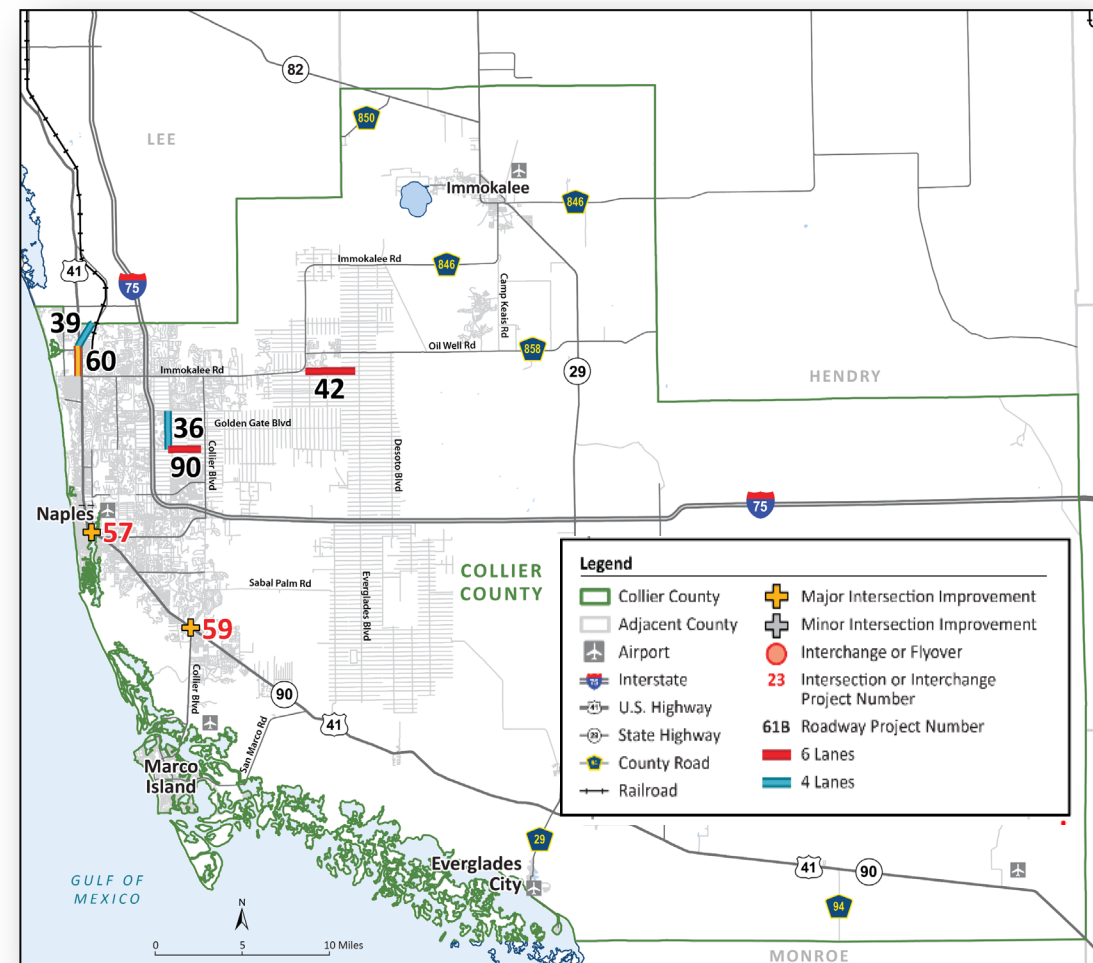


Map ID	FACILITY	LIMITS FROM	LIMITS TO	DESCRIPTION	In 2040 Needs?	In 2040 CFP?
PLAN PERIOD 2 CONSTRUCTION FUNDED PROJECTS						
12	Everglades Blvd	Vanderbilt Beach Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	Y	
23	I-75 (SR-93) Interchange (new)	Golden Gate Pkwy		Interchange Improvement	Y	Y
25	I-75 (SR-93)	Immokalee Rd		Interchange Improvement (DDI proposed)	Y	Y
37	Oil Well Road / CR 858 [60144]	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	Y	Y
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lanes to 4 Lanes	Y	Y
57	US 41 (SR 90) (Tamiami Trail E)	Goodlette-Frank Rd		Major Intersection Improvement	Y	Y
66	Immokalee Rd	Livingston Rd		Major Intersection Improvement		
78	Golden Gate Parkway	Livingston Rd		Major Intersection Improvement		
111	US 41	Immokalee Rd		Intersection Innovation /Improvements		



Newly Identified Projects

2045 LRTP Draft Cost Feasible Plan - Plan Period 3 from 2031-2035

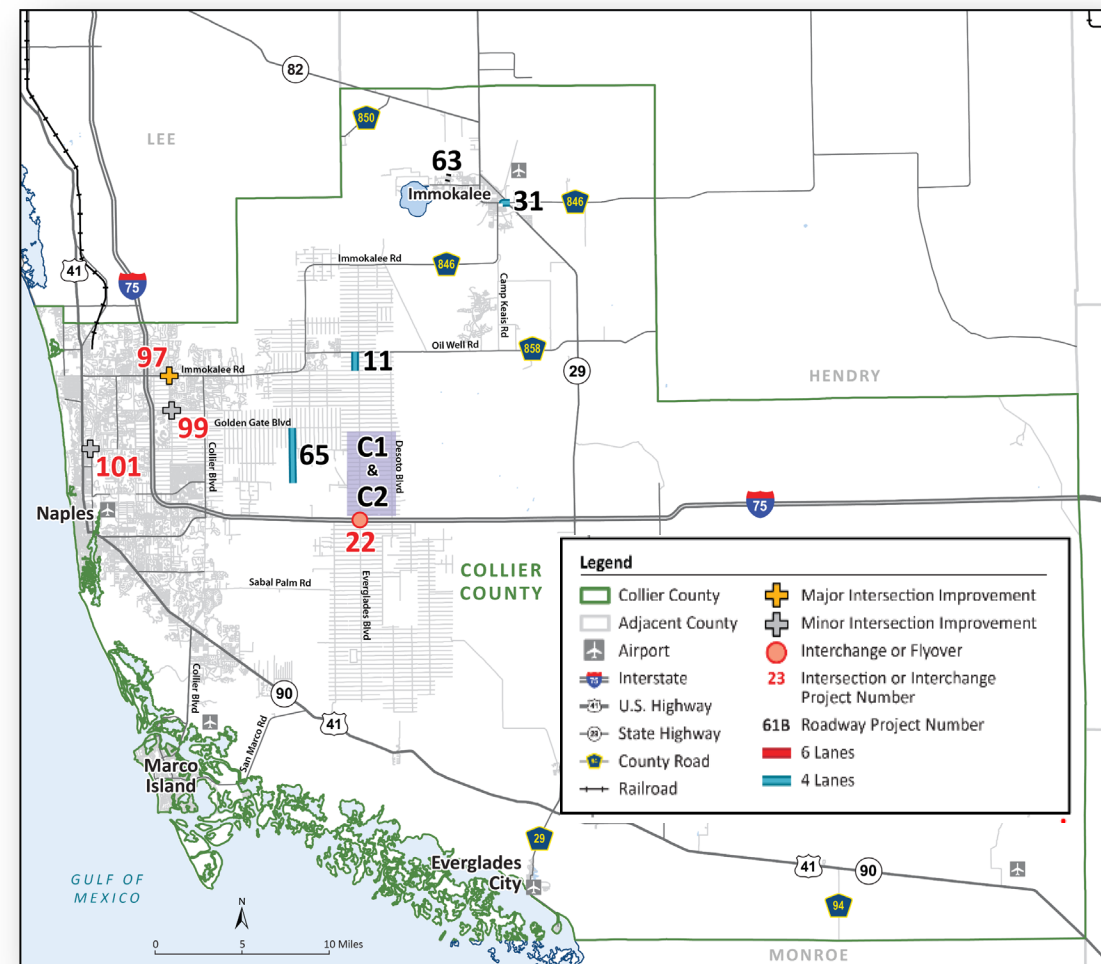


Map ID	FACILITY	LIMITS FROM	LIMITS TO	DESCRIPTION	In 2040 Needs?	In 2040 CFP?
PLAN PERIOD 3 CONSTRUCTION FUNDED PROJECTS						
39	Old US 41	US 41	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	Y	Y
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	Y	Y
59	US 41 (SR 90) (Tamiami Trail E)	Collier Blvd		Major Intersection Improvement	Y	Y
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Further Study Required		
69	Everglades Blvd	Oil Well Rd / CR 858	Immokalee Rd	Widen 2 to 4 Lanes	Y	Y
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes		

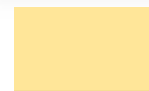


Newly Identified Projects

2045 LRTP Draft Cost Feasible Plan - Plan Period 4 from 2036-2045

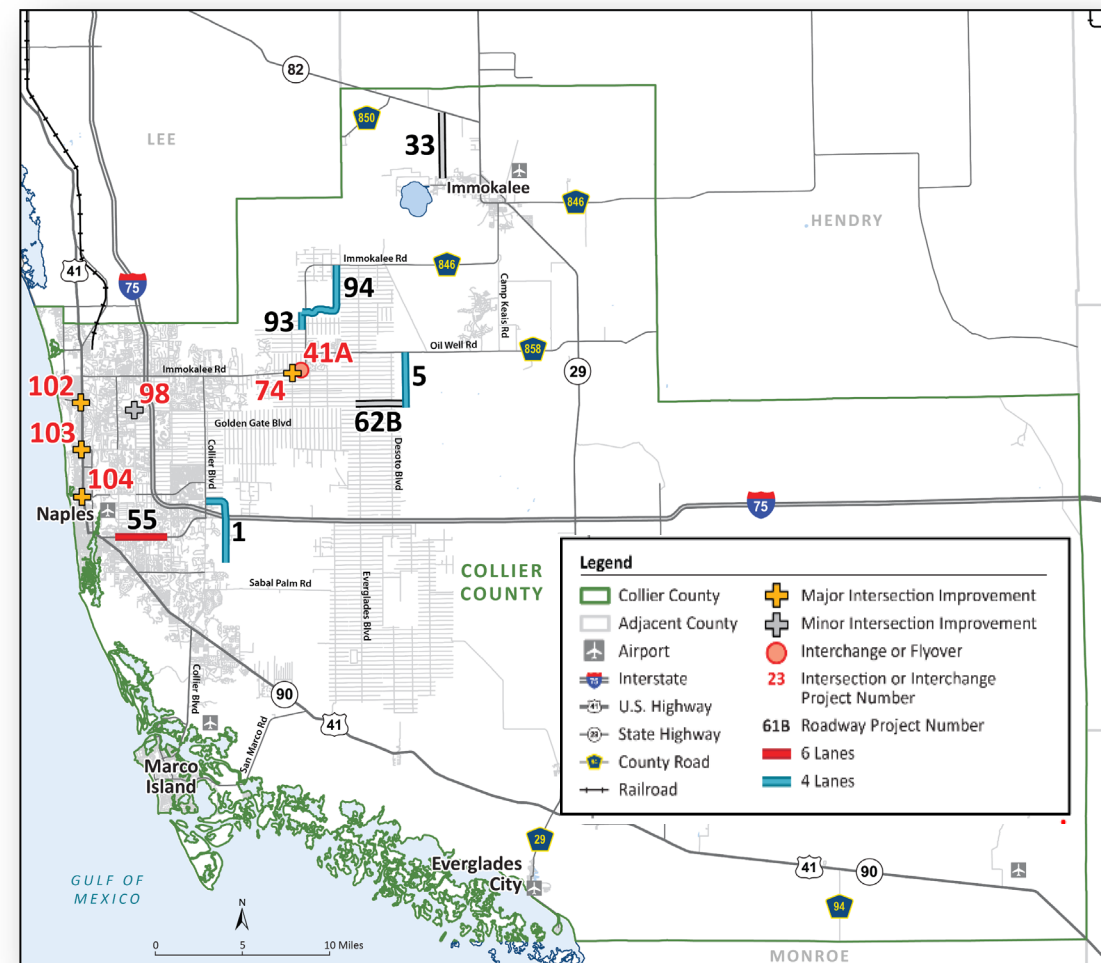


Map ID	FACILITY	LIMITS FROM	LIMITS TO	DESCRIPTION	In 2040 Needs?	In 2040 CFP?
PLAN PERIOD 4 CONSTRUCTION FUNDED PROJECTS						
11	Everglades Blvd	Randall Blvd	South of Oil Well Rd	Widen from 2-Lanes to 4-Lanes	Y	
22	I-75 (SR-93) Interchange (new)	Vicinity of Everglades Blvd		New Interchange	Y	
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	Y	Y
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes	Y	
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6-Lanes		Y
63	Westclox St. Extension	Little League Road	West of Carson Rd	New 2-Lane Road	Y	
65	Wilson Blvd	Keane Ave.	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	Y	Y
97	Immokalee Rd (Intersection)	Logan Blvd		Major Intersection Improvement		
99	Vanderbilt Beach Rd (Intersection)	Logan Blvd		Minor Intersection Improvement		
101	Pine Ridge Rd	Goodlette-Frank Rd		Minor Intersection Improvement		
C1	Connector Roadway from I-75 Interchange (New)	Golden Gate Blvd	Vanderbilt Beach Rd	4-Lane Connector Roadway from New Interchange (Further Study Required)		
C2	Connector Roadway from I-75 Interchange (New)	I-75 (SR-93)	Golden Gate Blvd	4-Lane Connector Roadway from New Interchange (Further Study Required)		



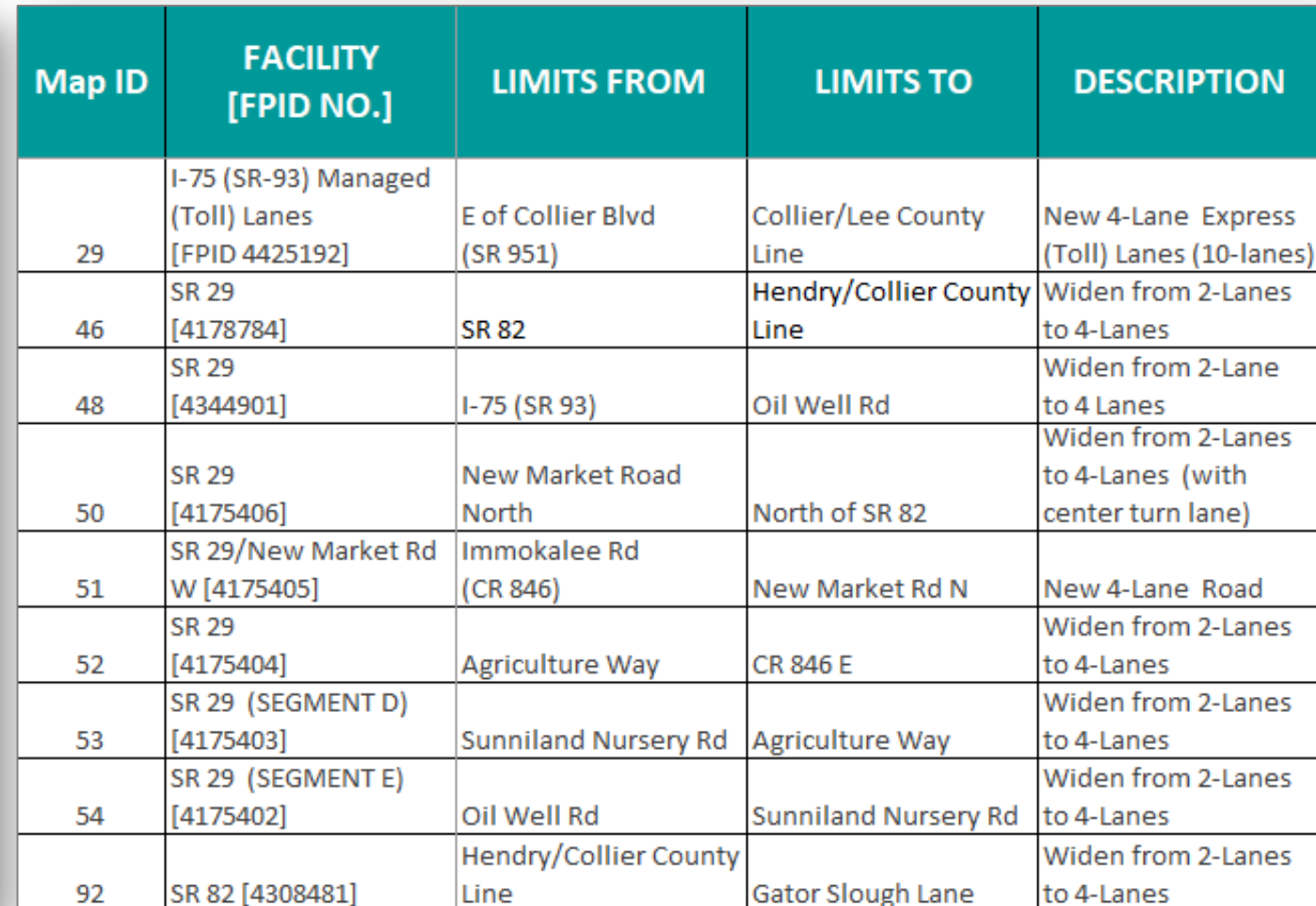
Newly Identified Projects

2045 LRTP Draft Cost Feasible Plan - Partially Funded



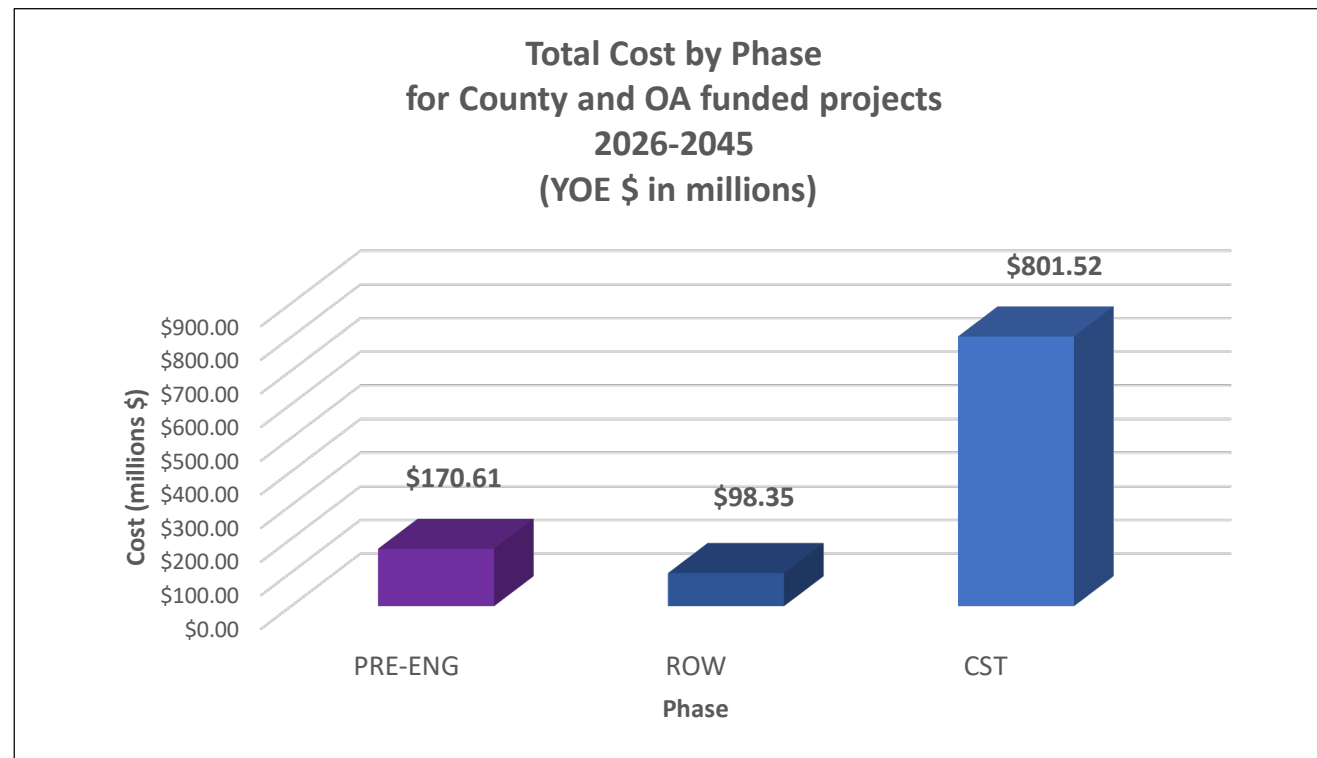
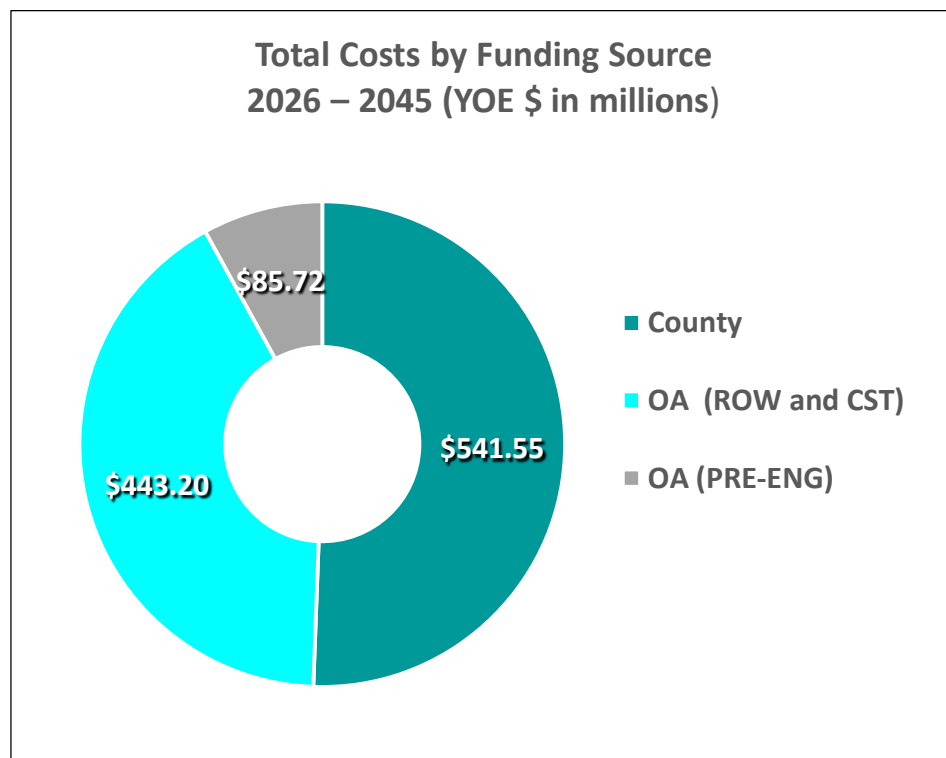
Map ID	FACILITY	LIMITS FROM	LIMITS TO	DESCRIPTION	In 2040 Needs?	In 2040 CFP?
PARTIALLY FUNDED PROJECTS						
1	Benfield Rd (New) [60129]	The Lords Way	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)	Y	Y
5	Big Cypress Pkwy	Vanderbilt Beach Rd Ext.	Oil Well Rd	New 2-Lane Road (Expandable to 4-Lanes)	Y	
33	Little League Rd Ext.	SR 82	Westclox St.	New 2-Lane Road	Y	Y
41A	Randall Blvd Intersection (flyover) [60147]	Immokalee Rd		Ultimate Intersection Improvement: Overpass	Y	Y
62B	Vanderbilt Beach Rd Ext.	Everglades Blvd	Big Cypress Pkwy	New 2-Lane Road (Expandable to 4 Lanes)	Y	
74	Immokalee Rd (CR 846)	Wilson Blvd		Major Intersection Improvement		
93	Immokalee Rd	43rd Ave/Shady Hollow Blvd E	North of 47th Ave. NE	Widen from 2-Lanes to 4-Lanes		
94	Rural Village Blvd	Immokalee Rd	Immokalee Rd	New 4-Lane Road		
98	Vanderbilt Beach Road	Livingston Rd		Minor Intersection Improvement		
102	US 41 (SR 90) (Tamiami Trail E)	Vanderbilt Beach Rd		Major Intersection Improvement		
103	US 41 (SR 90) (Tamiami Trail E)	Pine Ridge Rd		Major Intersection Improvement		
104	US 41 (SR 90) (Tamiami Trail E) [4464511]	Golden Gate Pkwy		Major Intersection Improvement		

Newly Identified Projects



Draft Cost Feasible Plan – Highway Summary

- Without SIS funding, Revenue Forecast is \$ 1.08 Billion



Total does not include SIS Funding, Federal Transportation Alternatives Program, Transportation Management Areas, or SU/TALU funds
OA = Other Arterial Funding

The image features an abstract geometric design. On the left, a large teal triangle points towards the center. A horizontal green bar extends from the right side of this triangle across the middle of the image. Below this bar is a wide, light green horizontal band. The word "Transit" is centered in the white space above the green bar.

Transit

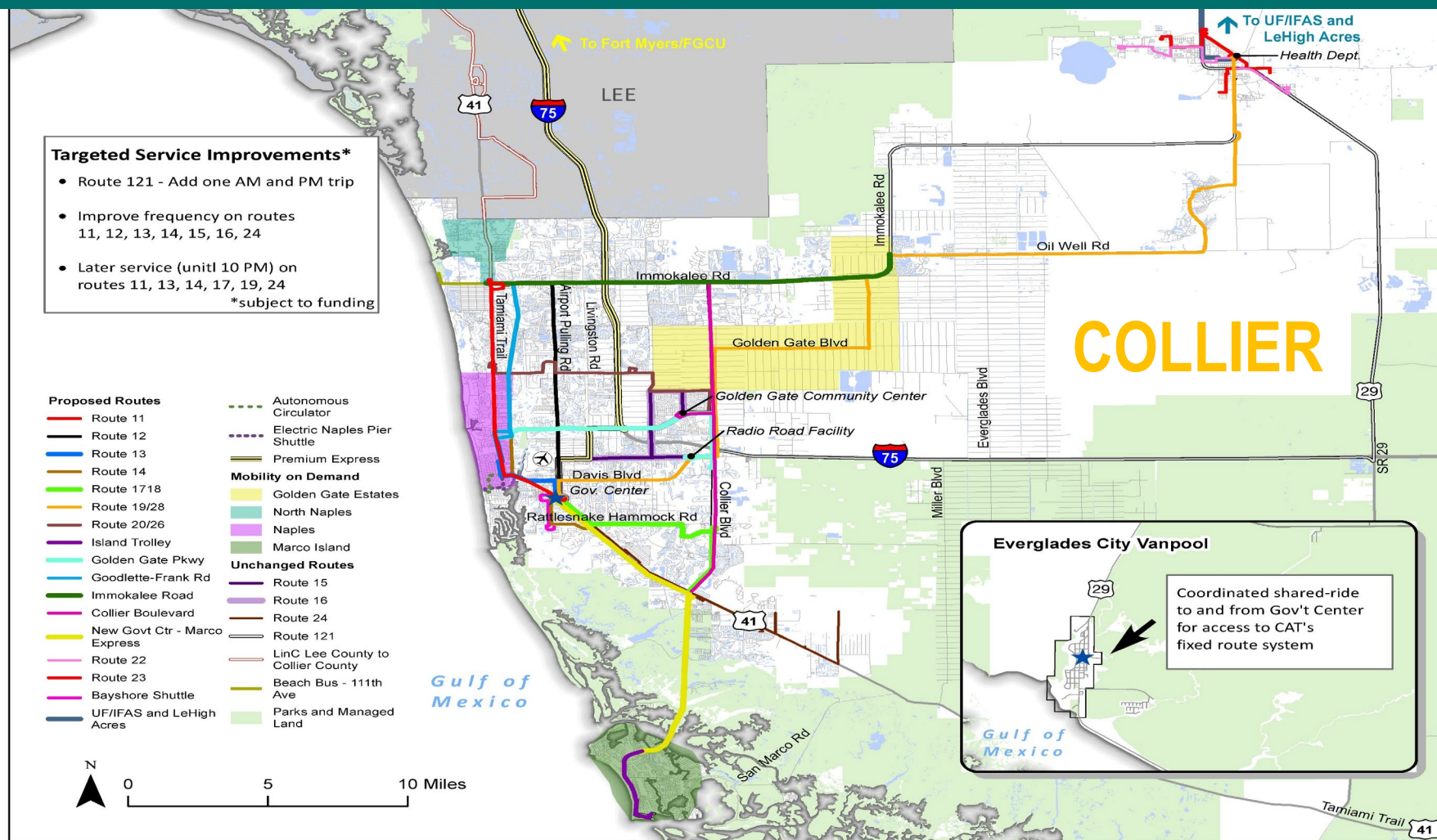
Transit Development Plan 2020-2030



Collier County
Metropolitan Planning Organization

Ten-Year Transit Development Plan

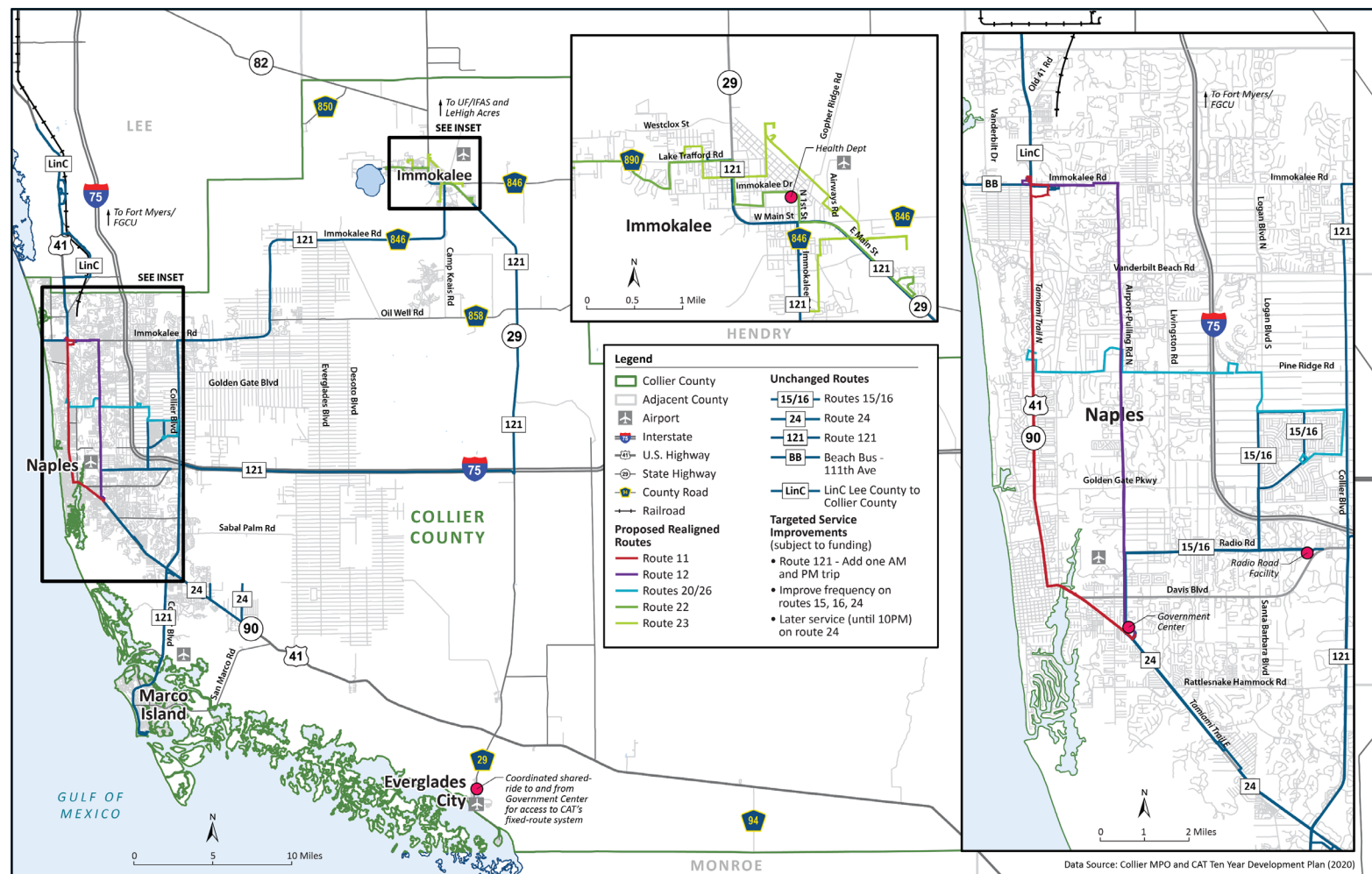
Draft Report
August 2020



Draft Cost Feasible Plan – Transit

2026-2045:

- Revenue for Transit Operations = \$334.9M
- Revenue for Transit Capital Projects = \$130.4M
- **2045 Transit Draft Cost Feasible Plan Projects Map**



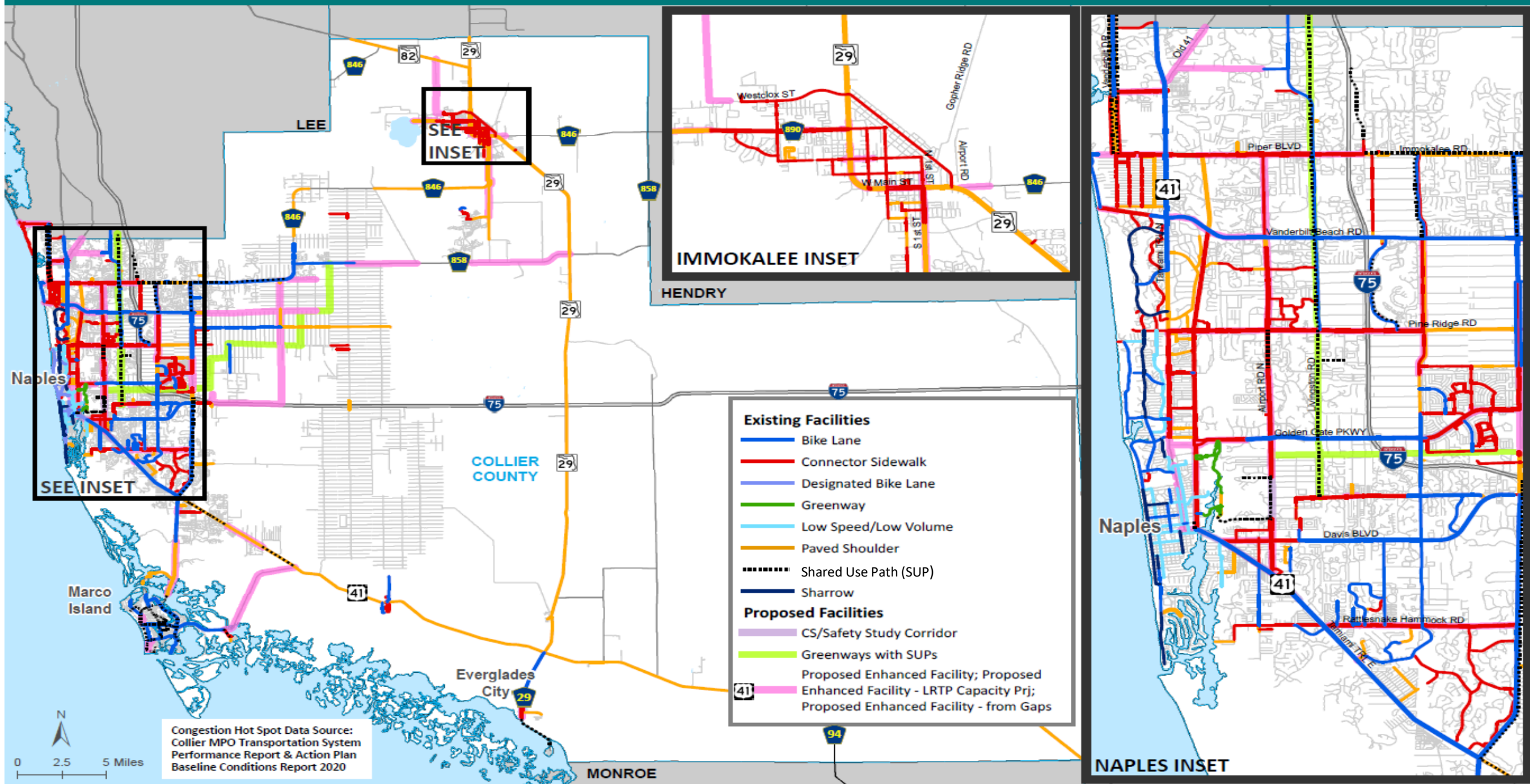
Draft Cost Feasible Plan – Transit

Improvement	FY 2020–2025 (TDP)	FY 2026–2030 (TDP)	FY 2031–2045 (LRTP Potential)
Route Network Modifications	Route 11 Extended Route 12 Extended Route 13 – Realign Route 14 – Realign Route 17/18 – Combine/Realign Route 19/28 – Combine/Realign Route 20/26 - Combine	None	None
Increase Frequency	Route 24 – 85 to 60-headway Route 121 – add AM and PM trip	Route 23 – 60 to 40 minutes	Route 11 – 30 to 20 minutes Route 12 – 90 to 45 minutes
Service Expansion (extend hours to 10 pm)	Route 17/18	Route 11, Route 13, Route 14	None
Proposed New Service Routes and Other Improvements	Santa Barbara Corridor Study UF/IFAS and Leigh Acres Route Study I-75 Managed Lanes Express Study Capital Infrastructure (Security) Bus Replacement Bus Shelters	Bus Replacement Bus Shelters	Bus Replacement - TBD Bus Shelters - TBD Capital Infrastructure (Studies) - TBD

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Bicycle and Pedestrian

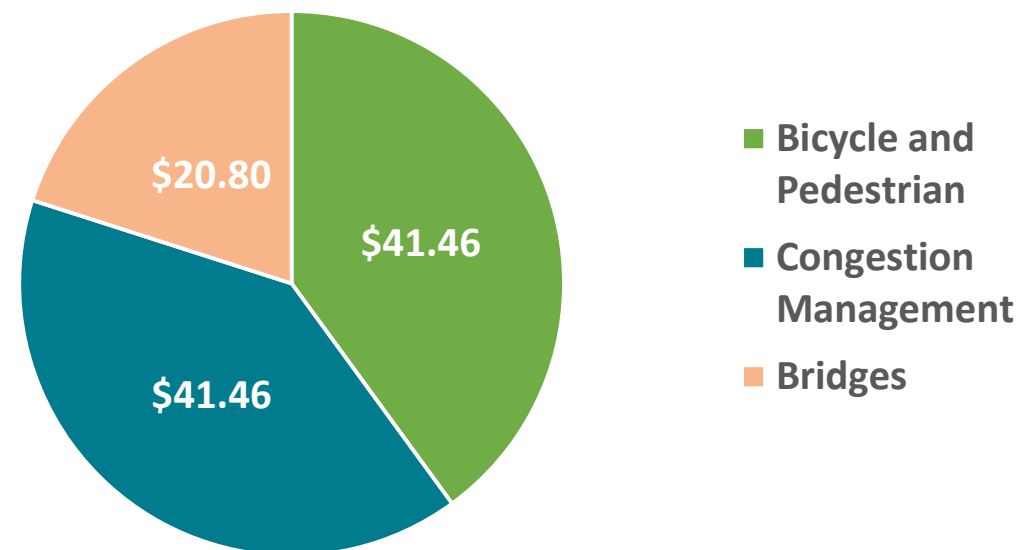
A horizontal green bar spans the width of the slide, positioned below the title.A horizontal light green bar spans the width of the slide, positioned below the green bar.



Other Considerations

- Use of SU Box Funds
 - Bicycle and Pedestrian = \$41.46M
 - Congestion Management = \$41.46M
 - Bridges = \$20.80M
- Airports

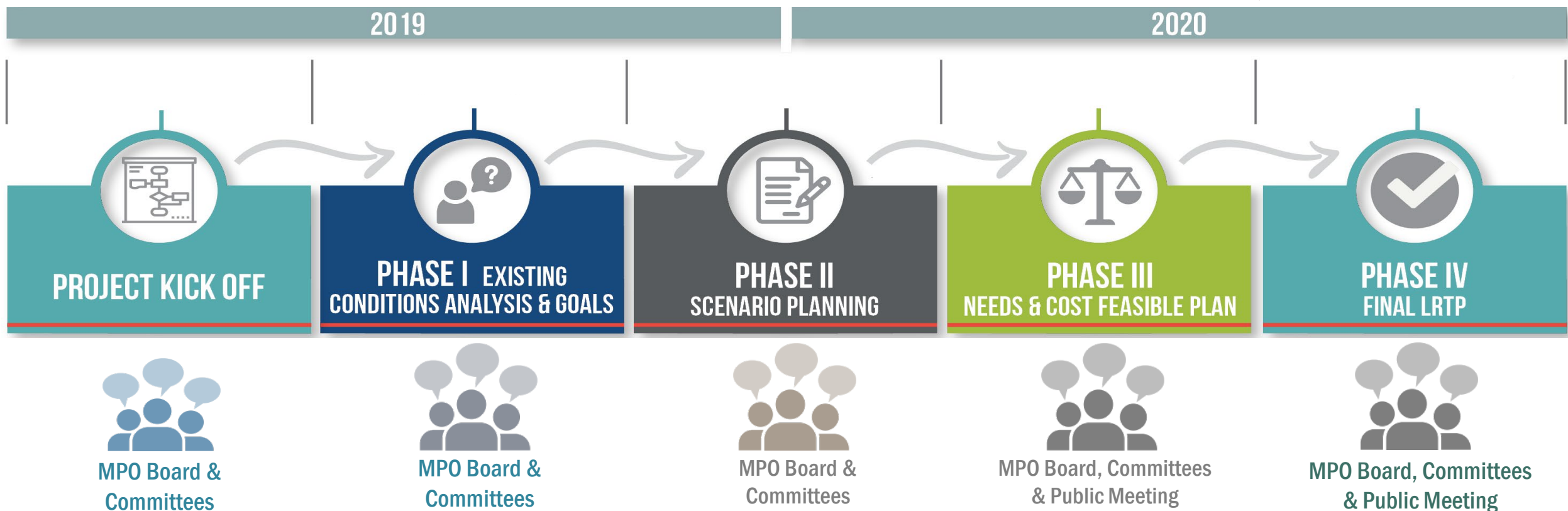
SU Box Funds Allocation



Next Steps in the LRTP Process



MPO BOARD MEETING
DECEMBER 11, 2020
FINAL LRTP APPROVAL



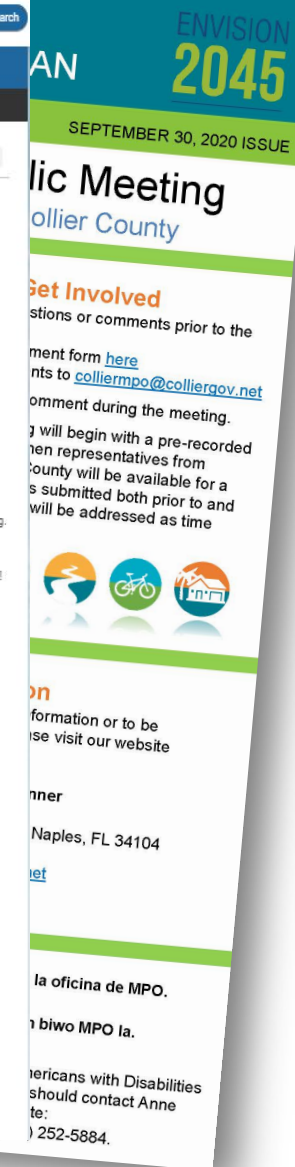
Stay Connected

- Public involvement activities are ongoing
- Your comments are welcome

For more information
and
upcoming events
please visit
www.colliermopo.org



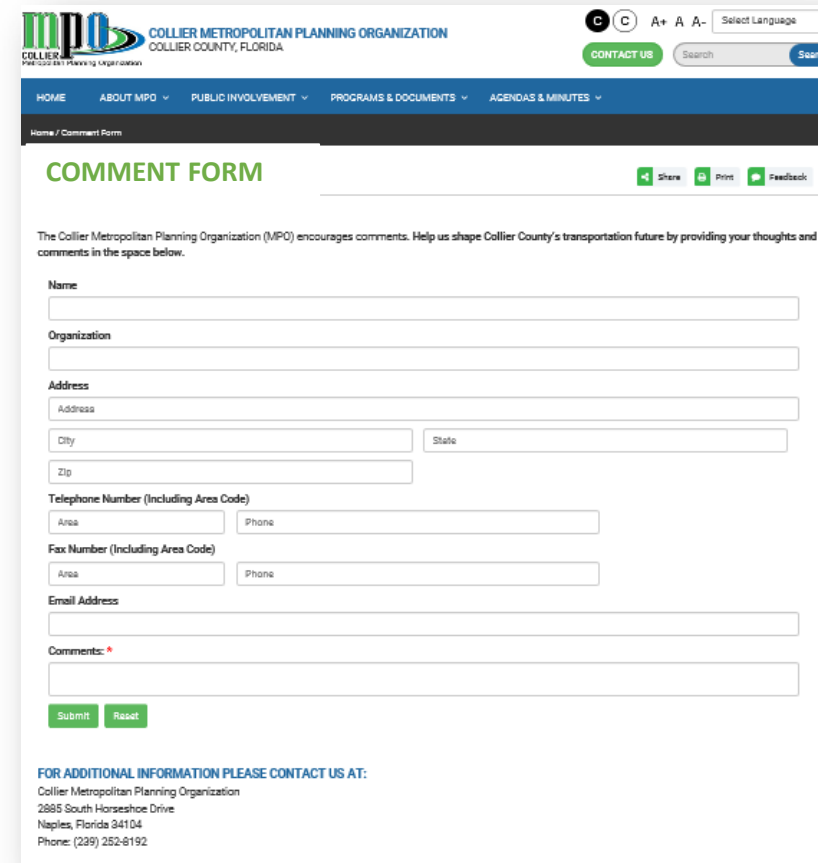

The screenshot shows the homepage of the Collier Metropolitan Planning Organization (MPO) website. The header includes the MPO logo, the text "COLLIER METROPOLITAN PLANNING ORGANIZATION" and "COLLIER COUNTY, FLORIDA", a "CONTACT US" button, and a search bar. The navigation menu includes links for HOME, ABOUT MPO, PUBLIC INVOLVEMENT, PROGRAMS & DOCUMENTS, and AGENDAS & MINUTES. The main content area is titled "LONG RANGE TRANSPORTATION PLAN (L RTP)" and features a large graphic with the text "2045 Help Shape the FUTURE of Transportation in COLLIER COUNTY". Below the graphic, there is a section titled "The MPO Board is reviewing a draft of the Cost Feasible Plan - Map and List of Projects and drafts of Chapters 1 - 6 of the 2045 L RTP at their October 9th meeting. You can view the agenda packet [here](#)." Another section mentions a Virtual Public Meeting on October 14, 2020, from 5:30 p.m. to 7:00 p.m., with a link to register. A third section asks for comments on proposed projects to address issues like congestion and safety, with a link to a Wikimap Link. A fourth section encourages checking back periodically for updates and joining the Adviser Network. A list of documents is provided, including the FDOT District 1 - 2045 Cost Feasible L RTP Model Development Process and Schedule, August 2019 TAC & CAC Project Kickoff Presentation, October 2019 MPO Board Presentation on Goals and Objectives and Public Involvement Plan, November 2019 MPO Board Presentation on Existing + Committed Network (E+C), December 2019 MPO Board Presentation on 2045 Zonal Data, and a 2015-and-2045 Report on Socio-economic Data. The footer includes the 2040 Long Range Transportation Plan logo and contact information for the MPO.



The graphic is for the ENVISION 2045 Public Meeting, dated September 30, 2020. It includes the text "Public Meeting" and "Collier County". Below this, it says "Get Involved" and "Comments or comments prior to the meeting form [here](#)". It also mentions "Comments to colliermopo@collierqov.net" and "Comment during the meeting." The graphic also features icons for a person, a bicycle, and a car. At the bottom, it says "Information or to be use visit our website" and "Naples, FL 34104".

Your comments are important

- Please submit your questions or comments by **November 6, 2020** for the Draft Cost Feasible Plan:
 - Using the online comment form [here](#)
 - Emailing your comments to colliermmpo@colliergov.net
 - Using the WikiMapping online tool at [LRTP WikiMapping Tool](#)



The screenshot shows the "COMMENT FORM" page of the Collier Metropolitan Planning Organization (MPO) website. The page header includes the MPO logo, the text "COLLIER METROPOLITAN PLANNING ORGANIZATION COLLIER COUNTY, FLORIDA", and a "CONTACT US" button. The main content area is titled "COMMENT FORM" and includes a "Share" button, a "Print" button, and a "Feedback" button. Below the title, there is a paragraph stating: "The Collier Metropolitan Planning Organization (MPO) encourages comments. Help us shape Collier County's transportation future by providing your thoughts and comments in the space below." The form fields include: Name, Organization, Address (with sub-fields for City, State, and Zip), Telephone Number (Including Area Code) (with sub-fields for Area and Phone), Fax Number (Including Area Code) (with sub-fields for Area and Phone), Email Address, and Comments. At the bottom of the form are "Submit" and "Reset" buttons. Below the form, there is a section titled "FOR ADDITIONAL INFORMATION PLEASE CONTACT US AT:" followed by the contact information for the Collier Metropolitan Planning Organization: 2885 South Horseshoe Drive, Naples, Florida 34104, Phone: (239) 252-6192.

Please Browse and Comment on WikiMapping

- **Get Started** to view interactive map
- **Click** on any project to:
 - Read project description
 - Like/Dislike a project
 - View/Add Comment
 - Select your Top 5 Priority Projects
- Submit a **Comment**

HOME

GET STARTED

VIEW LEGEND

SURVEY

CONTACT US

Shadow Wood

Flint Pen Strand

Corkscrew Regional Ecosystem Watershed

Corkscrew Swamp Sanctuary

Bird Rookery Swamp

Golden Gate Estates

North Belle Meade

Everglades Ranch

Lely Golf Estates

Playayune Strand State Forest

Florida Panther National Wildlife Refuge

846

846

850

850

850

850

850

850

850

850

0 comments

Powered by Pastel

BROWSE

COMMENT

MI

?

Share

Contact Us

Thank you for taking the time to give us input!

Your email address

Comment: (0/500 characters) *

Send

Cancel

www.colliermpo.org/lrtp



ENVISION 2045

Collier MPO

Contact Information

Visit us at <https://www.colliermopo.org/lrtp/>
or scan the QR code with your smart phone
to access our website.



Anne McLaughlin
MPO Director

2885 S. Horseshoe Drive
Naples, FL 34104

(239) 252-5884

colliermopo@colliergov.net

Brandy Otero
Principal Planner

(239) 252-5859



Live discussion with representatives from Collier MPO and Collier County

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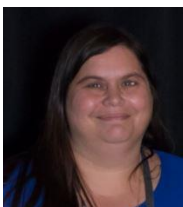
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ASK A QUESTION

Select **CHAT** on the bottom of the screen to open the CHAT BOX

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IF YOU WOULD LIKE TO SPEAK

Select **PARTICIPANTS** on the bottom of the screen and click on **RAISE HAND**

2045 Long Range Transportation Plan PRESENTATION VIDEO SCRIPT Virtual Public Meeting October 14, 2020

1 INTRODUCTION

2 Hello and thank you for joining the Collier Metropolitan Planning Organization's virtual
3 public meeting for the 2045 Long Range Transportation Plan. My name is Megan
4 Shimko of Jacobs Engineering and I will be moderating today's meeting. Originally
5 planned to be held in-person, the 2045 Long Range Transportation Plan Public Meeting
6 was changed to a virtual format to ensure the safety and well-being of all participants.

7 PRIVACY DISCLOSURE

8 *Please be advised that under Florida law, e-mail addresses, phone numbers, and*
9 *certain home addresses are public record once received by a government agency. If*
10 *you do not want your e-mail address, phone number, and home address released if the*
11 *Collier MPO receives a public records request, you can refrain from including such*
12 *information in your comment. You have the option of checking the Collier MPO website*
13 *for additional information.*

14 VIRTUAL MEETING INSTRUCTIONS

15 Tonight's meeting is being recorded and will be made available for you to view on the
16 Collier MPO Website. We will begin with a pre-recorded video presentation, followed by
17 a live discussion with representatives from Collier MPO, Collier County and FDOT to
18 address your comments and questions. Throughout tonight's meeting you can enter
19 your comments and questions in the Q&A text box on your computer screen or smart
20 device (as seen here). All participant phones and microphones are currently muted. If

21 you registered and would like to speak to our panel directly during the Q&A session, we
22 will announce your name and ask you to unmute your microphone.

23 We will now begin the presentation.

24 **START PRE-RECORDED VIDEO**

25 **Slide 1 - Cover Page**

26 The Collier Metropolitan Planning Organization, or Collier MPO, welcomes you to this
27 virtual public meeting for the 2045 Long Range Transportation Plan.

28 **Slide 2 - Agenda**

29 Tonight's meeting will provide you information on the 2045 Long Range Transportation
30 Plan process, goals and objectives, the Transportation Cost Feasible Plan, and provide
31 information on how you can offer your input.

32 **Slide 3 – Who is the Collier MPO?**

33 The Collier Metropolitan Planning Organization or M-P-O is a federally mandated
34 transportation policy-making organization made up of representatives from local
35 government and other transportation authorities. The MPO board members include local
36 elected officials representing Collier County, the City of Naples, the City of Marco
37 Island, and Everglades City. The Florida Department of Transportation's District 1
38 Secretary serves as a non-voting advisor to the MPO Board.

39 **Slide 4 – What is a Long-Range Transportation Plan?**

40 The Collier MPO's Long Range Transportation Plan or L-R-T-P establishes the vision of
41 the Collier County multi-modal transportation system, including highway, transit and
42 bicycle and pedestrian infrastructure improvements, over a 20-year period. In

compliance with federal and state requirements, the plan is updated every five years to reflect the changing dynamics of the county. This LRTP extends through the year 2045.

Slide 5 – What process are we using to update the LRTP?

The 2045 Long Range Transportation Plan's development process builds upon the 2040 LRTP as well as input from the MPO Board, advisory committees, planning partners and public input. Your ideas and comments tonight will inform the development of the 2045 LRTP and are important to help us plan for the future. Our updated Virtual Public Outreach Plan offers options for the public to stay connected and virtually participate in the LRTP process due to COVID-19.

Slide 6 – Goals and Objectives

The Goals, Objectives and Decision-Making Framework, approved by the MPO Board in October 2019, were established to help guide the development of the plan, creating a process through which projects can be evaluated and ranked against one another to define and document project priorities.

Slide 7 - Project Evaluation Criteria

The goals and objectives are reflected in the project evaluation criteria and cover a broad range of issues including environmental impact, economic development, mobility, safety, security, quality of life, climate change risks and new technology such as Connected and Automated Vehicles. In order to prioritize projects, the projects were scored and ranked based on how well they satisfied the LRTP goals. This table shows the scoring range and weighting for each goal used to evaluate and rank projects.

Slide 8 – Needs Plan List of Projects

The projects identified in the Transportation Needs Plan were assessed using the project evaluation criteria including considerations for sensitive environmental resources such as wetlands, panther habitat, and conservation areas. The LRTP Transportation Needs Plan is financially unconstrained. It is a list of projects that should be built by 2045 to accommodate projected growth if money is not an issue.

Slide 9 – What is a Cost Feasible Plan?

The LRTP Transportation *Cost Feasible Plan* is financially constrained. The Cost Feasible Plan is a list of projects that the region can afford to build with available funds by 2045. The list of projects is identified through a combined process involving coordination, project screening, and input from stakeholders, agencies, advisory committees and the public.

Prioritizing projects based on funding availability is a very difficult decision and does not satisfy all the transportation needs of the region. However, the process ensures that the most critical transportation improvement needs are built.

Slide 10 – Future Travel Demand

The MPO determines the transportation needs of the County based on future travel demand. The MPO, in partnership with F-D-O-T, is using the *District One Regional Planning Model* to determine needs and identify future transportation improvements.

Slide 11 – Draft Cost Feasible Network (2045) Compared to Existing Network (2023)

This slide shows a map of the results from the travel demand model based on alternative roadway networks. Several alternative networks were screened and compared to the existing network which includes projects that will be constructed by 2023.

This slide compares the existing and committed network (on the left) to the proposed 2045 network with the cost feasible projects (on the right). The colors indicate the level of congestion on the roads which is influenced by the number existing and proposed of travel lanes, land use and other factors in the model. There are several segments of roadways that are projected to fail by 2045 – shown in orange, red and black.

The roadways with the most significant projected increase in traffic and congestion are shown here.

Slide 12 – Draft Cost Feasible Network (2045) With CAV compared to Without CAV

The cost feasible network was also entered into the travel demand model with considerations for Connected and Automated Vehicles or C-A-V.

By 2045, it is reasonable to assume that a percentage of the vehicles on the road will move more efficiently due to CAV emerging technology and consumer trends. This slide compares the CAV proposed network (on the left) to the proposed 2045 network without CAV (on the right).

