



TECHNICAL ADVISORY COMMITTEE (TAC)

Regular Meeting

Tuesday, January 17, 2023
 1:30 pm

Public Participation/Accessibility

Participation in Person: Public comments may be provided in person at the meeting. Persons who require special accommodations under the Americans with Disabilities Act (ADA) or persons who require translation services (free of charge) should contact the St. Lucie TPO at 772-462-1593 at least five days prior to the meeting. Persons who are hearing or speech impaired may use the Florida Relay System by dialing 711.

Participation by Webconference (not intended for Committee Members): Using a computer or smartphone, register at <https://attendee.gotowebinar.com/register/409476150596298588>. After the registration is completed, a confirmation will be emailed containing instructions for joining the webconference. Public comments may be provided through the webconference chatbox during the meeting.

Written and Telephone Comments: Comment by email to TPOAdmin@stlucieco.org; by regular mail to the St. Lucie TPO, 466 SW Port St. Lucie Boulevard, Suite 111, Port St. Lucie, Florida 34953; or call 772-462-1593 until 1:00 pm on January 17, 2023.

AGENDA

1. Call to Order
2. Roll Call
3. Comments from the Public
4. Approval of Agenda
5. Approval of Meeting Summary
 - *September 20, 2022 Regular Meeting*
6. Action Items
 - 6a. Annual Officer Elections: Election of a Chairperson and a Vice Chairperson for the TAC for 2023.

Action: Nominate and Elect a Chairperson and a Vice Chairperson for the TAC.

- 6b. 2023 Meeting Dates: Approval of the proposed meeting dates for the remainder of 2023 for the St. Lucie TPO TAC.

Action: Approve the proposed remaining 2023 meeting dates, approve with conditions, or do not approve.
- 6c. Amendments to the FY 2022/23 – FY 2026/27 Transportation Improvement Program (TIP): Review of amendments to add funding for Paratransit Demand Response Service and Transit Travel Training to the TIP.

Action: Review and recommend adoption of the TIP Amendments, recommend adoption with conditions, or do not recommend adoption.
- 6d. Public Participation Plan (PPP) 2022 Annual Evaluation: Review of the PPP 2022 Annual Evaluation.

Action: Recommend acceptance of the Evaluation, recommend acceptance with conditions, or do not recommend acceptance.
- 6e. 2023 Safety Performance Targets: Review of the 2023 Safety Performance Targets and Interim Benchmarks for adoption by the TPO.

Action: Review and recommend adoption of the 2023 Safety Performance Targets and the 2023 Interim Benchmarks, recommend adoption with conditions, or do not recommend adoption.
- 6f. East Midway Road Corridor Study Scope of Services: Review of the draft Scope of Services to conduct the East Midway Road Corridor Study.

Action: Recommend approval of the draft Scope of Services, recommend approval with conditions, or do not recommend approval.
- 6g. Updates to the Transportation Alternatives Program (TAP) Project Prioritization Methodology and Standardized Traffic Impact Studies (TIS) Methodology and Procedures: Review of updates to the TAP Project Prioritization Methodology and the Standardized TIS Methodology and Procedures.

Action: Recommend adoption of the updates, recommend adoption with conditions, or do not recommend adoption.
7. Recommendations/Comments by Members
8. Staff Comments
9. Next Meeting: Regular TAC Meeting-Tuesday, March 21, 2023, 1:30pm.
10. Adjourn

NOTICES

The St. Lucie TPO satisfies the requirements of various nondiscrimination laws and regulations including Title VI of the Civil Rights Act of 1964. Public participation is welcome without regard to race, color, national origin, age, sex, religion, disability, income, or family status. Persons wishing to express their concerns about nondiscrimination should contact Marceia Lathou, the Title VI/ADA Coordinator of the St. Lucie TPO, at 772-462-1593 or via email at lathoum@stlucieco.org.

Items not included on the agenda may also be heard in consideration of the best interests of **the public's health, safety, welfare, and as necessary to protect every person's right of** access. If any person decides to appeal any decision made by the St. Lucie TPO Advisory Committees with respect to any matter considered at a meeting, that person shall need a record of the proceedings, and for such a purpose, that person may need to ensure that a verbatim record of the proceedings is made which includes the testimony and evidence upon which the appeal is to be based.