The roadways with the most significant projected increase in traffic and congestion are shown here.

Slide 13 – Plan Periods

106 The financial planning for statewide and metropolitan transportation plans is
107 typically required for three periods for LRTP Cost Feasible Plan:

- 108 • short range (up to 5 years)
- 109 • intermediate range (10 years) and
- 110 • long range (20 or more years).

111 **Slide 14 – Draft Cost Feasible Plan Projects**

112 The 2045 LRTP Cost Feasible Plan identifies the multimodal transportation
113 projects that can be funded through 2045 based on the estimated revenues. The
114 next slides summarize the draft plan by highway, transit, bicycle and pedestrian,
115 and other projects.

116 **Slide 15 – Highway Divider**

117 This section briefly describes the Highway component of the Draft Cost Feasible Plan...

118 **Slide 16 – Draft CFP**

119 This slide shows the location of the Draft Cost Feasible Plan projects.

120 **Slide 17 – 2045 LRTP Draft Cost Feasible Plan - Plan Period 2 from 2026-2030**

121 The next few slides show the draft cost feasible plan list of projects prioritized for
122 funding through construction for each plan period. Plan Period 2 is shown here from
123 year 2026 to 2030....

124 **Slide 18 – 2045 LRTP Draft Cost Feasible Plan - Plan Period 3 from 2031-2035**

125 Plan Period 3 is shown here from year 2031 to 2035....

126 **Slide 19 – 2045 LRTP Draft Cost Feasible Plan - Plan Period 4 from 2031-2045**

127 ...and Plan Period 4 is shown here from year 2036 to 2045.

128 **Slide 20 – 2045 LRTP Draft Cost Feasible Plan - Partially Funded**

129 This slide shows the location of the Draft Cost Feasible Plan projects prioritized and
130 partially funded for development but not fully funded for construction by 2045.

131 **Slide 21 – 2045 LRTP Draft Cost Feasible Plan - FDOT SIS Projects 2036-2045**

132 This slide shows the location of the Draft Cost Feasible Plan projects prioritized and
133 fully funded for development through construction in the FDOT Strategic Intermodal
134 System (or S-I-S) plan. There are 3 highways in Collier County that are SIS facilities: I-
135 75, State Road 29, and State Road 82.

136 **Slide 22 – Draft Cost Feasible Plan – Highway Summary**

137 The Draft Cost Feasible Plan for Highway projects has an estimated revenue forecast of
138 \$1.08 Billion dollars. The revenue consists of local, state and federal funding. This does
139 not include the revenue for FDOT SIS projects which is determined and managed by F-
140 D-O-T.

141 **Slide 23 – Transit Divider**

142 This section briefly describes the Transit component of the Draft Cost Feasible Plan...

143 **Slide 24 – Transit Development Plan 2020-2030**

Similar to the development of highway cost feasible projects, the cost feasible transit projects were developed by estimating the costs associated with each project in the transit needs plan as documented in the 10-year Draft Transit Development Plan. The LRTP project evaluation criteria also includes considerations for multi-modal accommodations and consistency with the Transit Development Plan.

Slide 25 – Draft Cost Feasible Plan – Transit

Revenue assumptions were made to forecast transit funding through 2045 for operations and capital projects. Based on the funding availability and prioritized results, the transit cost feasible projects are illustrated on this map shown here.

Slide 26 – Draft Cost Feasible Plan – Transit

Transit cost feasible projects include operating and capital improvements that are programmed for implementation within the LRTP plan period. Operating cost assumptions shown here in this table are based on a variety of factors including service performance data from Collier Area Transit, and include implementation of extended route networks, increased frequency of bus service, extended service times in the morning and evening, and new routes.

Slide 27 – Bicycle and Pedestrian Divider

This section briefly describes the Bicycle and Pedestrian component of the Draft Cost Feasible Plan...

Slide 28 – Bicycle and Pedestrian Map

Bicycle and pedestrian facilities are an important part of the County's transportation network. They provide access to public transportation, alternative mobility choices and recreation. In 2019, the Collier MPO developed a Bicycle Pedestrian Master Plan that addresses pedestrian and bicycle needs and priorities in the county by first identifying gaps and needs on collector and arterial roads. Existing and proposed facilities are illustrated on this map shown here. The implementation of the proposed projects is addressed through the individual agencies and the MPO bicycle and pedestrian advisory committee process. The LRTP project evaluation criteria also include considerations for multi-modal accommodations and consistency with the *Collier MPO Bicycle and Pedestrian Master Plan* facilities.

Slide 29 - Other Considerations

Similar to roadway and transit funding sources, there are multiple funding sources for other considerations important to the transportation network. Revenue projections in the 2045 LRTP include:

- A total of \$41.4 million in funds dedicated for future pedestrian and bicycle projects;
- \$41.4 million in funds for congestion management projects that improve congestion;
- and \$20.8 million in funds for new bridges or bridge replacement.

Information on projected airport revenues and expenditures will also be considered.

To view any of these Tables and Exhibits including maps shown in this presentation, please visit the Collier MPO website.

Slide 30 – Next Steps in the LRTP Process

The Collier MPO Board is scheduled to review the Draft Cost Feasible List of Projects on October 9, 2020 and may decide to revise the list presented in the slides. Changes to the Draft Cost Feasible Plan will be reported during the Virtual Public Meeting live discussion. The Final LRTP will be adopted by the MPO Board in December 2020.

Slide 31 – Stay connected

Public involvement activities are ongoing, and your comments are welcome throughout the LRTP process. For more information, updates on upcoming events, and to be added to the mailing list please visit the Collier MPO website.

Slide 32 – Your comments are important

Your comments are important. Please submit all questions or comments by **November 6, 2020** to be included in the assessment for the Transportation Cost Feasible Plan. Comments can be submitted by using the online comment form, emailing your comments to colliermmpo@colliergov.net; or using the Wikimapping online tool.

Slide 33 – Please Browse and Comment on WikiMapping

WikiMapping is an online interactive tool that collects your ideas through maps and images.

In Wikimapping, you can “browse” information or submit “comments” by using this toggle button on the bottom of the screen.

To view the interactive map of the Draft Cost Feasible Projects, click on the “Get Started” page.

207 On this page, you can read the project description, like or dislike a project, view and add
208 comments, and select your top 5 priority projects.

209 Then, you can click on the “Contact Us” page to submit a comment.

210 This interactive map and survey will help us identify the project priorities. Please visit
211 the Collier MPO website to find the link to the Wikimapping tool and tell us your
212 transportation needs and priorities for the future.

213 **Slide 34 – Thank You**

214 This concludes our presentation. For more information on the LRTP and other activities
215 of the Collier MPO please visit www.colliermmpo.org. We appreciate your attendance and
216 participation. Thank you.

217 **END RECORDING**

218 Now we will open up the meeting to hear your input. A team of subject-matter experts
219 are on standby and will be available to answer your questions and provide responses to
220 your comments, as time allows. If we do not get to your specific comment, please know
221 that we will post a response on the project Collier MPO website at www.colliermmpo.org.

222 Before we start the discussion, allow me to introduce the panel members here today.

223 **Begin Discussion.**

Meeting Screenshots

Meeting Screenshots



Live discussion with representatives from Collier MPO and Collier County

Panel Members



Anne McLaughlin
Collier MPO
Executive Director



Trinity Scott
Collier County
Transportation
Planning Manager



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Jacobs' 2045 LRTP
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Victoria Peters
FDOT
MPO & Community
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ASK A QUESTION

Select **CHAT** on the screen to open BOX

Type your question in the compose box where "Type Message Here" then hit **ENTER**.

IF YOU WOULD LIKE TO ASK A QUESTION

Select **PARTICIPANT** at the bottom of the screen and then hit **RAISE HAND**





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Meeting Exhibits

Table 2. Collier MPO 2045 LRTP Cost Feasible Plan (CFP) List of Projects
FDOT Other Roads Projects and Local Roadway Projects
Draft 10/07/2020; Costs are in millions \$

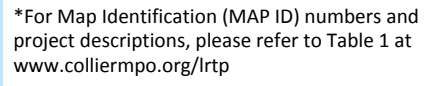
Map ID	FACILITY	LIMITS FROM	LIMITS TO	DESCRIPTION	In 2040 Needs?	In 2040 CFP?	Total Cost Present Day Cost (PDC 2019 millions\$)	TIP FUNDING 2021-25 (YOE)	PLAN PERIOD 1 (TIP): 2020-2025			PLAN PERIOD 2: 2026-2030			PLAN PERIOD 3: 2031-2035			PLAN PERIOD 4: 2036-2045			TOTAL COST 2026-2045 Year of Expenditure \$ (YOE millions \$)	FUNDING SOURCE
									PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST		
PLAN PERIOD 2 CONSTRUCTION FUNDED PROJECTS																						
12	Everglades Blvd	Vanderbilt Beach Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	Y		\$32.80					\$5.59	\$2.38	\$35.31							\$43.27	County
37	Oil Well Road / CR 858 [60144]	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	Y	Y	\$36.78	\$1.81	\$0.91		\$0.90	\$6.73		\$42.11							\$48.83	County
66	Immokalee Rd	Livingston Rd		Major Intersection Improvement			\$24.50							\$26.82							\$26.82	County
78	Golden Gate Parkway	Livingston Rd		Major Intersection Improvement			\$24.50					\$5.63		\$26.82							\$32.45	County
23	I-75 (SR-93) Interchange (new)	Golden Gate Pkwy		Interchange Improvement	Y	Y	\$9.59					\$0.58		\$12.24							\$12.81	OA
25	I-75 (SR-93)	Immokalee Rd		Interchange Improvement (DDI proposed)	Y	Y	\$9.59					\$0.58		\$12.24							\$12.81	OA
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lanes to 4 Lanes	Y	Y	\$43.13					\$3.91	\$17.84	\$33.53							\$55.27	OA
111	US 41	Immokalee Rd		Intersection Innovation /Improvements			\$17.50					\$3.13		\$20.12							\$23.24	OA
PLAN PERIOD 3 CONSTRUCTION FUNDED PROJECTS																						
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes	Y		\$22.23					\$3.40				\$3.16	\$27.47				\$34.03	County
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	Y	Y	\$47.07					\$7.29					\$65.04				\$72.32	County
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes			\$21.72					\$1.99	\$3.56				\$25.00				\$30.54	County
39	Old US 41	US 41	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	Y	Y	\$22.59					\$3.85	\$1.70				\$30.06				\$35.61	OA
57	US 41 (SR 90) (Tamiami Trail E)	Goodlette-Frank Rd		Major Intersection Improvement	Y	Y	\$13.00					\$0.63	\$2.97				\$15.77				\$19.37	OA
59	US 41 (SR 90) (Tamiami Trail E)	Collier Blvd		Major Intersection Improvement	Y	Y	\$17.25					\$2.81					\$23.66				\$26.47	OA
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Further Study Required			\$17.25					\$0.46			\$2.00		\$23.66				\$26.12	OA
PLAN PERIOD 4 CONSTRUCTION FUNDED PROJECTS																						
11	Everglades Blvd	Randall Blvd	South of Oil Well Rd	Widen from 2-Lanes to 4-Lanes	Y		\$16.42											\$3.39	\$2.22	\$24.65	\$30.26	County
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	Y	Y	\$3.90											\$0.77	\$0.55	\$5.88	\$7.20	County
63	Westclox St. Extension	Little League Road	West of Carson Rd	New 2-Lane Road	Y		\$3.01								\$0.51				\$0.55	\$4.45	\$5.51	County
65	Wilson Blvd	Keane Ave.	Golden Gate Blvd	New 2-Lane Road (Expandable to 4-Lanes)	Y	Y	\$36.15								\$8.82				\$6.15	\$50.29	\$65.26	County
97	Immokalee Rd (Intersection)	Logan Blvd		Major Intersection Improvement			\$11.50											\$2.40		\$18.55	\$20.95	County
99	Vanderbilt Beach Rd (Intersection)	Logan Blvd		Minor Intersection Improvement			\$11.50								\$2.12					\$18.55	\$20.67	County
101	Pine Ridge Rd	Goodlette-Frank Rd		Minor Intersection Improvement			\$5.75											\$1.20		\$9.28	\$10.48	County
C1	Connector Roadway from I-75 Interchange (New)	Golden Gate Blvd	Vanderbilt Beach Rd	4-Lane Connector Roadway from New Interchange (Further Study Required)			\$17.63					\$0.44			\$2.80	\$1.66				\$26.34	\$31.24	OA
C2	Connector Roadway from I-75 Interchange (New)	I-75 (SR-93)	Golden Gate Blvd	4-Lane Connector Roadway from New Interchange (Further Study Required)			\$80.59					\$2.00			\$13.28	\$7.41				\$120.02	\$142.70	OA
22	I-75 (SR-93) Interchange (new)	Vicinity of Everglades Blvd		New Interchange	Y		\$42.26					\$3.76			\$5.30	\$8.32				\$55.65	\$73.03	OA

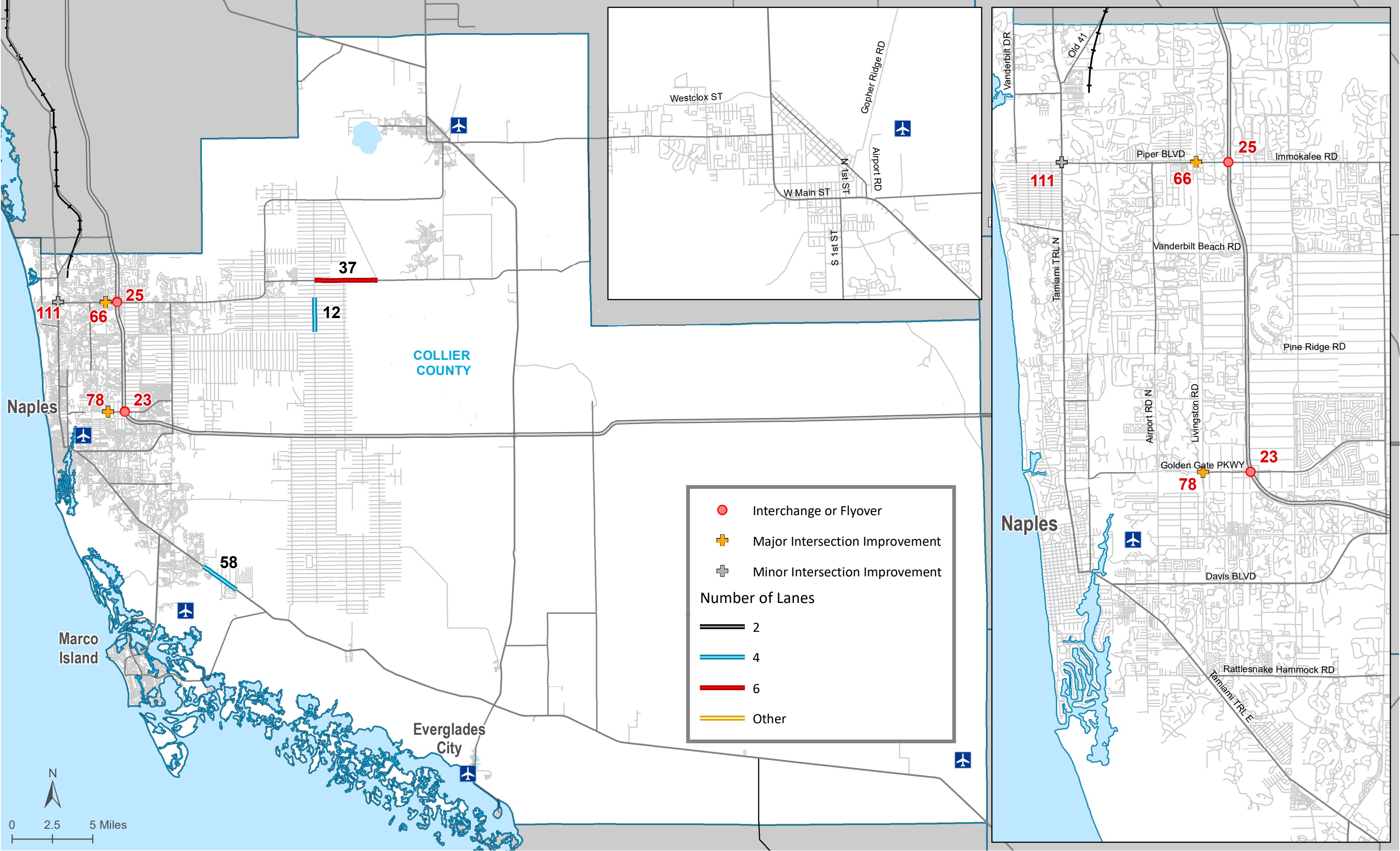
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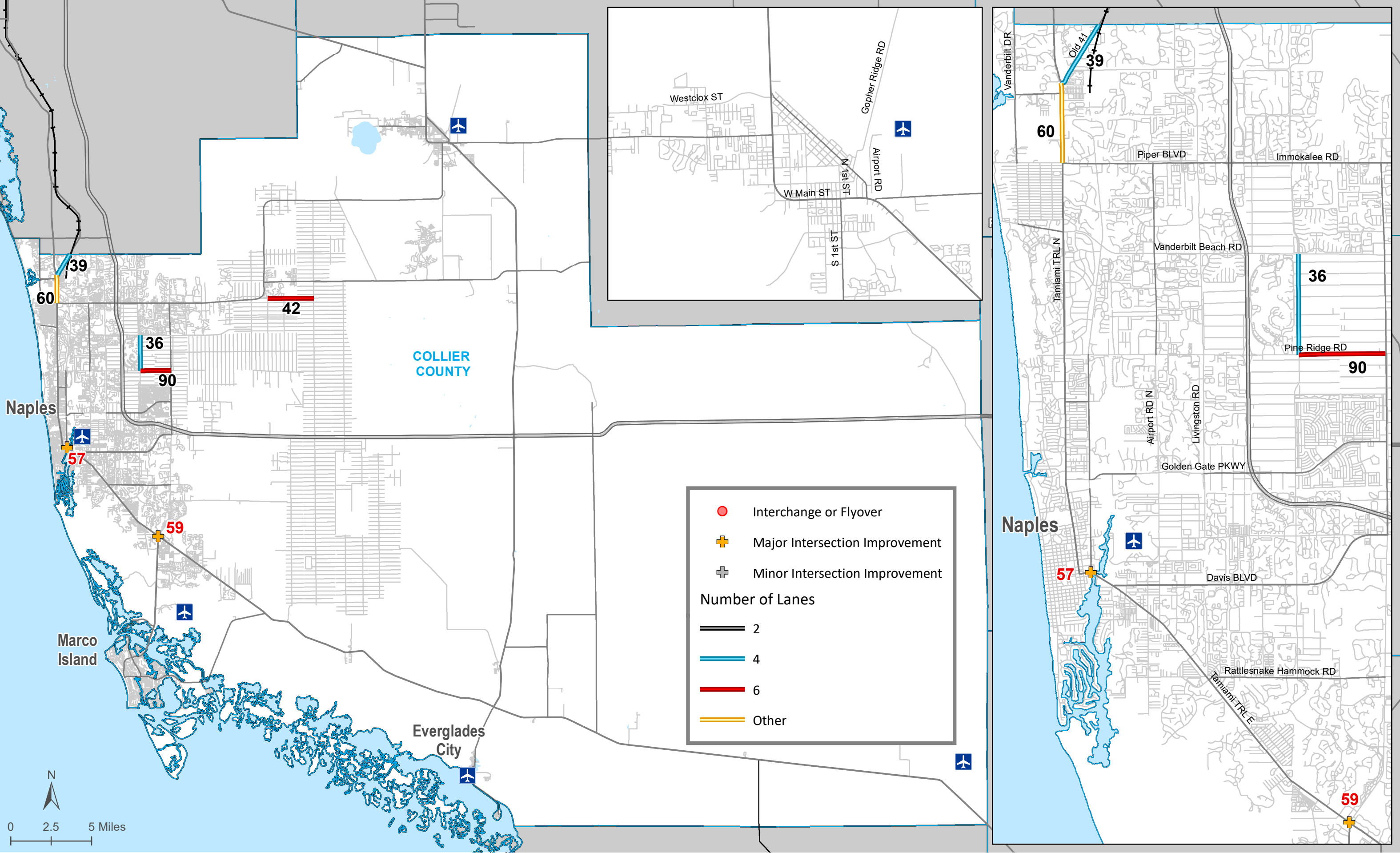
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									PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST		
PARTIALLY FUNDED PROJECTS																						
1	Benfield Rd (New) [60129]	The Lords Way	City Gate Blvd N	New 2-Lane Road (Expandable to 4-Lanes)	Y	Y	\$37.31	\$11.00	\$0.00	\$4.00	\$7.00		\$4.00		\$5.00		\$18.00	\$27.00	County			
5	Big Cypress Pkwy	Vanderbilt Beach Rd Ext.	Oil Well Rd	New 2-Lane Road (Expandable to 4-Lanes)	Y		\$37.31									\$7.70	\$4.04	\$11.74	County			
33	Little League Rd Ext.	SR 82	Westclox St.	New 2-Lane Road	Y	Y	\$40.99									\$8.48	\$7.33	\$15.81	County			
62B	Vanderbilt Beach Rd Ext.	Everglades Blvd	Big Cypress Pkwy	New 2-Lane Road (Expandable to 4 Lanes)	Y		\$41.17									\$8.38	\$16.07	\$24.46	County			
93	Immokalee Rd	43rd Ave/Shady Hollow Blvd E	North of 47th Ave. NE	Widen from 2-Lanes to 4-Lanes			\$9.79									\$2.26	\$0.48	\$2.74	County			
94	Rural Village Blvd	Immokalee Rd	Immokalee Rd	New 4-Lane Road			\$23.41									\$5.84	\$2.96	\$8.80	County			
98	Vanderbilt Beach Road	Livingston Rd		Minor Intersection Improvement			\$21.50									\$2.40		\$2.40	County			
41A	Randall Blvd Intersection (flyover) [60147]	Immokalee Rd		Ultimate Intersection Improvement: Overpass		Y	\$35.66	\$9.75	\$0.95		\$8.80					\$9.46		\$9.46	OA			
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6-Lanes		Y	\$40.26					\$0.94				\$9.01		\$30.04	\$39.99	OA		
74	Immokalee Rd (CR 846)	Wilson Blvd		Major Intersection Improvement			\$17.25									\$6.60		\$6.60	OA			
102	US 41 (SR 90) (Tamiami Trail E)	Vanderbilt Beach Rd		Major Intersection Improvement			\$2.50									\$4.90		\$4.90	OA			
103	US 41 (SR 90) (Tamiami Trail E)	Pine Ridge Rd		Major Intersection Improvement			\$2.50									\$4.90		\$4.90	OA			
104	US 41 (SR 90) (Tamiami Trail E) [4464511]	Golden Gate Pkwy		Major Intersection Improvement			\$3.50	\$0.50	\$0.27	\$0.23						\$4.40		\$4.40	OA			
Notes:							\$901.36	\$23.06	\$2.13	\$4.23	\$16.70	\$52.75	\$32.44	\$209.17	\$35.78	\$25.55	\$210.65	\$82.08	\$40.36	\$381.70	\$1,070.48	
	NEWLY IDENTIFIED PROJECT											\$294.36			\$271.97			\$504.14				
	PRE-ENG INCLUDES PD&E, DESIGN AND MITIGATION																					
PRE-ENG																						
PDC																						
YOE	PRESENT DAY COST YEAR OF EXPEDITURE																					

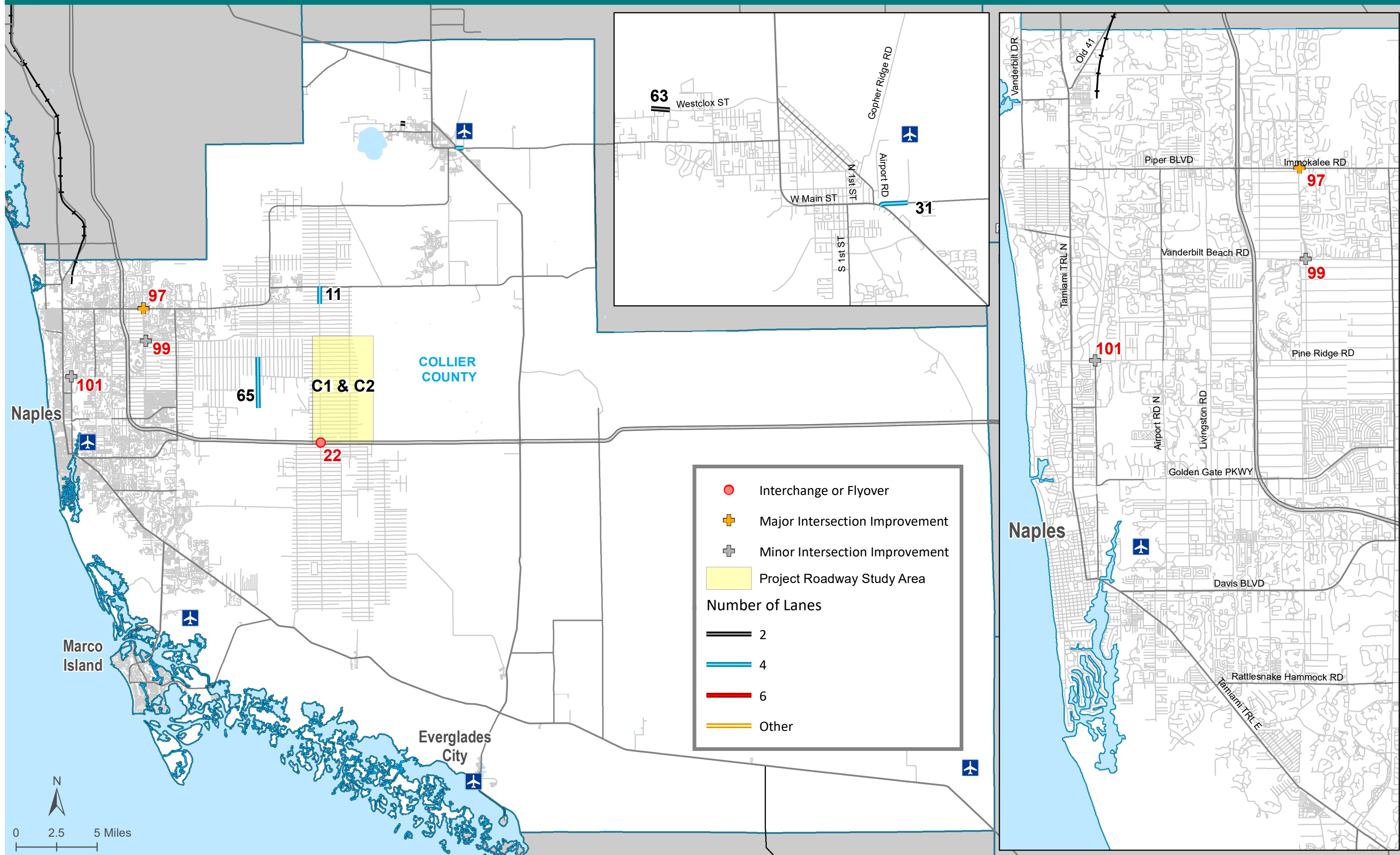
Table 3. OTHER CONSIDERATIONS: USE OF SU BOX FUNDS

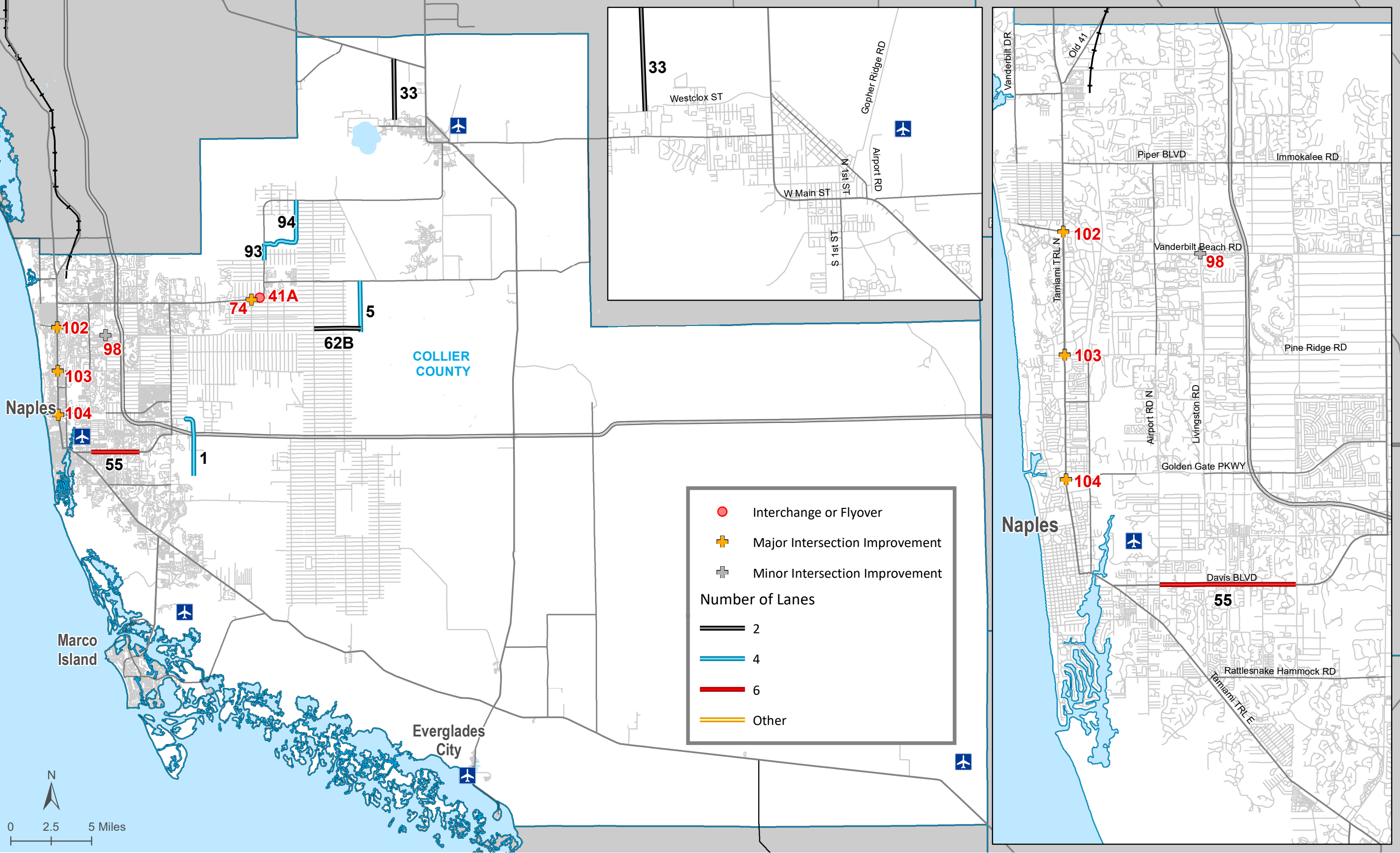
	PLAN PERIOD 2: 2026-2030			PLAN PERIOD 3: 2031-2035			PLAN PERIOD 4: 2036-2045			TOTAL COST 2026-2045	FUNDING SOURCE
	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST		
MPO Supplemental Planning Funds	\$0.70			\$0.80			\$1.90			\$3.40	SU
Bicycle Pedestrian Box Funds			\$10.42			\$10.39			\$20.65	\$41.46	SU/TALU
Congestion Management/Intelligent Transportation Box Funds			\$10.42			\$10.39			\$20.65	\$41.46	SU
Bridge Box Funds			\$5.24			\$5.20			\$10.36	\$20.80	SU

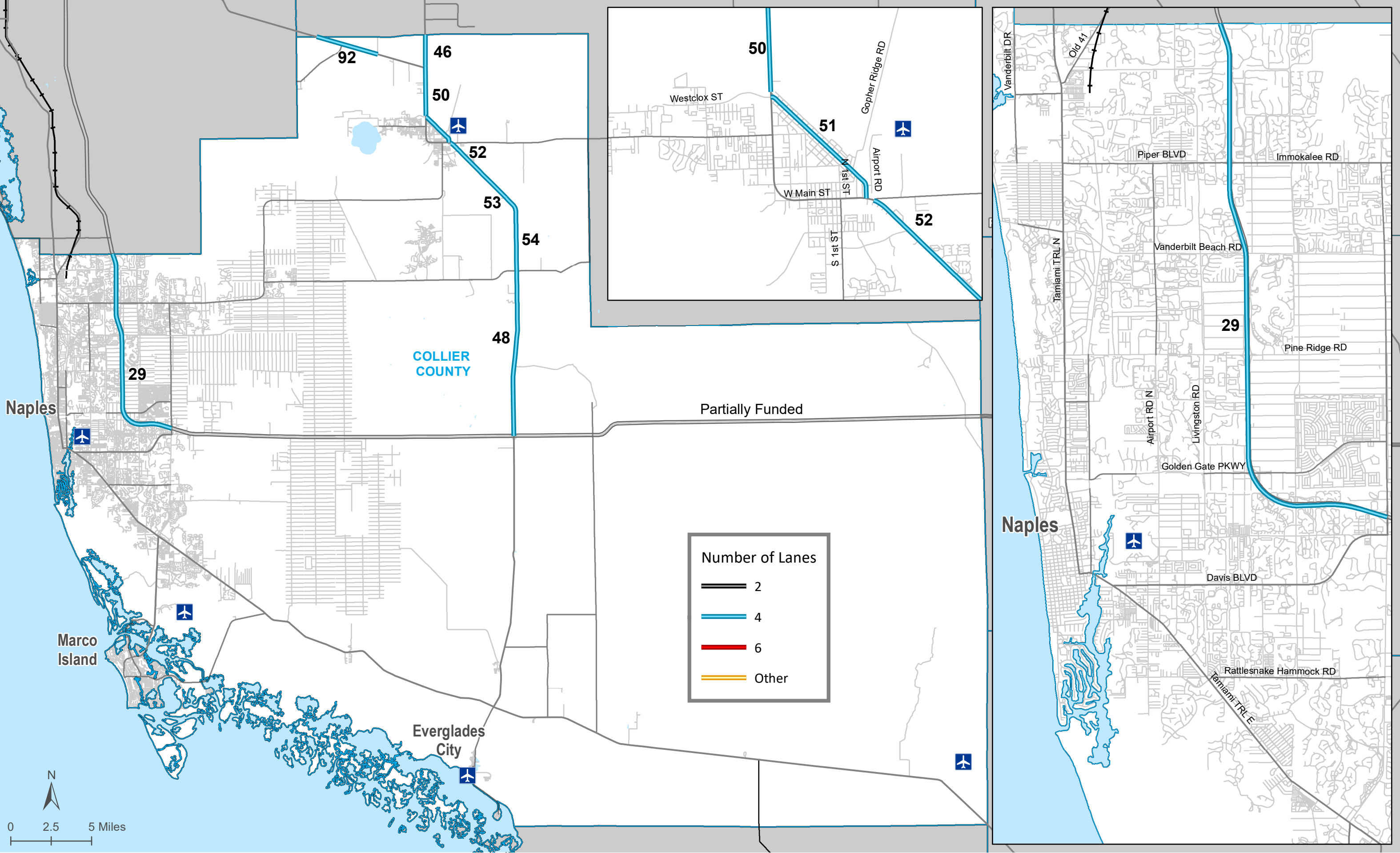


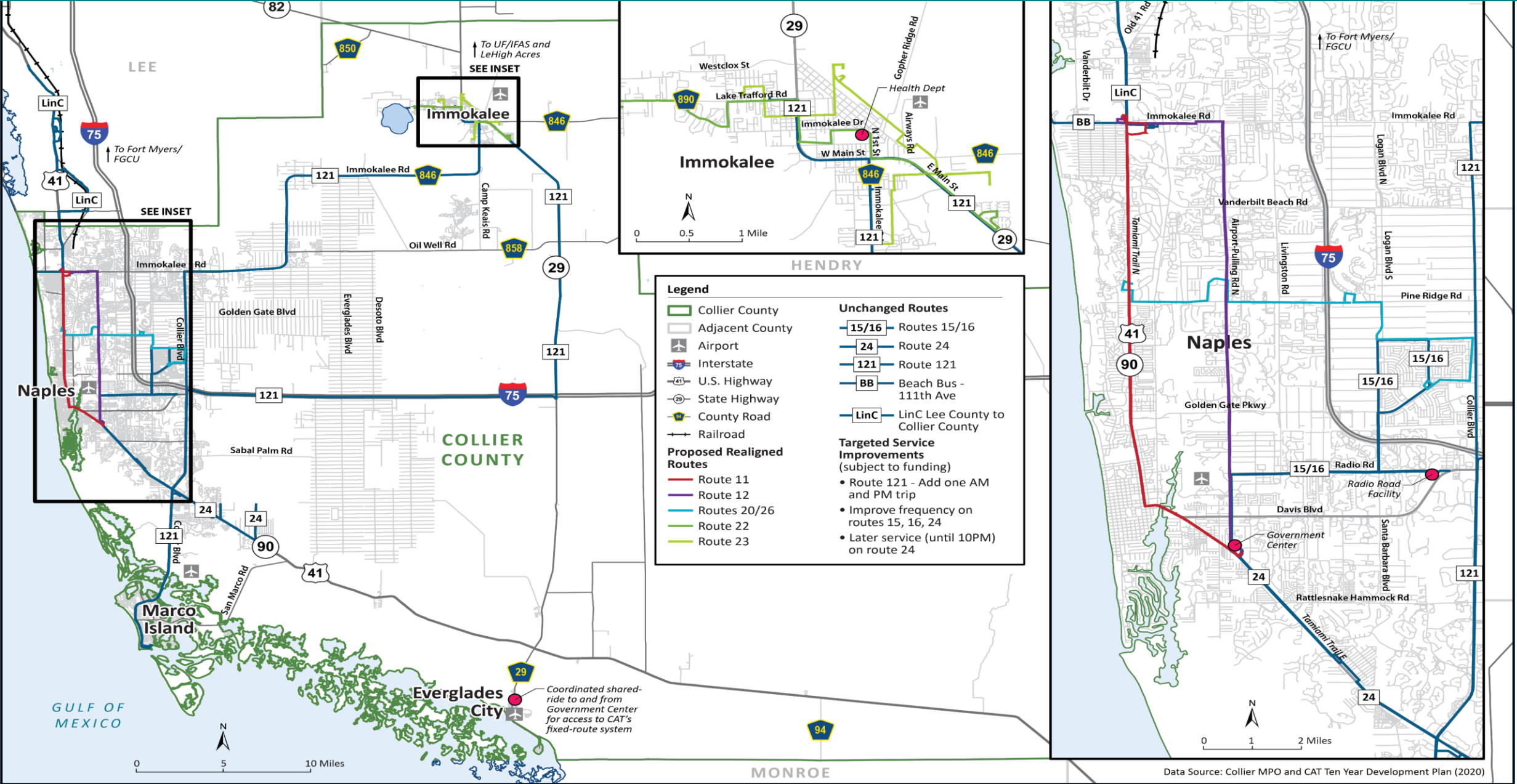


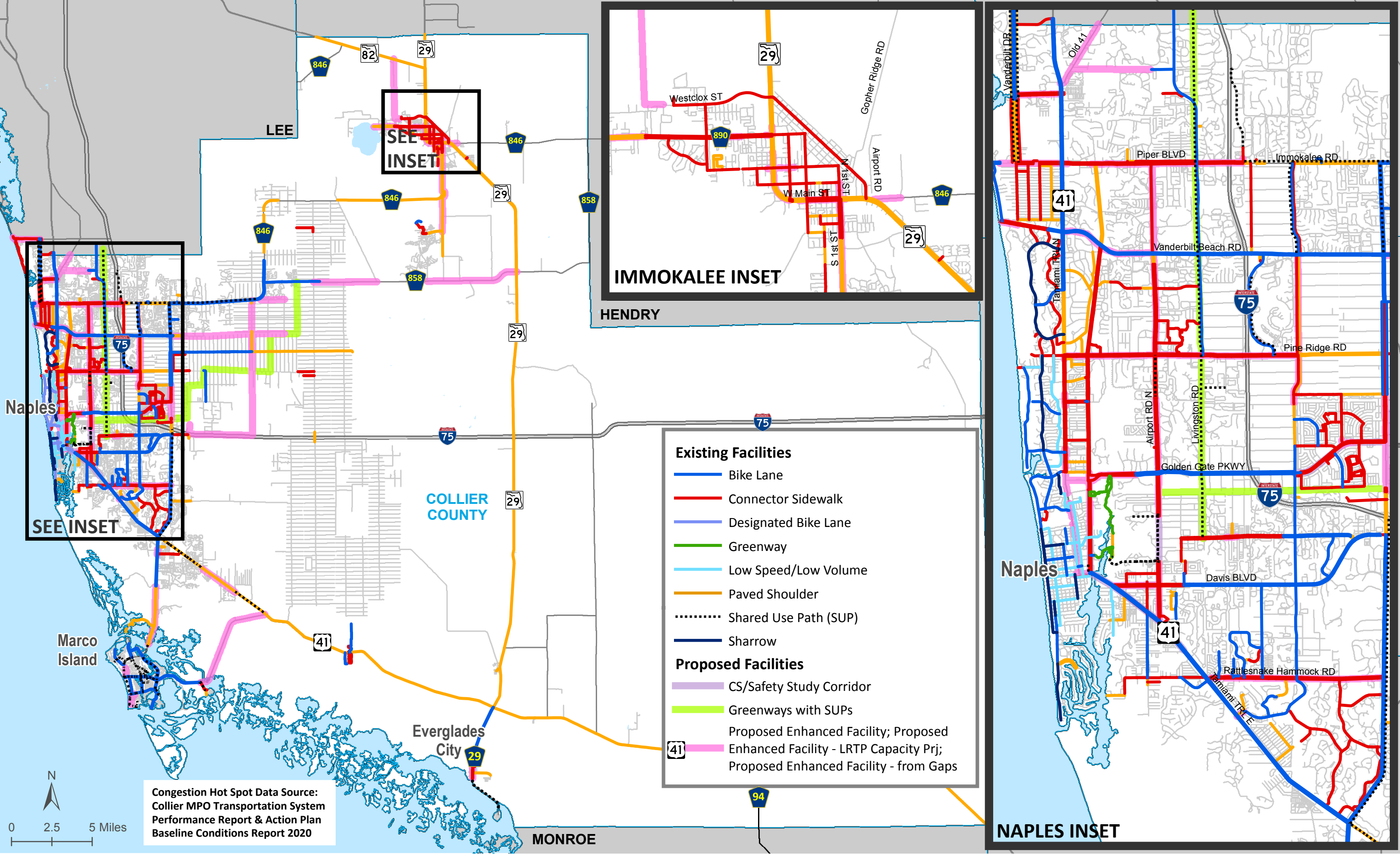












Appendix B

Public Notice

Please join us for a Virtual Public Meeting

Help Shape the Future of Transportation in Collier County

Date: October 14, 2020
Time: 5:30 p.m. to 7:00 p.m.
Click [Here](#) to Register!

The Collier Metropolitan Planning Organization (MPO) is hosting a virtual public meeting to present information on its 2045 Long Range Transportation Plan (LRTP). The LRTP will identify and address future transportation needs through 2045.

The meeting will provide an overview of the 2045 LRTP Cost Feasible Plan. The Cost Feasible Plan includes a financially constrained list of transportation projects assembled from public input, the unfunded 2040 LRTP projects, and by analyzing the deficiencies in the system. The projects were evaluated and prioritized using project evaluation criteria inspired by the LRTP Goals and Objectives.

How You Can Get Involved

Please submit your questions or comments prior to the meeting by:

- Using the online comment form [here](#)
- Emailing your comments to colliermmpo@colliergov.net

You may also submit a comment during the meeting.

The virtual public meeting will begin with a pre-recorded video presentation, and then representatives from Collier MPO and Collier County will be available for a live discussion. Comments submitted both prior to and during the virtual meeting will be addressed as time allows.



About the Virtual Public Meeting

Meeting materials are available online at www.colliermmpo.org/lrtp.

To access the virtual meeting, [click here to](#) be directed to the Zoom Meeting website.

Meeting ID: 812 9390 8876

Passcode: 219862

Or you may attend by phone at 1-646-876-9923



Contact Information

If you would like additional information or to be added to the mailing list, please visit our website at www.colliermmpo.org/lrtp

Brandy Otero, Principal Planner

Collier MPO

2885 South Horseshoe Drive, Naples, FL 34104

Phone: (239) 252-5859

Email: colliermmpo@colliergov.net

Un traductor del idioma español está disponible en la oficina de MPO.

Teléfono: (239) 252-5814

Gen yon tradiktè Kreyòl Ayisyen ki disponib nan biwo MPO la.

Telefòn: (239) 252-5884

Anyone requiring special accommodation under the Americans with Disabilities Act or language interpretation services (free of charge) should contact Anne McLaughlin at least ten (10) days prior to the service date:

Anne.McLaughlin@colliercountyfl.gov or by phone (239) 252-5884.



From: McLaughlinAnne
To: [Jones, Tara/ORL](#)
Subject: [EXTERNAL] FW: Save the Date Announcement - Virtual Public Meeting October 14
Date: Wednesday, September 30, 2020 5:28:28 PM
Attachments: [Save the Date Newsletter.pdf](#)

This went out to Adviser Network just now and Karen has posted to the Website. There's a lot more to be done the next few days and weeks, but we started the notice process today.

Anne McLaughlin
Executive Director



Office: 239-252-5884
Cell: 239-919-4378
2885 South Horseshoe Dr.
Naples, FL 34104
www.colliermmpo.com
anne.mclaughlin@colliercountyfl.gov

From: IntriagoKaren <Karen.Intriago@colliercountyfl.gov>
Sent: Wednesday, September 30, 2020 4:57 PM
To: McLaughlinAnne <Anne.McLaughlin@colliercountyfl.gov>
Subject: Save the Date Announcement - Virtual Public Meeting October 14

Good afternoon all,

The Collier MPO is hosting a virtual public meeting to present information on its 2045 Long Range Transportation Plan (LRTP). Please see attached Save the Date for more information on how to get involved and join the meeting.

Respectfully,

Karen Intriago
Administrative Assistant



Collier MPO

NOTE: Email Address Has Changed

2885 South Horseshoe Drive, Naples, Florida 34104
Phone: 239.252.5814
Karen.Intriago@colliercountyfl.gov

Under Florida Law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by telephone or in writing.


<https://www.colliermpo.org>

COLLIER METROPOLITAN PLANNING ORGANIZATION

COLLIER COUNTY, FLORIDA



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[MPO Board \(Https://Www.Colliermpo.Org/Mpo-Board-With-Link-To-Bylaws-And-Mpo-
Calendar/\)](https://www.colliermpo.org/mpo-board-with-link-to-bylaws-and-mpo-calendar/)
[Committees \(Https://Www.Colliermpo.Org/Committees/\)](https://www.colliermpo.org/committees/)
[TAC \(Https://Www.Colliermpo.Org/Tac/\)](https://www.colliermpo.org/tac/)
[CAC \(Https://Www.Colliermpo.Org/Cac/\)](https://www.colliermpo.org/cac/)
<https://www.colliermpo.org>
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[Home \(https://www.colliermpo.org/\)](https://www.colliermpo.org/) / [Collier MPO 2045 LRTP Public Meeting](#)

COLLIER MPO 2045 LRTP PUBLIC MEETING

[Share](#) [Print](#) [Feedback](#)

Date/Time

Date(s) - 10/14/2020 5:30 pm

Collier MPO 2045 LRTP Public Meeting

Meeting ID: 812 9390 8876

Passcode: 219862








[Save the Date Newsletter \(https://www.colliermpo.org/wp-content/uploads/2020/09/Save-the-Date-
Newsletter_POST09-30-20.pdf\)](https://www.colliermpo.org/wp-content/uploads/2020/09/Save-the-Date-Newsletter_POST09-30-20.pdf)
Click [here \(https://us02web.zoom.us/j/81293908876?](https://us02web.zoom.us/j/81293908876?pwd=cjl2VEdkcWtySmN1VU9NYS9vamd2UT09)
[pwd=cjl2VEdkcWtySmN1VU9NYS9vamd2UT09\)](https://us02web.zoom.us/j/81293908876?pwd=cjl2VEdkcWtySmN1VU9NYS9vamd2UT09) to be directed to the Zoom meeting.

[More Events](#)
[\(https://www.colliermpo.org/events/\)](https://www.colliermpo.org/events/)

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 [About Us \(https://www.colliermpo.org/about-mpo/\)](https://www.colliermpo.org/about-mpo/) /
 [What's New \(https://www.colliermpo.org/news\)](https://www.colliermpo.org/news/) /
 [Upcoming Events \(https://www.colliermpo.org/events\)](https://www.colliermpo.org/events/) /
 [Get Involved \(https://www.colliermpo.org/get-involved\)](https://www.colliermpo.org/get-involved/) /
 [MPO Calendar \(https://www.colliermpo.org/mpo-calendar/\)](https://www.colliermpo.org/mpo-calendar/) /
 [Contact Us \(https://www.colliermpo.org/contact-us/\)](https://www.colliermpo.org/contact-us/) /
 [Site Map \(https://www.colliermpo.org/site-map/\)](https://www.colliermpo.org/site-map/) /
 [Disclaimer & Privacy Statement \(https://www.colliermpo.org/disclaimer-privacy-statement/\)](https://www.colliermpo.org/disclaimer-privacy-statement/)

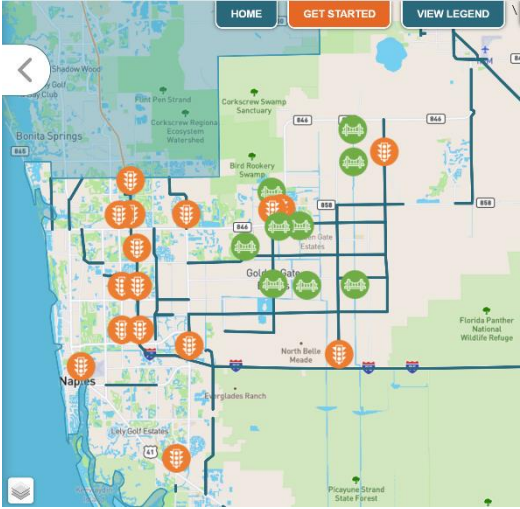

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Collier MPO 2045 LRTP Virtual Public Meeting #2 Social Media Calendar – 10/20/2020



October 2020						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27	28	29	30	1	2 	3
4	5	6	7 	8	9	10
11	12	13 	14 VPM #2 	15	16	17
18	19	20	21 	22	23	24
25	26	27	28 	29	30	31
November 2020						
1	2	3	4	5 	6 Last day for input prior to MPO Board Meeting	7

Social Media Posts

Date/Time	App	Post Content	Actual Post
Friday, October 2, 2020	Twitter Facebook	<p>Join the Collier MPO for a virtual public meeting October 14, 2020 to discuss the 2045 Long Range Transportation Plan Cost Feasible Plan. Your input is important to help build the vision for transportation in Collier County. Learn more here!</p> 	<p>Facebook</p>  <p>Twitter</p> 

Date/Time	App	Post Content	Actual Post
Wednesday, October 7, 2020	Twitter Facebook	<p>Your input is important to help build the vision for transportation in Collier County. Visit our WikiMapping interactive mapping tool to ask questions, get information, and provide your comments on the Collier MPO 2045 Long Range Transportation Plan Cost Feasible Plan. Visit our Interactive Map here!</p>	<p>Facebook</p> <p>Collier County Florida October 7 at 4:43 PM · 🌐</p> <p>Your input is important to help build the vision for transportation in Collier County. Visit our WikiMapping interactive mapping tool to ask questions, get information, and provide your comments on the Collier MPO 2045 Long Range Transportation Plan Cost Feasible Plan. Visit our Interactive Map and Survey here! https://bit.ly/33p9MDP</p>  <p>9 1 Share</p> <p>Like Comment Share</p> <p>Write a comment...</p>
Tuesday, October 13, 2020	Twitter Facebook	<p>Learn more about the Collier MPO 2045 Long Range Transportation Plan Cost Feasible Plan. Join TOMORROW's virtual public meeting – Wed, October 14th at 5:30 PM. Join Here!</p>	<p>Facebook</p> <p>Collier County Florida 2h · 🌐</p> <p>Learn more about the Collier MPO 2045 Long Range Transportation Plan Cost Feasible Plan. Join TOMORROW's virtual public meeting – Wed, October 14th at 5:30 PM. https://www.colliermpo.org/lrtp/ ✓</p>  <p>3</p> <p>Like Comment Share</p> <p>Write a comment...</p>

Date/Time	App	Post Content	Actual Post
			<div><div>Twitter</div><div><div><div><div><div><div></div><div><div><div></div><div><div>CollierPIO</div></div></div><div>@CollierPIO · 2h</div></div></div><div>Learn more about the Collier MPO 2045 Long Range Transportation Plan Cost Feasible Plan. Join TOMORROW's virtual public meeting – Wed, October 14th at 5:30 PM. colliermmpo.org/lrtp/</div></div></div><div><div><div><div><div>2045</div><div>LONG RANGE TRANSPORTATION PLAN</div><div><div><div></div><div></div><div></div><div></div></div></div><div>Collier MPO</div></div><div><div>Help Shape the FUTURE of</div><div>Transportation</div><div>in COLLIER COUNTY</div></div></div></div><div><div></div><div></div><div>1</div><div></div></div></div></div></div></div>
Wednesday, October 14, 2020	Twitter Facebook Instagram	<div>Happening TODAY! Collier MPO is hosting a virtual public meeting on its 2045 Long Range Transportation Plan. Get involved in the future of transportation in Collier County by joining today at 5:30 PM. Join Here!</div> <div><div><div><div><div>2045</div><div>LONG RANGE TRANSPORTATION PLAN</div><div><div><div></div><div></div><div></div><div></div></div></div><div>Collier MPO</div></div></div></div></div>	<div><div><div><div><div><div></div><div><div><div>Collier County Florida</div></div></div><div>October 14 at 5:00 AM · 🌐</div></div></div><div>Happening TODAY! Collier MPO is hosting a virtual public meeting on its 2045 Long Range Transportation Plan. Get involved in the future of transportation in Collier County by joining today at 5:30 PM. https://www.colliermmpo.org/lrtp/</div></div><div><div><div><div><div>2045</div><div>LONG RANGE TRANSPORTATION PLAN</div><div><div><div></div><div></div><div></div><div></div></div></div><div>Collier MPO</div></div></div></div><div><div><div>6</div><div>1 Share</div></div><div><div>Like</div><div>Comment</div><div>Share</div><div></div></div></div></div></div></div>

Date/Time	App	Post Content	Actual Post
			<div>Twitter</div> <div><div></div><div><div>CollierPIO</div><div>@CollierPIO · Oct 14</div></div><div><div>Happening TODAY! Collier MPO is hosting a virtual public meeting on its 2045 Long Range Transportation Plan. Get involved in the future of transportation in Collier County by joining today at 5:30 PM.</div><div>colliermmpo.org/lrtp/</div></div></div> <div></div> <div><div></div><div></div><div><div></div>2</div><div></div></div>

Facebook/Instagram Advertisement

Ad Preview



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Concerned about congestion and safety in the metropolitan area? Give us your comments on our proposed projects to address issues:

Help Shape the **FUTURE** of
Transportation
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Collier MPO LRTP

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Happening THIS WEEK! Collier MPO is hosting a virtual public meeting on its 2045 Long Range Transportation Plan. Get involved in the future of transportation in Collier County by joining Oct 14th at 5:30 PM.

2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO

COLLIERMPO.ORG

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SIGN UP



Like



Comment



Share



News Media Contact:

Anne McLaughlin
MPO Executive
Director
239-252-5884
Colliermpo.org

2885 S. Horseshoe Drive, Naples, Florida 34104 • (239) 252-5814 • Fax (239) 252-5815

October 13, 2020

FOR IMMEDIATE RELEASE

Notice of Virtual Public Meeting
Collier Metropolitan Planning Organization (MPO)
2045 Long Range Transportation Plan – Cost Feasible Plan

Wednesday, October 14, 2020
5:30 p.m. to 7:00 p.m.

Notice is hereby given that the Collier Metropolitan Planning Organization (MPO) will hold a virtual public meeting on the 2045 Long Range Transportation Plan – Cost Feasible Plan beginning at 5:30 p.m. on Wednesday, October 14, 2020. The public may attend electronically. To register, visit <https://us02web.zoom.us/j/81293908876?pwd=cjl2VEdkcWtySmNlVU9NYs9vamd2UT09> prior to October 14, 2020 at Noon. The meeting exhibits are posted and may be viewed on the Collier MPO website at <https://www.colliermpo.org/lrtp/>

One or more members of the Collier MPO Board, the County Board of County Commissioners, Naples City Council, Marco Island City Council, Everglades City Council and the Florida Department of Transportation (FDOT) may be present and may participate in the meeting. The subject matter of this meeting will be an item for discussion and action at a future Collier MPO board meeting.