Kreyòl Ayisyen: Si ou ta renmen resevwa enfòmasyon sa a nan lang Kreyòl Aisyen, tanpri rele nimewo 772-462-1593.

Español: Si usted desea recibir esta información en español, por favor llame al 772-462-1593.



TECHNICAL ADVISORY COMMITTEE (TAC)

REGULAR MEETING

DATE: Tuesday, September 20, 2022
 TIME: 1:30 pm
 LOCATION: St. Lucie TPO
 Coco Vista Centre
 466 SW Port St. Lucie Boulevard, Suite 111
 Port St. Lucie, Florida

MEETING SUMMARY

1. Call to Order

Chairman Sanders called the meeting to order at 1:30 pm.

2. Roll Call

The roll was conducted via sign-in sheet, and a quorum was confirmed with the following members present:

Members Present

Marty Sanders, Chairman
 Benjamin Balcer, Vice Chairman
 Patrick Dayan
 Joe DeFronzo
 Robert Driscoll

Lt. Andres Elizondo
 Selena Griffett
 Kevin Lindgren

Representing

St. Lucie County School District
 St. Lucie County Planning
 St. Lucie County Public Works
 Port St. Lucie Public Works
 Independent Public Transportation
 Operator
 St. Lucie Co. Fire District
 Fort Pierce Engineering
 TCI Airport

Others Present

Kyle Bowman
 Peter Buchwald
 Yi Ding
 Marceia Lathou (via web)
 Rachel Harrison
 James Brown
 Christine Fasiska

 Lucine Martens (via web)

 Jaime Morales
 Juan Norat (via web)
 Joy Puerta (via web)
 Stewart Robertson
 Victoria Williams
 Dan Zrallack

Representing

St. Lucie TPO
 St. Lucie TPO
 St. Lucie TPO
 St. Lucie TPO
 Recording Specialist
 Florida's Turnpike
 Florida Department of
 Transportation (FDOT)
 Martin Metropolitan Planning
 Organization (MPO)
 St. Lucie County
 FDOT
 Martin MPO
 Kimley-Horn
 Florida's Turnpike
 St. Lucie County

3. Comments from the Public – None.

4. Approval of Agenda

* MOTION by Mr. Driscoll to approve the agenda.

** SECONDED by Vice Chairman Balcer Carried UNANIMOUSLY

5. Approval of Meeting Summary

- July 19, 2022 Regular Meeting

* MOTION by Ms. Griffett to approve the Meeting Summary.

** SECONDED by Mr. Driscoll Carried UNANIMOUSLY

6. Action Items

- 6a. Spot Speed Studies Scope of Services: Review of the draft Scope of Services to conduct Spot Speed Studies on Airoso Boulevard, Port St. Lucie Boulevard, and St. Lucie West Boulevard.

Mr. Buchwald introduced the agenda item and invited Mr. Ding to continue. Mr. Ding explained that Spot Speed Studies had been planned for three high-crash locations within the TPO area to improve roadway safety through speed management. Using a map of local high-crash locations, Mr. Ding identified the three roadway segments to be studied. He then concluded with an overview of the Study's consultant, timeline, and cost.

Mr. DeFronzo questioned the inclusion of St. Lucie West Boulevard in the Study given that the corridor's traffic volume typically prevented high vehicle speeds from being a concern, asking whether speed had been a contributing factor in any of the fatal crashes. He suggested as a potential alternative Airoso Boulevard between Thornhill Drive and Port St. Lucie Boulevard, noting that the City of Port St. Lucie had already been considering a study on that segment due to evidence of speeding and a history of accidents. Mr. Buchwald described the methodology used to select the three corridors for analysis and explained that speed likely was a contributing factor to the crashes on St. Lucie West Boulevard given that they had resulted in fatalities. Mr. Buchwald then commented on the need to address that corridor's accident history.

Ms. Griffett observed that the time frame of the Study would coincide with the construction project at the I-95 and St. Lucie West Boulevard interchange. Noting that the construction had already caused abnormal traffic conditions along the entire St. Lucie West Boulevard corridor, Ms. Griffett expressed concern that any results obtained from the Study could be rendered invalid.