The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and related statutes. The MPO's Civil Rights policy and procedures can be viewed at <https://www.colliermpo.org/get-involved/civil-rights/> Any person or beneficiary who believes that he or she has been discriminated against as part of the MPO planning process because of race, color, religion, sex, age, national origin, disability or familial status may file a complaint with the MPO by calling MPO Executive Director Anne McLaughlin or by writing to Ms. McLaughlin at 2885 S. Horseshoe Drive, Naples, Florida 34104.

Any person requiring auxiliary aid or service for effective communication, language translation services, or other reasonable accommodations to participate in the meeting, as well as anyone with general questions, should contact Ms. McLaughlin at least 72 hours prior to the meeting by calling 239-252-5884.

###

STATE OF FLORIDA

OFFICE OF THE GOVERNOR EXECUTIVE ORDER NUMBER 20-193

(Amending Executive Order 20-179)

WHEREAS, on March 9, 2020, I issued Executive Order 20-52 declaring a state of emergency for the entire State of Florida due to COVID-19; and

WHEREAS, Executive Order 20-69, as amended by Executive Order 20-179, requires amendment to provide local government bodies with additional time to notice their meetings.

NOW, THEREFORE, I, RON DESANTIS, as Governor of Florida, by virtue of the authority vested in me by Article IV, Section (1)(a) of the Florida Constitution, Chapter 252, Florida Statutes, and all other applicable laws, promulgate the following Executive Order to take immediate effect:

Section 1.

Section 3. of Executive Order 20-179 is amended to read, as follows:

Except as amended herein, I hereby extend Executive Order 20-69, as extended by Executive Orders 20-112, 20-123, 20-139 and 20-150, until 12:01 a.m. on October 1, 2020.



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Florida to be affixed, at Tallahassee, this 7th day of August, 2020.


RON DESANTIS, GOVERNOR

ATTEST:


SECRETARY OF STATE

DEPARTMENT OF STATE
TALLAHASSEE, FLORIDA

2020 AUG -7 PM 4:32

FILED

Appendix C

Registration

Registrants for 'Collier MPO 2045 LRTP Public Meeting'

×

Search by name or email

Search

<input type="checkbox"/>	Registrants	Email Address	Registration Date	
<input type="checkbox"/>	Catherine Faerber	catherinefaerber@gmail.com	Oct 12, 2020 08:06 AM	<button>Copy</button>
<input type="checkbox"/>	Fred Sasser	crdx@sprynet.com	Oct 11, 2020 08:07 PM	<button>Copy</button>
<input type="checkbox"/>	Kim Jacob	kimjacobl01@gmail.com	Oct 8, 2020 05:48 PM	<button>Copy</button>
<input type="checkbox"/>	Cross Suzanne	sicross@yahoo.com	Oct 8, 2020 03:45 PM	<button>Copy</button>
<input type="checkbox"/>	Trisha Goff	tgoff@cityofbonitaspringscd.org	Oct 8, 2020 01:33 PM	<button>Copy</button>
<input type="checkbox"/>	Michael Seef	mdslogistics@aol.com	Oct 8, 2020 11:51 AM	<button>Copy</button>

Cancel Registration

Resend Confirmation Email

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1

2

>

Registrants for 'Collier MPO 2045 LRTP Public Meeting'

×

Search by name or email

Search

<input type="checkbox"/>	Registrants	Email Address	Registration Date	
<input type="checkbox"/>	Lorraine Lantz	Lorraine.lantz@colliercountyfl.gov	Oct 8, 2020 11:30 AM	<button>Copy</button>
<input type="checkbox"/>	Michelle Arnold	MichelleArnold@colliergov.net	Oct 8, 2020 09:31 AM	<button>Copy</button>
<input type="checkbox"/>	Patricia Huff	snookcity@gmail.com	Oct 8, 2020 09:04 AM	<button>Copy</button>
<input type="checkbox"/>	Megan Shimko	meshimko@gmail.com	Oct 6, 2020 04:04 PM	<button>Copy</button>
<input type="checkbox"/>	Debrah Forester	debrah.forester@colliercountyfl.gov	Oct 1, 2020 08:19 AM	<button>Copy</button>

Cancel Registration

Resend Confirmation Email

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Appendix D

Comment Information



COMMENT FORM

[Share](#) [Print](#) [Feedback](#)

The Collier Metropolitan Planning Organization (MPO) encourages comments. Help us shape Collier County's transportation future by providing your thoughts and comments in the space below.

Name

Organization

Address

City

State

Zip

Telephone Number (Including Area Code)

Area

Phone

Fax Number (Including Area Code)

Area

Phone

Email Address

Comments: *

Submit

Reset

FOR ADDITIONAL INFORMATION PLEASE CONTACT US AT:

Collier Metropolitan Planning Organization
2885 South Horseshoe Drive
Naples, Florida 34104
Phone: (239) 252-8192

VPM Comments via Registration

Cross, Suzanne

Status: approved

Registered: Oct 8, 2020 03:45 PM

Email: sicross@yahoo.com

First Name: Cross

Last Name: Suzanne

Email Address: sicross@yahoo.com

Organization: self

Questions & Comments: Ways to decrease the amount of "paved roads" in the area, rather than increasing them? What alternatives are being evaluated and how can Naples take a leadership position in clean, safe, reliable alternatives to individual auto ridership?

Would you like to comment at the meeting?: maybe

Registrant Details

×

[Back](#)

Michael, Seef

Status: approved

Registered: Oct 8, 2020 11:51 AM

Email: mdslogistics@aol.com

First Name: Michael

Last Name: Seef

Email Address: mdslogistics@aol.com

Organization: Self Employed

Questions & Comments: I would like to know what environmental impacts there are for most necessary cost effective road projects. Thank you,

Would you like to comment at the meeting?: possibly if the question below is considered .

[Cancel Registration](#)

[Resend Confirmation Email](#)

[Back](#)

Collier MPO 2045 LRTP

Cost Feasible Plan Interactive Map Summary

Date: Friday, November 13, 2020

As a part of the public input activities undertaken during the 2045 LRTP Cost Feasible Phase, an interactive map was disseminated through the MPO's website. Participants were invited to provide comments to specific projects. The following memo summarizes the comments received between October 9, 2020 to November 6, 2020.

On-line Map

The interactive on-line/web map component allowed the community to provide input on specific projects on a map of Collier County. These projects were identified through the LRTP's Needs Assessment and Cost Feasible processes. The input received through this process will help inform the next phase of the LRTP, the Project Selection Phase. The projects on the map were categorized as either an "intersection" or a "bridge" project. Screenshots from the Interactive Map can be seen below.

Share your feedback on the recommended projects

This map represents the projects on the Draft Cost Feasible Plan for the 2045 LRTP Update.

Click any project on the map to learn more about it, add your feedback as a comment or like / dislike, or select it as one of your top 5 priority projects.

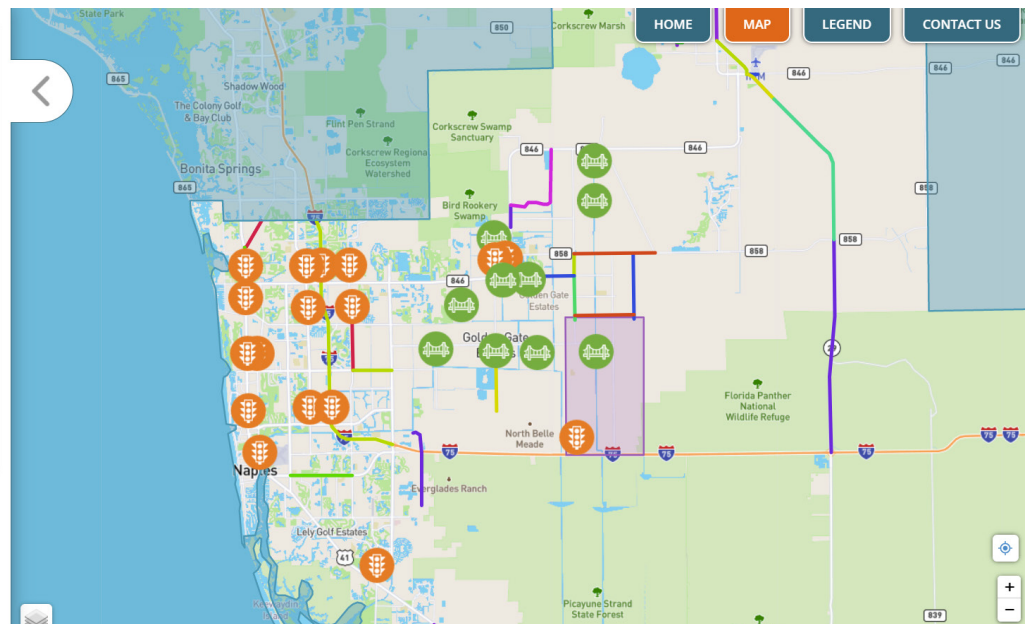
View the legend to see the different types of projects being recommended. Your priority project selections (up to 5) will appear below.

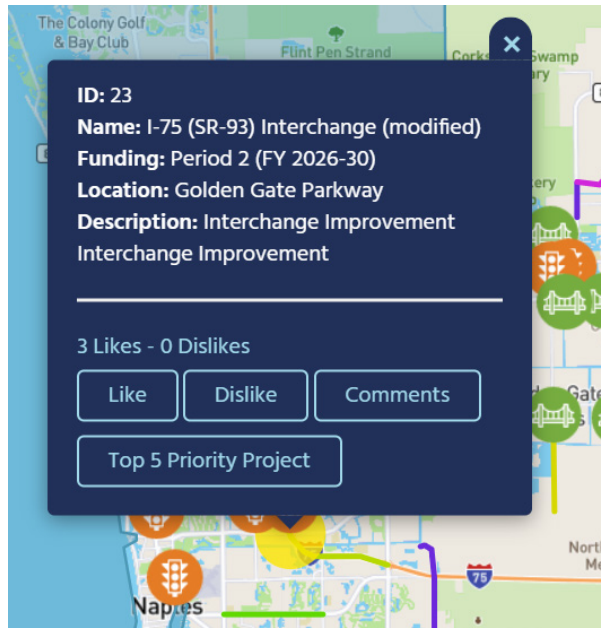
Your top priority projects

No projects selected yet.

Finished adding your feedback to the map?

Please take a minute to share more about your





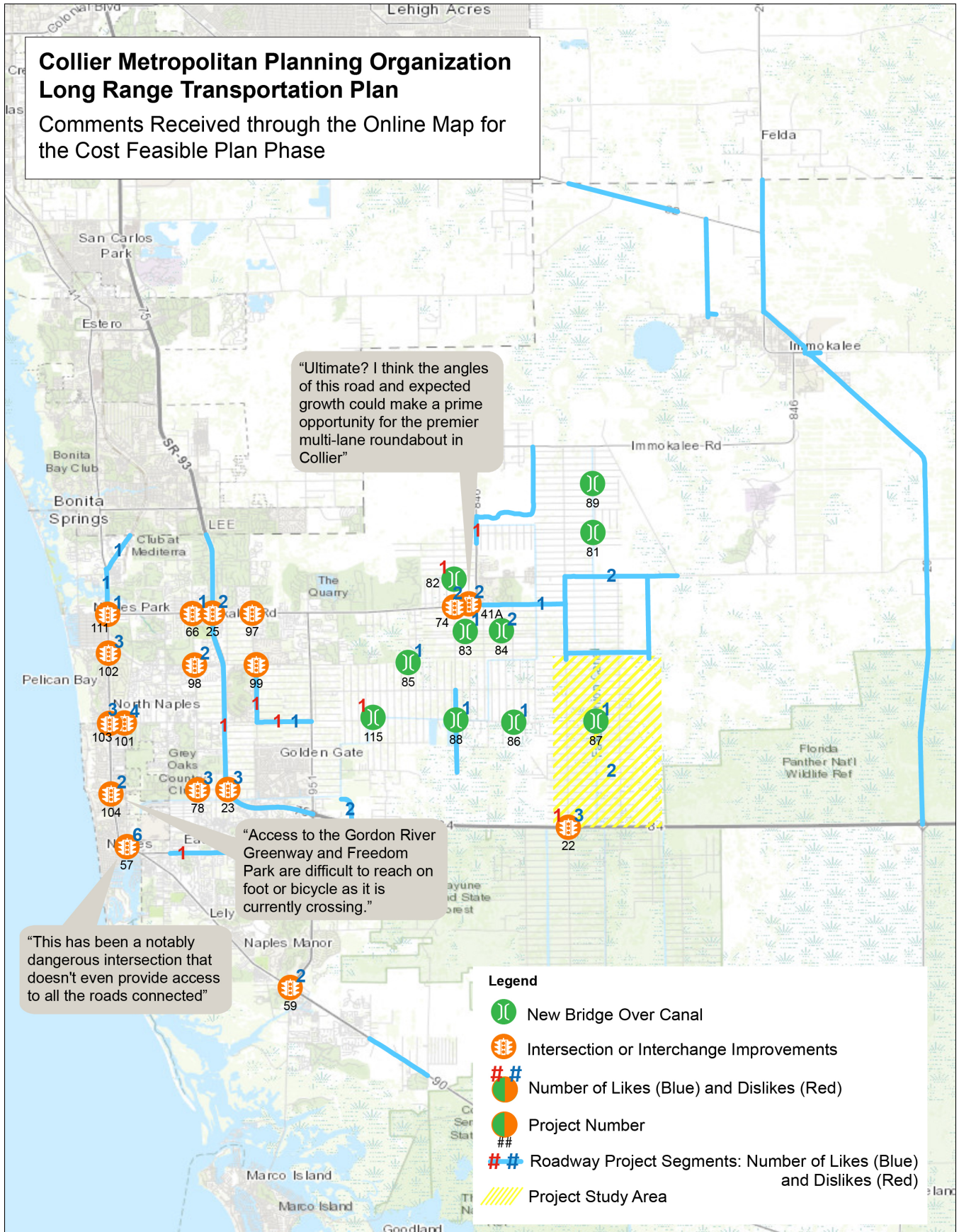
Participants were able to either “like” or “dislike” a particular project, provide specific comments to each project, and identify their top priority projects. **A total of 63 responses were received.** Key findings from the on-line map input are noted below:

- The project that received the most interaction was the US 41 and Goodlette-Frank Rd Intersection Improvement. This project received 6 Likes, 0 Dislikes, and 1 comment. The comment noted that this is a dangerous intersection.
- The intersection improvements along Tamiami Trail/US 41 were very well-received, with the 6 projects garnering a total of 17 Likes and 0 Dislikes.
- The New Bridge projects were generally well-received, with the 10 bridge projects receiving a total of 7 Likes and 2 Dislikes.
- The three I-75 Interchange Improvement/New Interchange projects received 8 Likes and 1 Dislike.
- Many of the roadway widening projects received Dislikes, with the exception of Old US 41 to the Lee/Collier county line, Randall Boulevard, and Oil Well Road.
- The comments indicated concerns at certain intersections, ideas for improvement, and other points of multimodal consideration.

The following map is an image of the online interactive map that captured the comments, community support and indications of community disapproval. Bridge-related projects are depicted by the green symbol, intersection-related projects are shown in orange icons, and roadway segment projects are shown in light blue. The three comments received on the Cost Feasible projects are summarized on the map in a callout format. The blue numbers on the map represent the unique survey responses that approved (liked) a particular project, and the red numbers represent instances where the community conveyed disapproval (dislikes) of the project.

Collier Metropolitan Planning Organization Long Range Transportation Plan

Comments Received through the Online Map for
the Cost Feasible Plan Phase



Appendix E

2045 LRTP Update Public Comment and Responses Summary



Collier MPO LRTP 2045
General Public & Agency Comments and Responses

Comment No.	Source of Comment	Date Comment Received	Response Date	Response Sent By	Agency	Name1	Name 2	Address/Contact Info	Type	Requested information? (Y/N)	Content, if applicable (excerpts)	Response	LRTP Change Resulting
1	2045 Long Range Transportation Plan (LRTP) approach presented to TAC on 08/26/2019	8/26/2019	8/26/2019	Bill Gramer	TAC / Cons of SW Florida	April	Olson	1495 Smith Preserve Way Naples, FL 34102 239-262-0304 AprilO@conservancy.org	Verbal	N	Suggested a third objective be added to the Protect Environmental Resources goal to ensure a project maintains or enhances wetland flows. Recommended Goal 8 have an added objective to incorporate Complete Streets policy guidelines into the planning and design of roadways where possible. Collier County recently passed a resolution to incorporate Complete Streets principles; however, specific policies have not yet been adopted. Therefore, this objective will complement the wishes of the Board to incorporate Complete Streets in the selection and design of roadway projects. The Conservancy recommends differentiating the types of panther habitat giving secondary habitat a score from -1 to -3; while primary habitat would score -4 to -5. Ms. Olson questioned how projects will be evaluated on the promotion of transportation resiliency in the face of climate change and sea level rise.	That would be determined on a case by case basis.	
2	Email	4/2/2020	4/2/2020	Anne McLaughlin	TAC / Cons of SW Florida	April	Olson	1495 Smith Preserve Way Naples, FL 34102 239-262-0304 AprilO@conservancy.org	Email	N	The Conservancy currently holds a seat on the Technical Advisory Committee (TAC), and expresses concern regarding the following list of projects approved for the 2040 LRTP Cost Feasible and Needs Plans: 1.CR951 Extension – Heritage Bay Entrance to Lee/Collier line (Needs Plan #27) 2.Benfield Road – US 41 to Rattlesnake Hammock Ext (Needs Plan #55) 3.Benfield Road – Lord’s Way to City Gate Boulevard North (Cost Feasible #56) 4.Benfield Road – Limits from Rattlesnake Hammock to Wilson Boulevard Extension (proposed as part of the Wilson-Benfield Extension) 5.Wilson Blvd/Black Burn Road – Limits from Wilson Blvd to End of Haul Road (Cost Feasible #29) 6.Wilson Blvd Extension/White Lake Blvd. – Limits from CR951 to Benfield Rd (proposed as part of the Wilson-Benfield Extension) 7.Wilson Blvd Extension/Blackburn Road Extension – Limits from Green Blvd Ext. to Benfield Rd (proposed as part of the Wilson-Benfield Extension) The conservancy remains concerned over the above list of projects and their impacts to environmental factors in the area. Cost and environmental impact analysis, completed in 2015, were include. The conservancy believes it would be premature to be planning any portion of City Gate Boulevard N. portion of the Wilson-Benfield Extension in advance of the completion of the CR 951 Congestion Study.	Good afternoon April, Thank you for sharing this information with Brandy and me. We are a long way from developing a Cost Feasible Plan at this stage, but it’s helpful to know about the Conservancy’s concerns with certain road segments.	
3	Alternative 1 modeling results presented to TAC on 5/18/19	5/18/2020	5/18/2020	Tara Jones	TAC / Cons of SW Florida	April	Olson	1494 Smith Preserve Way Naples, FL 34102 239-262-0304 AprilO@conservancy.org	Verbal	Y	Asked about Alternative 1 projects 1-10: will have significant environmental impacts. Agencies have issued letters regarding these projects. At what point will the environmental impact be considered?		
4	Alternative 1 modeling results presented to TAC on 5/18/19	5/18/2020	5/18/2020	Tara Jones	TAC / Cons of SW Florida	April	Olson	1494 Smith Preserve Way Naples, FL 34102 239-262-0304 AprilO@conservancy.org	Verbal	Y	In what Alternative scenario are you considering the environmental factors?	Thank you for sharing this information with Brandy and me. We are a long way from developing a Cost Feasible Plan at this stage, but it’s helpful to know about the Conservancy’s concerns with certain road segments.	
5	Alternative 1 modeling results presented to TAC on 5/18/20	5/20/2020	5/21/2020	Anne McLaughlin	TAC / Cons of SW Florida	April	Olson	1495 Smith Preserve Way Naples, FL 34102 239-262-0304 AprilO@conservancy.org	Email	Y	Upon review of Alt 1 presented to TAC, has question as to why rows #19-21 for Green Blvd segments are noted as part of a Corridor Study as she thought that was part of the CR 951 Congestion Relief Study and the Green/Blvd/North Belle Mead Study Area (per page 4-16 of 2040 LRTP). Should the term "corridor study" be placed with the Benfield Road project (#1 and #2).	Noted that the Green Blvd Extension references a study area in the 2040 LRTP but the Benfield projects do not because MPO is focused on describing projects so that FDOT can model for the Needs and CFP. As projects are tested and refined, descriptions will be improved.	Clarify project descriptions moving forward in 2045 LRTP
6	June 10 TAC Meeting Minutes	7/2/2020	7/2/2020	Anne McLaughlin	Cons of SW Florida	April	Olson	1495 Smith Preserve Way Naples, FL 34102 239-262-0304 AprilO@conservancy.org	Email	Y	Follow up to questions Mr. Brock had during a TAC meeting: 1. Mr. Brock asked whether a Complete Streets component would be included in the modeling for the LRTP and Ms. Olson did not see a response to his question in the minutes. Wants to know if Complete Streets will be included in the LRTP process. 2. On page 3 of the minutes, Mr. Brock asked whether the model took into account transportation facilities impacted by climate change and that roadways are flooded in his area. Will the results of the ACUNE study be used for modeling in the 2045 LRTP?	1. The model is limited in scope to analyzing vehicular travel; however, FDOT and local governments incorporate a Complete Streets approach in roadway projects as a matter of standard practice. 2. The model is not designed to factor in impacts to transportation infrastructure related to climate change, and the public release of the ACUNE mapping tool has been delayed due to the COVID-19 pandemic. Will be relying on Jacobs Engineering in-house expertise in developing the LRTP.	Discussion regarding climate change impacts to the transportation network will continue throughout the study.
7	DRAFT LRTP emailed 11/2/20	11/4/2020			FDOT District Freight and Seaport Coordinator	Keith	Robbins	FDOT District One 801 N. Broadway Ave. P.O. Box 1249 Bartow, FL 33831-1249 Office 863-519-2913 keith.robbs@dot.state.fl.us	Email	N	1. The FAC noted in Immokalee is the Airport Industrial Area, but no mention is made of the State Farmer’s Market and the surrounding packing houses. These facilities generate far more freight activity than the airport and as such are a key element in FDOT’s plans to widen SR 29 and build the bypass between the town and the airport. 2. Ref SR 29, I don’t see any mention of the plans noted above to improve that corridor that reflect the various projects in design right now to do so.		1. Text will be added to the LRTP regarding the freight activity generated by the State Farmer’s Market and surrounding packing houses 2. Table 6-1 and Figure 6-1 present the SR 29 projects that are currently in design.
8	DRAFT LRTP dated 10-16-20	11/6/2020			Conservancy of Southwest Florida	April Julianne	Olson Thomas	1495 Smith Preserve Way Naples, FL 34102 239-262-0304 AprilO@conservancy.org JulianneT@conservancy.org	Email	N	Would like Project 1, 5, and 22 removed from the 2045 CFP. Proj #1 (Benfield Rd) should be removed to due environmental issues (segment near adjacent preservation lands- Picayune Strand State Forest (PSSF) undermining ongoing restoration efforts of the Western Everglades, habitat impacts, and noted environmental, permitting agencies lack of support for the project (provided comments a past corridor study for Wilson-Benfield), within Primary Panther Habitat Zone, and inconsistent with CERP, Naples Bay Surface Water Improvement and Management Plan, Belle Meade Flow-way Restoration; economic impacts related to substantial costs associated with panther mitigation, wildlife crossings, bridging over wetlands; incompatibility between land use and transportation planning Proj #5 (Big Cypress Pkwy - BCP) should be removed due to environmental issues related to destruction of Primary Panther habitat and Florida Panther telemetry indicates the area is highly active, impacts to other species, and proximity to public lands; economic impacts associated with total costs of the project corridor compared to the overall transportation budget, noted as a development road, and substantial costs associated with mitigation; Incompatibility between land use planning and transportation planning; is tied to a developer agreement pressuring the BCC to approving pending SRA applications Proj #22 (New I-75 Interchange near Everglades Blvd) should be remove due the 1975 EIS for I-75 indicates the intent of converting SR 84 to a controlled access facility was to allow for protection of wetlands and installation of wildlife crossings, EIS clearly states that decision was deliberate to minimize access due to indirect and secondary impacts, 1973 Florida agreed to limit development along Alligator Alley, the IJR in July 2012 found trips accessing the interchange are exiting locally and would thus use CR 951 or Golden Gate Parkway, FDOT concluded that the interchange would increase short distance trips on I-75 which is contrary to FHWA and FDOT policies for their use as regional and interstate trips	This comment was reviewed for consideration at the November 13, 2020 Board meeting. A board member noted that they would look at these facilities in more detail to better understand their need and the issues that the conservancy is bringing up. Another board member asked that staff report on whether any there are any alternatives to these facilities that would satisfy the future demands.	

Collier MPO LRTP 2045
General Public & Agency Comments and Responses

Comment No.	Source of Comment	Date Comment Received	Response Date	Response Sent By	Agency	Name1	Name 2	Address/Contact Info	Type	Requested information? (Y/N)	Content, if applicable (excerpts)	Response	LRTP Change Resulting
9	MPO Notice of Public Comment Period - 11/9/20	11/9/2020			Private citizen	Bowen	Broock	broockies@gmail.com	Email	Y	Concerned that 2045 CFP is not addressing upcoming congestion (seasonal and potential new developments) at Wiggins Pass and Vanderbilt Drive	<p>Dear Mr. Broock,</p> <p>Thank you for your review and comments on the MPO's Draft 2045 LRTP. The upcoming congestion on Vanderbilt Dr, Wiggins Pass and US41 from Immokalee north to Bonita Beach Road actually received a good amount of discussion during the development of the 2045 LRTP. A major component of the LRTP update is to estimate future traffic by modeling different traffic scenarios using a traffic demand model. These models simulate responses people make about how to travel, given various possible network configurations and capacities of roadways and transit service. The Florida Department of Transportation (FDOT) ran the traffic model for the 2045 LRTP update. None of the model runs indicated significant congestion at Wiggins Pass and Vanderbilt Road.</p> <p>Project #76 on the Needs list of projects (mistakenly labeled as #29 on Figure 4-9 of the Draft LRTP) includes widening Vanderbilt Drive from 2 to 4 lanes from Immokalee Road to Woods Edge Pkwy (which includes the intersection at Wiggins Pass). This project was modeled for the LRTP update; however, no benefit to the network was realized. The model shows that both roadways were operating under capacity. Because there are limited funds, and minimal benefits, Project #76 did not make it to the Cost Feasible list of projects. However, it will remain on the Needs list of projects. The LRTP is updated every 5 years and the next update will reevaluate Project #76 for both the Needs and Cost Feasible lists of projects at that time. I'd like to point out that Project #60, which includes the intersection at Wiggins Pass and US 41, is on the Cost Feasible list of projects which may help overall congestion in the area.</p> <p>It's important to note that the Collier County Growth Management Plan policy is to maintain roadways at a level of service (LOS) standard "D" or "E" measured during the peak hour and based on traffic experienced for 10 months of the year with peak seasonal and tourist months of February and March omitted (LOS is from A to F, with LOS A indicating no congestion). We hope this sheds some light on how the transportation network is planned. We unfortunately only have about 50% of the funds we need to take care of all the Collier Metropolitan Area needs and have to direct funds towards significant traffic congestion problems.</p> <p>Thank you again for taking the time to reach out to us and provide your comments. I mentioned to the Board at their November 13th meeting that we have received additional comments from the public concerned with congestion on those roadways. Your comments will be included in a compilation that we will share with the Board along with others we have received.</p> <p>As I noted in an earlier response to your email, the MPO Board will meet again on December 11th to vote on adoption of the 2045 LRTP. You are welcome to attend the meeting in-person or via ZOOM and speak to the Board directly. Please feel free to call or email me if you need additional information on how to participate in the meeting.</p>	

Collier MPO LRTP 2045

WikiMap Comments on Needs Plan

Project #	Project	From	To	Improvement	Likes	Dislikes	Comments	LRTP Change Resulting
22	I-75 Interchange	Everglades Blvd		New Interchange	2	8	Not needed for interstate commerce. Prohibited by agreement. Cannot use US highway for local transportation problems. Was already turned down after much money and time was spent several years ago.	
23	I-75 Interchange	Golden Gate Pkwy		Interchange Improvement	1	1		
24	I-75 Interchange	Collier Blvd		Interchange Improvement	3	2		
25	I-75 Interchange	Immokalee Rd		Interchange Improvement	1	0	Improve Immokalee Rd congestion	
26	I-75 Interchange	Pine Ridge		Interchange Improvement	2	0	Traffic flow backs up in this area	
27	I-75 Interchange	Vanderbilt Beach Rd		New Interchange	2	1	Dislike as Vanderbilt Beach Rd is the best road to get across the County without several lights.	
57	US 41	Goodlette-Frank Rd		Major Intersection Improvement	4	0	This intersection needs improvement. In season it is now taking 4-5 lights to get from Davis and 41 to Goodlette Frank. Need more access from 41E to Goodlette Frank - maybe a permanent turn lane?	
59	US 41	Collier Blvd		Major Intersection Improvement	1	1		
66	Immokalee Rd	Livingston Rd		Major Intersection Improvement	5	0	Reduce Immokalee Rd congestion	
68	Big Cypress Pkwy	Oil Well Grade Rd		New at-grade intersection	2	2	This road will only benefit the developers of Hyde Park (Neal Cos) and the three Collier Villages. They need this road, but we don't. They should pay for it as they are the only ones it benefits.	
73	Immokalee Rd	Collier Blvd		Major Intersection Improvement	3	0	Traffic at this intersection backs up going into the Estates	
75	I-75 Interchange (new)	Veterans Memorial Blvd		New Partial Interchange	1	2		
77	Pine Ridge Rd	Livingston Rd		Minor Intersection Improvement	2	0	Pine Ridge is backing up at 4 pm very badly. Need to move traffic east while still allowing NS traffic to cross it.	
78	Golden Gate Pkwy	Livingston Rd		Major Intersection Improvement	1	0		
81	Bridge @ 47th	West of Everglades Blvd		New Bridge over Canal	2	0		
83	Bridge @ 18th Ave NE	Between Wilson Blvd N and 8th St NE		New Bridge over Canal	2	0		
84	Bridge @ 18th Ave NE	Between 8th St NE and 16 St NE		New Bridge over Canal	2	0		
85	Bridge @ 13th St NW	North Terminus at Vanderbilt Beach Rd Extension		New Bridge over Canal	2	0		
86	Bridge @ 16th St SE	South Terminus		New Bridge over Canal	2	0		
88	Bridge @Wilson Blvd S	South Terminus		New Bridge over Canal	2	0		
					42	17		

Collier MPO LRTP 2045

WikiMap Comments on Cost Feasible Plan

Project #	Project	From	To	Improvement	Likes	Dislikes	Comments	LRTP Change Resulting
1	Benefield Rd Ext	The Lords Way	City Gate Blvd N	New 2-Lane Road	2	0		
22	I-75 Interchange	Everglades Blvd		New Interchange	3	1		
23	I-75 Interchange	Golden Gate Pkwy		Interchange Improvement	3	0		
25	I-75 Interchange	Immokalee Rd		Interchange Improvement	2	0		
26	I-75 Interchange	Pine Ridge		Interchange Improvement	2	0		
29	I-75 Managed Toll Lanes	E of Collier Blvd	Collier/Lee County Line	New 4-Lane Express (Toll) Lane (10-Lanes)	0	1		
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes	0	1		
37	Oil Well Rd	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	2	0		
39	Old US 41	US 41	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	1	0		
41A	Randall Blvd	Immokalee Rd		Ultimate Intersection	2	0	Ultimate? I think the angles of this road and expected growth could make a prime opportunity for the premier multi-lane roundabout in Collier	
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	1	0		
55	SR 84	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6-Lanes	0	1		
57	US 41	Goodlette-Frank Rd		Major Intersection Improvement	6	0	This has been a notably dangerous intersection that doesn't even provide access to all the roads connected.	
59	US 41	Collier Blvd		Major Intersection Improvement	2	0		
66	Immokalee Rd	Livingston Rd		Major Intersection Improvement	1	0		
74	Immokalee Rd	Wilson Blvd		Major Intersection Improvement	2	0		
78	Golden Gate Pkwy	Livingston Rd		Major Intersection Improvement	3	0		
81	Bridge @ 47th	West of Everglades Blvd		New Bridge over Canal	2	0		
82	Bridge @Wilson Blvd	South of 33rd Ave NE		New Bridge over Canal	0	1		
83	Bridge @ 18th Ave NE	Between Wilson Blvd N and 8th St NE		New Bridge over Canal	1	0		

Collier MPO LRTP 2045

WikiMap Comments on Cost Feasible Plan

Project #	Project	From	To	Improvement	Likes	Dislikes	Comments	LRTP Change Resulting
84	Bridge @ 18th Ave NE	Between 8th St NE and 16 St NE		New Bridge over Canal	2	0		
85	Bridge @ 13th St NW	North Terminus at Vanderbilt Beach Rd Extension		New Bridge over Canal	1	0		
86	Bridge @ 16th St SE	South Terminus		New Bridge over Canal	1	0		
87	Bridge @Location TBD - between 10th Ave SE and 20th Ave SE	East of Everglades Blvd		New Bridge over Canal	1			
88	Bridge @Wilson Blvd S	South Terminus		New Bridge over Canal	1	0		
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes	1	1		
98	Vanderbilt Beach Rd	Livingston Rd		Minor Intersection Improvement	2	0		
101	Pine Ridge Rd	Goodlette-Frank Rd		Major Intersection Improvement	4	0		
102	US 41	Vanderbilt Beach Rd		Major Intersection Improvement	3	0		
103	US 41	Pine Ridge Rd		Major Intersection Improvement	3	0		
104	US 41	Golden Gate Pkwy		Major Intersection Improvement	2	0	Access to the Gordon River Greenway and Freedom Park are difficult to reach on foot or bicycle as it is currently crossing.	
111	US 41	Immokalee Rd		Interchange Improvement (DDI)	1	0		
115	Bridge @23rd SW	South of Golden Gate Blvd		New Bridge over Canal	0	1		
C1 & C2	Connector Roadway from I-75	I-75	Vanderbilt Beach Rd	4-Lane Connector Roadway from New Interchange	2	0		
					59	7		

Collier MPO LRTP 2045

WikiMap Comments on COMBINED

Project #	Project	From	To	Improvement	Likes	Dislikes	Comments	LRTP Change Resulting
1	Benefield Rd Ext	The Lords Way	City Gate Blvd N	New 2-Lane Road	2	0		
22	I-75 Interchange	Everglades Blvd		New Interchange	5	9	Not needed for interstate commerce. Prohibited by agreement. Cannot use US highway for local transportation problems. Was already turned down after much money and time was spent several years ago.	
23	I-75 Interchange	Golden Gate Pkwy		Interchange Improvement	4	1		
24	I-75 Interchange	Collier Blvd		Interchange Improvement	3	2		
25	I-75 Interchange	Immokalee Rd		Interchange Improvement	3	0	Improve Immokalee Rd congestion	
26	I-75 Interchange	Pine Ridge		Interchange Improvement	4	0	Traffic flow backs up in this area	
27	I-75 Interchange	Vanderbilt Beach Rd		New Interchange	2	1	Dislike as Vanderbilt Beach Rd is the best road to get across the County without several lights.	
29	I-75 Managed Toll Lanes	E of Collier Blvd	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes (10-Lanes)	0	1		
36	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Widen from 2-Lanes to 4-Lanes	0	1		
37	Oil Well Rd	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	2	0		
39	Old US 41	US 41	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	1	0		
41A	Randall Blvd	Immokalee Rd		Ultimate Intersection	2	0	Ultimate? I think the angles of this road and expected growth could make a prime opportunity for the premier multi-lane roundabout in Collier	
42	Randall Blvd	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	1	0		
55	SR 84	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6-Lanes	0	1		
57	US 41	Goodlette-Frank Rd		Major Intersection Improvement	10	0	<div>1. This intersection needs improvement. In season it is now taking 4-5 lights to get from Davis and 41 to Goodlette Frank. Need more access from 41E to Goodlette Frank - maybe a permanent turn lane?</div> <div>2. This has been a notably dangerous intersection that doesn't even provide access to all the roads connected.</div>	

Collier MPO LRTP 2045

WikiMap Comments on COMBINED

Project #	Project	From	To	Improvement	Likes	Dislikes	Comments	LRTP Change Resulting
59	US 41	Collier Blvd		Major Intersection Improvement	3	1		
66	Immokalee Rd	Livingston Rd		Major Intersection Improvement	6	0	Reduce Immokalee Rd congestion	
68	Big Cypress Pkwy	Oil Well Grade Rd		New at-grade intersection	2	2	This road will only benefit the developers of Hyde Park (Neal Cos) and the three Collier Villages. They need this road, but we don't. They should pay for it as they are the only ones it benefits.	
73	Immokalee Rd	Collier Blvd		Major Intersection Improvement	3	0	Traffic at this intersection backs up going into the Estates	
74	Immokalee Rd	Wilson Blvd		Major Intersection Improvement	2	0		
75	I-75 Interchange (new)	Veterans Memorial Blvd		New Partial Interchange	1	2		
77	Pine Ridge Rd	Livingston Rd		Minor Intersection Improvement	2	0	Pine Ridge is backing up at 4 pm very badly. Need to move traffic east while still allowing NS traffic to cross it.	
78	Golden Gate Pkwy	Livingston Rd		Major Intersection Improvement	4	0		
81	Bridge @ 47th	West of Everglades Blvd		New Bridge over Canal	4	0		
82	Bridge @Wilson Blvd	South of 33rd Ave NE		New Bridge over Canal	0	1		
83	Bridge @ 18th Ave NE	Between Wilson Blvd N and 8th St NE		New Bridge over Canal	3	0		
84	Bridge @ 18th Ave NE	Between 8th St NE and 16 St NE		New Bridge over Canal	4	0		
85	Bridge @ 13th St NW	North Terminus at Vanderbilt Beach Rd Extension		New Bridge over Canal	3	0		
86	Bridge @ 16th St SE	South Terminus		New Bridge over Canal	3	0		
87	Bridge @Location TBD - between 10th Ave SE and 20th Ave SE	East of Everglades Blvd		New Bridge over Canal	1	0		
88	Bridge @Wilson Blvd S	South Terminus		New Bridge over Canal	3	0		
90	Pine Ridge Rd	Logan Blvd.	Collier Blvd	Widen from 4-Lanes to 6-Lanes	1	1		
98	Vanderbilt Beach Rd	Livingston Rd		Minor Intersection Improvement	2	0		
101	Pine Ridge Rd	Goodlette-Frank Rd		Major Intersection Improvement	4	0		
102	US 41	Vanderbilt Beach Rd		Major Intersection Improvement	3	0		

Collier MPO LRTP 2045

WikiMap Comments on COMBINED

Project #	Project	From	To	Improvement	Likes	Dislikes	Comments	LRTP Change Resulting
103	US 41	Pine Ridge Rd		Major Intersection Improvement	3	0		
104	US 41	Golden Gate Pkwy		Major Intersection Improvement	2	0	Access to the Gordon River Greenway and Freedom Park are difficult to reach on foot or bicycle as it is currently crossing.	
111	US 41	Immokalee Rd		Interchange Improvement (DDI)	1	0		
115	Bridge @23rd SW	South of Golden Gate Blvd		New Bridge over Canal	0	1		
C1 & C2	Connector Roadway from I-75		Vanderbilt Beach Rd	4-Lane Connector Roadway from New Interchange	2	0		
					101	24		

Collier MPO LRTP 2045
Virtual Public Meeting Comments

Comment #	Name (if available)	Project # (if applicable)	Electronic Comments Received During VPM via Chat or Prior to Meeting	Response
Virtual Public Meeting #1 - July 29, 2020				
1	Anonymous		Will you be using the new census as a basis for population projections? How will you proceed via TAZ populations?	Bill Spikowski noted that populations projections are based on the 2017 County Interactive Growth Model data (which is based on 2017 US Census Data). We are also using data from 2015 because the traffic model base year is 2015 and the future year is 2045. Each TAZ is assigned with the population known in 2015.
2	Anonymous		Will these projects began in 2045 or will they began from now until 2045. is 2045 the start date or end date.	Bill Gramer noted that 2045 is the end date. The projects are planned between now and 2045.
3	Andrea Halman		Is 2045 the begin date or end date.	Bill Gramer noted that 2045 is the end date. The projects are planned between now and 2045.
4	Anonymous		How does the MPO account for new technologies such as autonomous vehicles or computer assisted traffic flow or even hyperloop freight?	Bill Gramer: For certain aspects of the transportation facility, we are looking into those technologies, particularly connected technologies where vehicles can talk to each other. FDOT has a Suntrax test facility in the Central Florida area where they are testing autonomous vehicles to make sure they are safe. One of the goals of the LRTP is to start to implement some these future technologies but once we plan for them, the technologies can tend to be obsolete. So this plan doesn't incorporate much in the way of autonomous vehicles but the 2050 plan is likely to.
5	Anonymous		Please clarify - are comments being collected on the Needs Plan or the Cost Feasible Plan?	Bill Gramer: We are looking for input on both. The Needs Plan includes all those projects that we would like to have to accommodate growth. The Cost Feasible Plan is scaled back to match the amount of money and then decide what projects should be implemented sooner than later. So we are asking for both. Those comments will be taken into consideration and you will likely see changes as we present modifications of these plans in our future outreach.
6	Anonymous		What are you doing to address the reduction in funding projections due to Covid impacts to the economy?	Bill Gramer: This is a 20 year plan for the future. It is difficult at this time to predict economic impacts from Covid-19. While we are likely to see some drops in the revenues in the near future (for instance from the gas tax) but since this is a long-range plan, we are assuming that over the next 20 year the economy will even out. If for some reason it doesn't and things get worse, we will make an amendment to this plan.
7	Anonymous		How is transit improved (larger area, more frequent stops) when residential density is too low? Subsidy seems needed.	Michelle Arnold: Transit has been around for 19 years in the County. Even though we have low density in the County, the need for this public service is still significant. When we first started, we grew to over a million riders in one year. With Covid, the ridership is down, but there is still a significant need in our communities to provide public transportation. We are now trying to introduce other types of public transit modes by partnering with transit network companies such Uber, Lyft, etc. To fulfill needs in a low density area, we are working with the transit network companies to provide transportation services instead of sending a bus. Also looking at other types of shuttles to provide needs in more urban/dense areas where parking is limited.
8	Andrea Halman		There are numerous needs in Immokalee. How will decisions be made as to where to begin	Bill Gramer: There are a lot of dynamic activities that are going on in that area. For instance right now the Safe Routes To Schools project is going to begin soon as well as funding received for the Complete Streets initiatives for the area. Additionally, FDOT is working on the SR 29 corridor in that area to help alleviate concerns of the residents and those that work/travel in the area.
9	Anonymous		What is the I-75 managed lanes project and when is that planned to happen?	Wayne Gathier: FDOT is taking a strategic look of the interstate system by looking at what we need and what we may need in the future to provide services. We are looking at the managed lane component - what types of options could we use to alleviate congestion by looking at either more general use lanes, toll lanes, or another scenario that would be more beneficial. The study is currently underway and we are in the data collection phase. The analysis phase is expected in FY 2023.
10	Anonymous		Is the MPO interested in FDOT's opportunity to restore OK Slough water flows under SR29 into Fla Panther Refuge as they widen SR29 to four lanes soon?	Anne McLaughlin: We are very interested. FDOT is in charge now of assigning NEPA compliance to this project. Wayne Gathier: The PD&E study is now underway in this segment of SR 29 where the natural environment impacts are being evaluated; through this process we determine how we can best design a system that works with the environment. FDOT is coordinating with the County, the MPO, and the public throughout the study.

Collier MPO LRTP 2045

Virtual Public Meeting Comments

Comment #	Name (if available)	Project # (if applicable)	Electronic Comments Received During VPM via Chat or Prior to Meeting	Response
11	Anonymous		What do you mean by SR 29 being widened soon and what section are you talking about?	<p>Wayne Gathier: SR 29 has been identified as a corridor that will not meet the future demand that we anticipate to be coming based on future growth. The corridor has been broken into several different segments and we are looking at the needs of each of those segments.</p> <p>Anne McLaughlin: The MPO's TIP has quite a bit of information on each of these projects. For instance the segment from the Hendry County line to Oil Well includes funding the design and ROW acquisition in the next five years. The MPO and FDOT are happy to assist anyone that needs more information on the SR 29 corridor.</p>
12	Dayna Fendrick		Historically in Collier County, we have a low-density growth pattern, which leads to a lack of connectivity and 6-lane, high speed arterial roadways, which are not bike or pedestrian-friendly. How can the LRTP address the connection between land use and the transportation network in the eastern growth area of the County to encourage more smart growth and walkable private development pattern?	<p>Bill Gramer: The way growth has occurred in recent years in Collier County has led to a lot of separate communities that are high density in small areas. Golden Gate Estates doesn't have the density required for a high performance transit service and the low density complicates walkability from home to commercial areas. Collier County is working with developers to come up with development plans that make it easier to walk and bike from their place of residence to work, shopping, etc. The LRTP does touch on land use but land use policies are set in place with the County and the associated cities. There are some policies that may need adjustments, but the LRTP is not the mechanism to make those policy changes. However, it is a mechanism to bring these issues forward to policy makers. Initiatives are underway like the recently completed MPO Walkability Study that reviewed over 600 segments of sidewalks to improve ped/bike mobility in the County.</p> <p>Bill Spikowski: The larger 6-lane roadways can be more bike/ped friendly and that is a goal we should continue to have. Her further noted that just because an area has a low density doesn't mean that it can't have connectivity. We see low density development in Collier County in gated communities which inherently causes a lack of connectivity. So the policies and plans in place with the cities and the County can be used to make low density areas more connected as they have the authority to approve developments that either improve or diminish connectivity. So the issue of land development is the hands of the municipalities more than it is with the MPO. Additionally, because the travel model that is used to model future growth/traffic for an LRTP is over 12 counties, it focuses on making the bigger roads more efficient and is not as capable of evaluating smaller roads where connectivity could be improved. So the LRTP is really limited in its abilities to solve connectivity issues with minor roads in low dense areas.</p> <p>Trinity Scott: The Board of County Commissioners in recent years is starting to make it a requirement to make our facilities more interconnected. For instance Whippoorwill Lane and Mariposa interconnection plans are now in place that will connect multiple roadways of neighborhoods that were previously on dead end streets. Additionally, we are focused on placing mixed-use facilities in strategic locations for instance in the area of Goodlette-Frank and Pine Ridge, to introduce high density housing in our urban area in a former commercial area. The BCC is working with the developers to work on these initiatives.</p>
13	Dayna FenAdrick		Does the Efficient Transport Decision Making process affect the LRTP?	Bill Gramer: Yes. Any projects that are cost feasible and planned to be funded by the state or federal government must be uploaded to the FDOT Environmental Screening Tool.
14	Anonymous		Does the County's Master Mobility Plan get considered in LRTP? Historically in Collier County, we have a low-density growth pattern, which leads to a lack of connectivity and 6-lane, high speed arterial roadways, which are not bike or pedestrian-friendly.	Bill Gramer: All the previous plans that the County has developed are referenced and taken into consideration into the LRTP.
15	Anonymous		Bill-how can urban coastal area roads be protected as sea level rise and storms are worsened? How will financing applied?	Bill Gramer: One of the goals of this plan is to consider climate change and sea level rise. As we learn more from the on-going studies related to climate change for the Collier County area, we will identify roads and infrastructure that is vulnerable to sea level rise. As we identify these facilities, we can determine the costs associated with making them more resilient. This may not be fully understood during this LRTP update as the studies are still underway.

Collier MPO LRTP 2045

Virtual Public Meeting Comments

Comment #	Name (if available)	Project # (if applicable)	Electronic Comments Received During VPM via Chat or Prior to Meeting	Response
16	Dayna Fendrick		Goal 10 language reads "avoid making investments in Hi -risk areas" - would that mean the coastal areas would not receive assistance with resiliency improvements? It seems to be at odds with the Table 1 scoring criteria for the same issue.	<p>Bill Gramer: There will be tough decisions in the future that will take some planning and financing. The coastal areas will not be left without a plan, but part of the reason the goal was required of all LRTPs was to get communities to discuss these issues and how to address them.</p> <p>Anne McLaughlin: The issues surrounding the vulnerabilities of the coast are a work in progress. There might be an issue with the phrasing of the goal verses the table scoring text. But there will have to be tough decisions on where the money is put in the future. It's not to say that the coastal areas won't be invested in - they need the investment, but the nature of the investment will have to be discussed.</p>
17	Anonymous		With a storm potentially coming this weekend, how does the LRTP address facilities for hurricane evacuation?	Bill Gramer: Collier County has a high number of evacuation routes. One of the goals of the LRTP is to ensure that evacuation routes are considered through the development of the Needs and Cost Feasible Plans. This also goes back to the discussion of connectivity and ensuring that there are enough facilities that can get everyone to those routes. The bridge projects east of CR 951 is a prime example of this. Any new facilities that are evacuation routes will be built higher so that they are above flood stage levels, thereby making them more resilient.
18	Anonymous		Is the LRTP taking into consideration the possible development of M-CORES?	<p>Bill Gramer: M-CORES is in the early stages and that no projects have been developed as a result of the M-CORES study at this time and therefore it doesn't affect this LRTP update. They will likely be in the 2050 LRTP update. There will be an acknowledgement of M-CORES in the LRTP and how it could affect future plan amendments or future plans.</p> <p>Wayne Gathier: The LRTP and M-CORES are two completely separate documents that are taking place at the same time. Not only is M-CORES looking at roadways for better regional connectivity but it is looking at options for utilities particularly for communications. Everyone is encouraged to look at the M-CORES website for more information but they are still in the data collection phase and are gathering feedback from the 9-county area. They are looking for alternative corridors for transportation and utilities. No projects will not be incorporated into this LRTP update.</p>
19	Anonymous		When are the TDP meetings scheduled?	Michelle Arnold: There are several meetings scheduled. One is scheduled tomorrow at 5:30 PM. Please see the MPO's website for the schedule. We would like to have everyone on tonight's call on our TDP call tomorrow.
20	Anonymous		I will be submitting written separate comments. But, I do hope to see the MPO and County move toward proactive planning for mitigation of federal impacts to listed species, such as a public project Habitat Conservation Plan under the Endangered Species Act. That gives a more affordable and effective result.	Comment was read during the meeting
21	Anonymous		I would like Collier to be more walkable. Unfortunately, most of the sidewalks in my neighborhood are flooded in the rainy season so I have to walk in the street and don't feel safe.	Comment was read during the meeting
22	Anonymous		What precautions are being taken into consideration to limit roadside collisions for wildlife such as the FL panther? Can you clarify if there are any projects that would go through primary and secondary panther habitat?	Bill Gramer: There are projects in the Needs Plan that go through primary and secondary panther habitat. Essentially everything one mile east of Collier Boulevard is in the primary panther habitat. As projects go forward there will be a need to mitigate for these impacts through the permitting process with the Army Corps of Engineers, SFWMD, and USFWS. New corridors will consider wildlife crossings with wildlife fencing to steer the wildlife to those crossings to keep them from entering the road.
23	Anonymous		Are their any projects that might bring more public transit options for residents such as light rail, buses, and the like and that would improve urban and rural connectivity?	Michell Arnold: There is no light rail that is identified in the TDP. But we have identified the potential for commuter type buses to provide regional transit between Lee and Collier counties particularly in the Immokalee and Lehigh areas. We currently have several routes that link the rural and urban parts of the County and are proposing some improvements to those routes. We are considering options for the eastern part of the County to connect it with the more urban areas. We are also considering commuter type service, express service, and mobility on demand service.

Collier MPO LRTP 2045
Virtual Public Meeting Comments

Comment #	Name (if available)	Project # (if applicable)	Electronic Comments Received During VPM via Chat or Prior to Meeting	Response
24	Anonymous		Is there a quick train ride I can take from Naples to Fort Myers, esp with a stop at the airport? What are the train hours? If this doesn't exist, is it something you're looking into? It would be great to have a nice train with wifi.	<p>Michelle Arnold: There is no train at this time and none are being proposed at this time. We are proposing an express bus for this type of service. Rail is not being proposed at this time in the LRTP.</p> <p>Bill Spikowski: The Lee County MPO did a Rail Corridor Feasibility Study about 5 years ago or so to analyze multimodal transportation options in the existing rail corridor in Lee and northern Collier County. Transportation alternatives included freight service, commuter or light rail transit, BRT, and multi-use paths. It is something that is feasible and the municipalities in the areas are considering this for future planning efforts. It would not go to the airport initially but it could be considered eventually.</p>
25	Anonymous		Great presentation and discussion, very informative.	Comment was read during the meeting.
Virtual Public Meeting #2 - October 14, 2020				
1	Suzanne Cross - sicross@yahoo.com		Ways to decrease the amount of "paved roads" in the area, rather than increasing them? What alternatives are being evaluated and how can Naples take a leadership position in clean, safe, reliable alternatives to individual auto ridership?	Bill Gramer: We are looking at multi modal solutions to enhance traffic operations and safety. But there is still a need to complete the network of roadways in Collier County for better connectivity, emergency evacuation, and enhance safety and traffic capacity.
2	Michael Seef - mdslogistics@aol.com		I would like to know what environmental impacts there are for most necessary cost effective road projects. Thank you.	Bill Gramer: As part of the draft 2045 LRTP update, we evaluated environmental effects wetlands, panther habitat, and conservation areas. Further evaluation will be done in the next phase of these projects as they move forward.

Collier MPO LRTP 2045
MPO Committee Meeting Comments

Comment #	Name	Date	Documents Presented	Project # (if applicable)	Comment Made During Meeting	Response Given During Meeting	LRTP Changes Resulting (if applicable)
Citizens Advisory Committee							
1	Ms. Pernas	5/20/2019	2045 LRTP Kick-off - Overview of LRTP tasks		Will the LRTP include flying vehicles, if not, staff should consider including this technology in the plan as a statement.	At the current moment, flying vehicles are not included. Staff is following FDOT’s guidance on automatic and connected vehicles (AV/CV). Mr. Ortman - attended an ACES workshop recently - no discussion regarding flying vehicles. FDOT’s guidance is that AV/CV technology should be broached but it can’t be modeled [at this time] due to lack of data. Committee members will have the opportunity to comment on this matter throughout the years.	
2	N/A	9/30/2019	PIP, Goals/Objectives, Decision-Making Framework		The Committee expressed concern that certain areas such as Everglades City, East Naples and South Naples are underrepresented in the Public Involvement Plan. More coordination suggested with Naples Daily News, Coastal Breeze News, East Naples Civic Association, The Bayshore Gateway Triangle Community Redevelopment Agency, Immokalee CRA, the BlueZones Project and the Collier County Sheriff.		
3	Mr. Gelfand	2/24/2020	2045 LRTP update		Do traffic projections consider seasonal variation - high-season, mid-season, low-season?	Will answer the question in detail when we present results of traffic model runs. Long-range planning is geared more towards average traffic conditions rather than high season; basis is variety of policies regarding Level of Service adopted by the cities, the County and by FDOT.	
4	Ms. Cross	5/18/2020	Alt 1 model results and proposed Alt 2 network scenario		Is data available for review?	Memo in January summarized methodology with maps indicating results from data analysis. Used County Interactive Growth Model which has locally adopted zoning, master plans, comprehensive plans, and land policies of various entities including City of Naples, Marco Island and Collier County. MPO did not make assumptions.	
5	Mr. DiDonna	5/18/2020	Alt 1 model results and proposed Alt 2 network scenario		Inquired about alternative road options including a bypass and autonomous vehicles (specifically referring to Sawgrass Parkway in Ft. Lauderdale).	There are a limited amount of options for expanding traffic system but alternatives including park-and-ride and additional roadway connections are being considered	
6	Ms. Cross	5/18/2020	Alt 1 model results and proposed Alt 2 network scenario		Inquired about scheduling meeting dates during summer to discuss continuing projects. Most attendees were interested in virtual meeting opportunity.	Will work with committee members to schedule meetings in June, July, and August on a virtual basis.	
7	Mr. Gelfand	6/10/2020	Alt 2 model results and proposed Alt 3 network scenario		Inquired about relationship between Collier County Interactive Growth Model (CIGM) and FDOT planning model. CIGM provided socio-economic data to FDOT to use in planning model. “Tried” to address congestion in Alternative 2 – tried how? Regarding policy constraints – could take years to change County policy, can note what was considered, County could change policies. Do look at changing feeder streets – 111th St, Wiggins Pass, some aren’t considered in network, could code them in.	If 41 congested for longer stretch, drivers might move to other [north/south] roads, but not for such a short segment.	
8	Mr. DiDonna	6/10/2020	Alt 2 model results and proposed Alt 3 network scenario	60198 (Collier TIP)	Need to extend Veterans Memorial Parkway west to 41. Not shown on network.	Veterans Memorial extending from Livingston to US41 was in 2040 Needs Plan.	
9	Mr. Sasser	6/10/2020	Alt 2 model results and proposed Alt 3 network scenario		Inquired about policies constraining corridors – where are they?	Recall policies are in County comprehensive plan, transportation element.	
10	Mr. DiDonna	6/10/2020	Alt 2 model results and proposed Alt 3 network scenario		Inquired about pursuing roadways that need to be reviewed.	Improvements are policy constrained. Vanderbilt Drive was expanded to 4 lanes [in Alternate 2] but did not draw enough traffic to relieve congestion on 41. Also consulted with Lee County to see if any roads could be considered. Reviewed Veterans Memorial Parkway that connects Old 41 to West of I-75 but was not in FDOT SIS plan. Need to look at actual volumes to gauge capacity.	
11	Mr. Gelfand	6/10/2020	Alt 2 model results and proposed Alt 3 network scenario		Asked for clarity as to how granular the modeling is in terms of assumptions about development.	Development assumptions built into model [via CIGM] increased housing has been accounted for in Alternative 3. Model is not sensitive to intersection improvements. Lengthy discussion regarding feasibility and application of model for traffic review including various intersections (Immokalee, Old 41, Wiggins Pass, etc.).	
12	Mr. Gelfand	6/10/2020	Alt 2 model results and proposed Alt 3 network scenario		Inquired about level of detail in planning process.	Requires some flexibility but trying to prioritize the projects that will have most impact. Need to ensure that quality of life is maintained. Presentation is advisory only and not seeking approval at this point.	

Collier MPO LRTP 2045
MPO Committee Meeting Comments

Comment #	Name	Date	Documents Presented	Project # (if applicable)	Comment Made During Meeting	Response Given During Meeting	LRTP Changes Resulting (if applicable)
13	Mr. DiDonna	6/10/2020	Alt 2 model results and proposed Alt 3 network scenario		What about funding? Impact fees should be spent where County is charging for them.	Will send impact fee district map to MPO to distribute to committee.	
14	Mr. DiDonna	7/8/2020	Alt 3 cost feasible model results, proposed Alt 4 scenario, evaluation criteria, scoring, and project rankings	67	Why was Veterans Memorial removed and no other access to Lee County within 25-year plan?	Veterans Memorial section going to I-75 was included. Still on needs list but is unfunded and not on cost feasible plan because I-75 Interchange is not on FDOT SIS cost feasible plan. Additional access to Lee County is on unfunded needs list and not on cost feasible right now.	
15	Ms. Brown	7/8/2020	Alt 3 cost feasible model results, proposed Alt 4 scenario, evaluation criteria, scoring, and project rankings	51	SR 29/New Market Road – is project scheduled for 2040 as map id #7, and as #12 in 2045?	It was on the needs list but is ranked 12th and is funded on the SIS.	
16	Ms. Brown	7/8/2020	Alt 3 cost feasible model results, proposed Alt 4 scenario, evaluation criteria, scoring, and project rankings		Questioned why project continues to be pushed out.	Project scores do not represent the order in which it is implemented. The projects are on cost feasible plan and then determine how to move forward.	
17	Mr. Dondanville	7/8/2020	Alt 3 cost feasible model results, proposed Alt 4 scenario, evaluation criteria, scoring, and project rankings	57	Inquired about City of Naples project (map id #57) – asked about location.	Intersection of Goodlette and US 41 – discussing improvements to intersection.	
18	Ms. Cross	8/7/2020	Alt 4 cost feasible model results, proposed Alt 5 scenario, project costs, revenue forecasts, 7/29/20 VPM results		Inquired about how fiscally constrained is Alternative 5.	Based on revenue sources identified in memo (federal, state, county, local). Alternative 5 will be constrained to dollar amount in memo. Provided Exhibit C to illustrate budget amounts: \$1.12B estimated for the 2040 LRTP compared to \$1.57B for the 2045 LRTP. Some SIS related and some federal related. Assumption is 5% is Connected and Autonomous Vehicle (“CAV”) volume. Alternative 4 allows for 35% of CAV.	
19	Mr. Gelfand	8/7/2020	Alt 4 cost feasible model results, proposed Alt 5 scenario, project costs, revenue forecasts, 7/29/20 VPM results	29	Inquired about project toll lanes – will it be unmanned and tolls are captured via license plate.	I-75 managed lane (10 lanes) – 6 would not be tolled and 4 would be tolled (electronically).	
20	Mr. Gelfand	8/7/2020	Alt 4 cost feasible model results, proposed Alt 5 scenario, project costs, revenue forecasts, 7/29/20 VPM results	29	What is projected percentage of usage for toll section?	Do not know results of FDOT study but revenue will be included in that report.	
21	Ms. Cross	8/31/2020	Draft CFP, Draft Chapter 4 Needs Plan, Draft Financial Resources TM		Inquired about financial assumptions – fuel tax – wants to know how it is modeled for electric cars.	Projections for fuel tax are lower than previous because of anticipation of reduction in motor vehicle fuel. Included so we do not overestimate. Decreased 1.5% annually.	
22	Mr. Dondanville	8/31/2020	Draft cost feasible roadway network, Draft Chapter 4 Needs Plan, Draft Financial Resources TM		Plan 5 – map ID 63, 67, 73 – are they still accounted for on the list? Three roundabouts within City limits.	They are in the E plus C list	
23	Mr. Dondanville	9/28/2020	Draft cost feasible list of projects, Draft Chapters 4 and 5 for endorsement, and Draft Chapter 6		Page 4.3 on Section B – System- wide Needs Assessment – bullet no. 3 – begins with “Naples shall not permit construction of vehicle road overpasses or flyways in favor of feasible alternative planning solutions,”what does that mean?	Was excerpted from another document. Wanted to capture succinctly adopted policies of local governments that affect planning for roadways. City was opposed to Golden Gate Blvd overpass at Airport Rd but County moved forward with it. Language is from the City of Naples Comprehensive Plan; has implications for pedestrian bridge proposed to connect Freedom Park across Golden Gate Blvd at the [Gordon River] Greenway.	

Collier MPO LRTP 2045
MPO Committee Meeting Comments

Comment #	Name	Date	Documents Presented	Project # (if applicable)	Comment Made During Meeting	Response Given During Meeting	LRTP Changes Resulting (if applicable)
24	Mr. Dondanville	9/28/2020	Draft cost feasible list of projects, Draft Chapters 4 and 5 for endorsement, and Draft Chapter 6		Plans being drawn, and money being gathered to fund it, for “flyover” across Golden Gate Parkway. Brief discussion regarding proposed “flyovers” in other locations; and whether term applies only to roadways and not to a pedestrian bridge. Also noted congestion on Park Shore Blvd. west of Crayton Road to Gulf Shore Blvd. Questions actual amount of congestion in that area.	N/A	
25	Mr. Gelfand	9/28/2020	Draft cost feasible list of projects, Draft Chapters 4 and 5 for endorsement, and Draft Chapter 6		Collier County is positive on benchmarking system. CAT had target of 10% of rolling stock to meet benchmarks. Actual target is 50%. Anticipated that there will be significant growth. Is rolling stock in better shape than target?	Question appears to pertain to agenda item 1 - information in the performance measure report in 2040 LRTP amendment. Will be attaching a similar report to the 2045 LRTP. County’s goal was to replace busses. Number represents busses that are aging out of system. Draft TIP amendment in process for bus replacement – may be on November agenda.	
26	Ms. Cross	9/28/2020	Draft cost feasible list of projects, Draft Chapters 4 and 5 for endorsement, and Draft Chapter 6		Asked about growth rate in transit ridership. Have seen a lot of statistics showing decreased ridership. In these documents it is shown as 18%.	Transit Development Plan just came out in draft form – incorporated in 2045 LRTP – predicts increase in ridership if they are able to implement projects.	
27	Mr. Dondanville / Ms. Cross	9/28/2020	Draft cost feasible list of projects, Draft Chapters 4 and 5 for endorsement, and Draft Chapter 6		Local agency priorities on local roads. Page 44-45. Naples downtown circulation connectivity plan/Gordon bridge area. Suggesting to remove concrete abutment and create 14 ft. shared pathway on each side of bridge to get to Goodlette Road area. When is that scheduled. Ms. Cross – concerned about suggesting to narrow travel lanes.	FDOT will be looking at area very closely. Brief discussion concerning review of area by agencies and implementation of recommendations from study.	
28	Ms. Homiak	10/26/2020	Results of public input, Draft CFP, Draft LRTP		Lots of mistakes on Figure 2-3 p2-4 (Collier County Planning Communities map). Look for latest update.		
29		11/30/2020	Draft Final LRTP		Meeting minutes		
Bicycle and Pedestrian Advisory Committee							
1	Mr. Bonness	9/15/2020	Roadway CFP (Draft) and Draft Chapter 4		Great job on getting everything included.		
2	Ms. Huff	9/15/2020	Roadway CFP (Draft) and Draft Chapter 4		Page 443 – alignments and SunTrail corridors – not very much is rural Collier County or Everglades area – possible to consider SR 29 alignment for SunTrail for 2045 LRTP – connection between Immokalee and Everglades City. Rails to Trails.	Couple ways to answer question. SunTrail alignment is officially recognized by State – adopted by Board. Bike/Ped Master Plan did recommend additions to SunTrail network with focus on roadway alignments that would not be eligible for funding as trail. Wanted to position Collier County to do the same as other MPOs, although not applying for SunTrail funding for road corridors. Paradise Coast Trail – Naples Pathway Coalition recognizes scenic trail/pathways. Contacted SunTrail agency to include map change but was not considering at the time – out of sequence. Adding US 29 to SunTrail network – when Bike/Ped Master Plan was prepared – it was not proposed. Mentioned as part of regional bike network – part of the Spine Trail system.	
3	Ms. Huff	9/15/2020	Roadway CFP (Draft) and Draft Chapter 4		Proposed adding bridge repairs on US41 east due to safety considerations. Extensive discussion with members regarding bridge repairs and plans to improve them in the near future.	Would not advise that bridges be added to LRTP. FDOT reviews safety of bridges on a regular schedule. Will report back to committee on schedule.	
4	Mr. Matonti	9/15/2020	Roadway CFP (Draft) and Draft Chapter 4		How are comments incorporated into LRTP and map?	Jacobs is transitioning from comment map focused on needs – to new map focusing on cost feasible plan. Comments in each phase will be recorded when reporting is done for each phase of assessment. Some comments will result in changes to the plan.	
5	Ms. Halman	10/20/2020	Draft Chapter 6 - Cost Feasible Plan	30	Immokalee Rd carries traffic to/from Casino. That segment should be done first.		Project #30 (Immokalee Rd - Camp Keiss Rd. to Eustis Ave) was included in CFP as partially funded.
6	Ms. Sonnenschein	10/20/2020	Draft Chapter 6 - Cost Feasible Plan		Referring to Paradise Coast Trail Vision as example, when is it possible to request modifications to roadway designs to accommodate bike/ped facilities?	Most are County roads, go through various steps such as 30%, 60% design, PD&E locks in cross section. County is aware of Paradise Coast Trail and proposed FPL greenway and considers that as well as Bike/Ped Master Plan when designing roads.	
7	Mr. Bonness	10/20/2020	Draft Chapter 6 - Cost Feasible Plan		Example is 6-lane section of Oil Well Rd has greenway on north side.[Refers to comment #6]		
8	Ms. Fendrick	10/20/2020	Draft Chapter 6 - Cost Feasible Plan	58	Segment with pathway gap on US41 East falls within project #58 [Refers to comment #6].	Could be done sooner if additional ROW not needed.	

Collier MPO LRTP 2045
MPO Committee Meeting Comments

Comment #	Name	Date	Documents Presented	Project # (if applicable)	Comment Made During Meeting	Response Given During Meeting	L RTP Changes Resulting (if applicable)
9	Ms Fendrick		Draft Chapter 6 - Cost Feasible Plan		Aren't local developers required to provide bike/ped facilities?	Not when a capital project is planned that would necessitate tearing improvements out within 5-10 years.	
10	Ms. Huff	10/20/2020	Draft Chapter 6 - Cost Feasible Plan	58	Can trail be placed behind bushes? [Reference to comment #8]	Probably build to align with previous section.	
11	Mr. Bonness / Mr. Musico / Ms. Halman / Ms. Jacob	10/20/2020	Draft Chapter 6 - Cost Feasible Plan		-Could be a good trade off. -Net comes out about the same, may as well codify. -Funding for safety should be ongoing. -Agree with concepts, concerned with duplication of effort among entities developing safety campaigns. Will education be a focus?	Yes. Local Roads Safety Plan recommends multifaceted approach including Engineering (design), Education, and Enforcement. Education is key.	
12	Dr. Friedman	10/20/2020	Draft Chapter 6 - Cost Feasible Plan	29	Proposed toll roads, will they consider bike/ped safety?	FDOT is looking at multimodal [for MCORES]but bike/ped won't be included on I-75 [managed lanes study].	
13		11/17/2020	Draft LRTP		Waiting on meeting minutes		
Local Coordination Board							
1	Mr. Kurzman	9/16/2020	Needs list of projects		Inquired about the transit component of the LRTP.	Enhancements to network are going to benefit the TDSP.	
2	Mr. Kurzman	9/16/2020	Needs list of projects		How does the MPO coordinate with other local municipalities/Counties regarding other local MPO's and the incorporation of their elements to the LRTP.	Have a good working relationship with other MPO's. Ensures that all MPO's include companion plans for a cohesive overall project goal.	
3	Mr. Kurzman	9/16/2020	Needs list of projects		Commented on Wiki software and if it is effective.	Have used it for the LRTP for commenting and other functionality. Allows people to add comments to projects, select top 5 projects, and encourages public input.	

Collier MPO LRTP 2045
Tribe Meeting Comments

Comment #	Name	Date	Documents Presented	Project # (if applicable)	Comment Made During Meeting	Response Given During Meeting	LRTP Changes Resulting (if applicable)
Seminole Tribe							
1	Seminole Tribe Staff	11/4/2020	Draft LRTP with the Cost Feasible Plan	30	Concern with congestion on South 1st Street in Immokalee near the Seminole Casino.		Project #30 (Immokalee Rd - Camp Keiss Rd. to Eustis Ave) was included in CFP as partially funded to study potential alternatives for addressing congestion and enhancing bike/pedestrian safety and transit.
Miccosukee Tribe (Council & Staff)							
1	Council & Staff	Schedule Pending	Draft LRTP with the Cost Feasible Plan				



2045

LONG RANGE TRANSPORTATION PLAN



Collier MPO



Jacobs

November 30, 2020

Technical Advisory Committee
Citizen Advisory Committee

Final Draft LRTP Update

Agenda

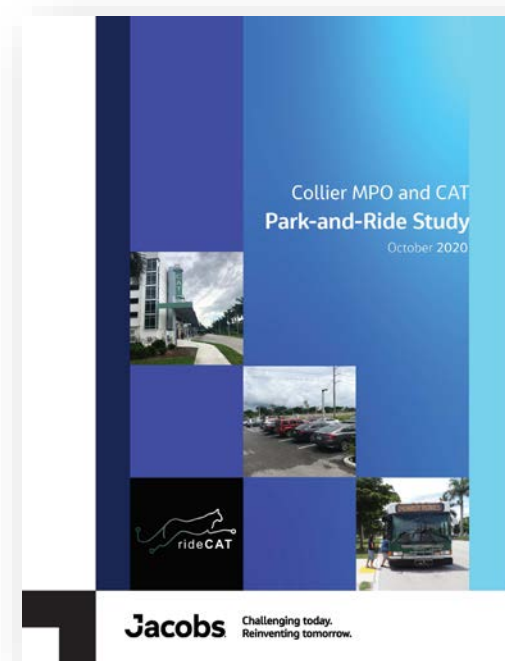


Final Draft LRTP

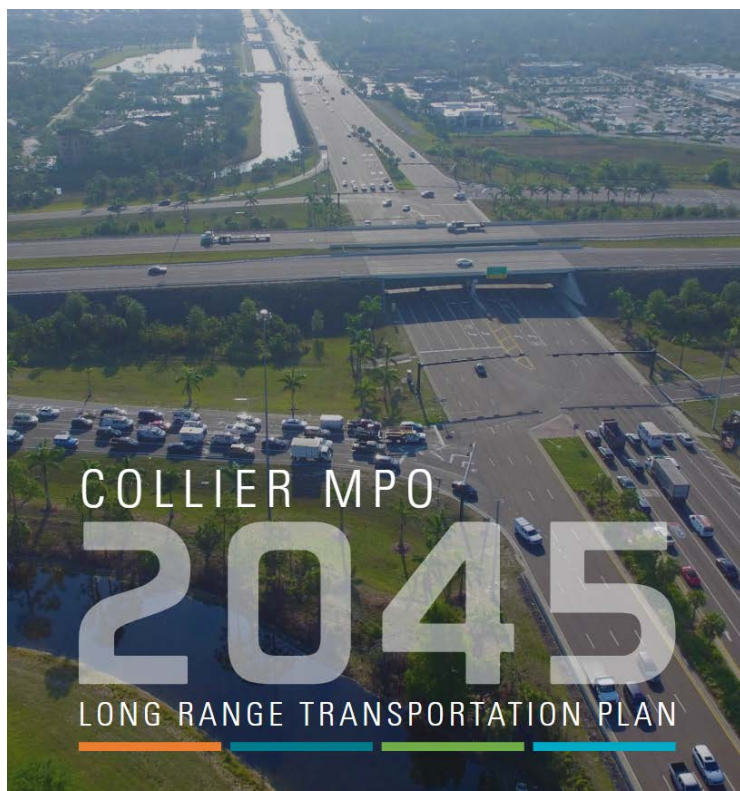
- Recent Changes (since Draft LRTP 10/16/2020)
- Technical Compendium
- PI Summary Report
- Schedule
- Next Steps

Recent Changes in 2045 Final Draft LRTP

- Park-and-Ride Study
 - Seminole Tribe of Florida
 - Miccosukee Tribe
 - Freight
 - WikiMap comments
 - Online comments
- Technical Reports and Memos
- Cost Feasible Plan Revisions
- Executive Summary



2045 LRTP Draft - Technical Compendium



TECHNICAL COMPENDIUM

Draft 11-18-20 DECEMBER 2020



Technical Compendium consists of Support Documents for the following:

- Goals, Objectives, and Decision-Making Framework
- Evaluation Framework
- 2015 and 2045 Socio-economic Data
- Automated, Connected, Electric and Shared-Use Mobility
- Transportation Network's Vulnerability to Climate Change
- Project Cost Development Methodology
- Financial Resources
- Long Range Transportation Plan Scenario Network Modeling
- Public Involvement Summary

2045 LRTP Draft – PI Summary

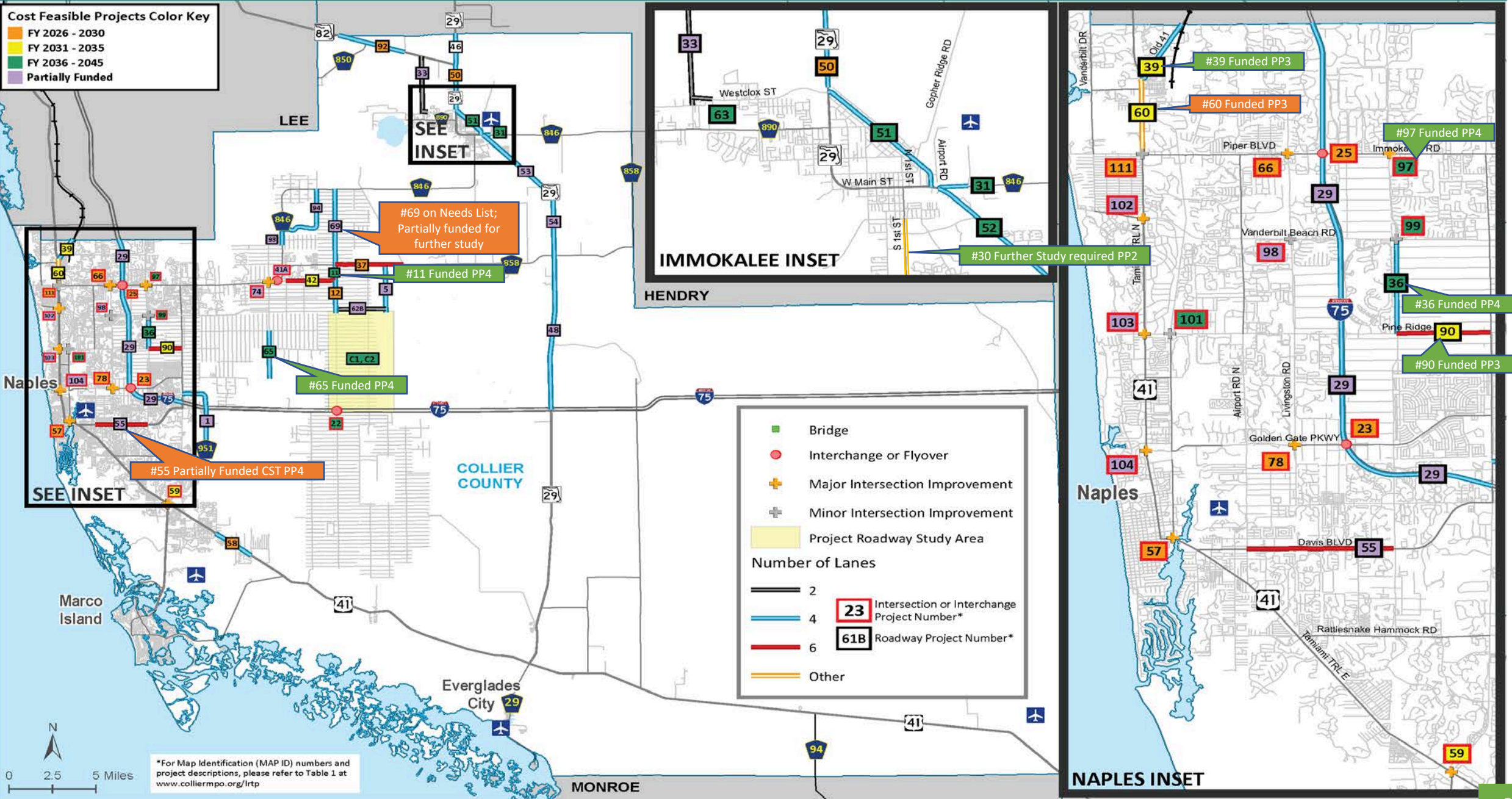
- Public Kick-Off Activities and Results
- Information Booth
- Virtual Public Meeting No. 1 (Needs Plan) Summary Report
- Virtual Public Meeting No. 2 (Cost Feasible Plan) Summary Report
- Public Comment and Responses

UPDATED VIRTUAL PUBLIC OUTREACH PLAN due to COVID-19

- MPO Advisory Committees
- Interactive Website and WikiMap
- Online Surveys
- Social Media Campaign
- E-Newsletters
- Virtual Presentations
- Email Distribution List (Adviser Network)

Cost Feasible Projects Color Key

- FY 2026 - 2030
- FY 2031 - 2035
- FY 2036 - 2045
- Partially Funded



*For Map Identification (MAP ID) numbers and project descriptions, please refer to Table 1 at www.colliermpo.org/lrtp

2045 LRTP CFP Changes - Transit

	FY 2020–2025 (TDP)	FY 2026–2030 (TDP)	FY 2031–2025 (LRTP)	FY 2036–2045 (LRTP)
Route Network Modifications	<ul style="list-style-type: none"> Route 11 - Realign Route 12 - Realign Route 17/18 - Combine/Realign Route 19/28 - Combine/Realign Route 20/26 - Combine Route 21 – Realign to create Marco Express Route 22 – Realign Route 23 – Realign Maintenance of Existing Routes 	<ul style="list-style-type: none"> Route 25 - Split creating EW Route Route 11 - Realign Route 12 - Realign Route 17/18 - Combine/Realign Route 19/28 - Combine/Realign Route 20/26 - Combine Route 21 – Realign to create Marco Express Route 22 – Realign Route 23 – Realign Maintenance of Existing Routes 	<ul style="list-style-type: none"> Route 25 - Split creating EW Route Route 11 - Realign Route 12 - Realign Route 17/18 - Combine/Realign Route 19/28 - Combine/Realign Route 20/26 - Combine Route 21 – Realign to create Marco Express Route 22 – Realign Route 23 – Realign Maintenance of Existing Routes 	<ul style="list-style-type: none"> Route 25 - Split creating EW Route Route 11 - Realign Route 12 - Realign Route 17/18 - Combine/Realign Route 19/28 - Combine/Realign Route 20/26 - Combine Route 21 – Realign to create Marco Express Route 22 – Realign Route 23 – Realign Maintenance of Existing Routes
Increase Frequency	<ul style="list-style-type: none"> Route 23 - 60 to 40-min headway Route 24 - 85 to 60-min headway Maintenance of Existing Routes 	<ul style="list-style-type: none"> Route 23 - 60 to 40-min headway Route 24 - 85 to 60-min headway Maintenance of Existing Routes 	<ul style="list-style-type: none"> Route 23 - 60 to 40-min headway Route 24 - 85 to 60-min headway Maintenance of Existing Routes 	<ul style="list-style-type: none"> Route 23 - 60 to 40-min headway Route 24 - 85 to 60-min headway Maintenance of Existing Routes
Service Expansion	Route 121 - add one AM/PM Trip	<ul style="list-style-type: none"> Route 121 - add one AM/PM Trip Extend to 10 PM: Route 11, Route 13, Route 14, Route 17/18 	<ul style="list-style-type: none"> Route 121 - add one AM/PM Trip Extend to 10 PM: Route 11, Route 13, Route 14, Route 17/18 	<ul style="list-style-type: none"> Route 121 - add one AM/PM Trip Extend to 10 PM: Route 11, Route 13, Route 14, Route 17/18
Other Improvements	<ul style="list-style-type: none"> Studies: Santa Barbara Corridor, UF/IFAS and Leigh Acres Route, I-75 Managed Lanes Express, Everglades City Vanpool, Mobility on Demand Fares Study Route 23 Frequency Improvements Capital Bus Replacements/Spare Vehicles Bus Shelters Safety/Security Program and Driver Protection Barriers 	<ul style="list-style-type: none"> Bus Replacements Spare Vehicles Bus Shelters Safety/Security Technology Investments 	<ul style="list-style-type: none"> Bus Replacements Spare Vehicles Bus Shelters Safety/Security Technology Investments 	<ul style="list-style-type: none"> Bus Replacements Spare Vehicles Bus Shelters Safety/Security Technology Investments

Overall LRTP Revenue Forecast for 2026-2045

TOTAL REVENUE FORECAST ~~\$2.518 B~~ (\$2.450B)

- Highway = \$1.609B
 - Federal = \$107.1M
 - State = \$540.7M
 - County = \$541.5M
 - Local Operations and Maintenance = \$420.2M
- Transit = ~~\$465.3M~~ (\$405.2M)
 - Transit Operations = ~~\$334.9M~~ (\$306.3M)
 - Transit Capital = ~~\$130.4M~~ (\$98.9M)
- FDOT SIS Funding = ~~\$337.4M~~ (\$329.1M)
- Use of SU Box Funds = \$107.1M
 - MPO Planning Funds (SU) = \$3.40M
 - Bicycle & Pedestrian (SU/TALU) = \$40.45M
 - Congestion Management (SU) = \$40.45M
 - Bridges (SU) = \$19.70M
 - Safety (SU) = \$3.10M
- Airports

LRTP Schedule



Next Steps in the LRTP Process

Final Advisory Committee Reviews
- TAC and CAC on November 30,
2020



Final Plan Adoption
December 11th, 2020



ENVISION 2045

Collier MPO

Contact Information

Visit us at <https://www.colliermpo.org/lrtp/>
or scan the QR code with your smart phone
to access our website.



Anne McLaughlin
MPO Director

2885 S. Horseshoe Drive
Naples, FL 34104

(239) 252-5884

colliermpo@colliergov.net

Brandy Otero
Principal Planner

(239) 252-5859



EXECUTIVE SUMMARY
REPORTS AND PRESENTATIONS
ITEM 8A

Review and Comment on the Draft Local Roads Safety Plan

OBJECTIVE: For the Committee to review and comment on the Draft Local Roads Safety Plan (LRSP).

CONSIDERATIONS: The Congestion Management Committee prioritized the development of a Strategic highway Safety Plan (SHSP) in 2013. The name was subsequently changed to the Local Roads Safety Plan to differentiate it from FDOT's SHSP.

Tindale Oliver submitted a Statistical Analysis Technical Memorandum and a Recommendations Technical Memorandum after the CMC met in September. Those documents were reviewed by the CAC and TAC at their September meetings. The drafts were distributed to CMC members for review and comment and were posted on the MPO's website for public access. Even though it is still in draft form, the statistical analysis prepared for the LRSP was factored into the safety evaluation component of the Transportation System Performance Report and Action Plan approved by the Board on September 11, 2020. The LRSP is also referenced in the draft 2045 LRTP.

Tindale Oliver has addressed comments received thus far in the November 2020 draft of the Local Roads Safety Plan shown in **Attachment 1**. MPO staff mark-ups are shown in Track Changes in Attachment 1.

Neither the BPAC or CMC achieved a quorum at their meetings and so were not able to review and comment on the draft, although committee members were encouraged to send their individual comments to the MPO Director. The Community Transportation Safety Team (CTST) will review the draft at their meeting on 12/10/20, assuming a quorum is achieved. The MPO Board will receive a briefing on December 11, 2020. The process of completing the LRSP will continue into calendar year 2021 in order to allow sufficient time for advisory committee review and input.

Tindale Oliver will give a brief presentation that focuses on the Implementation section which has been added since the Committee's previous review.

STAFF RECOMMENDATION: That the Committee review and comment on the November 2020 Draft Local Roads Safety Plan.

Prepared By: Anne McLaughlin, MPO Director

Attachment:

1. November 2020 Draft Local Roads Safety Plan (with MPO Mark-Ups in Track Changes)
2. Presentation



Collier County MPO Local Road Safety Plan

Advisory Committee Review Draft November 2020

Prepared for



Prepared by



8A Attachment 1





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Appendix 1: Glossary of Technical Terms (Pending)

Appendix 2: Crash Data Quality Control Technical Memorandum (Pending)

Appendix 3: Community Survey Summary (Pending)



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SECTION 1: EXECUTIVE SUMMARY

Introduction and Intent

Collier MPO's Local Road Safety Plan (LRSP) is a collaborative and comprehensive plan that identifies transportation safety issues and provides a framework for reducing fatalities and serious injuries on highways and local public roads. This framework is developed through data analysis and public outreach, along with the development and adoption of recommendations. The data analysis step allows for the identification of emphasis areas which represent the most critical safety concerns within Collier County. Emphasis areas are then matched with strategies and action steps for reducing roadway fatalities and serious injuries.

These strategies will be grouped under the 4 Es of safety: Engineering, Enforcement, Education, and Emergency Response.

In addition to a thorough analysis of safety issues in Collier County and development of recommended strategies, other high-level objectives of this project include the following:

- Quality Control (QC) of Collier Crash Data Management System to ensure the best quality data for development of the Plan and identification of potential areas of improvement for crash data reporting.
- Develop implementable short-term recommendations to address critical safety issues.
- Provide input to Collier Long Range Transportation Plan (LRTP) to address long-term strategies and funding needs.
- Achieve buy-in/community support to move Collier County towards adoption of Vision Zero.

The Collier County LRSP incorporates strategies currently being promoted by the Federal Highway Administration (FHWA) and Florida Department of Transportation (FDOT) and will be implemented in close coordination with these agencies, Collier MPO Member Governments, and local law enforcement.



Key Conclusions and Recommendations

Based on the data analysis conducted as part of the Collier LRSP, four key Collier County LRSP emphasis areas were identified for further analysis and identification of high-crash corridors. The following crash types were identified as having a high severity ratio (constituting a greater percentage of severe crashes than all crashes) and accounting for a high overall number of severe crashes (more than 5% of total severe crashes):

- Bicycle
- Pedestrian
- Left-turn
- Angle
- Hit fixed object

Additionally, rear-end, single vehicle, head-on, and run-off-road crash types either account for a high frequency of severe crashes or have a high severity ratio. Based on similar characteristics and countermeasure profiles, these crash types can be combined to form the following Emphasis Areas:

- Non-Motorized (Bicycle and Pedestrian Crashes)
- Intersection (Left-Turn and Angle Crashes)
- Lane Departure (Hit Fixed Object, Single Vehicle, Head-On, and Run-Off-Road Crashes)
- Same Direction (Rear-End and Sideswipe Crashes)

Table 1-1 is a summary of Emphasis Area crash statistics excluding private roads and interstate highways. Each emphasis area is discussed further in Section 2: including maps and tables illustrating crash concentrations and high-crash corridors for each area.

Table 1-1: Emphasis Area Summary

	All Crashes	Non-Motorized	Intersection	Lane Departure	Same Direction
Total Crashes	38,887	862	6,819	3,829	23,419
Injury Crashes	3,469	448	1,030	567	1,111
Total Injuries	4,719	470	1,621	747	1,492
Total Serious Injuries	928	136	326	201	187
Fatal Crashes	148	38	39	53	10
Total Fatalities	160	38	40	64	10
Severity Ratio	2.4%	15.8%	4.8%	5.2%	0.8%
Percent of All Crashes	NA	2%	18%	10%	60%
Percent of Severe Injuries	NA	15%	35%	22%	20%
Percent of Fatalities	NA	24%	25%	40%	6%



In addition to the definition of Collier County-specific emphasis areas, the following key conclusions help to formulate data-driven recommendations for reducing crashes, injuries, and fatalities in Collier County:

1. **Roadway Safety Relative to Florida:** Collier County has fewer crashes, traffic injuries, and traffic fatalities than Florida as a whole as a function of population and daily vehicle miles of travel (VMT).
2. **Major Roadway Focus:** As is common in many urbanized Florida communities, a significant majority of public road traffic crashes, including severe injury crashes, occur along elements of the county's arterial and collector road network.
3. **Local Autonomy:** Because Collier County has a relatively sparse network of State highways and many County-maintained roadways that carry significant traffic volume, approximately 2/3 of crashes occur along County-maintained roadways. This means Collier County has substantial agency to self-manage safety outcomes on its roadway network.
4. **Driver Demographics:** Driver age data show that older road users do not disproportionately contribute to crashes in Collier County; however, inferential time-of-day data suggest that older drivers (age 55+) also have less exposure to nighttime and rush-hour driving.
5. **Moderate Enforcement:** Fewer traffic citations per capita and per vehicle mile of travel are issued in Collier County than in Florida as a whole and within a group of similarly-sized coastal counties.
6. **High Severity Emphasis Areas:** Certain crash types contribute disproportionately to incapacitating injury and fatal crashes. Collectively, non-motorized road user, angle, left-turn, and lane departure crashes account for 30% of all crashes but result in 72% of severe injuries and 89% of fatalities.
7. **High Frequency Emphasis Area:** Though significantly less likely to result in severe injury than the crash types noted above, rear-end and sideswipe crashes result in a significant number of incapacitating injuries due to their frequency.

Based on the LRSP Emphasis Areas and the summary conclusions described above, infrastructure and non-infrastructure strategies have been identified. These are summarized in Table 1-2 and 1-3 and described in detail in Section 4:.



Table 1-2: Infrastructure Strategies Matrix

Infrastructure Strategies	Non-Motorized	Intersection	Lane Departure	Same Direction
Speed Management	•	•	•	•
Alternative Intersections (ICE Process)	•	•		•
Intersection Design Best Practices for Pedestrians	•			
Median Restrictions/Access Management		•		•
Right Turn Lanes	?			•
Signal Coordination	?			•
Rural Road Strategies including:				
• Paved shoulder	•		•	
• Safety edge			•	
• Curve geometry, delineation, and warning			•	
• Bridge/culvert widening/attenuation			•	
• Guardrail/ditch regrading/tree clearing			•	
• Isolated intersection conspicuity/geometry		•		
Shared Use Pathways, Sidewalk Improvements	•			
Mid-Block Crossings & Median Refuge	•			
Intersection Lighting Enhancements	•	•	•	
Autonomous Vehicles (Longer-Term)	TBD	•	•	•
(= Applicable Strategy ? = Possible Contra-indications				

Table 1-3: Non-Infrastructure Strategies Matrix

Non-Infrastructure Strategies	Intersection	Lane Departure	Non-Motorized	Rear End/Sideswipe
Traffic Enforcement				
• Targeted Speed Enforcement	X	X	X	X
• Red Light Running Enforcement	X		X	
• Automated Enforcement	X			?
• Pedestrian Safety Enforcement			X	
Bike Light and Retroreflective Material Give-Away			X	
Young Driver Education	X	X	X	X
WalkWise/BikeSmart or Similar Campaign			X	
Continuing Education	X	X	X	X
Safety Issue Reporting	X	X	X	X
Vision Zero Policy	X	X	X	X



Plan Organization

The Collier LRSP is divided into three main sections as follows:

- **Data and Analysis:** This section includes an analysis of the County's traffic crash history, a comparison of Collier County traffic citation data with the State of Florida and with "peer" counties, and a discussion of the four emphasis areas described above. The Data and Analysis Section of the LRSP also includes "Key Conclusions" derived from the analysis of the County's traffic crash and citation data.
- **Recommendations:** This section begins with a problem statement that builds from the "Key Conclusions" part of the Data and Analysis Section. Next Recommendations related to both infrastructure and non-infrastructure strategies are presented where "infrastructure" refers to public roadway design and operations and "non-infrastructure" refers to education/marketing, law enforcement, and other strategies.
- **Implementation Plan:** The LRSP Implementation Plan shows potential processes for addressing each of the infrastructure and non-infrastructure strategies identified in the Recommendations Section of the Report. Implementation measures are categorized by timeframe (short-term, longer-term) and by order of magnitude cost. The Implementation Plan also includes recommendations for evaluating and updating the Plan.

In addition to the three main report section, the LRSP also includes the following appendices:

- **Glossary of Technical Terms (Appendix 1):** This is a glossary of technical terms used in the LRSP and is provided to make the document more legible for audiences that are not familiar with traffic engineering terms.
- **Traffic Crash Data Quality Control Technical Memorandum (Appendix 2):** As part of the LRSP, a five year history of Collier County's crash data was manually reviewed to ensure fatal and incapacitating injury crashes and non-motorized crashes were located correctly and that key data attributes were consistent with the crash report collision diagram and narrative. This appendix summarizes the methodology and findings of that process.
- **Community Survey Summary (Appendix 3):** As part of the public outreach process for the LRSP, a web-based community survey was distributed to better understand the perception and attitudes of Collier County residents and workers with respect to traffic safety. The survey questions and findings are provided in this appendix.



SECTION 2: STATISTICAL ANALYSIS

Introduction and methodology

Introduction

A critical input into the Collier Local Road Safety Plan (LRSP) is analysis of traffic crash data and other relevant quantitative data inputs. This Technical Memorandum provides a description of the data analysis methodology and findings used to inform the Collier LRSP. Key elements of this memorandum include the following:

- Analysis of countywide crash data distributions and comparison with statewide norms
- Analysis of traffic citation data for Collier County and comparisons with statewide citation data and citation data from peer counties
- Establishment of Collier County-specific safety emphasis areas and identification of high-crash locations based on Safety Emphasis Areas
- Key Conclusions

Methodology

The Collier LRSP uses traffic crash data from the Collier Crash Data Management System (CDMS) for the years 2014 to 2018. As described in the LRSP Crash Data Quality Control Memorandum, fatal, incapacitating injury, and bicycle/pedestrian crash reports were manually reviewed and key data fields were updated to ensure accuracy.

Next, crashes that occurred in parking lots and along private roads were removed from the data sample, and those that occurred along the county's major roadway network were assigned ID numbers from the major roadway database. This was done using a spatial query in which crashes within 100 ft of a major roadway segment were assigned to that segment. Data from Collier County's Annual Update and Inventory Report (AUIR) were then used to understand crash data distributions in the context of roadway system vehicle miles of travel (VMT), roadway characteristics, and other factors.

To evaluate traffic citations, data were collected from Florida Department of Highway Safety and Motor Vehicles (DHSMV) crash and citation reports and statistics web page. Data from Collier County, the State of Florida, and similar-size coastal counties were downloaded as Excel spreadsheets and compared.

A Glossary of Terms used in this Technical Memorandum is provided as Appendix A. Appendix B provides an overview of a public outreach survey that was disseminated by the Collier Metropolitan Planning Organization (MPO) to help understand public perceptions of traffic safety in Collier County.

Crash Data analysis

This section of the LRSP Statistical Analysis Technical Memorandum summarizes the following traffic crash data distributions:

- Comparison of State and County Crash Rates



- Roadway Functional Class
- Major Roadway Maintenance Authority
- Major Roadway Number of Lanes
- Area Type (Urban/Rural)
- Lighting Condition
- Crash Type
- (At Fault) Driver Age
- Temporal Trends (Annual and Monthly)

State of Florida Crash Rate Comparison

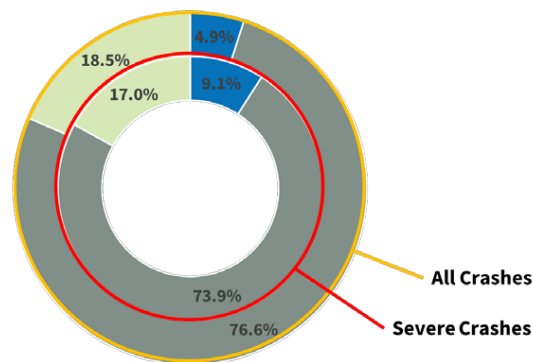
Using data from FLHSMV (for consistency) the average number of reported crashes, fatalities, and injuries from the State of Florida and Collier County are shown in Table 2-1. These crash totals are represented as crash rates as a function of millions of daily vehicle miles of travel (DVMT) and as a function of 100,000 persons. The data shows that Collier County has fewer crashes and traffic fatalities and injuries than the State of Florida in terms of both population and vehicle miles of travel.

Table 2-1: Comparison of Collier County and State of Florida Crash Rates

	Florida	Collier County	Collier vs. State
Crashes	383,862	4,962	NA
Fatalities	2,972	38	NA
Injuries	242,709	2,829	NA
Daily VMT	582,491,060	9,939,709	762%
Crashes/m DVMT	659	499	76%
Fatalities/mDVMT	5.1	3.8	75%
Injuries/mDVMT	417	285	68%
Population	20,159,183	351,121	NA
Crashes/100k Pop.	1,904	1,413	74%
Fatalities/100k Pop.	15	11	73%
Injuries/100k Pop.	1,204	806	67%

Crash Distribution by Roadway Functional Class

Using the location data for each traffic crash report and a GIS layer representing Collier County's major road network (arterial and collector roads), all Collier County crashes for 2014–2018 were either assigned to a major roadway segment or classified as a local roadway crash. Figure 2-1 shows the distribution of all crashes and severe crashes in Collier County. Approximately 3/4 of crashes occurred along the county's major signalized arterial and collector road network, with fewer than 10% occurring along I-75 and fewer than 20% occurring along local streets.



■ Interstate ■ Arterials and Collectors ■ All Other Public Roads

Figure 2-1: Crashes by Roadway Functional Classification

To put this data into context, Table 2-2 show how automobile traffic is distributed across Collier County's roadway network as compared with roadways statewide. The table shows that proportionally fewer vehicle miles of travel (VMT) in Collier County is handled by limited access highways (interstate, turnpike, etc.) while a greater share of VMT is handled by arterial roads and major collector roadways. These types of roadways tend have a higher number of reported crashes per VMT than limited access highways or lower-speed minor collectors and local roads.

Table 2-2: VMT Distribution of Collier County and Florida by Functional Classification

Roadway Functional Classification	Florida		Collier		Crash Characteristics
Interstate, Turnpike & Freeways	26%		21%		Limited Access, Low Crashes/VMT
Other Principle Arterials	25%	50%	16%	59%	Higher Speed, More Conflict Points
Minor Arterials	15%		29%		
Major Collectors	11%		14%		
Minor Collectors	2%	23%	2%	20%	Lower Speed, Less Severe Crashes
Locals	21%		18%		

Crash Distribution of Major Roadway Crashes by Maintenance Authority

To understand how Collier County, the Florida Department of Transportation (FDOT), and Naples and Marco Island each contribute to managing safety along the county's road network, it is useful to look at how crashes are distributed based on roadway ownership/maintenance responsibility. Figure 2-2 shows the distribution of all crashes, severe crashes, and vehicle miles of travel along the county's major roadway network excluding I-75.

The percentage of all crashes and severe crashes is more or less proportional to each maintenance jurisdictions' overall VMT, with a slightly higher proportion of severe crashes occurring along State roads compared with County-maintained roads. In more metropolitan areas of Florida, there is a



denser grid of State-maintained arterial roads than in Collier County. Accordingly, up to half of VMT and half of all crashes in those jurisdictions occur on the State Highway System (SHS). In Collier County, County-maintained major roadways that look and function like State highways carry a greater share of the load and therefore account for a more significant proportion of crashes.

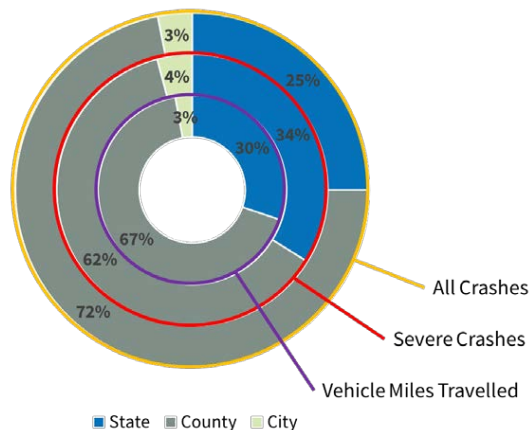


Figure 2-2: Crash Distribution by Major Roadway Maintenance Authority

Crash Distribution of Major Roadway Number of Lanes

Another way to understand Collier County's crash history, especially when comparing concentrations of severe crashes, is to look at the distribution of crashes by the number of roadway lanes along the major roadway network (excluding I-75). Referring to the inner ring of Figure 2-3, roadways with six or more lanes account for half of arterial and collector roadway VMT and overall crashes but only 38% of severe crashes. Conversely, two-lane roadways account for 31% of VMT but 41% of severe crashes.

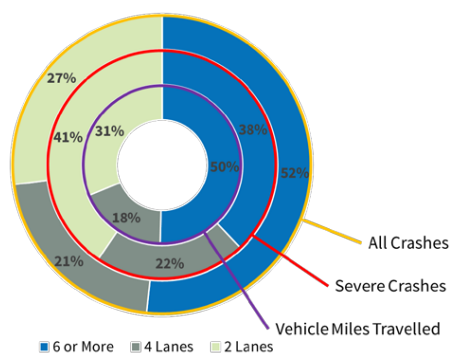


Figure 2-3: Crash Distribution by Major Roadway Number of Lanes



Crash Distribution by Area Type

The proportion of all crashes, severe crashes, and VMT was also compared for the western, more urban part of the county and the eastern, more rural part of the county using CR-951/Collier Boulevard as an approximate meridian. Including travel on I-75, approximately 60% of all VMT occurs on major roadways to the west of and including CR-951, and these roadways account for nearly 3/4 of all crashes and about 57% of severe crashes.

Roadways in the eastern, more rural part of the county account for proportionally fewer crashes overall but a somewhat higher proportion of severe crashes compared with VMT. These data, combined with the prior analysis of crash severity by number of lanes, indicate a potential issue with rural highway safety, including a potential for single-vehicle (lane departure) crashes.

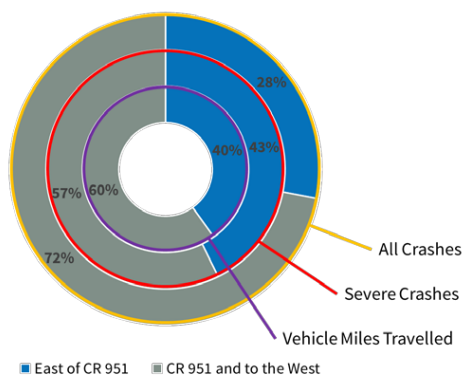


Figure 2-4: Major Roadway Crashes by Sub-Area

Crash Distribution by Lighting Condition

In addition to the roadway characteristics of the county's crash history, it is also helpful to understand key environmental conditions. One of the most useful of these is the lighting conditions in which crashes occurred. Because crash report coding of lighting condition does not always reflect whether nighttime lighting is functionally adequate (i.e., meets applicable AASHTO or FDOT standards), it is better to focus on whether crashes occurred during daylight or non-daylight conditions as a primary indicator while considering the specific non-daylight conditions as a secondary measure.

The chart on the left of Figure 2-5 compares the observed lighting condition of all crashes and severe crashes, and the chart on the right shows a comparison of all non-motorized crashes, severe non-motorized crashes and all crashes. The overall percentage of non-daylight crashes (22%) is about typical for Florida (25%). These data also show that severe crashes are more likely to occur outside of daylight hours for both motorized and non-motorized crashes.



The preponderance of severe non-motorized crashes during non-daylight hours is also a common finding statewide and nationally and reflects the fact that driver ability to observe, react, and respond to non-motorized users in the roadway is drastically diminished at night due to the frequent lack of adequate running lights on bicycles or use of retroreflective clothing by cyclists and pedestrians.

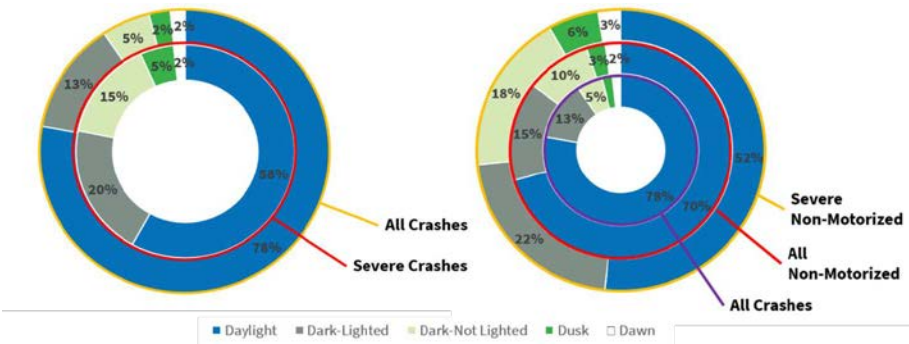


Figure 2-5: Lighting Conditions

Crash Type Distribution

A critical way of looking at Collier County’s crash history is to understand what types of crashes occur most frequently and what types result in the most incapacitating injuries and fatalities. ~~Error!~~

~~Reference source not found.~~ Figure 2-6 shows all crashes ranked by crash type and the percentage of severe crashes for each. These data show that rear-end crashes are the most common overall crash type (nearly 50%) and result in the highest overall number of severe crashes, but the relative severity of rear-end crashes is lower than many other crash types.

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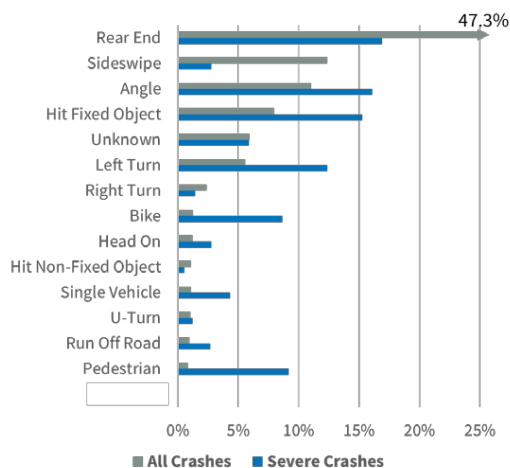


Figure 2-6: Crash Type Distribution

Table 2-3 shows crash type and severity data shown in Figure 2-7 presented as a two-by-two matrix. The top left quadrant represents crash types that have a high severity ratio (account for a greater percentage of severe crashes than overall crashes) and also a high absolute number of severe crashes (account for more than 5% of all severe crashes). This quadrant is the most important strategically since eliminating a relatively small percentage of overall crashes can have a relatively large effect in reducing life-altering injuries and fatalities.

Table 2-3: Crash Type and Severity Matrix

	High Severity Ratio	Low Severity Ratio
High Severity Frequency (> 5% of All Severe Crashes)	Bike	
	Pedestrian	
	Left-Turn	Rear-End
	Angle	Unknown/Other
	Hit Fixed Object	
Low Severity Frequency (<5% of All Severe Crashes)	Head-On	Sideswipe
	Single Vehicle	Right-Turn
	U-Turn	Hit Non-Fixed Object
	Run Off Road	

Driver Age

In addition to understanding where and how crashes occur in Collier County, it is also useful to consider demographic information about the people involved in crashes. Figure 2-7 shows the relative contribution of different age drivers to crashes countywide and also shows the extent to which each age bracket contributes to the county's overall population. These data indicate that young drivers are more likely to be cited as "at fault" in crashes both in absolute terms and in proportion to their representation in the county's population.



Although it is common to find that younger drivers are at a greater risk of being involved in a crash, it is unusual to find that middle-age adult drivers are over-represented compared to older drivers. To understand these data better, crash time-of-day data were compared to at-fault driver age for drivers ages 54 and younger and 55 and up. Figure 2-7 confirms that some of the difference between older and younger driver risk is related to time of day.

Across all time periods, drivers age 54 and younger account for 70% of all crashes, and drivers age 55 and older account for the remaining 30% of all crashes. Accordingly, the younger age group is over-represented in late-night crashes and also during morning and afternoon rush hours and in the evening. Conversely, older drivers very rarely are at fault in late-night crashes but are over-represented during the midday period.

Although not definitive proof, these data imply that part of the lower risks attributed to older drivers is that they are less likely to drive at night and may also avoid driving during the most congested times of day.

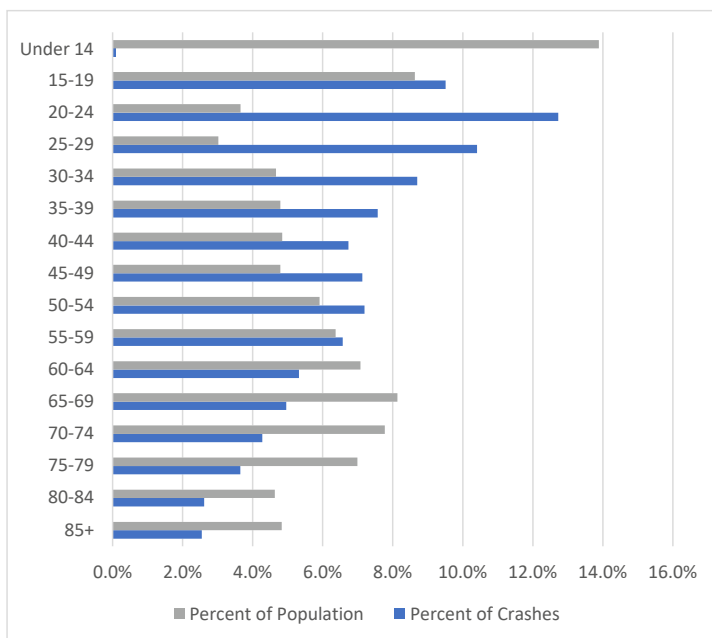


Figure 2-7: At Fault Driver Age

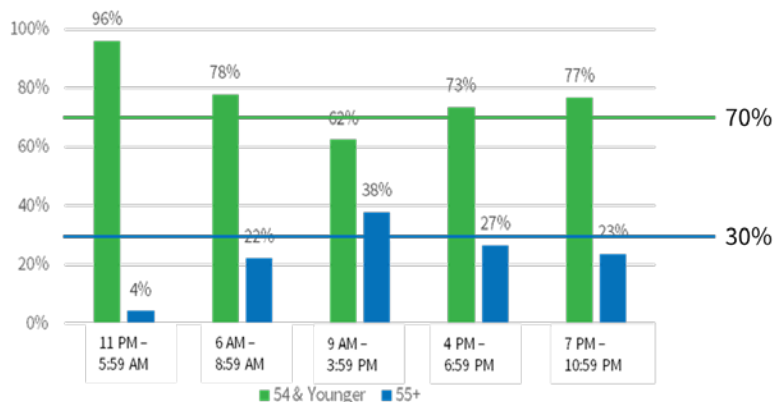


Figure 2-8: Crash Distribution for Age 54 and Younger vs. Age 55 and Older

Temporal Trends

Figure 2-9 shows annual crash frequencies for crashes in Collier County for 2014–2018. Reported crashes ranged from a low of approximately 7,600 crashes in 2014 to a high of nearly 9,000 crashes in 2016. Nominally, the trend in crash frequency is increasing by about 130 crashes per year; however, the year-over-year data are somewhat erratic, resulting in a low R2 value of about 0.20.

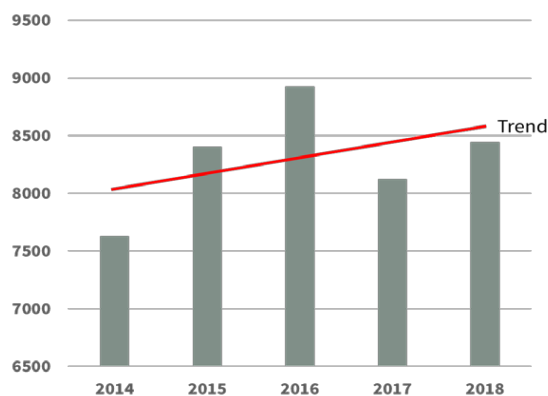


Figure 2-9: Crash Trend, 2014–2018

Figure 2-10 shows average monthly crash frequencies Collier County for 2014–2018. Over this period, there was an average of approximately 700 reported crashes per month, with a monthly distribution that generally reflects the overall seasonal traffic patterns exhibited in Collier County.

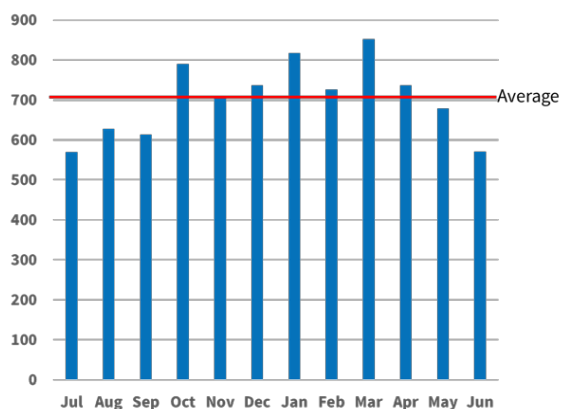


Figure 2-10: Average Crashes per Month

Traffic Citation Analysis

Traffic citation data are another lens through which to analyze traffic safety in Collier County. For the LRSP, citation data for 2014–2018 were obtained from the Florida Department of Highway Safety and Motor Vehicles (DHSMV) for Collier County, the State of Florida, and several “peer” counties.

Figure 2-6 shows the most common moving violations recorded in Collier County. “Exceeding the Posted Speed” (speeding) accounts for more than half of all moving violations, followed by “Disregard Traffic Control Device” (e.g., ran stop sign or yield sign) and “Disregard Traffic Signal” (ran red light).

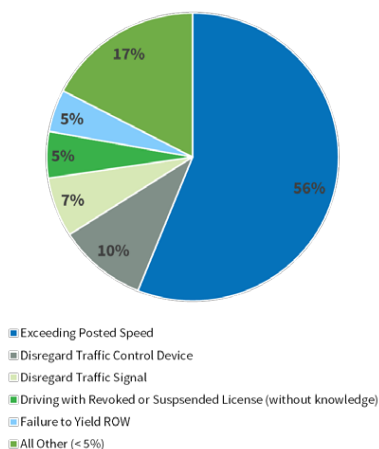


Figure 2-6: Most Common Collier County Moving Violations



Figure 2-7 shows the distribution of traffic citations by issuing agency for Collier County. These data indicate that the Collier County Sheriff's Office accounts for about 45% of all traffic citations, followed by the Florida Highway Patrol at 39%. Naples and Marco Island collectively issue about 15% of the citations countywide.

Table 2-4 compares traffic citation activity in Collier County with similarly-sized coastal Florida counties and Florida overall. These data suggest that Collier County law enforcement agencies issue fewer citations on average than the State of Florida and most peer counties in terms of both citations per capita and citations per vehicle miles of travel.

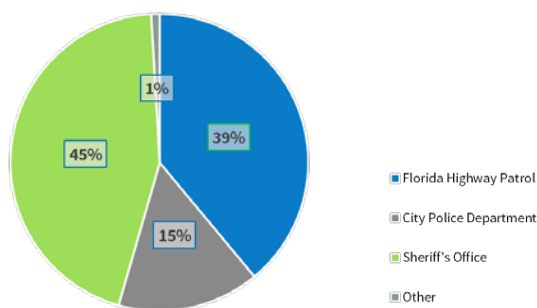


Figure 2-7: Traffic Citation by Law Enforcement Agency (LEA)

Table 2-3: Traffic Citations per Capita and per VMT Comparison

State and County	Violations (2014–18)	Total VMT (2014–18)	Citations per 100K VMT	Population	Citations per 100K Pop.
Florida	1,978,741	582,491,060	340	20,159,183	9,816
Collier	22,136	9,939,709	223	351,121	6,304
Brevard	29,592	17,784,554	166	568,367	5,206
Escambia	24,176	9,657,445	250	310,556	7,785
Lee	83,614	20,667,894	405	682,448	12,252
Manatee	23,208	10,038,803	231	358,616	6,472
Sarasota	33,880	12,052,890	281	400,694	8,455

Table 2-5 shows the types of criminal, non-criminal (moving), and non-moving traffic violations in Collier County compared with Florida. Generally, high-frequency citation types in Collier County align with those issued statewide; however, the following exceptions are noteworthy:

- Collier County issues a lower percentage of citations for driving with a suspended or revoked driver's license. This may be due, in part, to the relative affluence of Collier County compared with Florida.
- Collier County does not have a substantial number of red-light running camera violations. These account for approximately 15% of moving violations statewide.



Table 2-4: Traffic Citations (State Totals vs. Collier County) Collier LRSP Emphasis Areas

COLLIER COUNTY			STATE TOTALS		
Infraction	Average Annual Citations	Percent of Category	Infraction	Average Annual Citations	Percent of Category
CRIMINAL					
DR/DL/Sus/RV	1,287	25%	DR/DL/SUS/RV	149,717	37%
No/Imp/Expired Driver's License	1,243	24%	No/Imp/Expired Driver's License	87,385	22%
DUI	1,173	23%	DUI	45,791	11%
Other Crime	349	7%	No/Imp/Exp TAG	36,220	9%
No/Imp/Exp. Tag	240	5%	Other Crime	20,857	5%
All Other (< 5%)	400	9%	All Other (<5%)	30,648	8%
NON-CRIMINAL (MOVING)					
Exceeding Posted Speed	12,428	56%	SPD Post Zone	746,886	38%
Disregard Traffic Control Device	2,182	10%	Red Light Camera	302,601	15%
Disregard Traffic Signal	1,480	7%	Careless Dr	203,096	10%
Driving with Revoked or Suspended License (w/o knowledge)	1,154	5%	Disregard Traffic Control Device	116,733	6%
Failure to Yield ROW	1,053	5%	UNK DR/DL/SUS/RV	93,217	5%
All Other (< 5%)	3,850	17%	All Other (<5%)	516,207	26%
NON-MOVING INFRACTIONS					
Exp/Fail Display Tag	2,637	25%	Exp/Fail/ Display Tag	253,969	28%
No Proof of Insurance	2,518	24%	No Proof of Insurance	215,538	24%
Seat Belt Viol	2,215	21%	Seat Belt Viol	159,253	18%
Other	1,185	11%	Other	81,346	9%
Exp/Fail Display DL	1,097	10%	Exp/Fail Disp DL	67,964	8%
Def/Unsafe Equip	536	5%	Def/Unsafe Equip	63,465	7%
All Other (<5%)	199	2%	All Other (<5%)	30,158	3%

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Based on the data analysis described, four key Collier County LRSP emphasis areas were identified for further analysis and identification of high-crash corridors. The following crash types were identified as having a high severity ratio (constituting a greater percentage of severe crashes than all crashes) and accounting for a high overall number of severe crashes (more than 5% of total severe crashes):

- Bicycle
- Pedestrian
- Left-turn
- Angle
- Hit fixed object

Additionally, rear-end, single vehicle, head-on, and run-off-road crash types either account for a high frequency of severe crashes or have a high severity ratio. Based on similar characteristics and countermeasure profiles, these crash types can be combined to form the following Emphasis Areas:



- Non-Motorized (Bicycle and Pedestrian Crashes)
- Intersection (Left-Turn and Angle Crashes)
- Lane Departure (Hit Fixed Object, Single Vehicle, Head-On, and Run-Off-Road Crashes)
- Same Direction (Rear-End and Sideswipe Crashes)



Table 2-6 is a summary of Emphasis Area crash statistics excluding private roads and interstate highways. Each emphasis area is discussed further in this section, including a summary of high-crash corridors and a “heat map” showing crash concentrations for each emphasis areas. Because much of Collier County is undeveloped, the maps focus on the western, urban part of the county and the area around Immokalee and Marco Island.

Table 2-5: Emphasis Area Summary

	All Crashes	Non-Motorized	Intersection	Lane Departure	Same Direction
Total Crashes	38,887	862	6,819	3,829	23,419
Injury Crashes	3,469	448	1,030	567	1,111
Total Injuries	4,719	470	1,621	747	1,492
Total Serious Injuries	928	136	326	201	187
Fatal Crashes	148	38	39	53	10
Total Fatalities	160	38	40	64	10
Severity Ratio	2.4%	15.8%	4.8%	5.2%	0.8%
Percent of All Crashes	NA	2%	18%	10%	60%
Percent of Severe Injuries	NA	15%	35%	22%	20%
Percent of Fatalities	NA	24%	25%	40%	6%

Emphasis Area 1: Non-Motorized Crashes

Non-motorized crashes (crashes in which a pedestrian or bicyclist are involved) are a statewide Emphasis Area and an important component of traffic safety challenges in Collier County. These crashes account for only 2% of all reported crashes in Collier County but constitute 15% of the county’s severe injury crashes and 24% of the county’s crash fatalities.



Table 2-6 shows a list of major roadway corridors with the most non-motorized crashes, and Figure 2-8 is a “heat map” of non-motorized user crashes. Consistent with prior Collier MPO bicycle/pedestrian safety analyses, key focus areas include the area defined by US-41 (Tamiami Trail), Airport Road, and Davis Boulevard and SR-29 through Immokalee. Other critical corridors are listed in Table 2-7 and highlighted in Figure 2-9.



Table 2-6: Non-Motorized High Crash Corridors

On Street	From Street	To Street	Crashes	Fatal Crashes	Incap. Injury Crashes
Airport Rd	US-41 (Tamiami Trail)	Davis Blvd	31	2	3
Tamiami Trail E	Davis Blvd	Airport Rd	24	2	2
Tamiami Trail N	Vanderbilt Beach Rd	Immokalee Rd	22	1	0
SR 29	1st St	9th St	21	1	4
Bayshore Dr	Thomasson Dr	US-41 (Tamiami Trail)	20	0	3
Radio Rd	Livingston Rd	Santa Barbara Blvd	20	0	2
SR 29	9th St	Immokalee Dr	19	0	5
Tamiami Trail E	Airport Rd	Rattlesnake Hammock Rd	19	0	2
Collier Blvd	Vanderbilt Beach Rd	Immokalee Rd	16	0	1
Lake Trafford Rd	Carson Rd	SR-29	16	1	3
Immokalee Rd	Stockade Rd	SR-29	15	0	2
Davis Blvd	Lakewood Blvd	County Barn Rd	14	0	2
SR-29	Immokalee Dr	CR-29A North	14	1	2
Airport Rd	Davis Blvd	North Rd	13	0	2
Airport Rd	Radio Rd	Golden Gate Pkwy	13	0	1

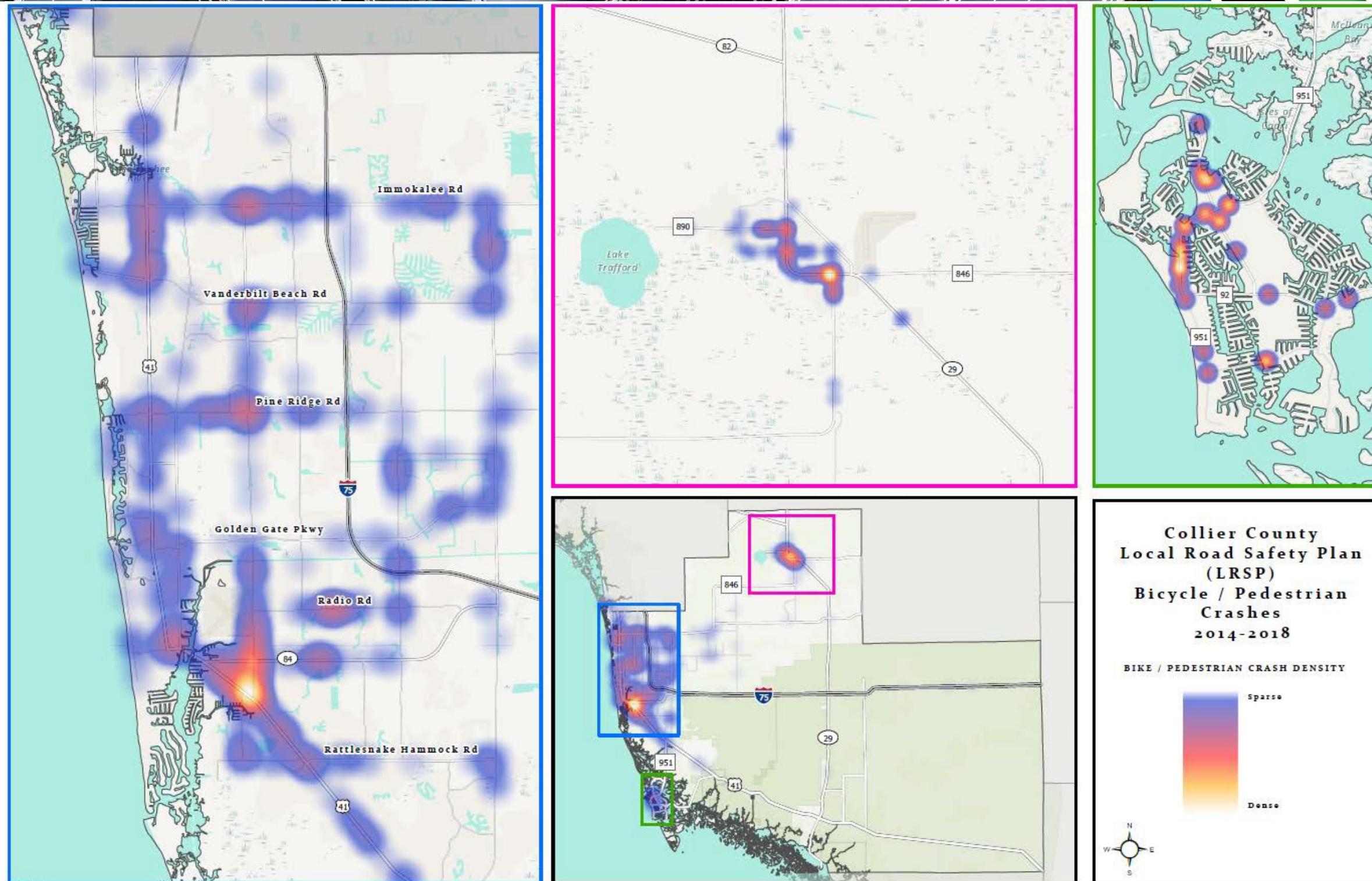


Figure 2-8: Non-Motorized Crash Heat Map



Emphasis Area 2: Intersection Crashes (Angle and Left-Turn)

Angle and left-turn crashes involve either two motor vehicles traveling at roughly perpendicular directions or a motor vehicle making a left turn across the path of an oncoming vehicle. Because these crashes are often extremely violent, high-energy events, they are more likely to result in incapacitating or fatal injuries than crashes in which vehicles are traveling in the same direction. These crashes account for only 18% of all crashes but 35% of severe injuries and 25% of fatalities.

Table 2-8 shows a list of major roadway corridors with the most angle and left turn crashes based on the data mapped in Figure 2-9. Many of the high-crash corridors include one or more high-volume arterial intersections; however, some corridors, including Golden Gate Parkway (Santa Barbara Blvd. to Collier Blvd.) include crash concentrations associated with lower-volume intersections.

Table 2-7: Intersection (Angle and Left-Turn) High-Crash Corridors

On Street	From Street	To Street	Crashes	Fatal Crashes	Incap. Injury Crashes
Golden Gate Pkwy	Santa Barbara Blvd	Collier Blvd	190	0	4
Tamiami Trail N	SR-84 (Davis Blvd)	CR-851 (Goodlette Rd S)	136	0	1
Collier Blvd	Golden Gate Pkwy	Green Blvd	111	1	4
Tamiami Trail N	12th Ave	Park Shore Dr/ Cypress Woods Dr	106	0	4
Goodlette-Frank Rd	US-41 (Tamiami Trail)	Golden Gate Pkwy	87	0	3
Tamiami Trail N	Park Shore Dr/ Cypress Woods Dr	Pine Ridge Rd/ Seagate Dr	84	1	2
Santa Barbara Blvd	Golden Gate Pkwy	Green Blvd	82	0	1
Airport Rd	Radio Rd	Golden Gate Pkwy	81	1	1
Airport Rd	Pine Ridge Rd	Orange Blossom Dr	74	2	1
Goodlette-Frank Rd	Golden Gate Pkwy	Pine Ridge Rd	74	0	4
Pine Ridge Rd	Airport Rd	Livingston Rd	73	0	2
Collier Blvd	Vanderbilt Beach Rd	Immokalee Rd	67	0	4
SR-29	9th St	Immokalee Dr	67	0	2
Tamiami Trail N	Pine Ridge Rd/ Seagate Dr	Gulf Park Dr	65	1	4
Tamiami Trail E	Airport Rd	Rattlesnake Hammock Rd	63	1	2

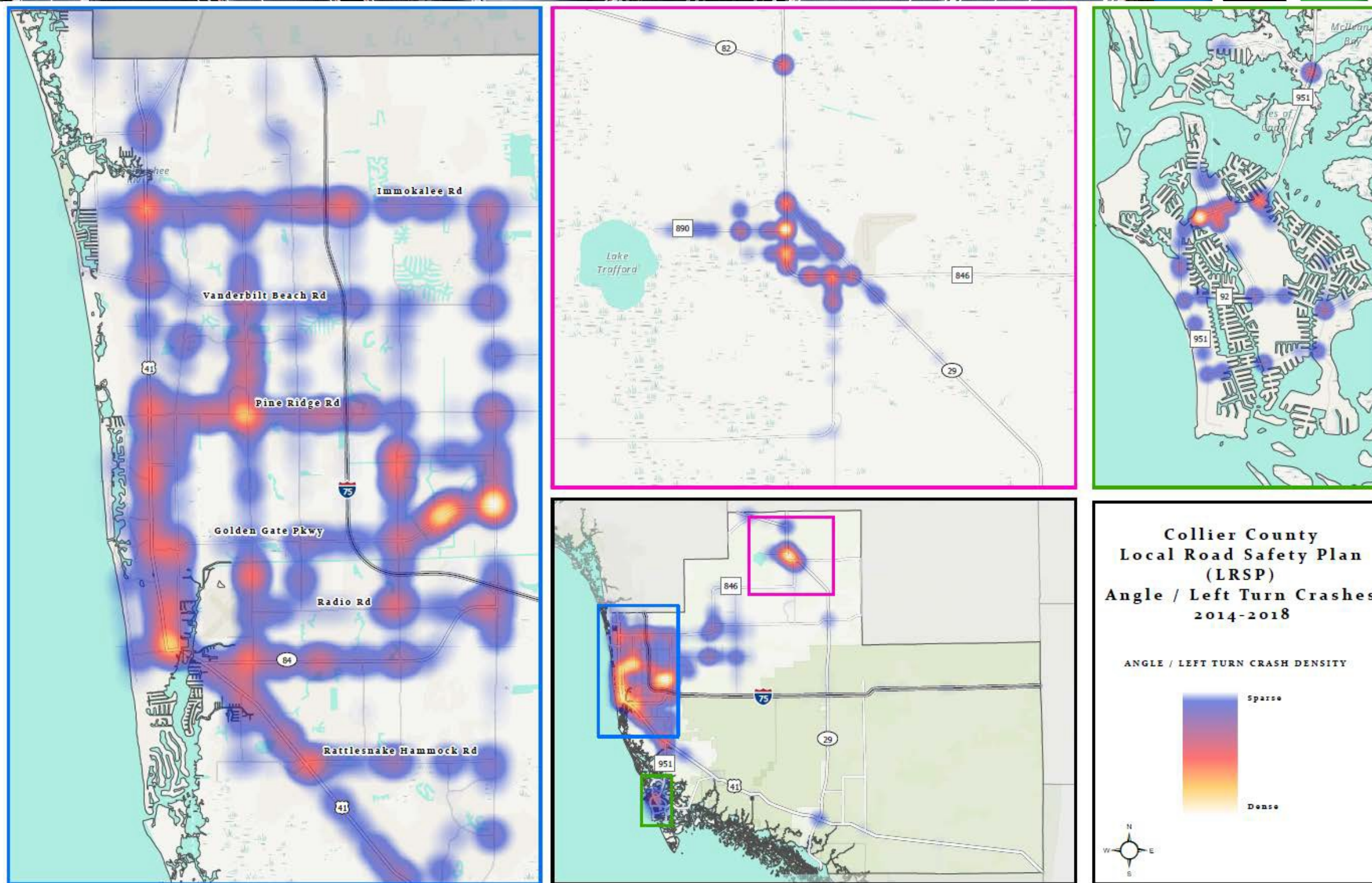


Figure 2-9: Angle and Left Turn Crash Heat Map



Emphasis Area 3: Lane Departure

Lane departure crashes, referred to as “run-off-road” crashes, include crash types in which a single vehicle leaves the roadway and either strikes a fixed object or otherwise crashes. Head-on crashes, though rare events, are included in this Emphasis Area as they are precipitated by similar circumstances. Because these types of crashes often involve vehicles traveling at high speeds, they are more likely to have severe outcomes. In Collier County, roadway departure crashes account for only 10% of overall crashes but are responsible for 22% of severe injuries and 40% of fatalities.

Table 2-8 shows a list of major roadway corridors with the most lane departure crashes and Figure 2-10 shows a “heat map” of non-motorized user crashes. While more lane departure crashes occur in the along busier roadways west of and including Collier Boulevard, approximately 40% of these crashes occur along rural highways and local roadways in the eastern part of Collier County.

Table 2-8: Lane Departure High Crash Corridors

On Street	From Street	To Street	Crashes	Fatal Crashes	Incap. Injury Crashes
Immokalee Rd	Collier Blvd	Wilson Blvd	51	1	3
Immokalee Rd	Oil Well Rd	Stockade Rd	45	0	4
Golden Gate Blvd	Collier Blvd	Wilson Blvd	43	0	2
Airport Rd	Radio Rd	Golden Gate Pkwy	39	0	1
Airport Rd	Pine Ridge Rd	Orange Blossom Drive	35	0	1
Goodlette-Frank Rd	US-41 (Tamiami Trail)	Golden Gate Pkwy	35	0	1
Collier Blvd	Vanderbilt Beach Rd	Immokalee Rd	33	0	2
Tamiami Trail N	12th Ave	Park Shore Dr/ Cypress Woods Dr	33	0	0
Tamiami Trail N	SR-84 (Davis Blvd)	CR-851 (Goodlette Rd S)	33	0	0
Collier Blvd	US-41 (Tamiami Trail)	Rattlesnake Hammock Rd	32	0	2
Collier Blvd	Rattlesnake Hammock Rd	Davis Blvd	31	0	2
Collier Blvd	Mainsail Drive	Manatee Rd	29	0	0
Tamiami Trail E	Rattlesnake Hammock Rd	Treetops Dr	29	0	2
Vanderbilt Beach Rd	Logan Blvd	Collier Blvd	28	0	1
Pine Ridge Rd	Airport Rd	Livingston Rd	28	0	1

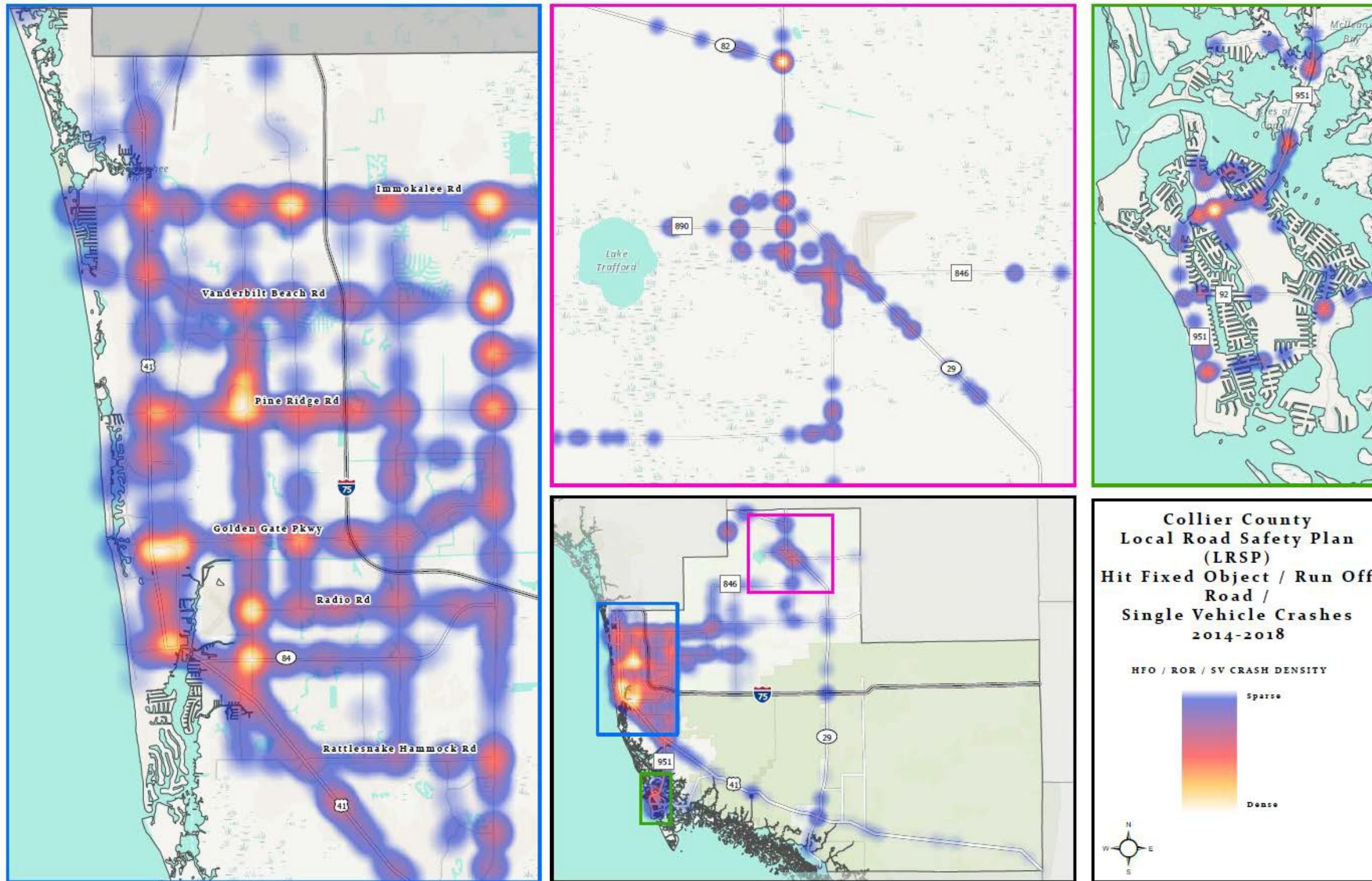


Figure 2-10: Lane Departure Crash Heat Map



Emphasis Area 4: Same Direction (Rear-End and Sideswipe) Crashes

Rear-end and sideswipe crashes are much less likely to result in incapacitating or fatal injuries than crash types included in the other three emphasis areas; however, these crashes are the most common type of crash to occur and contribute to injuries and deaths as a function of their frequency.

Table 2-9 shows a list of major roadway corridors with the most non-motorized crashes and Figure 2-11 shows a “heat map” of non-motorized user crashes. Consistent with prior Collier MPO Bicycle/Pedestrian safety analyses, key focus areas include the area defined by US 41 (Tamiami Trail), Airport Road, and Davis Boulevard and SR 29 through the town of Immokalee.

Table 2-9: Same Direction High Crash Corridors

On Street	From Street	To Street	Crash es	Fatal Crashes	Incap. Injury Crashes
Golden Gate Parkway	Santa Barbara Boulevard	Collier Boulevard	190	0	4
Tamiami Trail North	SR 84 (Davis Blvd)	CR 851 (Goodlette Rd South)	136	0	1
Collier Boulevard	Golden Gate Pwky	Green Boulevard	111	1	4
Tamiami Trail North	12th Ave	Park Shore Dr / Cypress Woods Dr	106	0	4
Goodlette-Frank Road	US 41 (Tamiami Trail)	Golden Gate Parkway	87	0	3
Tamiami Trail North	Park Shore Dr / Cypress Woods Dr	Pine Ridge Rd / Seagate Dr	84	1	2
Santa Barbara Boulevard	Golden Gate Parkway	Green Boulevard	82	0	1
Airport Road	Radio Road	Golden Gate Parkway	81	1	1
Airport Road	Pine Ridge Road	Orange Blossom Drive	74	2	1
Goodlette-Frank Road	Golden Gate Parkway	Pine Ridge Road	74	0	4
Pine Ridge Road	Airport Road	Livingston Road	73	0	2
Collier Boulevard	Vanderbilt Beach Road	Immokalee Road	67	0	4
SR 29	9th Street	Immokalee Dr	67	0	2
Tamiami Trail North	Pine Ridge Rd / Seagate Dr	Gulf Park Drive	65	1	4
Tamiami Trail East	Airport Road	Rattlesnake Hammock Road	63	1	2

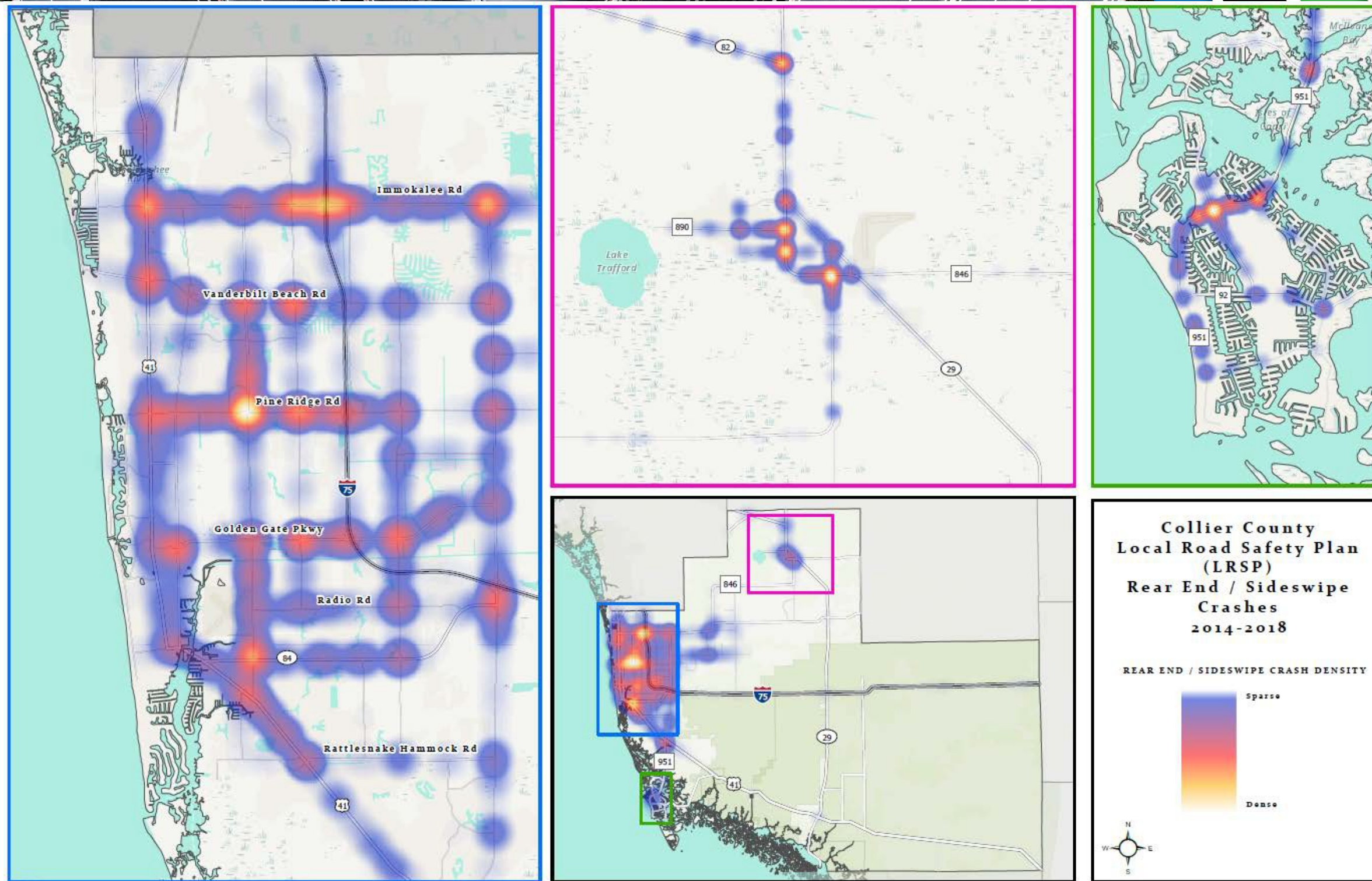


Figure 2-11: Same Direction Crash Heat Map



Key Conclusions

Based on the data analysis summarized above, the following key conclusions are evident:

- Collier County has fewer crashes, traffic injuries, and traffic fatalities than Florida as a whole as a function of population and daily VMT.
- As is common in many urbanized Florida communities, a significant majority of public road traffic crashes, including severe injury crashes, occurs along elements of the county's arterial and collector road network.
- Because Collier County has a relatively sparse network of State highways and many County-maintained roadways that carry significant traffic volume, approximately 2/3 of crashes occur along County-maintained roadways. This means Collier County has substantial agency to self-manage safety outcomes on its roadway network.
- Driver age data show that older road users do not disproportionately contribute to crashes in Collier County; however, inferential time-of-day data suggest that older drivers (age 55+) also have less exposure to nighttime and rush-hour driving.
- Fewer traffic citations per capita and per vehicle mile of travel are issued in Collier County than in Florida and within a group of similarly-sized coastal counties.
- Certain crash types contribute disproportionately to incapacitating injury and fatal crashes. Collectively, non-motorized road user, angle, left-turn, and lane departure crashes account for 30% of all crashes but result in 72% of severe injuries and 89% of fatalities.
- Though significantly less likely to result in severe injury than the crash types discussed above, rear-end and sideswipe crashes result in a significant number of incapacitating injuries due to their frequency.



SECTION 3: RECOMMENDATIONS

Introduction and Problem Statement

Based on the data analysis documented in the Collier Local Road Safety Plan (LSRP) Data Analysis Chapter, the following key conclusions help to formulate data-driven recommendations for reducing crashes, injuries, and fatalities in Collier County:

1. **Roadway Safety Relative to Florida:** Collier County has fewer crashes, traffic injuries, and traffic fatalities than Florida as a whole as a function of population and daily vehicle miles of travel (VMT).
2. **Major Roadway Focus:** As is common in many urbanized Florida communities, a significant majority of public road traffic crashes, including severe injury crashes, occur along elements of the county's arterial and collector road network.
3. **Local Autonomy:** Because Collier County has a relatively sparse network of State highways and many County-maintained roadways that carry significant traffic volume, approximately 2/3 of crashes occur along County-maintained roadways. This means Collier County has substantial agency to self-manage safety outcomes on its roadway network.
4. **Driver Demographics:** Driver age data show that older road users do not disproportionately contribute to crashes in Collier County; however, inferential time-of-day data suggest that older drivers (age 55+) also have less exposure to nighttime and rush-hour driving.
5. **Moderate Enforcement:** Fewer traffic citations per capita and per vehicle mile of travel are issued in Collier County than in Florida as a whole and within a group of similarly-sized coastal counties.
6. **High Severity Emphasis Areas:** Certain crash types contribute disproportionately to incapacitating injury and fatal crashes. Collectively, non-motorized road user, angle, left-turn, and lane departure crashes account for 30% of all crashes but result in 72% of severe injuries and 89% of fatalities.
7. **High Frequency Emphasis Area:** Though significantly less likely to result in severe injury than the crash types noted above, rear-end and sideswipe crashes result in a significant number of incapacitating injuries due to their frequency.

Each of these conclusions is considered below to begin formulating recommended strategies.

Conclusions #1 and 4: Roadway Safety Relative to Florida and Driver Demographics

Data from 2014–2018 indicate that Collier County experiences approximately 25% fewer traffic crashes and fatalities than Florida as a whole when normalized for both population and VMT. Understanding factors that contribute to this can help to build on Collier County's existing strengths. Some potential explanations for Collier County's relatively low rate of traffic crashes and fatalities compared with Florida as a whole include the following:

- **Demographics:** Collier County has a lower proportion of younger drivers than Florida as a whole. Statewide, approximately 18.4% of the population is ages 15–29, whereas in Collier



County only 14.4% of the population falls within this age range. Less experienced drivers are more likely to be involved in crashes than older drivers, so a community with proportionately fewer younger drivers should exhibit fewer crashes per capita than average. When statewide crash rates for each age bracket are applied to Collier County's population, the expected number of crashes in Collier County is approximately 90% of statewide figures. Accordingly, driver demographics may explain part of the reason why Collier County has fewer crashes per capita and per VMT than Florida overall.

- **Roadway Characteristics:** Compared with Florida as a whole, Collier County has a similar proportion of VMT on relatively safe roadway types such as limited access highway, minor collector streets, and local roads but carries substantially less VMT on signalized principal arterials and, instead, handles more traffic with its minor arterial network. Although both principal arterials and minor arterials are focused on longer-distance mobility, minor arterials tend to be more compact and generally operate at somewhat lower ambient speeds. Although difficult to quantify, this may, in part, contribute to Collier County's superior safety performance compared with Florida as a whole.
- **Land Use and Network Characteristics:** With some exceptions, commercial land uses in Collier County tend to be organized around major intersection nodes rather than along thoroughfare roadways. This means that between major intersections, access points are limited, resulting in fewer potential conflicts.

As Collier County continues to grow, it is reasonable to expect its demographic profile will "regress to the mean," resulting in a more normal proportion of young drivers and associated increase in crashes. Strategies to improve driver training and education for younger drivers and services to provide mobility for older road users are discussed in Section 3. Strategies to further enhance safety on the county's major roadway network and maintain good access controls are discussed in Section 2.

Conclusions #2 and #3: Major Roadway Focus and Local Autonomy

Because a majority of crashes in Collier County occur along County-maintained minor arterial and collector roadways, Collier County, in conjunction with the Collier MPO, has the ability to be proactive in making roadway safety infrastructure investments while continuing to coordinate with the Florida Department of Transportation (FDOT) to enhance safety on I-75 and major state highways such as US-41 and SR-29, Davis Boulevard, and State-maintained sections of Collier Boulevard.

Specific strategies applicable to the county's roadway network are discussed in Section 2.

Conclusion #5: Moderate Enforcement Efforts

Statewide, more than half of Floridians live in municipalities, and just over half of all traffic citations are issued by City police departments, with the remainder split roughly 60/40 between County Sheriffs and the Florida Highway Patrol. Because the municipalities in Collier County account for only about 10% of the county's population, the role of City police departments in traffic enforcement is less prevalent in Collier County, with approximately 15% of citations being issued by municipal police. Section 3 addresses strategies to target and enhance traffic enforcement where appropriate.



Conclusions #6 and 7: High Severity Ratio and High Frequency Crash Emphasis Areas

Because specific crash types are more likely to result in incapacitating injury or death, it is logical that these should be the focus of both infrastructure and non-infrastructure strategies to enhance traffic safety in Collier County. All types of crashes and crash severities may be reduced by speed management strategies and strategies to combat distracted driving, whereas other crash types respond to specific infrastructure and non-infrastructure interventions.

The remainder of this chapter offers infrastructure and non-infrastructure strategies that relate to the conclusions from the LRSP's data and analysis described above.

Infrastructure Strategies

The term “substantive safety” refers to the measurable safety performance of a roadway or roadway system, usually expressed in terms of crashes, injuries, and fatalities normalized for user exposure, typically expressed in terms of VMT. The design and operating characteristics of a roadway system affect the substantive safety performance of the system based on the interplay of two other expressions of safety—nominal safety and perceived safety.

“Nominal safety” refers to the application of evidence-based design standards and best practices intended to reduce the frequency and severity of crashes. Examples include elements such as minimum lane widths, speed limits, effective drainage, clear and level roadside shoulders, curve super-elevation, guardrails, roadway lighting, and hundreds of other roadway design and operating standards. Each of these elements is intended to reduce the likelihood of automobile crashes and/or to reduce the severity of crashes if they occur.

“Perceived safety” refers to how roadway users gauge the relative safety of the roadway system, including the crashworthiness of their automobiles. This is important because for most roadway users, perceived safety impacts their level of focus and operating behavior. Roadway users who perceive a particular roadway environment to be relatively safe are more likely to relax their concentration and may engage in higher-risk driving behaviors such as speeding, multi-tasking, and “jaywalking,” whereas roadway users who perceive a roadway environment to be less safe are more likely to remain vigilant.

There are two primary challenges implicit in the interaction of these fundamental aspects of roadway safety. The first is that many of the measures intended to make roadways nominally safer also result in increased perception of safety by roadway users and corresponding increases in riskier user behavior. This riskier behavior, in turn, diminishes the safety benefits of the roadway system design.

The second challenge is that typical roadway users are not well-equipped to accurately assess their risk operating in a modern roadway system. The former challenge is intuitive but nonetheless problematic to the extent that the very design decisions that are meant to make a roadway system safer often contribute to the abuse of that system by its users. The latter challenge is a function of both biological and cognitive limitations which, when combined, can contribute to unsafe user behavior.



From a biological perspective, the speeds, distances, and complexities of modern roadway environments are outside the normal parameters of what the “human animal” has encountered for the vast majority of our recorded history. Multiple times per minute, a human roadway user will pass within arm’s length of objects that are comparable in mass to some of the largest animals on earth, traveling at speeds that are naturally achievable only by falling from a high place. Rationally, human/automobile interactions should be terrifying, but most modern humans have been conditioned since childhood to accept them as a normal, low-risk activity.

From a cognitive perspective, most people’s ability to accurately assess and process risk is more limited when probabilities are very low and outcomes are extreme. For example, most people can easily understand both the probabilities and the outcomes of a \$1.00 bet against a coin toss but have almost no capacity to logically process the risk/reward proposition of buying a lottery ticket. By the same mechanism, most people cannot intuitively process the extent to which individual higher-risk, but otherwise routine, behaviors alter their probability of being involved in an automobile crash.

Historically, the traffic safety industry has focused considerable attention on nominal safety, both in terms of roadway system design and operations and motor vehicle design (bumpers, crush zones, air bags, etc.). Generally, the assumption has been made that roadway users will behave as “rational actors” using available information to make benefit/cost analyses that govern choices expected to deliver preferred outcomes. Based on quantitative and qualitative assessment of crash histories, there is ample evidence that road users do not consistently perform according to the rational actor model. This includes incidences of wantonly irrational behavior (road racing, driving while intoxicated, etc.) but more commonly occurs from a failure to accurately process risk.

Accordingly, the Collier LRSP will consider infrastructure strategies from the perspective of nominal safety and also from the standpoint of how each strategy provides better information to roadway users to help them make safer decisions about how they interact with each other and the roadway system.



Table 3-1 provides a summary of infrastructure strategies and shows how each strategy is applicable to the four emphasis areas defined through the analysis of Collier County’s crash history.

The remainder of this section provides more information about each strategy and discusses how the strategies relate to one another. Non-infrastructure strategies are addressed in Section 3 of this chapter.

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Table 3-1: Infrastructure Strategies Matrix

Infrastructure Strategies	Non-Motorized	Intersection	Lane Departure	Same Direction
Speed Management	•	•	•	•
Alternative Intersections (ICE Process)	•	•		•
Intersection Design Best Practices for Pedestrians	•			
Median Restrictions/Access Management		•		•
Right Turn Lanes	?			•
Signal Coordination	?			•
Rural Road Strategies including:				
• Paved shoulder	•		•	
• Safety edge			•	
• Curve geometry, delineation, and warning			•	
• Bridge/culvert widening/attenuation			•	
• Guardrail/ditch regrading/tree clearing			•	
• Isolated intersection conspicuity/geometry		•		
Shared Use Pathways, Sidewalk Improvements	•			
Mid-Block Crossings & Median Refuge	•			
Intersection Lighting Enhancements	•	•	•	
Autonomous Vehicles (Longer-Term)	TBD	•	•	•
(= Applicable Strategy ? = Possible Contra-indications)				

Speed Management

Speed is a critical factor in both a driver’s ability to perceive, react, and effectively respond to roadway conflicts and in determining crash outcomes/severity. “Speed management” refers to a combination of infrastructure and non-infrastructure strategies to both curtail incidences of speeding—traveling too fast for conditions or exceeding the posted speed limit—and designing roadways to deliver operating speeds that match the land use and access contexts of the roadway. From an infrastructure standpoint, key elements of speed management include:

- Context classification and establishment of target speeds
- Design interventions
- Proactive signal management

Each of these elements is discussed in greater detail below.

Context Classification and Target Speeds

As part of FDOT’s implementation of “Complete Streets,” the Department has established a process for classifying major roadways based on land use and roadway network connectivity to create a continuum of context classifications ranging from rural preserve to urban core (Figure 3-1). The



context classification assignment of each segment of the State Highway System (SHS) is then used to define design specifications including appropriate design speed ranges.

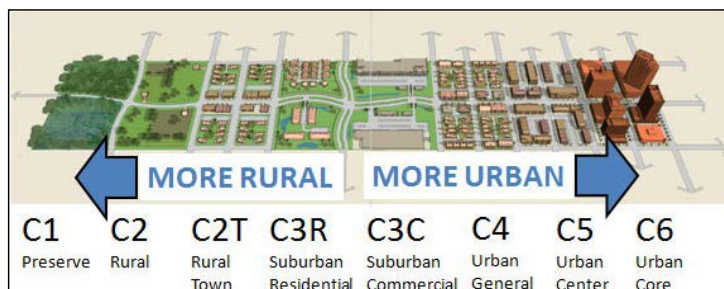


Figure 3-1: FDOT Context Classification System

In addition to design elements such as lane width and multimodal facilities requirements, a roadway's context classification establishes allowable design speed ranges and identifies speed management strategies for each context class and design speed range. Context classifications also provide guidance for establishing appropriate target speeds, the desired operating speed for any given segment of roadway based on strategic safety and mobility objectives. When a roadway's target speed is not supported by the roadway's design characteristics (e.g., design speed), the roadway owner (City, County, FDOT) can establish short-, medium-, and longer-term strategies to modify the subject roadway so that the target speed is achieved.

Design Interventions

There are many design techniques to modify roadway characteristics to achieve a desired target speed, but generally they correspond with the concepts of Enclosure, Engagement, and Deflection. Chapter 202 of FDOT's 2020 *Florida Design Manual* (FDM) defines these concepts as follows:

- **Enclosure** is the sense that the roadway is contained in an "outside room" rather than in a limitless expanse of space. A driver's sense of speed is enhanced by providing a frame of reference in this space. The same sense of enclosure that provides a comfortable pedestrian experience also helps drivers remain aware of their travel speed. Street trees, buildings close to the street, parked cars, and terminated vistas help to keep drivers aware of how fast they are traveling. This feedback system is an important element of speed management.
- **Engagement** is the visual and audial input connecting a driver with the surrounding environment. Low-speed facilities use engagement to help bring awareness to the driver, resulting in lower operating speeds. As the cognitive load on a driver's decision-making increases, he/she needs more time for processing and will manage speed accordingly. Uncertainty is one element of engagement; the potential of an opening car door, for instance, alerts drivers to drive more cautiously. On-street parking and proximity of other moving vehicles in a narrow-lane are important elements of engagement, as are architectural detail, shop windows, and even the presence of pedestrians.
- **Deflection** is the horizontal or vertical movement of a driver from the intended path of travel. It is used to command a driver's attention and manage speeds. Being a physical



sensation, deflection is the most visceral and powerful of the speed management strategies. Whereas enclosure and engagement rely, in part, on psychology, deflection relies primarily on physics. Examples includes roundabouts, splitter medians (horizontal deflection), and raised intersections (vertical deflection). Deflection may not be appropriate if it hinders truck or emergency service vehicle access.

Chapter 202 of the FDM describes specific design strategies and provides a matrix of applicable strategies to achieve various speed ranges for each roadway context classification.

Signalization

Traffic signalization is another method of providing actionable information to drivers to help achieve desired operating speeds. When traffic signals are spaced at intervals of not more than 0.25 miles and are timed in a coordinated pattern consistent with a desired operating speed, most road users will learn to drive at the signal “progression speed” rather than race ahead to stop at a standing queue. Alternative performance measures for signal timing are discussed further later in this section.

Recommendation

~~As part of the Collier LRSP,~~ Collier MPO Member Governments should consider adopting/adapting FDOT’s context classification to their ~~County’s~~ major roadways, particularly in high crash locations, network as a critical aspect of an overall speed management strategy. Once context classes have been established, ~~local governments~~ the County should define target speeds for each segment of the major roadway network and prioritize engineering studies to identify necessary design interventions based on the frequency of severe crashes and other considerations. As part of these engineering studies, the County should consider traffic signal operations (signal density, progression speed, and cycle length) as potential interventions to help achieve desired target speeds.

Alternative Intersections (ICE Process)

According to the Federal Highway Administration (FHWA), the term “alternative intersections” refers to at-grade intersections that remove one or more conventional left-turn movements. By removing one or more of the critical conflicting traffic maneuvers from the major intersection, fewer signal phases are required for signal operation. This can result in shorter signal cycle lengths, shorter delays, and higher capacities compared to conventional intersections.

Alternative intersections also offer substantial safety benefits, with expected crash reductions of at least 15%, depending on the specific treatment. When deployed along an integrated corridor, alternative intersections can also aid in speed management and other systemic safety improvements. The key concepts, constraints, and safety benefits of common alternative intersections are described below.

ICE Process

Intersection Control Evaluation (ICE) is a data-driven process to objectively identify optimal geometric and control solutions for roadway intersections. Factors considered in the ICE process include capacity/operational analysis, safety, and feasibility/cost. ICE is required for new intersections and for substantial changes to existing intersections on FDOT roadways, and the ICE process used by FDOT may be applied or adapted to County and City-maintained roadways as well.



Roundabouts

FHWA's informational guide on roundabouts (FHWA-DR-00-067) explains that "roundabouts are circular intersections with specific design and traffic control features. These features include yield control of all entering traffic, channelized approaches, and appropriate geometric curvature to ensure that travel speeds on the circulatory roadway are typically less than 30 mph." Modern roundabouts may connect three or more roadway approaches and may have one or more circulating lanes.

The key safety benefit of roundabouts is that they eliminate high-energy "crossing" conflicts and have fewer overall conflicts than conventional intersections. Figure 3-25, from FHWA-DR-00-067, shows and explains the difference in conflict points between roundabouts and conventional intersections. Attention is directed to the fact that whereas traffic signals assign right-of-way to crossing conflicts, these conflicts are not eliminated by signals in cases of red-light-running and permissive left-turn movements. Merge conflicts also exist in the context of right-turn-on-red movements.

Properly designed roundabouts also are generally easier/safer to navigate for pedestrians and bicyclists, and pedestrian crossings at multi-lane roundabouts can be supplemented with various mid-block crossing devices (see discussion on pedestrian mid-block crossing elsewhere in this section). Because of these motorized and non-motorized user safety benefits, roundabouts have been found to reduce crashes overall by about 37% and reduce injury crashes by 51%.

The principal constraint of roundabouts is that they often require a greater right-of-way footprint than conventional intersections of equivalent capacity. This is especially challenging in retrofit scenarios along commercial corridors where right-of-way costs may make roundabout retrofits cost prohibitive. Because the safety benefits of roundabouts diminish as more circulating lanes are added, most roundabouts are limited to two circulating lanes. Accordingly, they are most commonly used at the intersections of either two 2-lane roadways or a 4-lane roadway and 2-lane roadway.

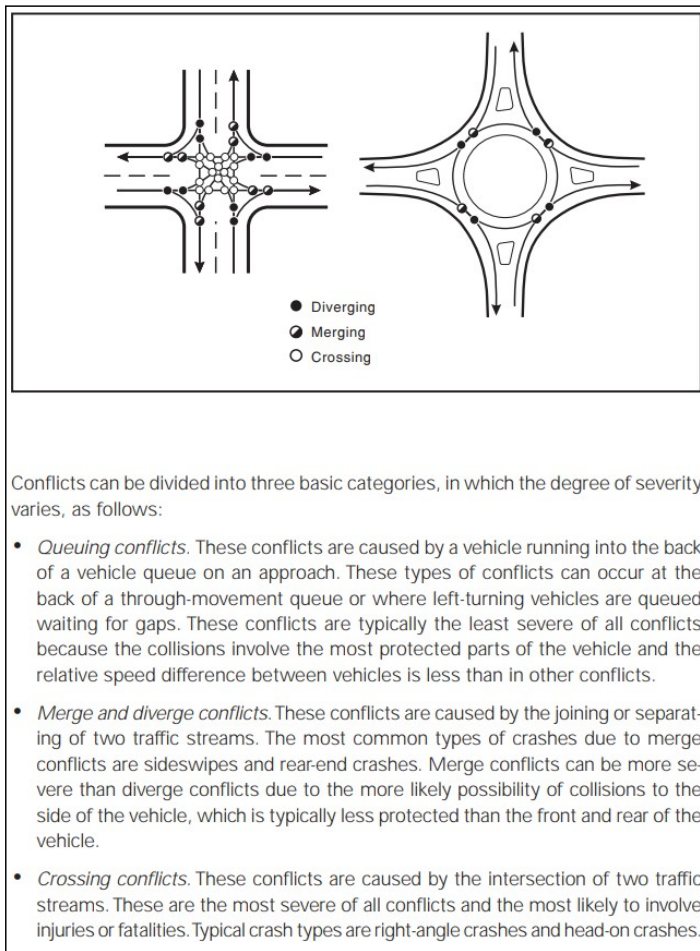


Figure 3-2: Roundabout Safety Benefits

Restricted Crossing U-Turn and Median U-Turn Intersections

Restricted Crossing U-Turn (RCUT) and Median U-Turn (MUT) intersections are illustrated in Figure 3-3 and Figure 3-4 from FHWA Informational Guides #FHWA-SA-14-070 and #FHWA-SA-14-069, respectively. Generally, RCUT intersections are more effective when the minor street thru volumes are lower than the major street left-turn volumes, with the reverse true for MUT intersections. RCUT intersections, when sequenced together in a corridor, also allow each direction of the major street to



thru movements to be coordinated separately which can have exceptional benefits for mainline capacity.

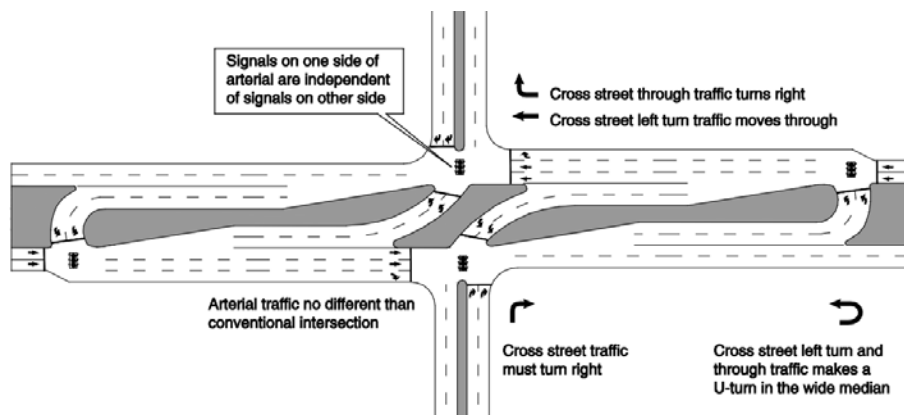


Figure 3-3: Diagram of Signalized RCUT Intersection

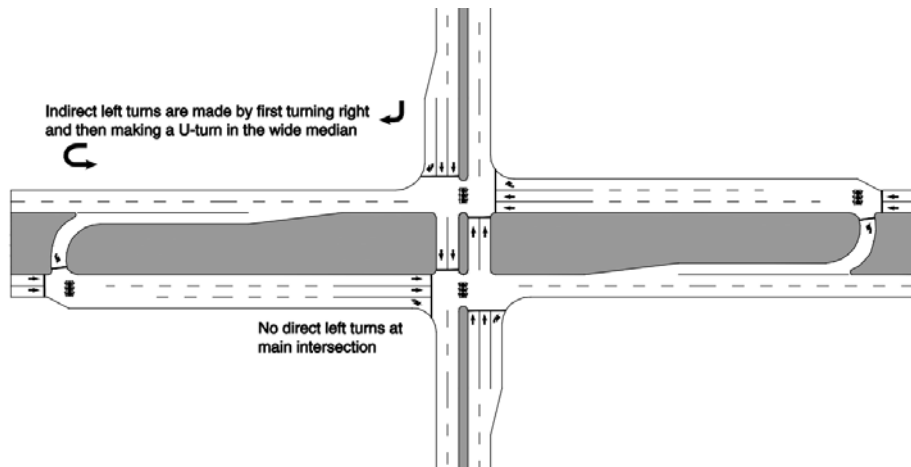


Figure 3-4: Diagram of Median U-Turn Intersection



Common features of both these alternative intersection types include the following:

- Both RCUT and MUT intersections use adjacent “secondary” intersections to help process the movements that are restricted at the main intersection. These are usually about 1/8-mile from the main intersection and may be signalized, as shown in Figure 2-3, or stop/yield controlled, similar to commonplace directional median openings. When signalized, these secondary intersections provide an opportunity for mid-block pedestrian crossing locations.
- When either intersection type displaces truck movements, either an extra-wide median or U-turn aprons, sometimes referred to as “loons,” are necessary to accommodate truck movements. The U-turn diameter (referred to as the swept-path) for a typical tractor-trailer is just under 90 ft, but the U-turn diameter of a typical 6-lane arterial with a standard 22 ft median is a little over 60 ft.
- Except in cases where the displaced movements represent an unusually high proportion of all intersection movements, RCUT and MUT intersections generally offer substantial reductions to major roadway delay and more moderate reductions in overall intersection delay. The distance traveled by displaced movements is naturally increased, but delay for displaced movements may be slightly reduced or only moderately increased depending on a range of operational factors.
- Both RCUT and MUT intersections allow for reduced signal cycle length, especially when pedestrian crossings of the major roadway are handled as two-stage movements. This, combined with greater signal density from the use of secondary intersections, can help with speed management and platooning of vehicles along alternative intersection corridors.

Similar to roundabouts, RCUTs and MUTs convert some high-energy crossing conflicts to lower energy merge-diverge conflicts, helping to reduce crash frequency and severity. According to FHWA-HRT-17-073, RCUT intersections can have an overall crash reduction of 15% and reduce injury crashes by 22% compared with conventional intersections. MUT intersections have similar benefits, with a 16% overall crash reduction and 30% injury crash reduction compared to conventional intersections.

As noted, the principal constraint on converting existing 4-phase conventional intersections to 2-phase RCUT or MUT intersections is available right-of-way to accommodate truck U-turn movements, about 140 ft for a 6-lane road and about 130 ft for a 4-lane road. Other constraints include the suitability of the RCUT or MUT operations with respect to individual intersection turning volumes and driver education about navigating the intersections.

Other Alternative Intersections

Besides RCUTs and MUTs, other alternatives at-grade intersections include displaced left turn intersections (DLT), as shown in Figure 3-5 (FHWA-SA-14-068) and quadrant intersections, as shown in Figure 3-6 (FHWA-SA-19-029). The safety outcomes of these intersection alternatives are less well understood than for RCUT and MUT intersections and, for reasons discussed below, their limited applicability makes them less integral to the LRSP than roundabout, RCUT, and MUT intersections. Nonetheless, they are included in the County’s toolkit should specific circumstances warrant their use.

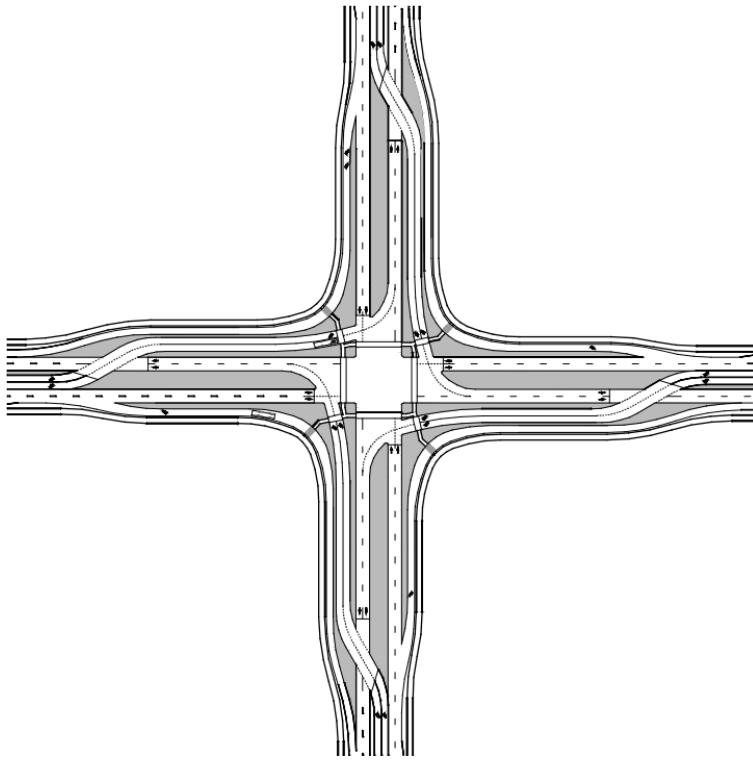


Figure 3-5: Displaced Left Turn Intersection

DLT intersections are very-high-capacity at-grade intersections that “displace” left-turn movements at “cross-over” intersections in advance of the main intersection. This allows left-turn and thru movements from the same roadway to occur concurrently. Given the high capacity, complexity, and cost of DLT intersections, they are perhaps better thought of as alternatives to grade separation (trading right-of-way costs for structure costs) rather than alternatives to conventional intersections. Because of their substantial right-of-way footprints and potential for substantial business access impacts to adjacent land uses, DLT intersections are challenging to implement as retrofit projects.

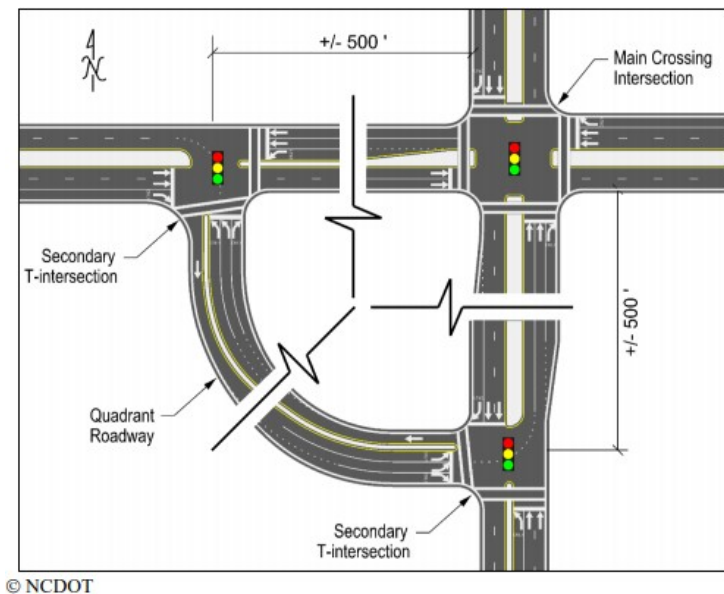


Figure 3-6: Quadrant Intersection Diagram

Quadrant intersections distribute turning movements at the main intersection across multiple smaller intersections, allowing left-turn movements at the main intersection to be eliminated or limited to either roadway. Although all turning movements can be accommodated with a single-quadrant roadway, quadrant intersections offer more benefits when diagonal opposing quadrants, or all four quadrants can be fitted with perimeter roads. Unlike DLT intersections, quadrant intersections allow the main intersection to be quite compact; however, existing land uses often preclude the construction of the quadrant roadways except in greenfield or redevelopment scenarios.

Recommendation

Collier MPO Member Governments should adopt/adapt FDOT's ICE process to provide data-driven analysis of intersection alternatives as part of new intersection construction and substantial modification of existing intersections. ~~The Collier MPO, in cooperation with Collier MPO is in the process of establishing a funding mechanism for Safety projects in the Draft 2045 LRTP.~~ Collier MPO Member Governments ~~and FDOT, cshoud~~ select/identify candidate intersections and corridors identified in the LRSP based on traffic crash history and other planning factors to conduct feasibility studies (Stage 1 ICE/SPICE analysis) for prioritizing and programming retrofit projects.



Intersection Design for Pedestrians

Many existing major roadway intersections in Collier County (as well as throughout Florida) were designed with the primary intention of maximizing motor-vehicle throughput. In addition to arterial intersections often having multiple thru traffic lanes and auxiliary left- and right-turn lanes, the radii of an intersection's curbs are also often very large. All of these features increase the exposure of pedestrians to motor vehicle traffic and can contribute suboptimal placement of crosswalks and curb ramps, which may make crosswalks longer than necessary and/or place pedestrians in positions where they may be difficult for turning drivers to see.

When pedestrians are exposed to overly-large intersections with right-turning traffic and permissive left turns, they may not see a value proposition in using signalized intersection pedestrian features. This may result in pedestrians crossing away from intersections, relying on their own judgment rather than trusting motorists to yield and reducing pedestrian compliance with traffic signals.

Curb Radii

Large curb radii are sometimes necessary to allow trucks to navigate turns without running over the curb, damaging infrastructure, and posing a hazard to pedestrians waiting to cross. However, in many cases, urban and suburban intersections are using highway design principles where large curb radii are provided to reduce friction between right-turning vehicles and high-speed thru traffic. This makes sense in a rural setting where pedestrians are rare, but when right-turning drivers can navigate a turn at high speeds, their ability to perceive and react to pedestrians in a crosswalk is severely limited.

Whenever possible, urban intersection should be designed with the smallest possible radii that still can accommodate the appropriate design vehicle. When there are multiple lanes, intersection should be designed so that trucks turn into the interior lane(s) rather than the curb lane. When large radii cannot be avoided due to heavy truck movements, channelization (discussed below) or use of truck aprons is preferable to very large radii.

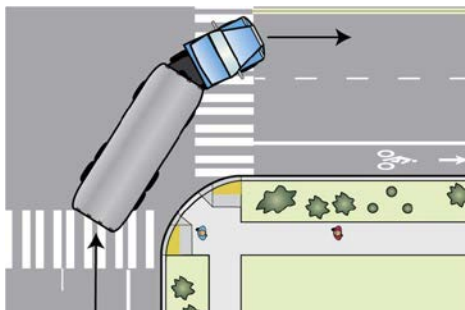


Figure 3-7: Truck Turning Into Interior Lane



Figure 3-8: Truck Apron Helps Slow Turning Cars

Channelization

Using channelizing islands to break pedestrian crossings into multiple smaller stages can make large, high-capacity intersections safer and more accommodating for pedestrians. Figure 3-9 shows the preferred design for right-turn islands in which approach traffic has a clear view of the crosswalk between the curb and the island and also good views of approaching traffic. The graphic also shows the crosswalk “engaged” with the median nose, which helps ensure that left-turning drivers cannot cut the corner, thereby helping to moderate their speed.

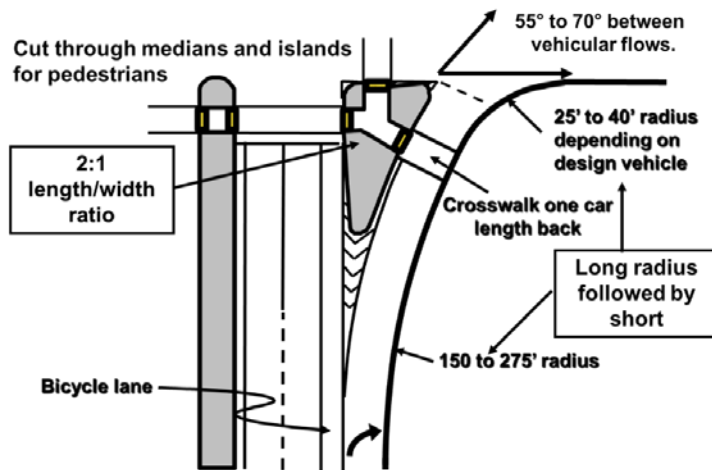


Figure 3-9: Preferred Right-Turn Island Design Parameters and “Engaged” Median

Crosswalk Design & Operation

As shown in Figure 3-10, crosswalks should be marked using both lateral and transverse markings, be placed with individual/directional curb ramps, where possible, and generally be aligned parallel to the roadway they are along. Although crosswalks must be a minimum of 10 ft wide, they may be



wider where pedestrian volumes are high or intersection geometry is irregular. Textured or colored pavement is acceptable to supplement the retroreflective pavement markings but should not be a substitute for those markings.

At signalized intersections, crosswalks should be supplemented with countdown pedestrian signals and the “Walk” phase should be provided automatically for crossing along the major roadway and whenever the concurrent minor roadway thru-green signal interval is greater than or equal to the minimum pedestrian crossing interval. Except in special circumstances where high pedestrian volumes may effectively prohibit right-turning traffic to pass through an intersection, the “Walk” interval should be timed so that the countdown reaches zero when the concurrent thru-green signal changes from green to amber, thereby maximizing the available time for pedestrians to cross.

When heavy right-turn movements conflict with pedestrian crossings, a leading pedestrian interval (LPI) should be considered. An LPI provides pedestrians with a “Walk” indication a few seconds before parallel traffic gets a green signal, giving the pedestrian an opportunity to “take possession” of the crosswalk before turning traffic commences.

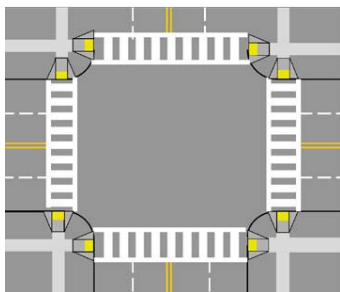


Figure 3-10: Proper Crosswalk Placement and Markings



Figure 3-11: Countdown Pedestrian Signal

Recommendation

Collier MPO Member Governments should ensure that new major roadway intersections incorporate design best practices for pedestrians ~~and the Collier MPO consistent with the MPO's Bicycle and Pedestrian Master Plan.~~ in cooperation with Collier MPO Member



Governments could submit and FDOT, should identify candidate intersections identified in the LRSP based on traffic crash history and other planning factors for prioritizing and programming retrofit projects in response to the MPO issuing a Call for Safety or Bike/Ped Improvement Projects.

Median Restrictions/Access Management

FDOT and Collier County both have sophisticated approaches to managing access along arterial roadway corridors. Strategies include restricting median access to prohibit direct left turns from unsignalized approaches, consolidation of driveways, provisions for interconnected parking lots, reverse-frontage access, and avoiding driveways within major intersection influence areas.

Although the default approach to access management is to convert full-access medians to directional medians, as shown in Figure 3-12 along Radio Road, maintaining cross-access and providing a new traffic signal may help to address speed management and signal coordination issues as discussed elsewhere in this section.



Figure 3-12: Conversion of Full Access Median to Dual Directional Median

Recommendation

Collier MPO Member Governments should continue to employ access management strategies to minimize curb cuts and encourage right-turn-then-U-turn movements instead of direct left turns across high-volume arterial streets. However, in more urban contexts, the potential of signaling problem intersections should be considered as an alternative to installing directional medians with the intent of providing more controlled crossings for motorists and non-motorized road users and facilitating greater signal density to help with corridor signal coordination.

Right Turn Lanes

Right-turn lanes can help reduce rear-end and sideswipe crashes by allowing turning traffic to move out of the way of thru traffic; however, in urban contexts, right -lanes can present the following safety challenges:

- Right-turn lanes can make intersections larger than they need to be, posing challenges to pedestrians.



- Right-turns lane between signalized intersections (i.e., at commercial driveways) create higher-speed conflict points for cyclists travelling in bike lanes.
- When right-turn lanes extend a substantial distance from an intersection, right-turning traffic may be able to speed past standing queues waiting at the signal. If another vehicle or a pedestrian is “nosing” thru the queues of stopped traffic to access a driveway, the resulting crash can be very severe.
- Right-turn lanes facilitate right-turn-on-red movements because the lane will never be blocked by a vehicle waiting to pass thru an intersection. Right-turn-on-red movements can make crossing more challenging for pedestrians, especially if the failure of right-turning traffic to yield to pedestrians in the crosswalk results in inadequate time to safely cross the intersection.

Recommendation

Right-turn lanes should be used primarily along higher-speed, high-volume suburban roadways where the mitigation of high-speed rear-end and sideswipe crashes outweighs the challenges presented by the scenarios above. Right-turn lanes should be no longer than necessary to allow for safe deceleration of turning vehicles and should not be designed with the primary intent of allowing right-turning traffic to bypass queues. Because right-turn lanes allow turning traffic to get out of the way of thru traffic, curb radii should be minimized to allow for very low speed turns.

Signal Coordination

Signal coordination refers to the timing of traffic signals relative to one another to manage the flow of traffic along a roadway corridor. Generally, the goal of signal coordination is to minimize delay along major roadways while allowing for side-street approaches to process traffic with a reasonable amount of delay. Although this approach is effective to maintain roadway level of service (LOS) along major thoroughfares, it is not always the best approach for promoting safety.

When traffic signals along a corridor are optimized to process thru traffic, the cycle-length of signals often becomes very long, taking 3, 3.5, or even 4 minutes to completely cycle through all the various signal phases. Long cycle lengths combined with signals spaced a half-mile or more apart can result in vehicles being randomly-spaced along a roadway with greater variation in speeds. Conversely, when signal cycle lengths are short and traffic signals are more closely spaced, vehicles tend to group together in “platoons”; this grouping, combined with visual cues from the next traffic signal, result in drivers maintaining a more consistent speed.

The top section of Figure 3-13 shows traffic moving along a roadway with widely-spaced signals and long cycle lengths. Because there is little driver feedback and a very wide “green band” in which approaching traffic can clear the next signal, cars are spread out along the roadway with few adequate gaps for drivers, pedestrians, and cyclists to cross the road or turn across oncoming traffic. The lower section shows the same number of cars in a platoon, with large gaps between the beginning of one platoon and the end of the preceding one. These gaps allow cross-traffic maneuvers can be made more safely.

Gaps between platoons also mean fewer vehicles will be caught in the “dilemma zone” when approaching a changing traffic signal in which the driver must quickly decide whether to brake or try



and accelerate to clear the signal. Keeping traffic out of the dilemma zone can reduce both rear-end crashes and left turn/angle crashes.

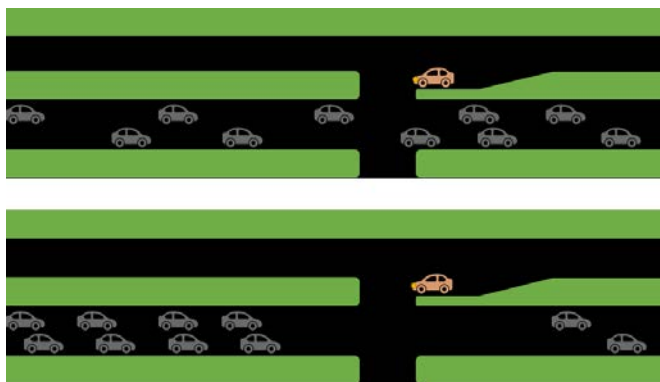


Figure 3-13: Graphic Depicting Random vs. Platooned Traffic

Recommendation

As discussed, converting roadway corridors to two-phase signal operation using alternative intersection designs is an excellent method of reducing cycle length and increasing signal density to allow for more effective platooning of traffic and achieving resulting safety outcomes. Independent of alternative intersection implementation, ~~the MPO should coordinate with~~ In response to the MPO's Call for Projects (Safety and/or Congestion Management), Collier MPO Member Governments ~~and FDOT should select to identify~~ high crash corridors identified in the LRSP where alternative signal coordination approaches may be feasible. This may include reducing cycle lengths off-peak, operating minor intersections between arterial intersections at half the cycle length of the adjacent major intersections, and identifying locations where a new traffic signal might help the coordinated signal system perform more efficiently and more safely.

Rural Road Strategies

Rural roadways tend to have lower traffic volumes and fewer crashes per mile than busy urban roads; however, because of generally higher travel speeds and the potential for fixed objects and/or deep ditches along the roadside, crash severity tends to be higher. The strategies discussed below can be used to treat known problem locations but should also be deployed in a systemic approach to reduce severe crashes along rural highways and local streets.

Paved Shoulder, Safety Edge, and Audible-Vibratory Markings

Where possible, rural roadways should have 5-ft paved shoulders and adequate, level clear zones to facilitate recovery of vehicles that leave the roadway. Audible-vibratory pavement markings or ground-in rumble strips should be provided between the travel lanes and the shoulder to help alert drivers before they leave the roadway, and retroreflective pavement markings should be used to delineate both the roadway centerline and the outside edge of the travel lanes.



When drivers do leave the roadway, steering the tires back onto the pavement against a vertical edge can make it difficult to safely re-enter the travel lane; drivers may oversteer and lose control of the vehicle, leading to severe crashes. As shown in Figure 3-14, providing a 30-degree contoured pavement “safety edge” can mitigate this issue, especially on roadways that lack adequate paved shoulders and warning strips.



Figure 3-14: Photo Depicting "Safety Edge" Pavement Design

Curve Geometry, Warning, and Delineation

Because rural highways often have long, straight segments with few discerning features, drivers may become complacent and not exercise due care when entering curves. Accordingly, curves should be well-marked with pavement markings and chevrons, and attempts should be made to provide adequate shoulders and recovery areas. Where necessary, the roadway should be super-elevated to help drivers navigate high-speed curves, and guardrail should be used when roadside hazards within the clear zone cannot be completely eliminated. Devices such as solar static or actuated flashing beacons and speed feedback signs may also be used to alert drivers to curve advisory speeds.

Clear Zone Hazards

Common hazards adjacent to the roadway include trees and ditches as well as lateral and cross-drain structures and concrete bridge barrier walls. Efforts should be made to inventory infrastructure elements within roadway clear zones and implement measures to mitigate the hazards they pose. This can include removing trees, re-grading ditches, providing attenuation in advance of bridge walls, and converting projecting or square edge drains to mitered-end-section designs.



Figure 3-15: Mitered-End-Section Drain Pipe

Intersection Conspicuity/Geometry

Much like curves along rural highways that may catch drivers by surprise, rural intersections can be unexpected features, and drivers traveling along a rural highway may not be prepared to respond to crossing traffic. Rural intersections may also exhibit irregular or skewed geometry and may have foliage interrupting sight triangles or may exhibit other features that make it more challenging for side-street traffic to maneuver safely. Mitigation strategies include correcting poor geometry, consistently maintaining sight triangles, and posting advance warning signs with/or without flashing beacons to raise awareness of approaching drivers.

Recommendations

Specific, known issues along rural highways should be mitigated, but a proactive, systemic approach is also necessary to improve the overall safety performance of rural road systems. ~~The Collier MPO should work with Collier MPO Member Governments~~ could select and FDOT to identify high crash corridors identified in the LRSP in response to an MPO Call for Projects to analyze potential funding "boxes" for systemic inventory and improvements to the county's rural and exurban roadways, including curve and isolated intersection treatments, improved shoulders and edge treatment, and mitigation of roadside hazards.

Low-Stress, Separated Cycling Facilities

Since the 1970s, "vehicular cycling" has been the predominant approach to accommodating bicyclists within the roadway network. This approach means that cyclists operate using the same rules as motor vehicle traffic and share the roadway with motor vehicles either operating in marked bicycle lanes or riding with traffic. Vehicular cycling can be an effective approach for faster, confident cyclists to safely interact with traffic; however, a substantial majority of cyclists do not fall within this group and are uncomfortable or unwilling to ride with traffic on higher-volume, higher-speed roadways.

Although vehicular cycling has been shown to help cyclists avoid certain crash risks, sideswipe and rear-end crash types that would generally result in less severe outcomes between two motor vehicles can have severe outcomes when one of the vehicles is a bicycle. This is especially true when the speed differential between the cyclist and overtaking traffic is large. For example, a typical road cyclist operates at speeds of 15–20 mph, so along 30–35 mph roadways, the closing speed of the cyclist and overtaking traffic is not more than 20 mph. Whereas this can result in a serious crash, the overtaking motorist has more time to observe and react to the cyclist, and if a crash does occur, it is



likely to be survivable. Conversely, along roadways with operating speeds of 45 mph or greater, a faster closing speed means a motorist is less likely to react and respond to a cyclist, and if a crash does occur, it is much more likely to be fatal.

For these reasons, many agencies, including FDOT, [Collier MPO and its member governments](#), are working to provide separated bicycle facilities, especially along roadways that operate at speeds greater than 35 mph. Separated facilities include protected bike lanes, sometimes referred to as cycle tracks, and shared-use pathways along the edge of roadways. Other low-stress bicycling facilities form alternative networks to thoroughfare streets and include “bike boulevards” and off-road trails.

Cycle tracks may be two-way or directional and feature some type of physical barrier between motor vehicle lanes and the cycling facility. Figure 3-16 shows an example of a two-way cycle track in downtown Tampa that uses a raised curb and on-street parking to separate bicycle and motor-vehicle traffic. The cycle track features special signals and other design features at intersections to help mitigate bicycle/turning motor vehicle conflicts.



Figure 3-16: Rendering of 2-way Cycle Track in Downtown Tampa along Jackson Street/SR-60

When separated facilities cannot be provided along thoroughfare streets, parallel “bike boulevards” are an option to provide for bicycle mobility. Bike boulevards are streets that have been designed, designated, and prioritized for bicycle travel and can provide a safe, inviting, low-stress option for bicyclists of varying degrees of experience. Although there is no set design template for bike boulevards, a few common principles apply:

- Logical, direct, and continuous bike route
- Safe and comfortable intersection crossings
- Reduced bicyclists delay
- Enhanced access to desired destinations
- Low motor vehicle speeds
- Low motor vehicle volumes



Recommendation

Consistent with emerging guidance from FDOT and FHWA and the Collier MPO's Bicycle and Pedestrian Master Plan, the MPO and Collier MPO Member Governments should continue to prioritize major roadway corridors to provide separated bicycle facilities and work to establish networks of bike boulevards and ~~other~~ off-road facilities where public rights of way connect between major roadways. One strategy to provide space for a curb to separate bike lanes from traffic is to reduce the lane width on roadways with existing 5-ft-wide bike lanes and using the recovered space to provide for separating features.

On roadways that lack adequate pavement width to construct protected bike lanes, it will usually be more cost-effective to provide parallel side-paths than to widen and reconstruct the roadway. If the shoulder is sufficiently wide, side-paths may be provided by widening or reconstructing the existing sidewalk. Along roadways with constrained rights-of-way, it may be possible to provide pathways by narrowing the roadway either by reducing lane widths or cannibalizing an existing bike lane.

When side-paths are constructed, care must be taken to ensure good visibility at unsignalized conflict points (driveway and side-street approaches). Cyclists should also be encouraged to ride in the same direction as parallel traffic when facilities are provided on both sides of the road. This helps with driver expectancy, especially drivers turning left across the pathway who are not likely to anticipate a cyclist approaching over their left shoulder.

Pedestrian Crossings and Median Refuge

Given the distances between traffic signals along most of Collier County's suburban roadway network, it is reasonable to expect that pedestrians will cross major roadways between signalized intersections. Elements such as adequate lighting, traffic platooning, and speed management make it safer to cross the street generally; however, specific infrastructure to facilitate pedestrian crossings is also necessary. These include median refuge areas and mid-block crossings.

Median Refuge Areas

When pedestrian crossing patterns are not concentrated between obvious origins and destinations, continuous raised medians or intermittent median islands allow pedestrians to break roadway crossings into two discreet movements. Ensuring that medians are dry, level walking surfaces can help encourage pedestrians to wait for an adequate gap before attempting the second leg of their crossing.

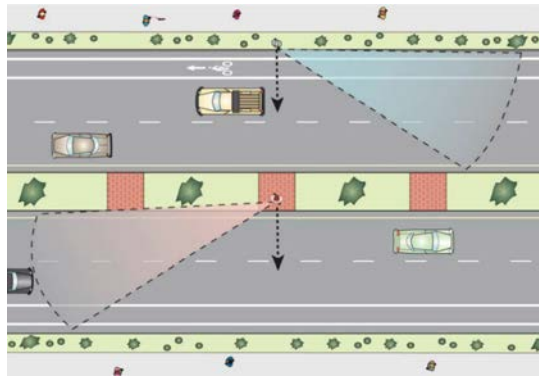


Figure 3-17: Median Refuge Breaks Complex Crossing into Two Simple Crossings

Median Refuge Areas

When pedestrian crossing patterns are more tightly clustered, mid-block marked crosswalks should be considered to provide a safer crossing option; however, along multilane roadways, a marked crosswalk alone is insufficient to provide a safe crossing, and the crosswalk markings should be supplemented with warning beacons or traffic control devices. Beacons such as a rectangular rapid-flashing beacon (RRFB), shown in

Figure 3-18, should be pedestrian-actuated and are best suited to roadways with no more than four lanes and speeds of 35 mph or less.

If a midblock crosswalk is provided across a roadway with more than four lanes or speeds greater than 35 mph, a pedestrian hybrid beacon (PHB) is the preferred supplemental device. A PHB is like a traffic signal but creates less motor vehicle delay by switching to a flashing red (stop sign) operations after the first few seconds of the walk interval, as shown in Figure 3-19.



Figure 3-18: RRFB



Figure 3-19: Pedestrian Hybrid Beacon Sequence

Recommendation

Median refuge islands and pedestrian mid-block crossings complement speed management and signal coordination strategies to allow pedestrians to more safely cross major roadways. Medians should be used when there are not clear concentrations of pedestrian traffic, and crosswalks should be considered to connect origins and destinations such as transit stops and neighborhood serving commercial lane uses. Marked crosswalks across major roadways generally require supplemental devices and should be selected based on the speed and characteristics of motor vehicle travel.

As with considerations related to restricting median access, traffic engineers should investigate whether a midblock crossing need might be better served by signaling a local street intersection to provide for controlled crossings at that point while also helping to provide downstream gaps for other crossing movements.

Lighting

Roadway lighting helps drivers see roadway features at night and, if properly designed, can help drivers detect pedestrians and cyclists. Adequate lighting and well-maintained pavement markings reduce lane departure crashes but also can reduce all types of nighttime crashes by reducing the workload necessary for drivers to stay in their lane, thereby freeing up mental resources for other defensive driving tasks.

Intersection lighting provides the same function for drivers, but if designed correctly, can also help drivers see pedestrians at night. Figure 3-20 shows how intersection lighting should be in advance of crosswalk approaches to that light reflects from pedestrians back towards approaching traffic. Section 231.3.2–4 of the Florida Design Manual defines lighting criteria for intersections, roundabouts, and mid-block crosswalks to help ensure pedestrians are visible to approaching drivers.

Figure 3-21 shows a roadway corridor with light-emitting diode (LED) street lights. Contemporary LED lights offer energy cost savings compared to conventional street lights and the spectrum of light is more effective to promote safety.

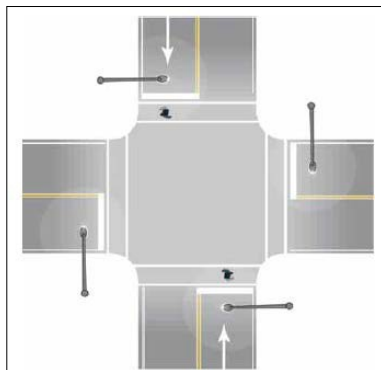


Figure 3-20: Simplified Intersection Lighting



Figure 3-21: LED Lighting

Recommendation

Collier MPO Member Governments should adopt or adapt FDOT's current intersection lighting standards for new construction, and the Collier MPO, Collier MPO Member Governments, and FDOT should coordinate to prioritize intersections and roadway corridors for lighting retrofits based on nighttime crash percentages and non-motorized user crashes. ~~Collier MPO Member Governments or the Collier MPO should~~ One option is to use-consider-using the mobile lighting data collection system developed by the University of South Florida to inventory actual lighting levels along County-maintained thoroughfare streets in high crash locations.

Autonomous and Connected Vehicles

Because the majority of traffic crashes involve some element of human error, the promise of automated vehicles offers tremendous crash reduction potential, especially when those vehicles are



not only able to sense the roadway environment but also capable of communicating with one another.

Although this technology is generally thought of as futuristic, the reality is that vehicle automation has been with us for some time. Figure 3-22 shows how elements such as cruise control, anti-lock brakes, and various warning sensors have been part of our vehicle fleet for some time, and Figure 2-23 shows the various levels of vehicle autonomy with level one and two being common today.

Some challenges with automated vehicles include delay between the time fully-automated technologies are available and there is sufficient saturation in the motor vehicle fleet to result in effective use of vehicle-to-vehicle communications and measurable safety benefits. Another challenge is the limitations of automated/connected vehicles in detecting non-motorized road users. Specifically, pedestrians and cyclists are relatively small, varied in appearance, hard to predict, most exposed/fragile, and not “connected” to vehicle-to-vehicle communication systems.

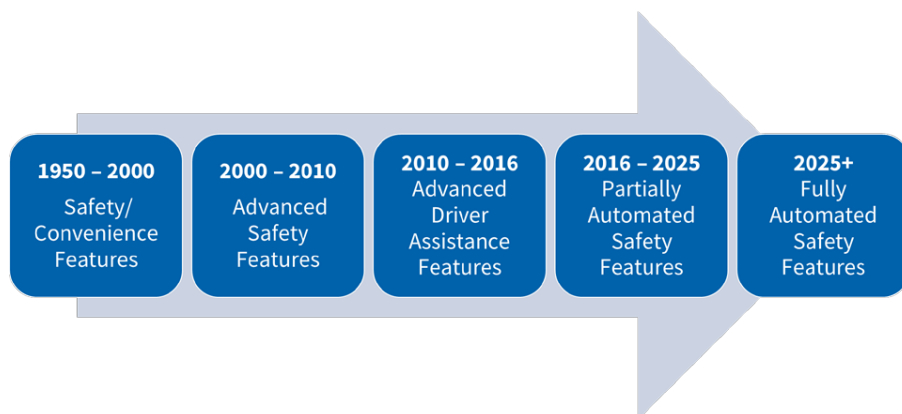


Figure 3-22: History and Future of Autonomous Vehicles



Figure 3-23: Vehicle Autonomy Levels and Features

Recommendation

Within the 2045 planning timeframe, FDOT District 1 projects that Connected and Automated Vehicles will comprise approximately 35% of Collier County's motor vehicle fleet; however, in the interim, proactive spot and systemic safety measures are still necessary. Good design of roadways with a balance between mobility and connectivity and good infrastructure for non-motorized road users will provide benefits even once the majority of motorized vehicles drive themselves.

Non-Infrastructure Strategies

Referring to the same four emphasis areas, Table 3-2 shows a list of non-infrastructure strategies and the emphasis areas to which they correspond.

Non-Infrastructure Strategies	Intersection	Lane Departure	Non-Motorized	Rear End/Sideswipe
Traffic Enforcement				
• Targeted Speed Enforcement	X	X	X	X
• Red Light Running Enforcement	X		X	
• Automated Enforcement	X			?
• Pedestrian Safety Enforcement			X	
Bike Light and Retroreflective Material Give-Away			X	
Young Driver Education	X	X	X	X
WalkWise/BikeSmart or Similar Campaign			X	
Continuing Education	X	X	X	X
Safety Issue Reporting	X	X	X	X
Vision Zero Policy	X	X	X	X

Table 3-2: Non-Infrastructure Strategies Matrix



Traffic Enforcement

The Statistical Analysis Technical Memorandum indicates that Collier County records fewer traffic citations per capita and per vehicle mile of travel. This appears to be in part due to relatively small municipal law enforcement agencies and therefore a greater reliance on the Collier County Sheriff's Office and the Florida Highway Patrol to handle traffic enforcement needs. Based on the Statistical Analysis Technical Memorandum, the following enforcement areas could help to reduce severe crashes in Collier County.

- Speed Enforcement
- Red Light Running Enforcement
- Non-Motorized User Safety Enforcement (focusing on driver yield behaviors)

Although automated enforcement (red light running cameras) was suspended in Collier County in 2013, a transparent use of red-light cameras with revenues directed to fund other traffic safety programs should be considered as part of the County's toolkit.

Recommendation:

Traffic enforcement is one aspect of an effective speed management program and should be used to target drivers who are significantly exceeding the Speed Limit. Collier County law enforcement agencies should ~~continue~~consider applying for FDOT High Visibility Enforcement Grants for bicycle and pedestrian enforcement and automated enforcement should be revisited—especially if manpower resources preclude additional human red-light-running enforcement.

Material Give-Aways

The LRSP Statistical Analysis Memorandum notes that while Collier County does not have a disproportionate ratio of nighttime crashes overall, non-motorized road user crashes are more likely to occur at night. A common tactic to reduce nighttime non-motorized user crashes is to provide retro-reflective materials to vulnerable populations including:

- School-age children
- Transit customers
- Homeless shelter clients
- Shift workers who may commute at night

Examples of retroreflective materials include low-cost backpacks with reflective strips, Velcro ankle strips to keep pant cuffs from catching in bicycle gears, and simple safety vests. Low-cost bicycle light kits can also be distributed and may be provided as part of a warning stop when police officers notice cyclists riding at night without proper lights.



Figure 3-24: Example Retroreflective Promotional Materials

Young Driver Education

A key conclusion from the LRSP Statistical Analysis Memorandum is that Collier County's demographics likely play a role in its better than average safety performance. Because Collier County does not have a high proportion of younger drivers, the overall expected crash rates as a function of population age demographics are better than Florida as a whole. However, as Collier County continues to grow, it is likely that its demographic profile will become more "normal" and the introduction of more, young drivers will begin to adversely impact Collier County crash statistics.

Although older drivers certainly have limitations in terms of vision, reflexes, and other age-related deficits, these drivers are more likely to recognize their limitations than younger drivers and act accordingly. This is born-out by data showing that older drivers are less likely to be involved in nighttime crashes or crashes during rush hour because these drivers choose to avoid higher-risk times of day.

To help reduce crashes among younger drivers, supplemental drivers' education programs should be considered. One such program, funded by FDOT District 7, provides high school seminars focused on teen driver safety issues including bicycle and pedestrian safety, motorcycle safety, and impacts of DUI. Statewide FDOT provides grants under the umbrella of the State Safety Office Teen Driver Safety program to fund programs that help to educate teen drivers.



Figure 3-25: Florida Teen Safe Driving Coalition Homepage

Recommendation:

The ~~Collier MPO~~ Community Traffic Safety Team and/or the Collier County Sheriff's Office ~~should~~ could engage with the Florida Teen Safety Driving Coalition to identify potential teen driver education programs that can be implemented in Collier County. Although teen drivers make up a relatively small proportion of Collier County's demographic presently, safer driving habits will have a long-term benefit and establishing programs now will be useful as the County's population continues to grow.

Adult Traffic Safety Education

From the public outreach survey responses, it is clear that many Collier County residents do not feel safe biking or walking along major roadways and that driver behavior with respect to yielding/making space for non-motorized users is inadequate. The Bike/Walk Tampa Bay program, administered by the University of South Florida and funded by FDOT District 7, offers virtual and in-person pedestrian, driver and bicyclist safety presentations to adult audiences. The presentation uses an Audience Response System to quiz the audience and poll their opinions.

Since 2015 over 30,000 individuals have participated in seminars with each participant taking a "pledge" to WalkWise, BikeSmart, and Drive Safely and work to educate others about the importance of safe behaviors.



Figure 3-26: Walk Wise Class Photo

Recommendation:

The Collier MPO, Naples Pathways Coalition, Blue Zones, and the Community Traffic Safety Team are investigating public education programs. Their research can expand to include~~should consider~~ coordinating with FDOT District 1 to consider ~~consider~~ piloting a similar program within the District. Implementation activities included as part of the Collier LRSP include an inventory of safety-oriented organizations which can be reviewed to identify potential seminar providers.

Continuing Education

Continuing education programs for safety professionals can help ensure that as standards and practices evolve, the professional community remains abreast with the state of the art. This is especially important in Collier County where so much of the public roadway system is constructed by private developers. The Collier MPO should encourage participation in FDOT's Local Agency Traffic Safety Academy (LATSA).

LATSA is a free webinar series focused on:

- Sharing knowledge about traffic safety
- Discussing new and ongoing safety programs
- Explaining available funding sources
- Presenting local best practices,
- Learning about new safety treatments and technologies
- Discussing project delivery processes

Over 75 webinars have been presented since 2013 covering a wide range of traffic safety topics.



Recommendation:

The Collier MPO is looking into a variety of existing resources to promote traffic safety and will research should encourage local agency partners and the development community to participate in LATSA webinars as a possible resource to help ensure good roadway design practices along both public and private roadways.

Safety Issue Reporting System

Non-emergency reporting systems can help identify potential safety issues before crash histories are established. Applications such as Wikimaps allow agencies to collect “crowdsourced” tips which can be categorized. These applications also allow users to click on and concur with previously reported issues and/or upload photos so that monitoring agencies can gather more actionable intelligence about potential issues. In the northeast Florida Area, FDOT District 2 maintains a Community Traffic Safety Team engineering issues system which allows safety partners to submit engineering concerns with pictures and follow-up contact information.

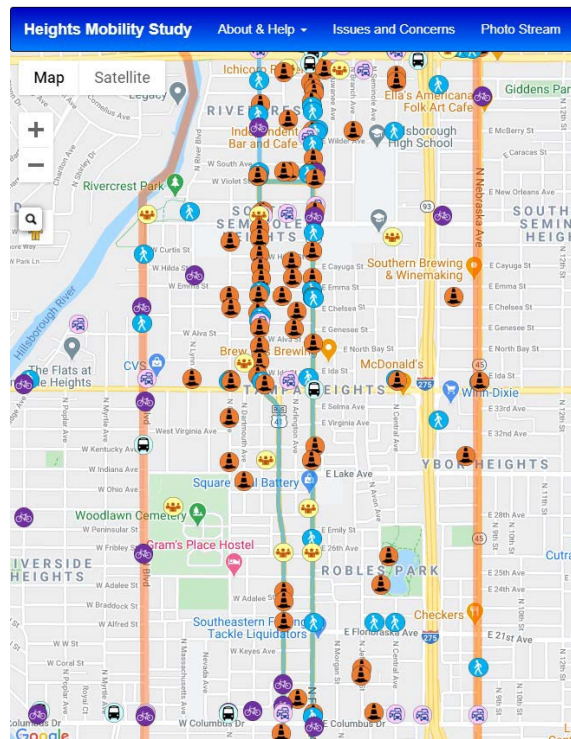


Figure 3-27: Example Wikimaps Issue Page



Recommendation:

Collier County could look into ~~The Collier MPO consider~~ piloting a safety issue reporting system; however it is important that unlike an automated public works customer services system, users are clearly informed that the program is a pilot project only until such time as the agency workload, intake, and resolution process can be understood and managed.

Vision Zero Policy

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe — and now it is now gaining momentum in major American cities. Vision Zero focuses on systems approaches to preventing crash fatalities and incapacitating injuries. Speed management, equity, and human engagement are key aspects of Vision Zero.

While Vision Zero is normally a city-centric approach to traffic safety relying on the strong executive leadership of a city mayor, aspects of Vision Zero can be translated to a County framework. According to the Vision Zero Network, there are nine components of a strong Vision Zero commitment:

1. Political commitment from the highest-ranking local officials
2. Multi-disciplinary leadership
3. Action plan identifying clear strategies, owners, and interim targets and performance measures
4. Equity focus
5. Cooperation and collaboration
6. Systems-based approach
7. Data-driven
8. Community engagement
9. Transparency

Recommendation:

The Collier MPO has adopted FDOT's Vision Zero Traffic Safety Targets and will continue to explore opportunities to support state and local projects geared towards meeting the vision. As part of the implementation process for the Collier LRSP, ~~the Collier MPO and the County's the MPO's member agencies could leadership should continue to~~ explore the merits of adopting a Vision Zero Community approach to safety in Collier County.



SECTION 4: IMPLEMENTATION PLAN

The Infrastructure and Non-Infrastructure strategy recommendations in the prior chapter of the Collier LRSP will require coordination between the Collier MPO, its member governments, FDOT, and other agencies to implement. This chapter provides a summary matrix of potential implementation processes for each strategy including the relative timeframe and order of magnitude costs. The matrix includes identification of agency responsibilities for planning/prioritizing and actual implementation of each strategy where that distinction is applicable.

In addition to implementation processes for each recommended strategy, this chapter also includes recommendations for LRSP monitoring measures for both implementation and outcomes as well as recommendations related to incorporating updates to the LRSP within existing Collier MPO and Member Government processes.

Infrastructure Implementation Processes

This section outlines implementation processes for each infrastructure strategy recommended in the prior section. For the purposes of this discussion, the following general parameters apply to the timeframe and cost descriptions for each implementation step.

- Timeframe from LRSP adoption:
 - Short: 0 to 3 years
 - Medium: 3 – 5
 - Long: Greater than 5 years
- Cost per implementation step for planning, prioritization, and non-infrastructure activities and per roadway centerline mile or per major intersection for infrastructure projects:
 - Low: Less than \$250,000
 - Medium: \$250,000 - \$1,000,000
 - High: Greater than \$1,000,000

Attention is directed to the fact that while individual policy, prioritization, and project development activities are identified for many of the infrastructure countermeasures, these activities could occur in parallel with individual corridor and intersection identification, prioritization, and project development processes addressing multiple strategy areas.



Speed Management

Speed management refers to a broad set of strategies to help ensure that roadway operating speeds are compliant with posted speed limits and that speed limits are set with intentionality and are appropriate for the land use context of each roadway corridor. Accordingly, the first step in implementing speed management strategies is to establish roadway context classification and define target speeds. Once this is done, design interventions can be identified and implemented either as stand-alone projects or through the course of ongoing investments like state and local resurfacing programs.

Implementation Step	Lead Agency	Timeframe	Cost
Assign Context Classification	Collier- MPO Local Governments	Short	Low
Notes: Context classifications have been assigned to State Highway System (SHS) by FDOT. Systemwide context class assignments should be reviewed and adjusted as necessary when specific projects are planned. <u>Local governments</u> The MPO or the member governments could take a lead role in establishing context classification assignments for thoroughfares that are not part of the SHS <u>and have been identified as high crash locations.</u>			
Establish Target Speeds	Maintaining Agencies	Short	Low
Notes: In addition to context classification, target speeds assignments should consider traffic crash history (i.e. is the roadway a emphasis area corridor) as well as future development patterns. The MPO or member governments should could take a leadership role for establishing target speeds for <u>high crash locations and corridors the entirety of the County's on</u> major road <u>ways-network, but</u> FDOT consultation/concurrence <u>ys</u> should be incorporated in setting target speeds on the SHS. As with context class assignments, target speeds assigned on a systemic basis should be updated when specific projects are programmed.			
Implement Design Interventions	Maintaining Agencies	Medium – Long	Medium – High
Notes: Design interventions generally fall into two categories: Shorter term, lower cost interventions generally limited to sign and pavement marking improvements and longer-term, higher-cost modifications to roadway geometry and or signal density/intersection control. Identification and implementation of sign and pavement marking speed management strategies should be incorporated into each maintaining agency's roadway resurfacing program. Geometric changes (i.e. "complete streets projects") are more likely to be implemented as stand-alone projects and should be prioritized by the MPO in conjunction with relevant maintaining agencies as part of the MPO's Congestion Management Process (CMP) and Long Range Transportation Plan (LRTP).			
Implement Proactive Signal Management Strategies	Maintaining Agencies	Short – Medium	Low – Medium
Notes: Traffic signal timing and phasing strategies to moderate progression speeds and improve gaps can be implemented as a short-term strategy along corridors which have sufficiently close signal spacing (i.e. <= 0.25 miles) for signals to provide drivers with adequate feedback to help them moderate their speeds. The maintaining agencies can identify and prioritize corridors based on discrepancy between posted/operating speeds and target speed with the support of the Collier MPO. Once prioritized, operational analyses can be performed to evaluate the potential for speed management through signal coordination. Along roadways with broader signal spacing, this strategy will require investments in new signalized intersections (see also ICE Process and Median Restrictions/Access Management) and is therefore a higher cost and longer-term implementation process.			

Table 4-1: Speed Management Implementation Steps



Alternative Intersections (ICE Process)

The ICE process is a technical approach and a policy commitment to evaluate alternative intersection designs along new/widened roadways, when new signals are needed, and when major modifications are planned for an existing signalized intersection. Consideration of alternative intersections can also be done proactively as part of intersection operational and safety projects or multimodal corridor studies.

Implementation Step	Lead Agency	Timeframe	Cost
Adopt/Adapt FDOT ICE Process for Locals Roads	Member Governments	Short	Low
Notes: This is a simple policy commitment to consider intersection alternatives under specific circumstances and is not inconsistent with current Collier County and FDOT practice.			
Evaluate/Implement Alternative Intersections as Part of New Roadways, Roadway Widening, and Major Intersection Improvements	FDOT/Member Governments	Ongoing	Medium
Notes: Cost may be neutral or cost savings may be achieved depending on the intersection alternatives selected and the relative costs of conventional signalized intersections.			
Identify/Prioritize Corridors and Intersections and Conduct ICE Stage I Screening	Collier MPO/ Maintaining Agencies	Medium	Low - Medium
Notes: Identification/prioritization of corridors based on crash data, level of service, and other parameters such as roadway/right-of-way cross section can be done on a countywide basis as a continuation of strategies already included in the MPO's CMP. Stage I ICE screenings of corridors can be performed with either the Collier MPO or member governments or FDOT as the lead agency. Depending on the number of corridors/intersections screened, timeframe and cost may extend beyond the short-term/low-cost parameters established for this Implementation Plan.			
Implement ICE Corridor Screening Recommendations	Maintaining Agencies	Medium – Long	Medium - High
Notes: Once intersections and corridors have completed Stage I screening, additional technical analysis is necessary to validate project concepts, design alternatives, and proceed to construction. In some circumstances—especially if right-of-way acquisition or environmental impacts are likely, it may be necessary to conduct a Planning, Design & Environmental (PD&E) study prior to moving to design and construction. Implementation of Alternative Intersections should be done in conjunction with other strategies including speed management interventions and implementation of design best practices for non-motorized users.			

Table 4-2: Alternative Intersection (ICE) Implementation Steps



Intersection Design Best Practices for Pedestrians

Similar to implementation of Alternative Intersections, implementation of design best practices for pedestrians includes both a commitment to apply best-practice design principles to planned projects and identification and prioritization of intersections and corridors for retrofit projects.

Implementation Step	Lead Agency	Timeframe	Cost
Incorporate Best-Practice Design Elements in Member Government Design Manuals or Incorporate by References by Adoption of NACTO Design Guidance and/or Relevant Elements of the Florida Design Manual (FDM)	Member Governments	Short	Low
Notes: Formally adopting design standards/guidance will help ensure design best practices are implemented uniformly—especially for roadway and intersection projects constructed by developers.			
Incorporate Pedestrian Design Best Practices in Planned Projects	FDOT/Member Governments	Ongoing	Medium
Notes: Cost may be neutral or cost savings may be achieved depending on the design strategies applied			
<u>Select/Identify/Prioritize</u> Corridors and Intersections identified as high crash locations to submit pedestrian safety improvements in response to the MPO's Call for Safety and Bike/Ped Improvement Projects. <u>Implement</u> and Pedestrian Design Best Practice in Concept Development	Collier MPO/Maintaining Agencies	Short Medium Ongoing	Low - Medium
Notes: The MPO's BPMP identifies and prioritizes identification/prioritization of corridors based on crash data, level of service, environmental justice, relationship to transit, and other parameters such as roadway and intersection characteristics can be done on a countywide basis as a continuation of strategies already included in the MPO's BPMP and CMP. Screening and concept development can be performed with either the Collier MPO or member governments/FDOT as the lead agency. Depending on the number of corridors/intersections screened, timeframe and cost may extend beyond the short term/low cost parameters established for this Implementation Plan.			
Implement Pedestrian Design Best-Practice Projects	Maintaining Agencies	Medium – Long	Medium - High
Notes: Once intersections and corridors pedestrian design concepts have been identified and vetted at a planning/concept design level, additional technical analysis is necessary to validate project concepts, design alternatives, and proceed to construction. Generally, most pedestrian design interventions will not require a PD&E study prior to moving to design and construction. Implementation of pedestrian design interventions may occur as stand-alone projects or may incorporate speed management and alternative intersection strategies.			

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Table 4-3: Pedestrian Design Best Practice Implementation Steps



Median Restrictions/Access Management

From the standpoint of reducing left-turn and angle crashes, these strategies are largely a continuation of existing FDOT and Collier MPO Member Governments' preference for raised medians and restricted left-turn access along higher-speed multilane roadways. With respect to implementation of LRSP Speed Management strategies, the following implementation steps are needed.

Implementation Step	Lead Agency	Timeframe	Cost
Consider Signalization Based on Coordinated Systems Warranting Criteria In Lieu of Directional Medians in More Urban Context Areas (i.e. C4, C5 and C6)	Maintaining Agencies	Medium – Ongoing	Medium
Notes: As discussed herein, more closely spaced coordinated traffic signals can help moderate speeds and increase the extent to which thru traffic is grouped in “platoons” making more gaps for other movements. Collier County maintaining agencies should think critically about closing existing full-access median openings in more urban context areas and consider whether signalization or implementation of alternative intersection types might better serve the overall safety and mobility outcomes of the system. When intersecting roadway traffic volumes do not meet the minimum Manual of Uniform Traffic Control Devices (MUTCD) criteria to warrant a traffic signal, the subject roadway corridor, consideration should be given to evaluate the roadway using the coordinated systems warranting process to determine if a new signal is likely to improve overall traffic progression.			

Table 4-4: Median Restriction/Access Management Implementation

Right Turn Lanes

Right turn lanes should continue to be used along higher speed (45 MPH+) arterial roadways where they are effective in reducing rear-end and sideswipe crashes. However, in more urban contexts use of auxiliary right turn lanes can complicate pedestrian crossings, discourage speed management, and create unnecessary key-hole conflict areas for cyclists. In more urban contexts, right turn lanes should not be used primarily for capacity reasons and, when necessary for safety purposes, should be complemented by tighter curb radii (or properly designed islands) and should be no longer than necessary to allow for deceleration.

Implementation Step	Lead Agency	Timeframe	Cost
Consider Limiting Use of Right Turn Lanes in More Urban, Lower Speed Contexts (i.e. C4, C5 and C6)	Maintaining Agencies	Medium – Ongoing	Low
Notes: Critically examine the need for right turn lanes with respect to contraindications related to pedestrian crossing, bike conflicts, and speed management in more urban context areas. When provided, ensure right turn lanes are no longer than necessary for safety purposes and that any capacity benefits are ancillary to meeting a demonstrable safety need.			

Table 4-5: Right Turn Lane Strategy Implementation

Signal Coordination

See discussion under Speed Management: Proactive Signal Coordination Strategies.



Rural Road Strategies

Rural road strategies primarily focus on reducing the frequency and severity single-vehicle/roadway departure crashes and crashes at isolated, unsignalized intersections. For the most part, these investments are considered “systemic” safety improvements in that they should be applied based on roadway characteristics (i.e. substandard road conditions) rather than solely in response to documented, site-specific crash histories.

The following measures are recommended to implement the LRSP rural road strategies.

Implementation Step	Lead Agency	Timeframe	Cost
Inventory rural roadways to identify roadway segments, intersections, curves, and other features that have substandard features.	Maintaining Agencies	Short – medium	Low - Medium
Notes: Inventory elements include pavement width, condition of pavement edge, fixed objects within the clear zone, ditch grades, curve geometry, warnings, and guardrail; and intersection sight distance and skew geometry. This inventory process may be undertaken as a stand-alone effort, but, at a minimum, should be performed as part of any future rural roadway resurfacing projects.			
Paved Shoulder and Safety Edge should be considered along rural roadway which lack an existing paved shoulder.	Maintaining Agencies	Medium	Medium
Notes: Even when a 5ft paved shoulder cannot be accommodated, a 2ft shoulder with Safety Edge provide a safety benefit. Rumble strips and rumble stripes should also be considered where appropriate.			
Identify curve and isolated intersection needs and prioritize geometric improvements and low-cost treatments.	Maintaining Agencies	Medium	Medium
Notes: Based on crash history, estimated entering volumes, and adverse geometric conditions (skew, limited sight distance, etc.) advance warning, advisory speed, delineation, and lighting should be considered for isolated intersections and curved roadway segments. In addition to more costly geometric improvements, low cost interventions can include solar flashing beacons, oversized stop signs, chevrons and other delineation (for curves), trimming of trees and foliage to improve sight triangles.			
Bridge and Guardrail Improvements	Maintaining Agencies	Medium	Medium
Notes: As part of the inventory of the County’s rural roadways, substandard bridge/culvert guard rail and guard rail terminal ends should be identified and upgraded.			

Table 4-6: Rural Road Safety Strategy Implementation



Shared Use Pathways, Sidewalk Improvements

Consistent with the Collier MPO's BPMP, Emerging state and national guidance is moving away from on-street bike lanes towards separated or protected bicycle facilities along roadways with operating speeds over 35 MPH. With recent and pending updates to the Florida Design Manual, preference for buffered bike lanes along higher-speed arterial roadways (i.e. 35 MPH+) will be replaced with guidance advocating protected or separated bike facilities. The Collier MPO ~~BPMP~~ Bicycle and Pedestrian Plan includes recommendations for completing sidewalk gaps along the County's major roadway network.

Implementation Step	Lead Agency	Timeframe	Cost
<u>In the next iteration of the BPMP and/or in updates to local agency plans, consider applying</u> Level of Traffic Stress in addressing <u>prioritized</u> and addressing the area's <u>the County's</u> bicycle and pedestrian needs.	Collier MPO or <u>and Local Governments Maintaining Agencies</u>	Medium to Long	Medium to High
Notes: Level of Traffic Stress (LTS) is a performance measure for bicycle facilities that identifies which facilities will be suitable for a broad cross-section of the public who, as a rule, are not comfortable operating in mixed traffic or in striped bike lanes along higher speed, higher volume motor vehicle traffic. The Collier MPO Bicycle and Pedestrian Master Plan (2019) provides a comprehensive evaluation of bicycle and pedestrian infrastructure along Collier County's thoroughfare roadway network and identifies priority improvement needs. Application of LTS criteria will continue to generally shift investment toward separated pathways or protected on-street facilities in lieu of traditional marked bike lanes.			

Table 4-7: Shared Use Pathways Implementation

Mid-Block Crossings and Median Refuge

Crosswalks at unsignalized intersections with appropriate supplemental warning and/or traffic control devices may be necessary and appropriate when there is a concentration of pedestrian crossings within close proximity along a roadway. When pedestrian origins/destinations are more dispersed, raised medians or median islands (in conjunction with speed management, lighting, and other countermeasures) can improve safety for pedestrian crossings. Strategies to provide mid-block crossing infrastructure are described below.

Implementation Step	Lead Agency	Timeframe	Cost
Evaluate roadways with painted medians (i.e. two-way-left-turn lanes) for construction of median islands	Maintaining Agencies	Medium	Low
Notes: Most major roadways in Collier County have raised medians; however, roadways with painted medians may provide opportunities to install pedestrian refuge islands which can allow pedestrians to cross each direction of traffic independently. Generally, construction of median islands within existing two-way left turn lanes represents a lower cost safety investment since the new islands do not generally impact drainage or utilities. <u>Local agencies can submit projects for funding that take into account high crash locations identified in the BPMP and the LRSP.</u>			
Mid-block crosswalk candidate identification	Maintaining Agencies	Medium	Medium
Notes: As part of an <u>the</u> inventory of the County's rural roadways, substandard bridge/culvert guard rail and guard rail terminal ends should be identified and upgraded.			



Table 4-8: Mid-Block Crossings and Median Refuge Implementation



Intersection Lighting Enhancements

FDOT has adopted new standards for intersection lighting that specifically focus on illumination levels at pedestrian crosswalks. These standards require approximately twice the level of illumination as AASHTO highway lighting standards as their intent is to help drivers see pedestrians crossing at night, rather than to simply help drivers see roadway features. Although Collier County does not have a disproportionate number of nighttime crashes overall, non-motorized user crashes are more likely to occur at night. Accordingly, the following implementation strategies are recommended to enhance lighting as a countermeasure for non-motorized user crashes with ancillary benefit of reducing lower-severity fixed-object crashes.

Implementation Step	Lead Agency	Timeframe	Cost
Inventory intersection lighting along urban corridors and non-motorized user emphasis area crash corridors	Maintaining Agencies	Short	Low
Notes: As an initial step, this can include a simple inventory of intersection lighting luminaires at and adjacent to signalized intersections with subsequent analysis of lighting levels compared to FDOT recommended horizontal illumination as described in Table 231.2.1 of the FDOT Florida Design Manual.			
Prioritize and implement lighting retrofits	Maintaining Agencies	Medium	Medium
Notes: For urban corridors (Context Classifications C4, C5, and C6) and for corridors identified as non-motorized crash emphasis corridors, lighting retrofits should be considered based on the degree to which intersection lighting is deficient, corridor crash history, and funding availability. In addition to stand-alone lighting retrofit projects, intersection lighting should be upgraded as part of planned intersection improvement projects, new traffic signals, and signal reconstruction projects.			

Table 4-9: Intersection Lighting Retrofit Implementation

Autonomous Vehicles (Longer-Term)

Public agencies may promote autonomous vehicles by participating in pilot projects and potentially selecting partially or fully autonomous vehicles for public agency vehicle fleets (where cost feasible and appropriate). However, autonomous vehicle technology development and implementation is primarily driven by the marketplace as well as State and federal regulations. As such, no specific implementation strategies are recommended as part of the LRSP.



Non-Infrastructure Implementation Processes

This section outlines implementation processes for each non-infrastructure strategy recommended in the prior section. For the purposes of this discussion, the following general parameters apply to the timeframe and cost descriptions for each implementation step.

- Timeframe from LRSP adoption:
 - Short: 0 to 3 years
 - Medium: 3 – 5
 - Long: Greater than 5 years
- Cost per implementation step for annual program costs and program management
 - Low: Less than \$50,000
 - Medium: \$50,000 - \$100,000
 - High: Greater than \$100,000

Traffic Enforcement Strategies

Enforcement strategies include supplementing general traffic enforcement activities with corridor-specific efforts to address emphasis area crash types, consideration of participating in FDOT's High Visibility Enforcement program and, reconsideration of the use of automated enforcement systems.

Implementation Step	Lead Agency	Timeframe	Cost
Identify corridor specific enforcement strategies	Law Enforcement Agencies	Ongoing	High
Notes: Data from the LRSP shows which Collier County roadway corridors have the highest incidence of severe crashes.			
Consider pursuing FDOT High Visibility Enforcement bicycle and pedestrian safety grants	Law Enforcement Agencies	Short	Low
Notes: As part of FDOT's Alert Today, Alive Tomorrow program, grants are available to Collier County law enforcement agencies to conduct high visibility enforcement for non-motorized user safety. Any such enforcement activities should be directed at both driver and non-motorized user compliance issues and should be used as an opportunity to provide educational material and safety equipment (e.g. retroreflective items, low-cost bike lights) to individual contacted by law enforcement.			
Reconsider use of automated traffic signal enforcement	Law Enforcement Agencies	Medium – Long	Medium
Notes: National research indicates that automated traffic signal enforcement can reduce angle and left turn crashes at signalized intersections. If Collier County elects to reinstate automated enforcement, best practices include selecting locations based on documented crash history, conducting before/after crash analyses, and using fines collected for traffic safety purposes (e.g. infrastructure and non-infrastructure program funding).			

Table 4-10: Law Enforcement Implementation Strategies



Safety Material Distribution

Safety materials including placards, low-cost bicycle light kits, and retroreflective items (bracelets, backpacks, vests) can be distributed either ancillary to enforcement activities or as part of “grass roots” safety outreach and education programs.

Implementation Step	Lead Agency	Timeframe	Cost
Procure and distribute safety materials	Multiple	Short Term	Low - Medium
Notes: Safety materials, as described here-in, can be procured using grant funding, agency discretionary funding, or private contributions. Distribution can occur across multiple outlets including law enforcement, schools, public health organizations, and homeless services.			

Table 4-11: Safety Material Distribution

Young Driver Education

In other communities safety professionals have been recruited by FDOT to lead high-school seminars to promote traffic safety awareness for teen drivers. These seminars are coordinated with the public school system and can be conducted through drivers’ education courses or general assemblies. The seminars focus on safe driving behavior with an emphasis on bicycle and pedestrian safety from the perspective of motorists and non-motorists. As an alternate to FDOT, the Collier County Sheriff or Collier County School Board could serve as the sponsoring agency.

Implementation Step	Lead Agency	Timeframe	Cost
Coordinate with FDOT District 1 to pilot a Teen Safe Driving seminar program.	FDOT or Collier Sheriff	Short Term	Low - Medium
Notes: This program has been established in the Tampa Bay Area funded by FDOT through the University of South Florida Center for Urban Transportation Research.			

Table 4-12: Supplemental Drivers’ Education Training



Small Group Outreach

In the Tampa Bay Area, a small group outreach program (WalkWise Tampa Bay) was funded by FDOT and managed by the University of South Florida Center for Urban Transportation Research (CUTR). The program provides in-person or virtual seminars to community groups, businesses, and other organizations upon request. The seminars focus on pedestrian and bicycle safety and also provide for distribution of safety materials. Other safety topics can be integrated based on local needs.

Implementation Step	Lead Agency	Timeframe	Cost
Coordinate with FDOT District 1 to consider piloting a small group outreach program similar to WalkWise Tampa Bay.	FDOT (funding); TBD (Implementation)	Short Term	Low - Medium
Notes: This program has been established in the Tampa Bay Area funded by FDOT through the University of South Florida Center for Urban Transportation Research. A similar institutional partner should be recruited for program implementation in Collier County. This program appears to be consistent with the mission of the Southwest Florida Blue Zones project.			

Table 4-13: Small Group Outreach

Continuing Education

This LRSP recommendation refers to provision of professional development information to Collier County safety professionals related to emerging best practices for traffic safety engineering and planning. Several FDOT Districts are currently collaborating to expand on FDOT District 7's (Tampa Bay) Local Agency Safety Academy webinar series. This free webinar series provides information on various safety engineering topics. The Collier MPO can also encourage member governments to participate in the Gulf Coast Safe Streets Summit, South East Florida Safe Streets Summit, or partner with Southwest Florida MPOs to establish a similar annual safety-focused event.

Implementation Step	Lead Agency	Timeframe	Cost
Promote participation in FDOT's Local Agency Traffic Safety Academy webinars	FDOT or Collier MPO	Short Term	Low - Medium
Notes: http://www.tampabaytrafficsafety.com/LATSA/SitePages/Home.aspx			
Participate in regional Safety Summits and consider establishing a Southwest Florida Safety Summit or collaborating to expand the Gulf Coast Safety Summit	Collier MPO – Other Southwest Florida MPOs	Medium – Ongoing	Medium
Notes: Gulf Coast Safe Streets Summit: https://www.gulfcoastsafestreetssummit.org/ Southeast Florida Safe Streets Summit: https://www.safestreetssummit.org/			

Table 4-14: Continuing Education



Vision Zero Policy

As part of the Collier MPO's Performance-Based Planning Process, Safety Performance Targets have been established that include zero traffic deaths and zero serious injuries. The LRSP provides the vast majority of technical analysis—including definition of the County's High Injury Network—necessary to become a Vision Zero Community. Implementing the LRSP within the context of the Vision Zero framework expresses the policy commitment of Collier County's elected leaders to implementation of the Plan across multiple discipline areas to achieve the MPO's existing performance targets.

Implementation Step	Lead Agency	Timeframe	Cost
Implement steps necessary to be recognized as a Vision Zero Community	Collier Member Governments	Short Term	Low - Medium
<p>Notes: The steps to become recognized as a Vision Zero Community are summarized below. Note that while the Vision Zero framework is generally based around municipal governments, County governments can become members.</p> <ul style="list-style-type: none"> • Setting a clear goal of eliminating traffic deaths and serious injuries among all road users within an explicit timeframe (i.e. 10 years); • The Mayor (or top elected official) publicly, officially committing to Vision Zero within the set timeframe and directing appropriate city staff to prioritize the work; • A Vision Zero Action Plan or Strategy is in place, or the Mayor and key departments have committed to creating one in a specified time frame and which includes a focus on being data driven, equitable, and including community input; • Key city departments, including Transportation, Public Health, and Mayor's Office are actively engaged as leaders and partners in the process of developing the Vision Zero Plan, implementing it, and evaluating and sharing progress; • A Vision Zero Task Force (including the agencies listed above, as well as community stakeholders, and others) meets regularly to lead and evaluate efforts. 			

Table 4-15: Vision Zero Policy



Relationship to Collier MPO 2045 Long Range Transportation Plan

The MPO's Long Range Transportation Plan (LRTP) documents multimodal transportation needs and cost-feasible project priorities over the 20-year period from 2026 – 2045. Committed projects slated for construction prior to 2026 are incorporated in the MPO's 5-year Transportation Improvement Program (TIP). The Draft 2045 LRTP incorporates the Emphasis Areas identified in the LRSP by reference and also incorporates the MPO's Bicycle and Pedestrian Mobility Plan.

Infrastructure Strategy Implementation Opportunities

Table 4-16 on the following page shows the relationship of the projects prioritized in the Draft 2045 LRTP to corridors identified as having an overrepresentation of emphasis area crashes in Chapter 2 of the LRSP. Each LRTP project shown in the table represents an opportunity to advance the infrastructure strategies described in Chapter 3 of the LRSP. While there is significant overlap between DRAFT 2045 LRTP projects and LRSP emphasis corridors, some emphasis area corridors do not have planned capital projects and will need to be studied and prioritized for safety enhancements consistent with the prior sections of this Chapter.

In addition to the potential for substantive safety improvements to be incorporated in the LRTP Cost-Feasible Plan projects, the LRTP sets aside over \$41m of funding for implementation of the Collier Bicycle Pedestrian Mobility Plan. While not all bicycle and pedestrian mobility projects have an inherent safety nexus, the prominence of non-motorized user safety as a planning factor in developing the mobility project priorities for cyclists and pedestrians means that implementation of this plan, as a component part of the LRTP, will generally advance non-motorized user safety.

LRSP Update Cycle

Because the LRTP sets funding priorities for the Federal and State dollars within the MPO's purview, the most effective timeframe to update the Collier MPO LRSP is concurrent with or in advance of the LRTP. ~~If updated in advance of the LRTP, the LRSP would remain a stand-alone document that would serve as input into the LRTP needs assessment and project prioritization process. Alternately, The Final Draft of the 2045 LRTP identifies - the LRSP could be integrated as a core document to be updated and incorporated by reference into future updates of the LRTP as a component part. In either scenario, the 5-year cycle of the LRTP update process would allow for adequate time to assess the recommended LRSP monitoring measures (discussed below) and would allow for the data-driven analysis of safety performance in Collier County to influence capital project priorities.~~



MPO SEGMENT ID	LRTP Project ID, Description, and Construction Timeframe		On Street	From Street	To Street	Total Crashes	Total Fatal Crashes	Total Severe Injury Crashes	Bike/ Pedestrian Rank	Lane Departure Rank	Intersection Rank	Rear End/ Sideswipe Rank
40			Airport Road	US 41 (Tamiami Trail)	Davis Boulevard	263	2	4	1			
41			Airport Road	Davis Boulevard	North Rd	306	1	4	14			
43			Airport Road	Radio Road	Golden Gate Parkway	688	1	7	15	4	8	2
45			Airport Road	Pine Ridge Road	Orange Blossom Drive	668	2	3		5	9	3
70			Bayshore Drive	Thomasson Drive	US 41 (Tamiami Trail)	232	0	7	5			
132			Collier Boulevard	Mainsail Drive	Manatee Road	296	0	5		12		
136			Collier Boulevard	US 41 (Tamiami Trail)	Rattlesnake Hammock Road	217	0	3		10		
137			Collier Boulevard	Rattlesnake Hammock Road	Davis Boulevard	447	1	7		11		
141			Collier Boulevard	Golden Gate Pwky	Green Boulevard	363	2	6			3	
145			Collier Boulevard	Vanderbilt Beach Road	Immokalee Road	576	0	7	9	7	12	5
222			Davis Boulevard	Lakewood Boulevard	County Barn Road	331	1	8	12			
250			Golden Gate Boulevard	Collier Boulevard	Wilson Boulevard	453	2	11		3		
263	78 - Major Intersection @ Livingston; 23 - Interchange @ I-75	FY26 - 30	Golden Gate Parkway	Livingston Road	I-75	425	0	4				8
265			Golden Gate Parkway	Santa Barbara Boulevard	Collier Boulevard	665	0	7			1	6
270			Goodlette-Frank Road	US 41 (Tamiami Trail)	Golden Gate Parkway	453	0	9		6	5	
271			Goodlette-Frank Road	Golden Gate Parkway	Pine Ridge Road	499	1	9			10	14
343	66 - Major Intersection @ Livingston	FY26 - 30	Immokalee Rd	Livingston Road	I-75	431	0	3				12
344	25 - Interchange Improvement @ I-75	FY26 -30	Immokalee Rd	I-75	Logan Boulevard	569	4	3				4
345	97 - Major Intersection @ Logan	FY36 - 45	Immokalee Rd	Logan Boulevard	Collier Boulevard	497	0	7				9
346			Immokalee Rd	Collier Boulevard	Wilson Boulevard	364	2	9		1		
348			Immokalee Rd	Oil Well Road	Stockade Rd	258	2	6		2		
349			Immokalee Rd	Stockade Rd	SR 29	182	0	5	11			
361			Lake Trafford Rd	Carson Rd	SR 29	223	1	5	10			
523			Pine Ridge Road	Airport Road	Livingston Road	808	0	8		15	11	1
524			Pine Ridge Road	Livingston Road	I-75	464	0	8				11
531			Radio Road	Livingston Road	Santa Barbara Boulevard	275	1	11	6			
593			Santa Barbara Boulevard	Golden Gate Parkway	Green Boulevard	295	1	6			7	
648			SR 29	1st St	9th Street	99	1	4	4			
649			SR 29	9th Street	Immokalee Dr	215	0	7	7		13	
650			SR 29	Immokalee Dr	CR 29A North	171	1	3	13			
670			Tamiami Trail East	Davis Boulevard	Airport Road	302	3	8	2			
671			Tamiami Trail East	Airport Road	Rattlesnake Hammock Road	501	3	10	8		15	10
672			Tamiami Trail East	Rattlesnake Hammock Road	Treetops Dr	307	2	8		13		
690	57 - Major Intersection @ Goodlette-Frank	FY31-35	Tamiami Trail North	SR 84 (Davis Blvd)	CR 851 (Goodlette Rd South)	398	0	4		9	2	
692			Tamiami Trail North	12th Ave	Park Shore Dr / Cypress Woods Dr	436	0	9		8	4	
693			Tamiami Trail North	Park Shore Dr / Cypress Woods Dr	Pine Ridge Rd / Seagate Dr	361	2	7			6	
694			Tamiami Trail North	Pine Ridge Rd / Seagate Dr	Gulf Park Drive	378	2	9			14	
696			Tamiami Trail North	Vanderbilt Beach Road	Immokalee Road	462	2	4	3			
697	111 - Intersection Improvement @ Immokalee	FY26 -30	Tamiami Trail North	Immokalee Road	Wiggins Pass Road	502	1	8				7
712			Vanderbilt Beach Road	Goodlette-Frank Road	Airport Road	414	1	1				15
714			Vanderbilt Beach Road	Livingston Road	Logan Blvd	425	0	4				13
715	99 - Minor Intersection @ Logan	FY36 - 45	Vanderbilt Beach Road	Logan Blvd	Collier Blvd	337	1	4		14		

Table 4-16: Relationship of Emphasis Areas Corridors and DRAFT 2045 LRTP Cost Feasible Projects



Monitoring and Performance Measures

Safety Performance Measures

The Collier MPO System Performance Report sets a target of zero for fatalities and incapacitating injuries. The MPO Director provides an annual report to the MPO Board in December which tracks how well the MPO is performing in meeting its performance targets. The Final Draft 2045 LRTP includes a Transportation System Performance Report using a template developed by FDOT and the MPO Advisory Council (MPOAC). A similar report is incorporated in the MPO's Transportation Improvement Program (TIPO).

In addition to these high-level performance measures, incremental progress can be assessed by tracking safety outcomes on an ongoing basis as follows:

Data and Analysis Product	Update Cycle	Notes
Table 2-1: Comparison of Collier County and State of Florida Crash Rates	Annual 5-years	Update using 5-year average—data sourced from DHSMV and FDOT
Table 2-5: Emphasis Area Summary	Annual 5-years	Update using 5-year average—data sources from Collier CDMS
Tables 2-6 to 2-9: High Crash Corridors	5-years	Update using Collier CDMS and MPO Major Roadway Network segments
Tables 2-3 and 2-4: Traffic Citation Data	5-years	Data sourced from DHSMV, FDOT
Figures 2-1 to 2-5: Crash Data Distributions	5-years	Update using Collier CDMS and MPO Major Roadway Network segments

Table 4-15: LRSP Performance Measures Monitoring Process

Monitoring of Plan Implementation

Plan implementation can be monitored using a report card developed by consolidating Tables 4-1 through 4-15 into a single monitoring report. Consistent with the 5-year update cycle recommended above, implementation steps identified as short term should be completed prior to the next LRSP update and items identified as mid-term should be underway. If new strategies are adopted or currently recommended strategies are eliminated or modified, this should be noted in the monitoring report along with documentation of why a specific strategy was added, replaced, or eliminated.



Summary of Low Cost/Short-Term Infrastructure Strategies

While long term, transformative investments in the County's transportation system will require substantial resources, time, and policy commitment to implement, the LRSP includes a number of shorter-term, relatively low cost strategies to reduce the frequency and severity of crashes on the County's roadway network. These strategies are summarized in Table 4-18.

Low-Cost/Short Term Infrastructure Strategies	Non-Motorized	Intersection	Lane Departure	Same Direction
Speed Management <ul style="list-style-type: none"> Establish context classification and set target speeds. Implement relevant signal timing and coordination strategies. 	•	•	•	•
Alternative Intersections (ICE Process) <ul style="list-style-type: none"> Establish Member Government ICE Process and Identify Candidate Locations. 	•	•		•
Intersection Design Best Practices for Pedestrians <ul style="list-style-type: none"> Retrofit High Emphasis Crosswalk Markings, Countdown Pedestrian Signals, and R10-15 Warning Signs (as appropriate). Provide Leading Pedestrian Interval as appropriate (consider FDOT guidance; Traffic Engineering Manual 3.11). 	•			
Median Restrictions/Access Management <ul style="list-style-type: none"> Provide directional median openings where appropriate. 		•		•
Right Turn Lanes <ul style="list-style-type: none"> Limit use of right turn lanes in lower-speed, urban context areas. 	•			•
Signal Coordination <ul style="list-style-type: none"> Consider new signals using coordinated systems warrant in lieu of directional median openings for developer permit projects. 	•			•
Rural Road Strategies: <ul style="list-style-type: none"> Integrate paved shoulder construction and use of Safety Edge treatment with resurfacing program. Based on rural roadway inventory, provide solar flashing beacons and improve warning signs approaching curves and isolated rural intersections. Based on rural roadway inventory, continue maintain sight triangles. 		•	•	



Low-Cost/Short Term Infrastructure Strategies (continued)	Non-Motorized	Intersection	Lane Departure	Same Direction
Shared Use Pathways, Sidewalk Improvements <ul style="list-style-type: none"> Update minimum design standards based on context classification to require shared use pathway construction as part of site access developer requirements where appropriate. 	•			
Mid-Block Crossings & Median Refuge <ul style="list-style-type: none"> Provide mid-block crosswalks with pedestal mounted RRFBs and/or median islands in existing two-way-left turn lanes 	•			
Intersection Lighting Enhancements <ul style="list-style-type: none"> Incorporate intersection lighting enhancements with signal reconstruction projects 	•	•	•	

Table 4-16: Short-Term/Low Cost Infrastructure Strategies



APPENDIX 1: GLOSSARY OF TECHNICAL TERMS

GLOSSARY

- **AADT** – Average Annualized Daily Traffic: Daily traffic volumes collected over multiple (usually three) days and adjusted for seasonal variations in traffic volumes.
- **Emphasis Area** – Emphasis areas are usually divided into 22 categories based on extensive research by the AASHTO and National Cooperative Highway Research Program in their Strategic Highway Safety Plan (NCHRP). These include infrastructure (e.g., utility pole collisions), crash types (e.g., head-on collisions, lane departures), behavior (e.g., alcohol, speeding, occupant protection), vehicle types (e.g., bicycles, motorcycles, heavy trucks), and at risk populations (e.g., young drivers, older drivers). Implementation guides have been developed for these emphasis areas and are available as 22 volumes of the NCHRP Report 500. Emphasis Areas for the Collier LRSP represent a combination of similar crash types related to non-motorized road users, intersection crashes, lane departure crashes, and same direction (rear-end/side-swipe) crashes.
- **Functional Classification** – System used to classify roadways based on a transect of mobility vs. access.
 - **Freeway & Expressway** - Roads in this classification have directional travel lanes usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections. These roadways are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them.
 - **Arterial Roadway (Major)** - These roadways serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. Forms of access include driveways to specific parcels and at-grade intersections with other roadways.
 - **Arterial Roadway (Minor)** - Minor Arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system. In an urban context, they interconnect and augment the higher Arterial system, provide intra-community continuity and may carry local bus routes. In rural settings, Minor Arterials should be identified and spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a higher level Arterial. The spacing of Minor Arterial streets may typically vary from 1/8- to 1/2-mile in the central business district (CBD) and 2 to 3 miles in the suburban fringes. Normally, the spacing should not exceed 1 mile in fully developed areas
 - **Collector Roadway** - Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Collectors are broken down into two categories: Major Collectors and Minor Collectors. Major Collector routes are longer in length; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than their Minor Collector counterparts. In rural areas, AADT and spacing may be the most significant designation factors. Major Collectors offer more mobility and Minor Collectors offer more access. Overall, the total

mileage of Major Collectors is typically lower than the total mileage of Minor Collectors, while the total Collector mileage is typically one-third of the Local roadway network

- **Local Street** – Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land.
- **ICE** – Intersection Control Evaluation: A FHWA and FDOT process for evaluating appropriate traffic control measures at major intersections.
- **Signal Timing** – Refers to a set of parameters for controlling traffic signals what include:
 - Cycle Length – the time for a traffic signal to complete all phases
 - Phase – a set of allowed concurrent movements
 - Split – the amount of time allocated to each phase
 - Offset – the time between common phases at adjacent traffic signals. This is used to progress traffic along a roadway from upstream to downstream signals
 - Platoon – a group of vehicles travelling between coordinated traffic signals
- **VMT** – Vehicle Miles Traveled: A measure of driver exposure based on miles of roadway travel.



APPENDIX 2: CRASH DATA QUALITY CONTROL TECHNICAL MEMORANDUM



**Collier County MPO
Local Road Safety Plan**

Crash Data QC Technical Memorandum

March 24, 2020

FINAL

Prepared for:



Prepared by:





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SECTION 1: INTRODUCTION

A five-year crash history from 2014 to 2018 was queried using data from the Collier County Crash Data Management (CDMS) for both motorized vehicles and crashes involving non-motorized road users. Table 1-1 shows a five-year total of motorized vehicle and non-motorized road user crashes based on the highest injury severity for each report.

Table 1-1: Summary of Crashes (2014-2018)

Severity	Motor-Vehicle		Non-Motorized		Total
	Crashes	Percent	Crashes	Percent	
Fatal	130	74%	45	26%	175
Incapacitating Injury	669	80%	170	20%	839
Non-Incapacitating Injury	2,758	85%	501	15%	3,259
Possible Injury	5,290	92%	454	8%	5,744
Property Damage Only	45,175	99%	315	1%	45,490
TOTAL	54,022	97%	1485	3%	55,507

As part of the Collier County Local Road Safety Plan (LRSP), key attributes of the more severe crashes in the data set were reviewed to verify that the coded crash data accurately corresponds to the narrative information and collision diagrams included in each crash report. This was done to ensure that reasonably accurate data is used for the purpose of developing the LRSP recommendations and to identify potential data coding trends and issues to address with each of the reporting Law Enforcement Agencies.

The purpose of this memorandum is to summarize the methodology used to review and re-code crash reports, as well as summarize the findings from the review process. Consistent with the LRSP Scope of Services, the following crash reports were reviewed:

- Motor Vehicle Crashes: Fatal, Incapacitating Injury, and Non-Incapacitating Injury (3,557 Crashes).
- Non-Motorized User Crashes: Fatal, Incapacitating Injury, Non-Incapacitating Injury, and Possible Injury (1,170 Crashes).

For each of these crash reports, the following data items were checked:

- Crash Location: Verification and correction of crash node assignment and approximate XY coordinates.
- Crash Type: Verification and correcting collision diagram crash type. (Note: this is a data attribute that is calculated by the Collier CDMS from other crash data attributes including vehicle direction, vehicle movement, manner of collision, and first harmful event.)
- Checking for completeness and compare key data fields with narrative and diagram as follows:
 - Manner of collision



- First Harmful Event
- Event Impact
- First Harmful Event Relation to Junction
- Driver Action (First)
- Driver Restraint System (Vehicle 1 and 2)
- Non-Motorized User Data:
 - o Description
 - o Action Prior to Crash
 - o Location at Time of Crash
 - o Actions/Circumstances (First)
 - o Safety Equipment (First)



SECTION 2: METHODOLOGY AND DATA REVIEW

Attribute fields for motorized and non-motorized crash data were exported from the Collier WebCDMS database and manually reviewed and checked for accuracy by an engineering technician. When individual data elements were deemed inaccurate, a revised value was coded in a separate data field. An input was deemed inaccurate if the crash report data input was inconsistent with the crash report's written narrative or illustrated collision diagram.

As shown in Table 2-1, Collier County Sheriff's Office collects the highest number of crash reports, followed by Florida Highway Patrol, Naples Police Department (PD), and Marco Island PD. Collier County Sheriff's Office has the highest number (60 percent) of reports that were revised during the clean-up process, followed by Marco Island PD and Naples PD.

Table 2-1: Revised Data Input by Reporting Agency

Reporting Agency	Reports Reviewed	Reports Revised	Percent Reports Revised
Florida Highway Patrol (FHP)	1,895	608	32%
Collier County Sheriff's Office (CCSO)	2,690	1,613	60%
Naples Police Department (PD)	327	155	47%
Marco Island PD	124	91	73%
Other	6	3	50%
TOTAL	5,042	2,470	49%

During the review process, the fields with the most inconsistent coding needing editing were Event Relation to Intersection, Crash Type, and Impact Type. There were twelve (12) motorized and eight (8) non-motorized crash entries that did not have XY coordinates. These crash entries were manually reviewed, and a location was added.

Table 2-2 shows a summary of the total revisions to these attributes for Motor Vehicle (MV) crashes and Non-Motorized User (NM) crashes for each reporting agency.

Table 2-2: Frequently Revised Data Fields

Reporting Agency	Event Relation to Intersection		Crash Type		Impact Type		Location	
	MV Crashes	NM Crashes	MV Crashes	NM Crashes	MV Crashes	NM Crashes	MV Crashes	NM Crashes
FHP	96	34	310	12	90	168	0	0
CCSO	471	415	339	381	108	682	2	0
Naples PD	43	45	35	17	6	39	9	0
Marco Island PD	18	25	25	28	4	37	1	7
Other	0	3	0	1	0	0	0	1
TOTAL	628	522	709	439	208	926	12	8

MV: Motor Vehicle **NM:** Non-Motorized

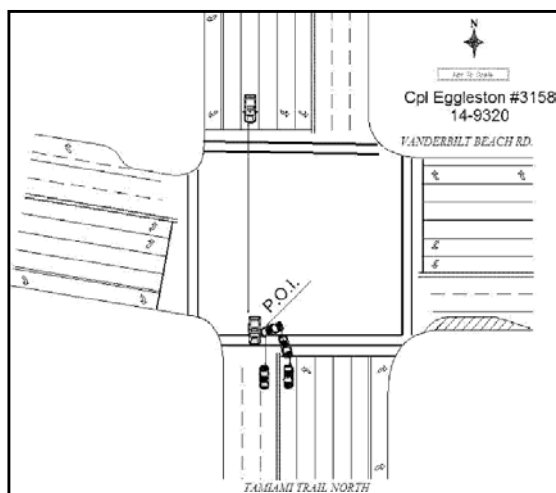


Example cases of each commonly miscoded crash type are described on the following pages of this memorandum. Appendices A and B show cross tabulations for each of these crash data attributes for motor vehicle and non-motorized user crashes respectively.

EVENT RELATION TO INTERSECTION

This field indicates where the crash event occurred on the roadway. There are 12 categories under this field:

- | | |
|--------------------------------|----------------------------------|
| - Non-Junction | - Crossover-Related |
| - Intersection | - Shared Use Path or Trail |
| - Intersection-Related | - Acceleration/Deceleration Lane |
| - Driveway/Ally Access Related | - Through Roadway |
| - Railway Grade Crossing | - Unknown |
| - Entrance/Exit Ramp | - Other |



The image above was initially coded as “Non-Junction” then revised to “Intersection”

The QC process showed that the top 3 revised categories under Event Relation to Intersection were:

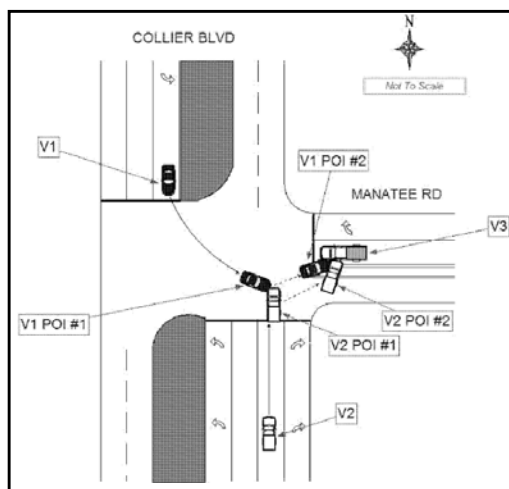
- | | |
|----------------------------|---------------------------------|
| Motorized Vehicles: | Non-Motorized: |
| - Non-junction | - Non-Junction |
| - Intersection | - Intersection |
| - Intersection-related | - Driveway/Alley Access Related |



CRASH TYPE

This field defines the overall type of the crash and is used to generate collision diagrams. There are 14 crash types:

- Angle
- Head On
- Hit Fixed Object
- Hit Non-Fixed Object
- Left Turn
- Rear End
- Right Turn
- Run Off Road
- Sideswipe
- Single Vehicle
- U-Turn
- Unknown
- Bike
- Pedestrian



The crash in the image above was correctly recorded to the intersection rather than a non-junction, and recategorized as a Left-Turn crash instead of the incorrect "Angle" crash.

The top 3 revised categories under Crash Type were:

Motorized Vehicles:

- Angle
- Sideswipe
- Rear End
- Hit Fixed Object

Non-Motorized:

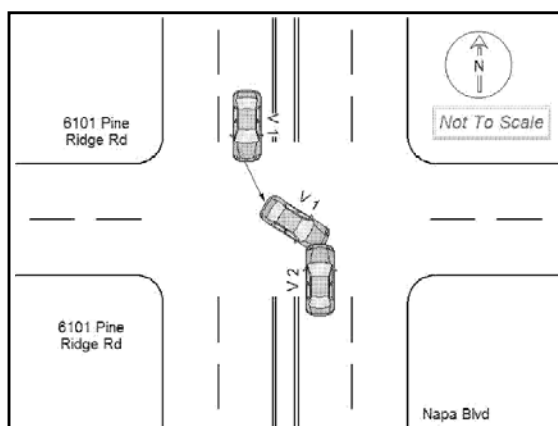
- Hit Non-Fixed Object
- Rear End
- Bike
- Pedestrian



IMPACT TYPE

This field defines the manner and direction of the collision. There are 9 impact type categories:

- Front to Rear
- Front to Front
- Angle
- Sideswipe (Same Direction)
- Sideswipe (Opposite Direction)
- Rear to Side
- Rear to Rear
- Unknown
- Other



The image above shows an example of a crash report initially coded as “Front to Front” then revised to “Angle”

The top 3 most revised categories under Impact Type:

Motorized Vehicles:

- Front to Rear
- Angle
- Sideswipe (same direction)

Non-Motorized:

- Angle
- Sideswipe (Same Direction)
- Rear to Rear



SECTION 3: CONCLUSIONS AND RECOMMENDATIONS

Coding errors and inconsistencies within crash reports impact the usefulness of crash data for both strategic planning and traffic study purposes. Specifically, inaccurate location coding can contribute to misidentified corridor and spot location priorities. Improper Relation to Intersection information can create confusion as to whether there is a problem with an intersection or if there are issues with the intersection approaches (e.g. adjacent commercial driveways or median openings). Incorrect or internally inconsistent coding of crash attributes such as First Harmful Event, Vehicle Movement, and Vehicle Direction can result in either incorrect Crash Type assignment or result in an inability to determine the Crash Type. This data field is critical for understanding overall crash patterns and is also a fundamental element in analyzing corridors or spot locations.

Differences in crash report edits between law enforcement agencies in Collier County suggest that data entry methods and training may play a part in determining the accuracy of crash reporting. As the Local Road Safety Plan progresses, the intent to discover what are the leading causes for crash report inconsistency and inaccuracy. Follow up interview will be conducted with LEA officers from different departments to gain additional insight on crash reporting and learn ways to improve accuracy and consistency.

Based on the data analysis conducted thus far, key question areas include methods to capture crash location and consistency of coding those data points that contribute to Crash Type assignment.



Appendix A: Revised Motorized Vehicle Crashes

EVENT RELATION TO INTERSECTION

		Reports Reviewed	Reports Revised	Percent Report Revised
Reporting Agency	CCSO	1,689	471	28%
	FHP	1,603	96	6%
	Naples PD	202	43	21%
	Marco Island PD	60	18	30%
	Other	3	0	0%

		TOTAL	REVISED VALUE												TOTAL REVISED	PERCENT REVISED
			Non-Junction	Intersection	Intersection-Related	Driveway/Ally Access Related	Railway Grade Crossing	Entrance/Exit Ramp	Crossover-Related	Shared Use Path or Trail	Acceleration/Deceleration Lane	Through Roadway	Unknown	Other		
ORIGINAL VALUE	Non-Junction	2229	-	298	172	57	0	5	0	0	0	0	0	0	532	24%
	Intersection	838	5	-	0	1	0	1	0	0	0	0	0	0	7	1%
	Intersection-Related	253	3	9	-	1	0	0	0	0	0	0	0	0	13	5%
	Driveway/Ally Access Related	51	3	2	0	-	0	0	0	0	0	0	0	0	5	10%
	Railway Grade Crossing	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0%
	Entrance/Exit Ramp	26	0	2	0	0	0	-	0	0	0	0	0	0	2	8%
	Crossover-Related	5	1	2	2	0	0	0	-	0	0	0	0	0	5	100%
	Shared Use Path or Trail	7	0	2	3	0	0	0	0	-	0	0	0	0	5	71%
	Acceleration/Deceleration Lan	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0%
	Through Roadway	89	1	13	8	3	0	0	0	0	0	-	0	0	25	28%
	Unknown	6	1	3	2	0	0	0	0	0	0	0	-	0	6	100%
	Other	53	5	8	9	6	0	0	0	0	0	0	0	-	28	53%



CRASH TYPE

		Reports Reviewed	Reports Revised	Percent Report Revised
Reporting Agency	CCSO	1,689	339	20%
	FHP	1,603	310	19%
	Naples PD	202	35	17%
	Marco Island PD	60	25	42%
	Other	3	0	0%

		TOTAL	REVISED VALUE														TOTAL REVISED	PERCENT REVISED
			Angle	Head On	Hit Fixed Object	Hit Non-Fixed Object	Left Turn	Rear End	Right Turn	Run Off Road	Sideswipe	Single Vehicle	U-Turn	Unknown	Bike	Pedestrian		
ORIGINAL VALUE	Angle	647	-	4	9	4	60	6	1	1	18	0	8	0	2	0	113	17%
	Head On	83	9	-	9	1	7	1	0	0	5	1	1	0	0	0	34	41%
	Hit Fixed Object	537	4	1	-	22	1	10	0	1	10	10	0	0	0	0	59	11%
	Hit Non-Fixed Object	18	0	1	2	-	0	1	0	0	0	0	0	0	0	0	4	22%
	Left Turn	439	61	4	4	0	-	9	0	0	8	7	3	0	0	0	96	22%
	Rear End	1106	10	1	6	4	1	-	2	0	37	3	2	0	0	1	67	6%
	Right Turn	69	1	2	6	0	0	10	-	0	4	6	0	0	1	0	30	43%
	Run Off Road	84	0	0	16	0	0	0	0	-	0	9	0	0	0	0	25	30%
	Sideswipe	173	1	0	4	0	0	35	1	1	-	0	0	0	0	0	42	24%
	Single Vehicle	142	0	0	21	1	0	0	0	5	3	-	0	0	0	0	30	21%
	U-Turn	55	1	0	1	0	1	2	0	0	4	0	-	0	0	0	9	16%
	Unknown	204	10	0	66	7	0	7	0	14	6	84	1	-	2	3	200	98%
	Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0%
	Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0%



IMPACT TYPE

		Reports Reviewed	Reports Revised	Percent Report Revised
Reporting Agency	CCSO	1,689	107	6%
	FHP	1,603	90	6%
	Naples PD	202	6	3%
	Marco Island PD	60	4	7%
	Other	3	0	0%

		TOTAL	REVISED VALUE									TOTAL REVISED	PERCENT REVISED
			Front to Rear	Front to Front	Angle	Sideswipe (Same Direction)	Sideswipe (Opposite Direction)	Rear to Side	Rear to Rear	Unknown	Other		
ORIGINAL VALUE	Front to Rear	1,135	-	0	15	2	0	0	0	0	0	17	1%
	Front to Front	160	0	-	20	2	3	0	0	0	0	25	16%
	Angle	1,071	13	5	-	36	13	0	0	0	0	67	6%
	Sideswipe (Same Direction)	126	5	1	3	-	0	0	0	0	0	9	7%
	Sideswipe (Opposite Direction)	37	0	0	5	0	-	0	0	0	0	5	14%
	Rear to Side	13	1	0	1	2	0	-	0	0	0	4	31%
	Rear to Rear	1	0	0	0	0	0	0	-	0	0	0	0%
	Unknown	255	1	1	2	1	0	0	0	-	0	5	2%
	Other	759	9	0	61	4	1	0	0	0	0	-	75



Appendix B: Revised Non-Motorized Crashes

EVENT RELATION TO INTERSECTION

		Reports Reviewed	Reports Revised	Percent Report Revised
Reporting Agency	CCSO	1,001	414	41%
	FHP	292	33	12%
	Naples PD	125	45	36%
	Marco Island PD	64	25	39%
	Other	3	3	100%

		TOTAL	REVISED VALUE												TOTAL REVISED	PERCENT REVISED
			Non-Junction	Intersection	Intersection-Related	Driveway/Ally Access Related	Railway Grade Crossing	Entrance/Exit Ramp	Crossover-Related	Shared Use Path or Trail	Acceleration/Deceleration Lane	Through Roadway	Unknown	Other		
ORIGINAL VALUE	Non-Junction	986	-	254	36	137	0	1	0	0	0	0	0	2	430	44%
	Intersection	239	0	-	1	2	0	1	0	0	0	0	0	0	4	2%
	Intersection-Related	82	1	3	-	0	0	0	0	0	0	0	0	0	4	5%
	Driveway/Ally Access Related	74	3	1	0	-	0	0	0	0	0	0	0	0	4	5%
	Railway Grade Crossing	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0%
	Entrance/Exit Ramp	4	0	0	0	0	0	-	0	0	0	0	0	0	0	0%
	Crossover-Related	6	1	4	0	1	0	0	-	0	0	0	0	0	6	100%
	Shared Use Path or Trail	8	0	3	1	2	0	0	0	-	0	0	0	0	6	75%
	Acceleration/Deceleration Lane	1	1	0	0	0	0	0	0	0	=	0	0	0	1	100%
	Through Roadway	26	1	6	2	4	0	0	0	0	0	-	0	0	13	50%
	Unknown	2	0	1	0	1	0	0	0	0	0	0	-	0	2	100%
	Other	57	18	18	2	12	0	0	0	0	0	0	0	-	50	88%



CRASH TYPE

		Reports Reviewed	Reports Revised	Percent Report Revised
REPORTING AGENCY	CCSO	1,001	380	38%
	FHP	291	12	4%
	Naples PD	125	17	14%
	Marco Island PD	64	28	44%
	Other	3	1	33%

		TOTAL	REVISED VALUE														TOTAL REVISED	PERCENT REVISED
			Angle	Head On	Hit Fixed Object	Hit Non-Fixed Object	Left Turn	Rear End	Right Turn	Run Off Road	Sideswipe	Single Vehicle	U-Turn	Unknown	Bike	Pedestrian		
ORIGINAL VALUE	Angle	42	-	0	3	2	0	1	0	0	0	0	0	0	24	6	36	86%
	Head On	12	0	-	0	2	0	0	0	0	0	0	0	0	5	4	11	92%
	Hit Fixed Object	79	0	0	-	9	0	1	0	0	3	0	0	0	2	9	24	30%
	Hit Non-Fixed Object	17	0	0	0	-	0	0	0	0	1	0	0	0	4	3	8	47%
	Left Turn	22	0	0	2	4	-	0	0	0	0	0	0	0	5	10	21	95%
	Rear End	36	0	0	1	1	0	-	0	0	2	0	0	0	6	9	19	53%
	Right Turn	38	0	0	1	1	0	0	-	0	0	0	0	0	25	10	37	97%
	Run Off Road	1	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0%
	Sideswipe	21	0	0	0	1	0	0	0	0	-	0	0	1	3	8	13	62%
	Single Vehicle	6	0	0	0	0	0	0	0	0	0	-	0	0	3	2	5	83%
	U-Turn	1	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0%
	Unknown	158	0	0	4	5	0	0	0	0	0	0	0	-	50	98	157	99%
	Bike	587	0	0	1	1	0	5	0	0	1	0	0	0	-	1	9	2%
	Pedestrian	465	0	0	3	10	3	4	0	0	3	0	0	0	75	-	98	21%



IMPACT TYPE

		Reports Reviewed	Reports Revised	Percent Report Revised
Reporting Agency	CCSO	1,001	679	68%
	FHP	291	168	58%
	Naples PD	125	39	31%
	Marco Island PD	64	37	58%
	Other	3	0	0%

		TOTAL	REVISED VALUE									TOTAL REVISED	PERCENT REVISED
			Front to Rear	Front to Front	Angle	Sideswipe (Same Direction)	Sideswipe (Opposite Direction)	Rear to Side	Rear to Rear	Unknown	Other		
ORIGINAL VALUE	Front to Rear	87	-	0	1	1	0	1	3	0	1	7	8%
	Front to Front	35	0	-	7	1	0	0	0	0	0	8	23%
	Angle	313	0	3	-	8	0	3	0	1	0	15	5%
	Sideswipe (Same Direction)	41	1	0	1	-	0	1	0	0	0	3	7%
	Sideswipe (Opposite Direction)	13	0	0	0	0	-	0	0	0	0	0	0%
	Rear to Side	13	0	0	0	0	0	-	0	1	0	1	8%
	Rear to Rear	9	0	0	0	0	1	0	-	1	0	2	22%
	Unknown	460	26	20	286	17	15	26	10	-	19	419	91%
	Other	514	16	10	350	24	14	46	7	1	-	468	91%



APPENDIX 3: COMMUNITY SURVEY SUMMARY



Collier MPO

Local Road Safety Plan

Community Survey Summary

10/09/2020

Final

Prepared for



Prepared by





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SECTION 1: INTRODUCTION

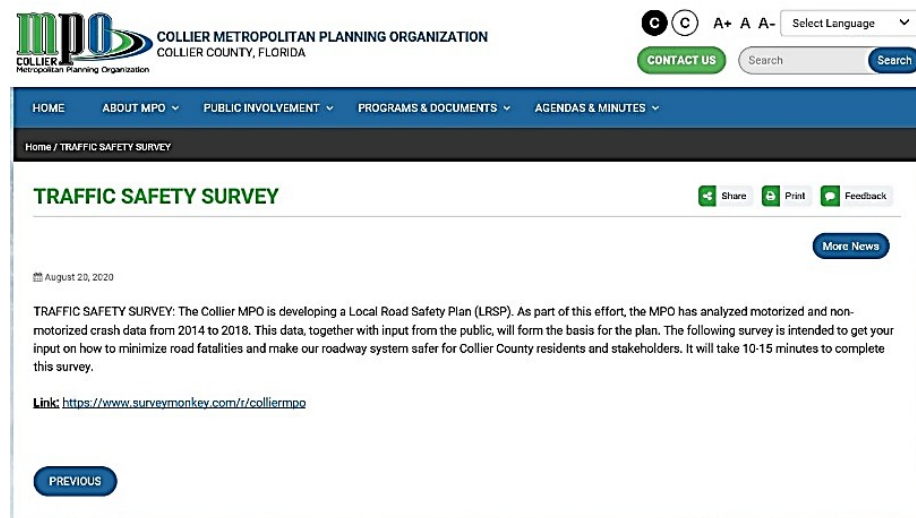
The Collier Metropolitan Planning Organization (MPO) is developing a Local Road Safety Plan (LRSP) with the goal of prioritizing opportunities to improve roadway safety, budget programs, and projects, develop highway safety strategies, and reduce the loss of life, injuries, and property damage while improving the performance and capacity of the county-wide street and highway network.

The purpose of the LRSP is to:

- Identify and define areas to improve the safety of Collier County's streets and highways.
- Define strategies and projects, including improvements to infrastructure (Engineering); driver, bicycle, and pedestrian behavior (Education); law enforcement programs (Enforcement); and response of emergency medical services (Emergency Services).
- Identify federal, State, and local funding programs.
- Provide structure for evaluating the progress in reducing crashes and fatalities.

The plan development process includes data analysis, public outreach, and plan drafting. The data analysis step looked at the county's motorized and non-motorized crash data from 2014 to 2018, and high-crash frequency locations, crash types, and roadway and weather conditions were reviewed. On August 20, 2020, a survey was sent out to capture the public's input on how to minimize roadway fatalities and make Collier County road systems safer for residents and stakeholders. The survey was posted on the Collier MPO website and Facebook page, sent out to the MPO's advisory committees and adviser network, and shared by [WinkNews](#).

Figure 1-1: Website Survey Post





SECTION 2: KEY TAKEAWAYS

The survey was published in English and Spanish. Of 1,092 survey responses received, 1,060 were in English and 32 were in Spanish. Following are key takeaways from the survey.

Demographics and Travel Behavior

- A large number of survey respondents indicated that they either worked or lived in Collier County year-round, and a majority lived and worked in Naples and Immokalee. The top three home and work ZIP codes were as follows:
 - Home ZIP codes:
 - 34120 (Naples) – 186 participants
 - 34142 (Immokalee) – 146 participants
 - 34119 (Immokalee) – 84 participants
 - Work ZIP codes:
 - 34116 (Naples) – 129 participants
 - 34109 (Naples) – 93 participants
 - 34142 (Immokalee) – 77 participants
- More than two thirds of survey respondents were between ages 35 and 64.
- Survey respondents ranked driving, walking, and riding a bike as the top three most used modes of travel.
- Respondents ranked their top two destinations as “Retail Goods and Services” and “Work.” It is important to note that this survey was conducted during the COVID-19 pandemic during which most people were working from home.
 - In total, 75% of respondents drove a motor vehicle every day, with daily travel taking 30 minutes or more.

Safety Concerns and Improvements

- Of the 13 safety concerns indicated on the survey (see Appendix A, Question 5), respondents chose the following as their top three:
 - Drivers using cell phones or conducting other activities while driving
 - Speeding and aggressive driving
 - Aging drivers
- A large majority indicated support for “increased traffic enforcement” as a desired safety improvement, corresponding with one of the top safety concerns of aggressive driving. Other desired improvements were ranked as follows:
 - 1 – Increased traffic enforcement
 - 2 – Improved rural roads (e.g., wider shoulders, better signs, pavement markings)
 - 3 – Increased safety on major roads for pedestrians (e.g., better intersection design, marked crosswalks, better lighting)



- 4 – Better bicycle facilities, including wider bicycle lanes and separated bike paths
- 5 – Better roadway lighting
- 6 – Reduced speeds on major roads through design and traffic signalization strategies

Driving Habit Comparison between Aging and Younger Drivers

Further analysis of survey responses compared the driving habits of aging drivers (those age 55 and above) and younger drivers' habits (those age 54 and below). Survey respondents included 40% aging drivers and 60% younger drivers. Following are some key takeaways:

- A large number of respondents in both age groups indicated that they drove a motor vehicle every day, and aging drivers (21%) indicated that they drove more than 4 times per week but not daily.
- A majority of drivers in both age groups spent at least 30 minutes traveling each day. A significant number of aging drivers, however, indicated that they spent less time traveling (20–30 minutes).
- Both age groups had opposite rankings for travel destinations. Aging drivers rated “Retail Goods and Services” as their top travel destination and “Work” as their second choice. Younger drivers ranked those two destinations the opposite, with “Work” as their top destination.
- Both groups indicated concern about different safety-related items. Younger drivers were concerned about “people who do not know the rules of the road” and “aging drivers,” and aging drivers were concerned about “speeding and aggressive driving” and “people using cell phones or doing other activities while driving.”

The following survey results support the above findings. **Travel Time and Frequency**

Table 2-1: Travel Time

Question: How much time do you typically spend traveling each day?

Response	Aging Drivers (Age 55+)		Younger Drivers (< Age 54)	
	Count	Percentage	Count	Percentage
0–10 minutes	33	8%	17	3%
10–20 minutes	96	23%	78	12%
20–30 minutes	124	30%	113	18%
30 minutes or more	163	39%	426	67%

Table 2-2: Travel Frequency

Question: How often do you drive a motor vehicle?

Response	Aging Drivers (Age 55+)		Younger Drivers (< Age 54)	
	Count	Percentage	Count	Percentage
Daily	246	59%	541	85%
2–4 times per week	69	17%	24	4%
More than 4 times per week	87	21%	64	10%
Once per week	14	3%	3	0%
Less than once per month	1	0%	1	0%

Mode of Travel



Question: How do you usually travel from place to place? (Rank from 1 to 6, with 1 being the most frequently used mode of transportation and 6 being the least used.)

Both age groups ranked their preferred modes of travel as the following:

- 1 – Drive
- 2 – Walk
- 3 – Bicycle
- 4 – Rely on others for rides
- 5 – Rideshare (e.g., Uber/Lyft)
- 6 – Bus

Travel Destination

Question: What is your usual destination when using your #1 ranked mode of transportation? (Rank from 1 to 5, with 1 being where you travel most often and 5 being where you travel least often.)

Younger drivers:

- 1 – Work
- 2 – Retail Goods and Services (e.g., shopping, dining out)
- 3 – Visiting friends/family
- 4 – School
- 5 – Medical Appointments

Aging drivers:

- 1 – Retail Goods and Services (e.g., shopping, dining out)
- 2 – Work
- 3 – Medical Appointments
- 4 – Visiting friends/family
- 5 – School

Top Three Safety Concerns

Question: Of the items below, which are your top three safety concerns about traveling in Collier County? (Choose three. See Appendix A, Question 5 for a full list.)

Younger drivers:

- 1 – People who do not know the “rules of the road”
- 2 – Aging drivers
- 3 – Speeding and aggressive driving

Aging drivers:

- 1 – Speeding and aggressive driving
- 2 – People using cell phones or doing other activities while driving
- 3 – People who do not know the “rules of the road”

Bike and Pedestrian Safety

- Almost half of respondents indicated that they walked and/or rode a bicycle less than once per month.
- Nearly one third of respondents (32%) indicated walking less than once per month, and another third (26%) walked daily.



- When respondents were asked if they felt safe and comfortable while riding a bicycle in Collier County, half either strongly or somewhat disagreed.
- More than half either strongly or somewhat agreed to feeling safe and comfortable while walking in Collier County.
- Almost half of survey respondents agreed that Collier County pedestrians and bicyclists do a good job of following the rules of the road.
- More than half of those surveyed expressed that Collier County drivers are not courteous about sharing the road with pedestrians and bicyclists.
- Respondents indicated the following as the top three improvements they believed could be done to make bicycling safer in Collier County:
 - More bicycle lanes that are physically separated from vehicle traffic
 - Reducing distracted driving
 - Making it easier to cross highways and high-speed streets



SECTION 3: TRAFFIC SAFETY SURVEY

Survey Respondent Demographics

Figure 3-1: Collier County Residence/Employment
Question: Please describe yourself by checking all that apply.

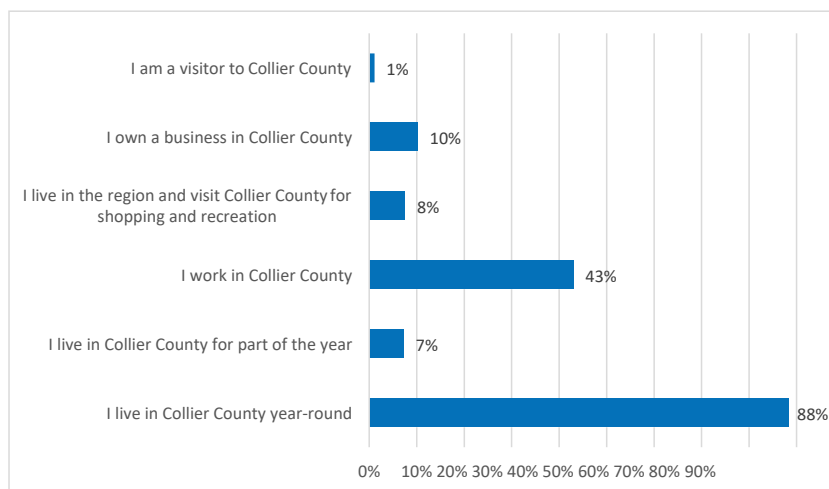


Figure 3-2: Age
Question: What is your age?

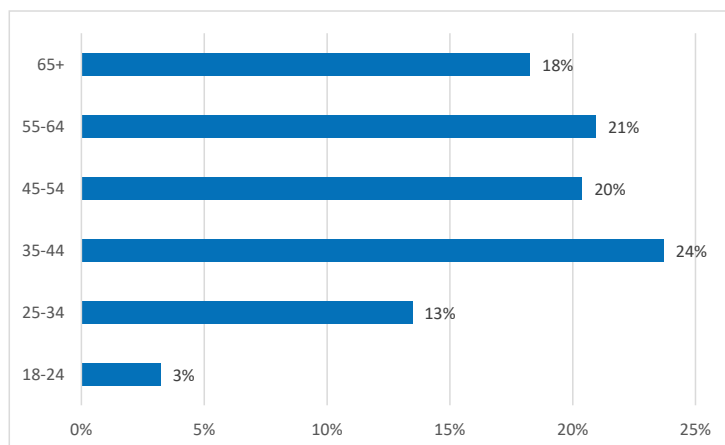




Figure 3-3: Home ZIP Code
Question: What is your home ZIP code?

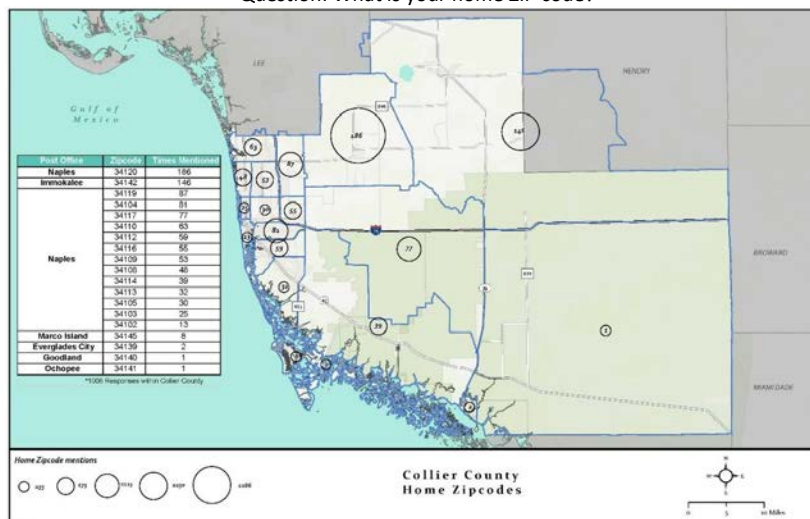
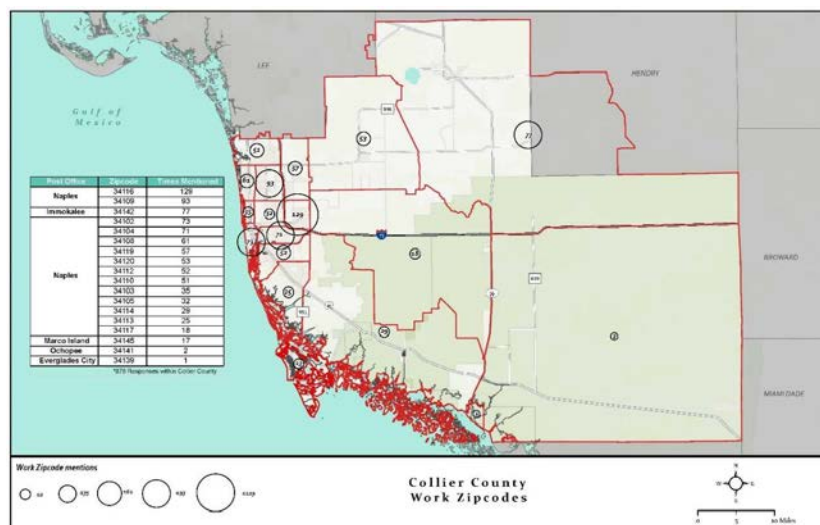


Figure 3-4: Work ZIP Code
Question: What is your work ZIP code?





General Traffic Safety

Figure 3-5: Travel Mode

Question: How do you usually travel from place to place? (Rank from 1 to 6, with 1 being the most frequently used mode of transportation and 6 the least used.)

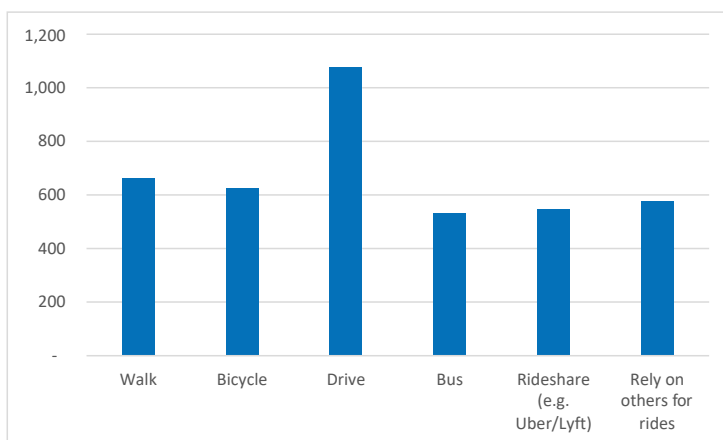


Figure 3-6: Travel Destination

Question: What is your usual destination when using your #1 ranked mode of transportation? (Rank from 1 to 5 with 1 where you travel most often and 5 where you travel least often.)

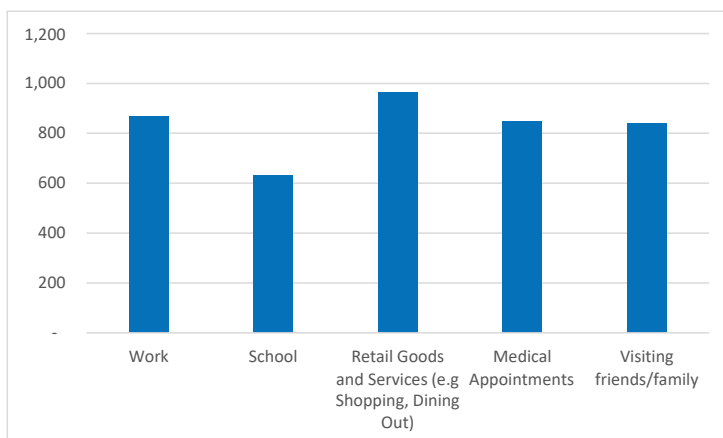




Figure 3-7: Driving Frequency

Question: How often do you drive a motor vehicle? (Select one.)

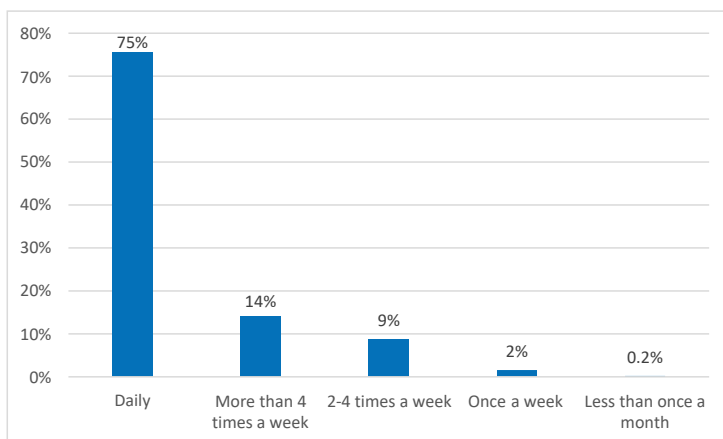


Figure 3-8: Travel Time

Question: How much time do you typically spend traveling each day? (Select one.)

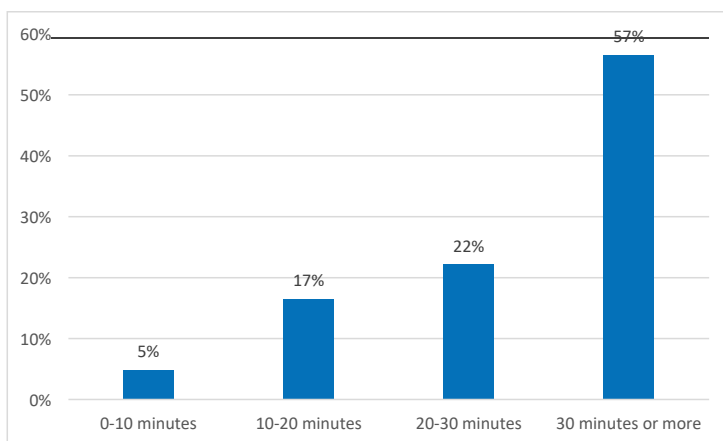




Figure 3-9: Travel Safety Concerns

Question: Of the items below, which are your top three safety concerns about traveling in Collier County? (Choose three.)

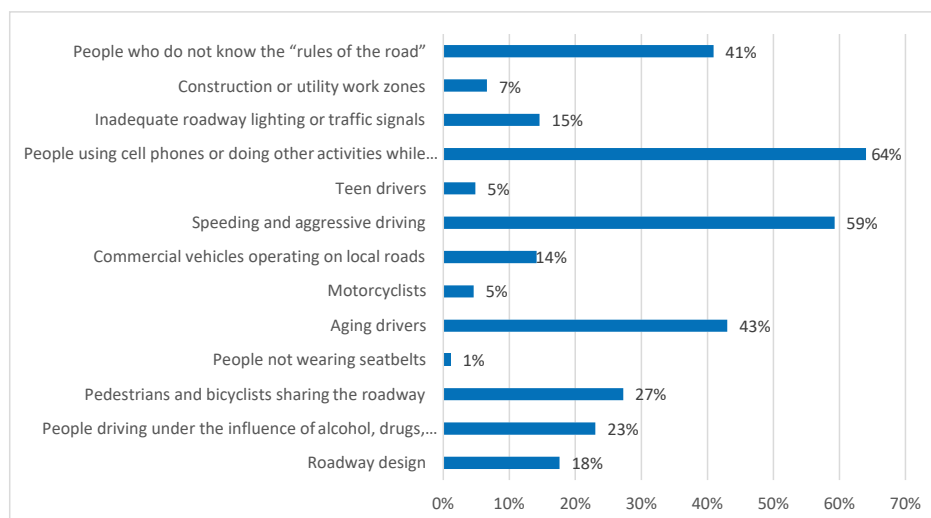
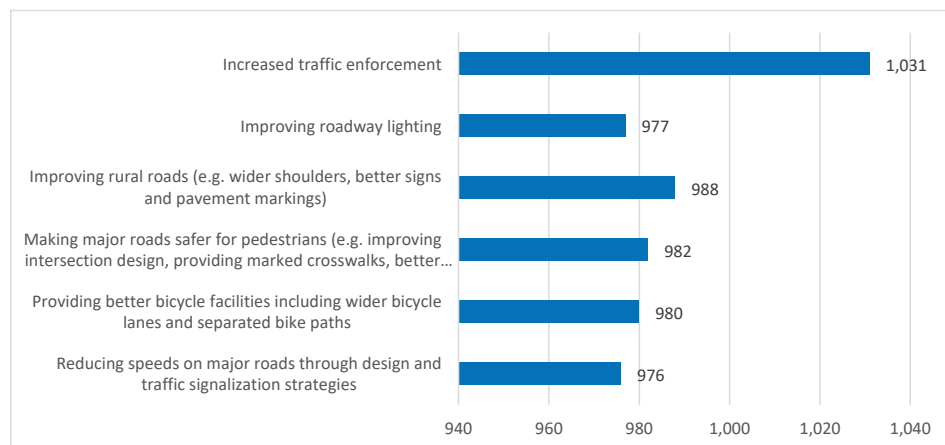


Figure 3-10: Safety Improvement Support

Question: What is your level of support for the following safety improvements? (Rank each from 1 to 5, with 1 being the most support and 5 being the least support.)





Bicyclists and Pedestrians

Figure 3-11: Walk and Bike Frequency

Question: How often do you walk and/or ride a bicycle? (Choose one.)

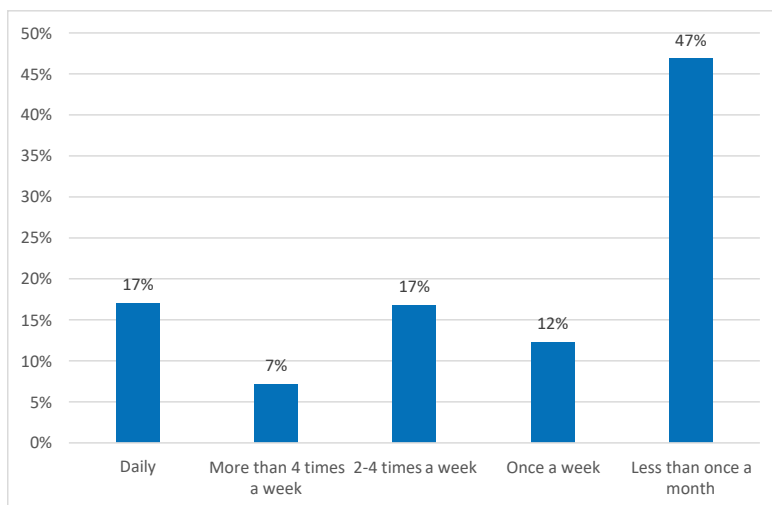


Figure 3-12: Walking Frequency

Question: How often do you walk? (Choose one.)

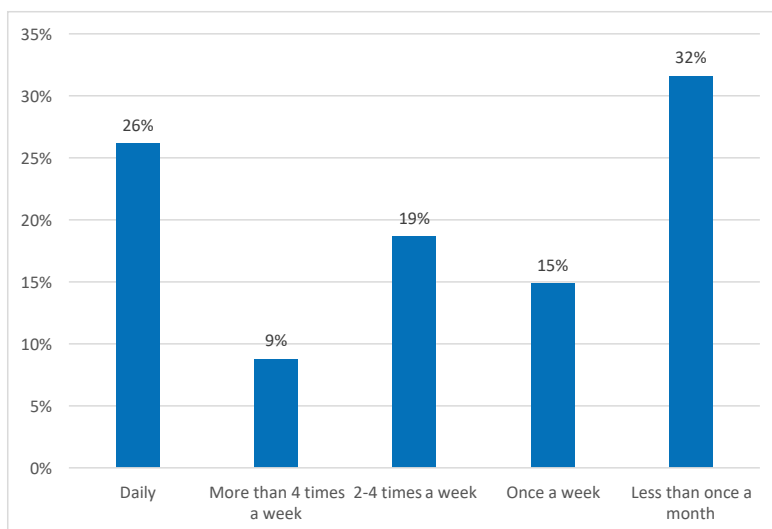




Figure 3-13: Bike Safety

Question: In general, I feel safe and comfortable while riding a bicycle in Collier County.

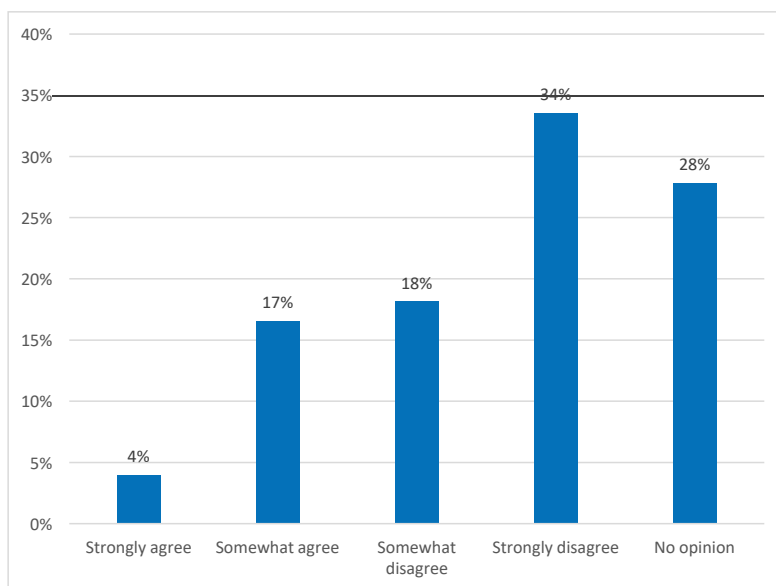


Figure 3-14: Pedestrian Safety

Question: In general, I feel safe and comfortable while walking in Collier County.

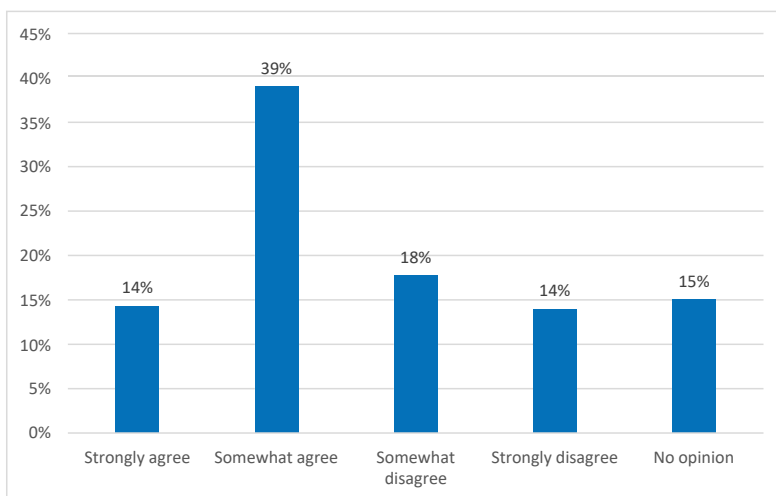




Figure 3-15: Traffic Rules Adherence

Question: In general, Collier County pedestrians and bicyclists do a good job following the rules of the road.

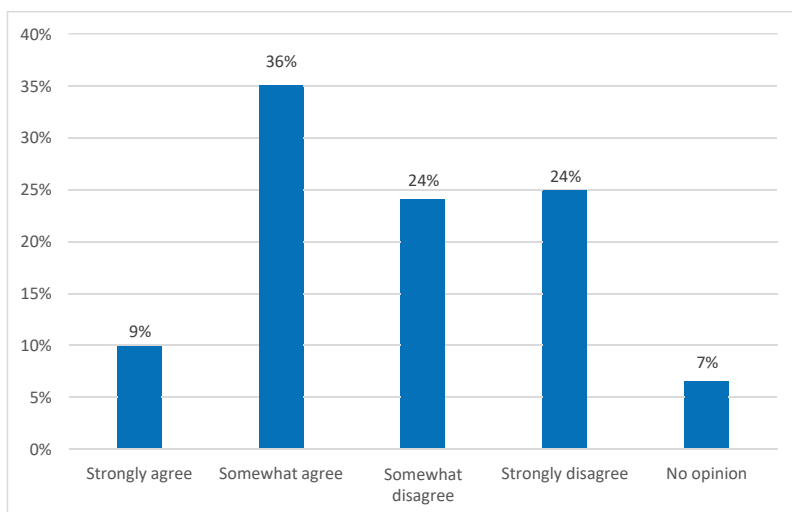


Figure 3-16: Driver Behavior

Question: In general, Collier County drivers are courteous about sharing the road with pedestrians and bicyclists.

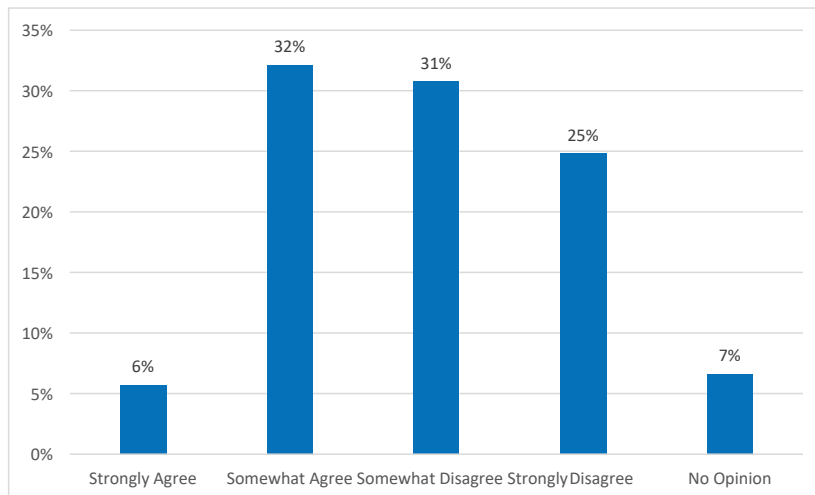
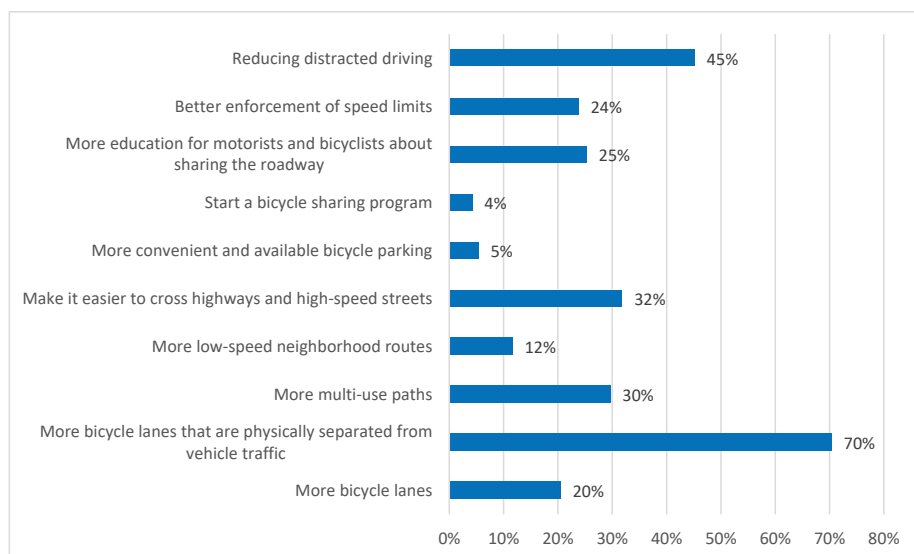




Figure 3-17: Bike Safety Improvement

Question: What could be done to make bicycling safer in Collier County? (Choose three.)





SECTION 4: ADDITIONAL OBSERVATIONS

Summary of Concerns for Local Road Safety

Aggressive/ Careless Driving/ Speeding – Concerns raised by Collier County residents and stakeholders regarding aggressive driving include speeding and tailgating, high-speed lane changing, running red lights and stop signs, drivers not using indicator lights before lane change, and drivers traveling dangerously below the posted speed limit. Survey respondents noted that aggressive drivers make it unsafe for drivers obeying traffic laws and gave US-41 as an example of a roadway segment with excessive speeding.

Distracted Drivers – Distracted driving behavior includes using a cell phone either for a call or texting, loud music, and impaired driving under the influence of substances. Survey respondents suggested increased law enforcement for drivers that use cell phones while driving.

Law Enforcement – Survey participants indicated that increased enforcement is needed to crack down on high-speed drivers and cell phone users while driving.

Aging Drivers – Survey participants expressed that aging drivers have slower reaction times and drive below the speed limit, even in fast lanes. Participants suggested more frequent licensing retesting and better public transportation as options for aging drivers.

Traffic – Respondents indicated that there is traffic during AM and PM peak hours and during tourist seasons, noting that tourist season leads to overcrowding of roads, which slows down traffic and leads to accidents. Respondents provided examples of roadway systems that need immediate attention— Oil Well Road and the intersection of I-75 and Everglades Boulevard.

Bicyclist and Pedestrians – Respondents felt that bicyclists and pedestrians do not follow the rules of the road and that bike lanes are not fit for safe travel, indicating that bicyclists are ignored on the roadway. Suggestions included providing additional sidewalks for safer pedestrian travel and adding bike lanes to Vanderbilt Drive between 111th and Vanderbilt Beach Road.

Roadways/ Maintenance / Infrastructure – In general, survey participants were concerned about back roads being too small and that some landscapes are dangerous in that they act as an obstruction. They also pointed out that lack of traffic lights results in unsafe exiting and suggested adding more speed limit signs and improved infrastructure to combat high traffic volume. Examples noted were Immokalee Road being poorly lit and making it dangerous to drive at night and Oil Well Road needing maintenance and additional shouldering and lighting.

Miscellaneous – Some respondents commented that there were too many one-way roads and that additional education on driver safety is needed.



Table 4-1: Intersections/Roadway Corridors in Need of Improvement

Question: Please tell us if there is a specific roadway or intersection that you would most like to see improved.

Street	Times Mentioned	@ intersection of	Comments
Immokalee Rd	133	Livingston Rd, Collier Blvd, Goodlette-Frank Rd, Golden Gate Pkwy, US-41, I-75, Northbrooke Dr, Randall Blvd, Tarpon Bay Blvd, Strand Blvd, Collier Blvd, Airport-Pulling Rd, Oil Well Rd, Pine Ridge Rd, Vanderbilt Beach Rd	N/A
Oil Well Rd	95	Camp Keais Rd, SR-29, Everglades Blvd, Ave Maria, Desoto Blvd, Immokalee Rd	<ul style="list-style-type: none"> Lack of overall knowledge by drivers using them.
Pine Ridge Rd	75	Livingston Rd, US-41, Airport-Pulling Rd, Taylor Rd, Goodlette-Frank Rd, Santa Barbara Blvd	N/A
Golden Gate Pkwy	56	Collier Blvd, Goodlette-Frank Rd, Livingston Rd, Santa Barbara Blvd, Sunshine Blvd, Wilson Blvd, Pine Ridge Rd	N/A
Airport-Pulling Rd	56	Pine Ridge Rd, Davis Blvd, Immokalee Rd, Horseshoe, Naples Blvd, Orange Blossom, Golden Gate Pkwy	N/A
Collier Blvd/ CR-951	51	US 41, I-75, Immokalee Rd, Davis Blvd, Championship Drive, Golden Gate Pkwy, Pine Ridge Rd, Tamiami Trail	<ul style="list-style-type: none"> Aggressive driving.
US-41	35	Goodlette-Frank Rd, Bayshore, Immokalee Rd, Mooring Line Dr, Vanderbilt Beach Rd, Immokalee Rd, 91st Ave, Airport-Pulling Rd, Davis Blvd	<ul style="list-style-type: none"> Too many red light runners. People drive too fast. Excessive bushes and other flora in median is huge safety risk.
Randall Blvd	20	Everglades Blvd, Immokalee Rd, 8th Ave, 16th Ave, Desoto Blvd	<ul style="list-style-type: none"> Randall Blvd needs better flow; light is very long. Needs more speed enforcement.
Livingston Rd	18	Immokalee Rd, Bonita Beach Rd, Osceola Trail, Golden Gate Pkwy, Osceola Trail, Learning Ln	<ul style="list-style-type: none"> Accident zone. Need traffic lights.
SR-49	18	SR 82 and Oil Well Rd	N/A
Davis Blvd	17	Airport, Corporate Cir, Brookside, Collier Blvd, Lakewood Blvd, Shadowland Dr	<ul style="list-style-type: none"> So many potholes and bumps. How people have to turn and maneuver is an accident waiting to happen. Needs more traffic control.
I-75	12	Everglades Blvd, Immokalee Rd, Tamiami Trail, Golden Gate Pkwy	N/A



Street	Times Mentioned	@ intersection of	Comments
Everglades Blvd	11	Immokalee Rd, Randall Blvd, Pine Ridge Rd	<ul style="list-style-type: none"> Aggressive driving, confusion, dangerous situations for people driving in both directions, cyclists, and pedestrians.
DeSoto Blvd	5	Golden Gate Pkwy, Oil Well Rd	<ul style="list-style-type: none"> Reduce congestion by providing other options for access to/from I-75. Unbearable traffic congestion during morning rush hour and from 5:00–6:00 pm. Too many lights, traffic, speeding.
Goodlette-Frank Rd	4	Pine Ridge Rd, Golden Gate Pkwy, Frank Rd	<ul style="list-style-type: none"> Traffic congestion, especially in season. Red light runners. Bad visibility. Reckless driving.
Downtown Area/ 5 th Ave	3	5th Ave	<ul style="list-style-type: none"> Needs more lanes, too much traffic, Desoto Blvd needs left lane, more lighting, add medians.
10 th St	2	US-41	<ul style="list-style-type: none"> Additional lighting needed. Add flyover at Airport-Pulling Rd. Need additional enforcement.



Table 4-2: Intersections/Roadway Corridors in Need of Bike and Ped Improvement

Are there specific intersections or roadway corridors that you think need safety improvements for bicyclists or pedestrians? (Indicate up to 3.)

Street	Times Mentioned	@ intersection of	Comments
Immokalee Rd	93	Camp Keais Rd, Corkscrew Sanctuary, Collier Blvd, Livingston Rd, Strand Blvd, Valewood Dr, US-41, I-75, Airport Pulling Rd, Juliet, Logan, Oil Well Rd, Pine Ridge Rd, Randall Blvd, Tamiami Trail, Gulf Coast High School, Wilson Blvd, Goodlette-Frank Rd, 1st St	<ul style="list-style-type: none"> Immokalee should have a pedestrian bridge or tunnel. Entire road needs improvement, as it hosts bike tournaments. Immokalee Rd should not have bicyclists.
Pine Ridge Rd	92	Airport Pulling Rd, Livingston Rd, US-41, Collier Blvd, Logan, Vanderbilt Beach Rd, Whipoorwill, I-75, Orange Blossom, Naples Blvd, Goodlette-Frank Rd, SeaGate	<ul style="list-style-type: none"> Pine Ridge Rd needs sidewalk improvements, they are so close to road; if someone were to get in accident and go into sidewalk and someone was walking, they would be dead.
US 41	90	Collier Blvd, Lakewood Blvd, Bayshore, 91st, Airport Pulling Rd, Immokalee Rd, Ohio Rd, Pine Ridge Rd, Rattlesnake, Vanderbilt Beach Rd, Golden Gate Parkway, Fleishmann/Orchid, Neapolitan, Grenada, 5th Ave, 92nd Ave N, Davis Blvd, Goodlette-Frank Rd, Thomasson, Triangle Blvd, Fiddlers Creek, Courthouse, Wiggins Pass, 99th Ave	<ul style="list-style-type: none"> Many sections of US-41. In front of St Mathews between Glades Blvd & Great Blue Dr.
Airport-Pulling Rd	70	Immokalee Rd, US-41, Davis Blvd, Orange Blossom, Pine Ridge Rd, Radio Rd, Vanderbilt Beach Rd, Golden Gate Parkway, Estey Ave, East Trail	<ul style="list-style-type: none"> Along Airport-Pulling Rd near The Beach House; would be great to see bike trail go through woods to take bikers off Airport on their way to North Rd & Baker Park. VERY scary biking and walking along Airport Rd; jaywalking.
Collier Blvd/ CR-951	69	Bald Eagle, Green, Livingston Rd, Barfield, Golden Gate Pkwy, Airport, US-41, 17th Ave SW, David, Immokalee Rd, Lely, Manatee Rd, Pine Ridge Rd, Tamiami Tr, Vanderbilt Beach Rd, Oakridge Middle School, Radio Rd	<ul style="list-style-type: none"> Collier Blvd no place for bicyclists.
Oil Well Rd	63	Camp Keais Rd, SR-29, Desoto Blvd, Everglades Blvd, Immokalee Rd, Ave Maria, Everglades Blvd	<ul style="list-style-type: none"> Improve roads for drivers commuting from Oil Well Rd to SR-29. Full bike lane on Oil Well Rd. Oil Well Rd should not have bicyclists. Two-lane section of Oil Well Rd dangerous for bikes.



Street	Times Mentioned	@ intersection of	Comments
Vanderbilt Beach Rd	52	Airport Pulling Rd, Hammock Oak, Goodlette-Frank Rd, Livingston Rd, Tamiami, Gulf Shore, US 41	<ul style="list-style-type: none"> Pedestrians competing with bicyclists on Vanderbilt Rd for sidewalk space. Get bicyclists onto road and off sidewalks. No bike lane; they ride in middle of road. Vanderbilt and Livingston are great but more signs would be better.
Davis Blvd	42	US 41, Airport Pulling Rd, Collier Blvd, Radio Rd, Brookside, Kings Lake Blvd, Rich King Memorial Greenway	N/A
Golden Gate Parkway	42	Livingston Rd, Airport Pulling Rd, Coronado, Goodlette-Frank Rd, Everglades Blvd, 53 rd St. SW, Collier Blvd, Desoto Blvd, Santa Barbara Blvd, Max Hause Park, Wilson Blvd, I-75, Sunshine Blvd, US 41.	N/A
Livingston Rd	25	Bonita Beach Rd, Veterans, Airport Pulling Rd, Golden Gate Parkway, Pine Ridge Rd, Ravina Way, Vanderbilt Beach Rd, Immokalee Rd.	<ul style="list-style-type: none"> Vanderbilt and Livingston are great but more signs would be better.
Randall Blvd	23	Wilson Blvd, 16th, Immokalee Rd, 8th St. NE, Everglades Blvd, Desoto Blvd.	N/A
Everglades Blvd	21	Oil Well Rd, Golden Gate Parkway, and Randall Blvd	N/A
Gulf Shore Blvd	19	Blue Hill/Immokalee Rd, Vanderbilt Beach Rd, 5th Ave North, Central Blvd, Gordon Drive	<ul style="list-style-type: none"> People bike at night and without lights; difficult to see them; if car coming on opposite side. lights blind you. You are doing a great job with downtown Naples, but Gulfshore Blvd is still a death trap.
Goodlette-Frank Rd	15	Vanderbilt Beach Rd, Golden Gate Parkway, Orange Blossom, Pine Ridge Rd, US 41	N/A
Tamiami Trail	12	Davis Blvd, 5th Ave, Collier Blvd, 7th Ave North, 111th, and Palm Drive.	N/A
Wilson Blvd	12	Golden Gate Parkway and Immokalee Rd.	N/A
Radio Rd	11	San Marco Blvd, Countryside Drive, Livingston Rd, Santa Barbara Blvd.	<ul style="list-style-type: none"> Have seen several severe accidents by people making left off Radio to get into Countryside—very dangerous, bad visibility.
Brookside Drive	10	Davis Blvd, Estey Ave, Oakes Parking Lot, Harbor Lane, and Holiday	N/A
Pelican Bay Blvd	10	Gulf Park Drive, US 41, and Vanderbilt Beach Rd	N/A



Appendix 3: Traffic Safety Survey

General Traffic Safety Survey

1. How much time do you typically spend traveling each day (Choose one)
 - 0-10 minutes
 - 10-20 minutes
 - 20-30 minutes
 - 30 minutes or more
2. How do you usually travel from place to place? (Rank from 1-5 with 1 being the most frequently used mode of transportation and 5 is the least used)
 - Walk
 - Bicycle
 - Drive
 - Bus
 - Rideshare (e.g. Uber/Lyft)
 - Rely on others for rides
3. What is your usual destination when using your #1 ranked mode of transportation (Rank from 1-5 with 1 being where you travel most often and 5 being where you travel least often)
 - Work
 - School
 - Retail Goods and Services (e.g shopping, dining out)
 - Medical Appointments
 - Visiting Friends/Family
4. How often do you drive a motor vehicle (Choose one)
 - Daily
 - More than 4 times a week
 - 2-4 times a week
 - Once a week
 - Less than once a month
5. Of the items below, which are your top three safety concerns about traveling in Collier County (Choose three)
 - Roadway design
 - People driving under the influence of alcohol, drugs, medications or other substances
 - Pedestrians and bicyclists sharing the roadway
 - People not wearing seatbelts
 - Aging drivers
 - Motorcyclists
 - Commercial vehicles operating on local roads
 - Speeding and aggressive driving
 - Teen drivers



- People using cell phones or doing other activities while driving
- Inadequate roadway lighting or traffic signals
- Construction or utility work zones
- People who do not know the “rules of the road”

In your own words, what is your biggest concern for local road safety in Collier County? _____

6. What is your level of support for the following safety improvements? (Rank each from 1 to 5, with 1 being the most support and 5 being the least support)
- Reducing speeds on major roads through design and traffic signalization strategies
 - Providing better bicycle facilities including wider bicycle lanes and separated bike paths
 - Making major roads safer for pedestrians (e.g. improving intersection design, providing marked crosswalks, better lighting
 - Improving rural roads (e.g. wider shoulders, better signs and pavement markings)
 - Improving roadway lighting
 - Increased traffic enforcement
7. Please tell us if there is a specific roadway or intersection that you would most like to see improved.

Bicyclists and Pedestrians

8. How often do you walk and/or ride a bicycle? (Choose one)
- Daily
 - More than 4 times a week
 - 2-4 times a week
 - Once a week
 - Less than once a month
9. How often do you walk? (Choose one)
- Daily
 - More than 4 times a week
 - 2-4 times a week
 - Once a week
 - Less than once a month
10. In general, I feel safe and comfortable while riding a bicycle in Collier County. (Choose one)
- Strongly agree
 - Somewhat agree
 - Somewhat disagree
 - Strongly disagree
 - No opinion
11. In general, I feel safe and comfortable while walking in Collier County. (Choose one)
- Strongly agree



- Somewhat agree
- Somewhat disagree
- Strongly disagree
- No opinion

12. In general, Collier County pedestrians and bicyclists do a good job following the rules of the road.
(Choose one)

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- No opinion

13. In general, Collier County drivers are courteous about sharing the road with pedestrians and bicyclists (Choose one)

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- No opinion

14. Are there specific intersections or roadway corridors that you think need safety improvements for bicyclists or pedestrians? (select up to three)

15. What could be done to make bicycling safer in Collier County. (Choose three)

- More bicycle lanes
- More bicycle lanes that are physically separated from vehicle traffic
- More multi-use paths
- More low-speed neighborhood routes
- Make it easier to cross highways and high-speed streets
- More convenient and available bicycle parking
- Start a bicycle sharing program
- More education for motorists and bicyclists about sharing the roadway
- Better enforcement of speed limits
- Reducing distracted driving

Demographic and Contact information

16. Please describe yourself by checking all that apply

- I live in Collier County year-round
- I live in Collier County for part of the year
- I work in Collier County
- I live in the region and visit Collier County for shopping and recreation
- I own a business in Collier County
- I am a visitor to Collier County



17. What is your age range

- 18-24
- 25-34
- 45-54
- 55-64
- 65+

18. What is your home ZIP code? _____

19. What is your work ZIP code? _____

20. If you would like to be contacted to provide input on future Collier County roadway safety survey programs and initiatives, please provide your preferred contact information below.

Name: _____

Address: _____

Phone: _____

Email: _____



Local Road Safety Plan

TAC & CAC Meetings, November 30, 2020

8A Attachment 2



Presentation Overview

- What is the Collier County Local Road Safety Plan (LRSP)
- Data Analysis and Findings (REVIEW)
- Recommendations (REVIEW)
- Implementation Plan

LRSP Overview

- Process recommended by FHWA as “Proven Safety Countermeasure”
- Data Driven
- Multi-Disciplinary



Data Analysis: Key Findings

- Collier County has better safety performance than the State.
- Most crashes occur along major roadways.
- About 2/3 of these occur along County-maintained roads
- Older road users do not disproportionately contribute to crashes in Collier County, likely due to reduced exposure
- Fewer traffic citations per capita and per vehicle mile of travel are issued in Collier County than average.
- Non-motorized road user, angle, left-turn, and lane departure crashes account for 30% of all crashes but result in 72% of severe injuries and 89% of fatalities.
- Rear-end and sideswipe crashes result in a significant number of incapacitating injuries due to their frequency.

Data Analysis: Emphasis Areas

	All Crashes	Non-Motorized	Intersection	Lane Departure	Same Direction
Total Crashes	38,887	862	6,819	3,829	23,419
Injury Crashes	3,469	448	1,030	567	1,111
Total Injuries	4,719	470	1,621	747	1,492
Total Serious Injuries	928	136	326	201	187
Fatal Crashes	148	38	39	53	10
Total Fatalities	160	38	40	64	10
Severity Ratio	2.4%	15.8%	4.8%	5.2%	0.8%
Percent of All Crashes	NA	2%	18%	10%	60%
Percent of Severe Injuries	NA	15%	35%	22%	20%
Percent of Fatalities	NA	24%	25%	40%	6%

Infrastructure Strategies

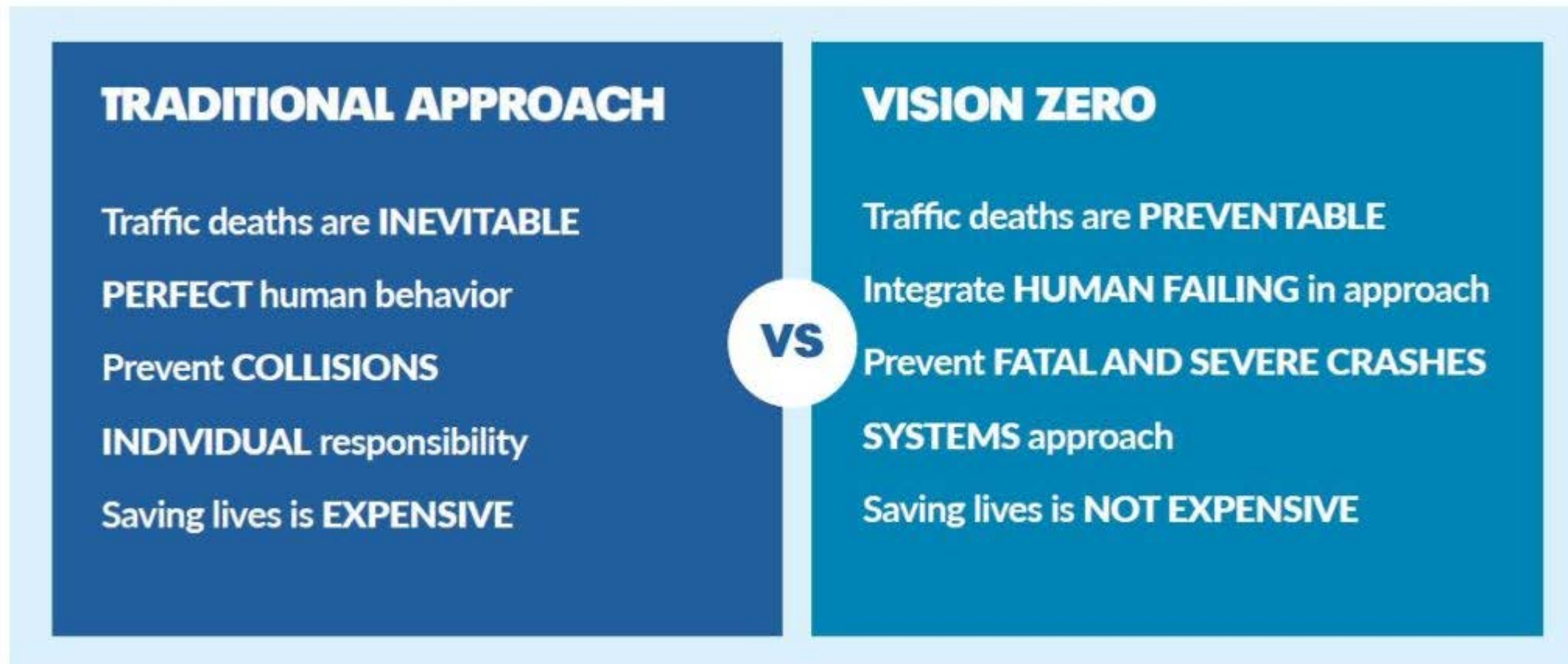
Infrastructure Strategies	Non-Motorized	Intersection	Lane Departure	Same Direction
Speed Management	•	•	•	•
Alternative Intersections (ICE Process)	•	•		•
Intersection Design Best Practices for Pedestrians	•			
Median Restrictions/Access Management		•		•
Right Turn Lanes	?			•
Signal Coordination	?			•
Rural Road Strategies including:				
• Paved shoulder	•		•	
• Safety edge			•	
• Curve geometry, delineation, and warning			•	
• Bridge/culvert widening/attenuation			•	
• Guardrail/ditch regrading/tree clearing			•	
• Isolated intersection conspicuity/geometry		•		
Shared Use Pathways, Sidewalk Improvements	•			
Mid-Block Crossings & Median Refuge	•			
Intersection Lighting Enhancements	•	•	•	
Autonomous Vehicles (Longer-Term)	TBD	•	•	•
? = Possible Contra-indications				

Non-Infrastructure Strategies

Non-Infrastructure Strategies	Intersection	Lane Departure	Non-Motorized	Rear End/Sideswipe
Traffic Enforcement				
• Targeted Speed Enforcement	•	•	•	•
• Red Light Running Enforcement	•		•	
• Automated Enforcement	•			?
• Pedestrian Safety Enforcement			•	
Bike Light and Retroreflective Material Give-Away			•	
Young Driver Education	•	•	•	•
WalkWise/BikeSmart or Similar Campaign			•	
Continuing Education	•	•	•	•
Safety Issue Reporting	•	•	•	•
Vision Zero Policy	•	•	•	•
? = Possible Contraindication				

Non-Infrastructure: Vision Zero

- Begin identifying local champions to implement a Vision Zero policy



Implementation Plan

- Timeframe
 - Short Term: 0 – 3 Years
 - Medium: 3 – 5 Years
 - Longer-Term: >5 Years
- Cost
 - Low: < \$250k
 - Medium: \$250k - \$1m
 - High: > \$1m

Implementation Plan: General Process

- Establish Policy/Program
- Integrate with New Work
- Planning/Prioritization Phase for Retrofits (i.e. identify target corridors)
- Implement Retrofit Projects

Short Term



Longer Term

Lower Cost



Higher Cost

Implementation Plan: MPO and Member Government Roles

- MPO Role
 - Assisting with Strategic Policy
 - Prioritization as Part of CMP/LRTP
 - Helping with Funding Picture
- Member Governments/Maintaining Agencies
 - Site-Specific Studies/Recommendations
 - Integration with Existing Practices
 - Project Implementation

Implementation Plan: Performance Measures

Data and Analysis Product	Update Cycle	Notes
Comparison of Collier County and State of Florida Crash Rates	Annual	Update using 5-year average; data sourced from DHSMV and FDOT
Emphasis Area Summary	Annual	Update using 5-year average; data sources from Collier CDMS
High Crash Corridors	5 yrs	Update using Collier CDMS and MPO Major Roadway Network segments
Traffic Citation Data	5 yrs	Data sourced from DHSMV, FDOT
Crash Data Distributions	5 yrs	Update using Collier CDMS and MPO Major Roadway Network segments

Implementation Plan:

Low-Cost/Short Term Infrastructure Strategies	Non-Motorized	Intersection	Lane Departure	Same Direction
Speed Management <ul style="list-style-type: none"> Establish context classification and set target speeds. Implement relevant signal timing and coordination strategies. 	•	•	•	•
Alternative Intersections (ICE Process) <ul style="list-style-type: none"> Establish member government ICE Process, identify candidate locations. 	•	•		•
Intersection Design Best Practices for Pedestrians <ul style="list-style-type: none"> Retrofit High Emphasis Crosswalk markings, countdown pedestrian signals, R10-15 warning signs (as appropriate). Provide Leading Pedestrian Interval as appropriate (consider FDOT guidance; TEM 3.11). 	•			
Median Restrictions/Access Management <ul style="list-style-type: none"> Provide directional median openings where appropriate. 		•		•
Right-Turn Lanes <ul style="list-style-type: none"> Limit use of right-turn lanes in lower-speed, urban context areas. 	•			•
Signal Coordination <ul style="list-style-type: none"> Consider new signals using coordinated systems warrant in lieu of directional median openings for developer permit projects. 	•			•

Implementation Plan:

Low-Cost/Short Term Infrastructure Strategies	Non-Motorized	Intersection	Lane Departure	Same Direction
Rural Road Strategies <ul style="list-style-type: none"> Integrate paved shoulder construction and use of Safety Edge treatment with resurfacing program. Based on inventory, provide solar flashing beacons, improve warning signs approaching curves and isolated rural intersections. Based on inventory, continue maintain sight triangles. 		•	•	
Shared-Use Pathways, Sidewalk Improvements <ul style="list-style-type: none"> Update minimum design standards based on context classification to require shared-use pathway construction as part of site access developer requirements where appropriate. 	•			
Mid-Block Crossings & Median Refuge <ul style="list-style-type: none"> Provide mid-block crosswalks with pedestal-mounted RRFBs and/or median islands in existing two-way left-turn lanes. 	•			
Intersection Lighting Enhancements <ul style="list-style-type: none"> Incorporate intersection lighting enhancements with signal reconstruction projects. 	•	•	•	

Next Steps

- December 2020: MPO Board Presentation on Draft Plan
- January 2021: MPO staff and advisory committees finalize Recommendations and Implementation sections
- February 2021: MPO staff present to advisory committees for endorsement
- March 2021: MPO Board adoption

Contact:

Demian Miller, AICP
Principal
Tindale Oliver

813-224-8862
dmiller@tindaleoliver.com

Anne McLaughlin
Executive Director
Collier MPO

239-252-5884
anne.mclaughlin@colliercountyfl.gov

**EXECUTIVE SUMMARY
DISTRIBUTION ITEMS
ITEM 10A**

Administrative Modifications to FY2021-2025 Transportation Improvement Program (TIP)

OBJECTIVE: For the Committee to receive a copy of administrative modifications made to the FY2021-2025 TIP.

CONSIDERATIONS: The combined pages shown in **Attachment 1** include revisions to the amount of ROW funding for project 4258432 (I-75 at SR 951) made on 10/28/20 and an adjustment to the transit planning funding (FTA Section 5305d) to match the amount shown in the Unified Planning Work Program, made on 10/29/20.

STAFF RECOMMENDATION: That the Committee receive a copy of the administrative modifications made to FY2021-2025 TIP.

Prepared By: Anne McLaughlin, MPO Director

Attachment 1: 10/28/20 and 10/29/20 administrative modifications to the FY2021-2025 TIP

**TIP Administrative Modification for MPO Executive Director Approval
for FY 2020/21 through FY 2024/25 TIP**


<u>Action</u>	<u>FPN</u>	<u>Project Name</u>	<u>Description & Limits</u>	<u>Requested By</u>	<u>Fund</u>	<u>Phase</u>	<u>FY</u>	<u>Amount</u>
Revise Amount ROW funding	4258432	I-75 (SR 93) at SR 951	N/A	FDOT	STED	ROW	2020/21	11,361,157

Responsible Agency: FDOT

TIP Reference Page: 68B

L RTP Reference Page: CFP Table 6-1 p 6-3

COLLIER METROPOLITAN
PLANNING ORGANIZATION

Approved By: 
Anne McLaughlin, MPO Executive Director

Date: 10/28/2020

4258432**I-75 (SR 93) AT SR 951****SIS**

Project Description: Ultimate interchange improvement.
Work Summary: INTERCHANGE IMPROVEMENT

Prior Years Cost: 14,114,575
 Future Years Cost: N/A
 Total Project Cost: 122,763,089
 LRTP Ref: CFP Table 6-1 p 6-3

Lead Agency: FDOT **Length:** 0.651

Phase	Fund	2020/21	2021/22	2022/23	2023/24	2024/25	Total
ENV	DDR	0	0	50,000	100,000	0	150,000
ROW	STED	11,361,157	0	0	0	0	11,361,157
RRU	DI	0	0	0	0	4,226,000	4,226,000
RRU	LF	0	0	0	0	1,100,000	1,100,000
PE	DDR	0	0	870,392	0	0	870,392
DSB	ACNP	0	0	0	0	67,871,220	67,871,220
DSB	LF	0	0	0	0	138,875	138,875
DSB	DI	0	0	0	0	22,880,000	22,880,000
DSB	DIH	0	0	0	0	5,720	5,720
DSB	DSB2	0	0	0	45,150	0	45,150
Total		11,361,157	0	920,392	145,150	96,221,815	108,648,514



**TIP Administrative Modification for MPO Executive Director Approval
for FY 2020/21 through FY 2024/25 TIP**

<u>Action</u>	<u>FPN</u>	<u>Project Name</u>	<u>Description & Limits</u>	<u>Requested By</u>	<u>Fund</u>	<u>Phase</u>	<u>FY</u>	<u>Amount</u>
Adjust Transit Planning FTA Section 5305(d) Funds to match UPWP Amendment 1	4101131	Collier County MPO Transit Planning FTA Section 5305 (D)	N/A	FDOT	DPTO State TBD LF	PLN	2020/21	\$128,028 \$ 16,003 \$ 16,004
		Total						\$160,035

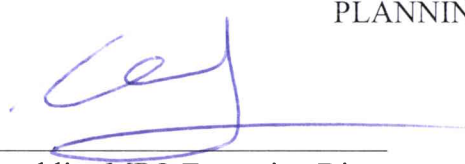
Total Project Cost: NA

Responsible Agency: MPO

TIP Reference Page: 141B

LRTP Reference Page: P6-34

COLLIER METROPOLITAN
PLANNING ORGANIZATION

Approved By: 
Anne McLaughlin, MPO Executive Director

Date: 10/29/20

4101131 COLLIER COUNTY MPO TRANSIT PLANNING FTA SECTION 5305 (D)**Project Description:** FTA Section 5305 Metropolitan Planning

Prior Years Cost: N/A

Future Years Cost: N/A

Total Project Cost: N/A

Work Summary: MODAL SYSTEMS PLANNING

LRTP Ref: TRANSIT CFP P6-34

Lead Agency: MPO**Length:** N/A

Phase	Fund	2020/21	2021/22	2022/23	2023/24	2024/25	Total
PLN	DPTO	128,028	9,877	9,877	9,877	11,410	169,069
PLN	State TBD	16,003	79,010	79,010	79,010	91,283	344,316
PLN	LF	16,004	9,877	9,877	9,877	11,410	57,045
							0
							0
							0
							0
Total		160,035	98,764	98,764	98,764	114,103	570,430



EXECUTIVE SUMMARY
DISTRIBUTION ITEMS
Item 10B

Draft 2021 MPO Calendar

OBJECTIVE: For the Committee to receive a copy of the 2021 MPO Calendar.

CONSIDERATIONS: The 2021 MPO Calendar is being distributed to advisory committees and the Board in November and December 2020 (**See Attachment 1.**) Note that CAC and CMC meetings have been moved to CR 609/610 to allow more space for social distancing to achieve in-person quorums required by state law. We are looking into the availability of the BCC Chamber for LCB meetings in order to facilitate hosting hybrid remote meetings and meet social distancing requirements for in-person quorums. Subsequent changes will be noted and distributed on an as-needed basis.

STAFF RECOMMENDATION: For the Committee to receive a copy of the 2021 MPO Calendar.

Prepared By: Anne McLaughlin, MPO Director

Attachment 1: Draft 2021 MPO Calendar



2021 Meeting Schedule

Collier Metropolitan Planning Organization (MPO)
2885 S. Horseshoe Drive, Naples, FL 34104

www.CollierMPO.com

(239) 252-5814

STRIKETHROUGH = CANCELLED MEETING
DATES IN RED = ADDED MEETING

UPDATED 11/19/20

Metropolitan Planning Organization (MPO) – Monthly at 9:00 a.m.

All MPO Board Meetings are held on the second Friday of the month. MPO Board Meetings will be held at the Board of County Commissioners Chambers, 3299 E. Tamiami Trail, Naples, unless otherwise noted.

February 12, 2021	March 12, 2021	*April 9, 2021	May 14, 2021
June 11, 2021	September 10, 2021	October 8, 2021	October 15, 2021**
November 12, 2021	December 10, 2021		
* This is the Collier MPO road-show meeting held at 10:00 a.m. in Immokalee			
** This a JOINT MEETING with Lee MPO, location TBD			

Technical Advisory Committee (TAC) – Monthly at 9:30 a.m.

All TAC Meetings are held on the last Monday of the month. TAC Meetings will be held at the Collier Growth Management Department, Planning & Regulation Building Conference Rooms 609/610, 2800 North Horseshoe Drive, Naples, unless noted below.

January 25, 2021	February 22, 2021	March 29, 2021	April 26, 2021
May 24, 2021	August 30, 2021	September 27, 2021	October 25, 2021
** October XX, 2021	November 29, 2021		
** This a JOINT MEETING with Lee MPO, location TBD			

Citizen Advisory Committee (CAC) – Monthly at 2:00 p.m.

All CAC Meetings are held on the last Monday of the month. CAC Meetings will be held at the Collier County Growth Management Division, Planning & Regulation Building Conference Rooms 609/610, 2800 North Horseshoe Drive, Naples, unless noted below..

January 25, 2021	February 22, 2021	March 29, 2021	April 26, 2021
May 24, 2021	August 30, 2021	September 27, 2021	October 25, 2021
** October XX, 2021	November 29, 2021		
*This is a JOINT MEETING with Lee CAC, location and date TBD			

Bicycle/Pedestrian Advisory Committee (BPAC) – Monthly at 9:00 a.m.

All BPAC Meetings are held on the third Tuesday of the month. BPAC Meetings will be held at the Collier County Growth Management Division, Planning & Regulation Building Conference Rooms 609/610, 2800 North Horseshoe Drive, Naples, unless noted below.

January 19, 2021	February 16, 2021	March 16, 2021	April 20, 2021
May 18, 2021	August 17, 2021	*August XX, 2021	September 21, 2021
October 19, 2021	November 16, 2021		
*This is a JOINT MEETING with Lee BPCC, location and date TBD			

Congestion Management Committee (CMC) – Bi-Monthly at 2:00 p.m.

All CMC Meetings are held on the third Wednesday of every other month. CMC Meetings will be held at the Collier County Growth Management Division, Planning & Regulation Building Conference Rooms 609/610, 2800 North Horseshoe Drive, Naples, unless noted below.

January 20, 2021	March 17, 2021	May 19, 2021	July 21, 2021
September 15, 2021	November 17, 2021		

Local Coordinating Board (LCB) for the Transportation Disadvantaged – Quarterly at 1:30 p.m.

All LCB Meetings are held quarterly on the first Wednesday of the corresponding month. LCB Meetings will be held at the Collier County Government Center Building F, Information Technology Training Room 5th Floor, 3299 E. Tamiami Trail, Naples, unless noted below.

March 3, 2021	May 5, 2021	September 1, 2021	December 1, 2021
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