Several members agreed, and discussion ensued regarding how to proceed with the Study without negating the methodology used to select the three roadway segments. In response to Chairman Sanders' question, Mr. Ding indicated that a suitable replacement location might be found by expanding the original data parameters to also include accidents that resulted in serious injuries. Ms. Griffett suggested the inclusion of the segment of Midway Road west of I-95 in light of past safety concerns and the recent installation of a new traffic signal at the intersection with State Route 70. The members concurred, with Mr. Dayan citing the benefit of evaluating the effectiveness of other recent improvements made to the area.

* MOTION by Ms. Griffett to recommend approval of the draft Scope of Services, with the condition that the proposed St. Lucie West Boulevard segment be replaced with the segment of Midway Road between McCarty Road and State Route 70.

** SECONDED by Mr. Driscoll Carried UNANIMOUSLY

6b. Treasure Coast Regional Planning Model (TCRPM) Land Use Data Update Scope of Services: Review of the draft Scope of Services to update the land use data of the TPO area for the TCRPM.

Mr. Buchwald explained that the Treasure Coast Regional Planning Model (TCRPM), which was used by the TPO as the basis for various planning and programming efforts, needed to be updated to reflect increased population and employment projections for 2045 caused by unexpectedly high levels of development and population growth in the TPO area in recent years. He noted that the TCRPM Land Use Data Update would utilize bottom-up and top-down approaches to research and analysis and include the development of a database, the creation of a methodology for the reallocation of land use data, and the conversion of the new information into a format usable by the TCRPM. Mr. Buchwald indicated that the TCRPM would subsequently be operated to identify any differences between the new traffic volume projections and those included in the SmartMoves 2045 Long Range Transportation Plan (LRTP), concluding with information about the Study's consultant, cost and timeline.

In answer to Mr. Dayan's question, Mr. Buchwald explained that the update could result in a new version of the TCRPM if the changes to the land use data were significant enough. Mr. Buchwald then noted that a number of current projects required updated modeling.

Chairman Sanders commended the approach taken by the TPO and consultants during the previous TCRPM development process and suggested that a non-staff development review group be formed to provide input for the present Update.

* MOTION by Mr. Dayan to recommend approval of the draft Scope of Services.

** SECONDED by Ms. Griffett Carried UNANIMOUSLY

- 6c. SR-A1A South Causeway Bridge Bicycle Lane Pilot Project: Review of the proposed SR-A1A South Causeway Bridge Bicycle Lane Pilot Project and potential funding source for the project.

Mr. Buchwald summarized the history of efforts to implement a bike lane on South Causeway Bridge before introducing Mr. Robertson, the consultant engaged to prepare the necessary documentation for the pilot project. Mr. Robertson outlined the purpose of the pilot project, described the existing conditions on the bridge, and presented with the aid of several diagrams the existing and proposed lane configurations. He provided examples of the proposed configuration and explained the results of the traffic study conducted for the bridge. Mr. Buchwald subsequently continued by detailing a number of options for funding the pilot project.

In answer to Chairman Sanders' questions, Mr. Robertson estimated the implementation cost of the pilot project to be \$250,000, indicating that he had not yet prepared an estimate for the cost of its removal. Mr. Robertson then approximated the cost of maintenance for the project at \$30,000.

Ms. Griffett initiated a discussion regarding the cost and complexity of the project's removal, enumerating several considerations regarding the restoration of the affected infrastructure and estimating its cost as being similar to that of project implementation. She then noted the frequency with which flexible barriers tend to be damaged and questioned who would be responsible for maintenance costs during the course of the project. Chairman Sanders later asked if removal costs were included in the budget. Mr. Robertson replied in the negative and thanked Ms. Griffett for her comments on the matter. Mr. Buchwald indicated that there was \$350,000 budgeted for the project, commenting on funding options that might be pursued.

Mr. Robertson noted the role of the City of Fort Pierce in determining whether the project moves forward. Ms. Griffett indicated that the City was not opposed to the project but had questions regarding issues like hurricane evacuation, the agreement with FDOT, and potential congestion east of the bridge.

Chairman Sanders inquired about the rationale for the proposed configuration, which included two eastbound vehicle lanes. Mr. Buchwald explained that previous public involvement efforts had demonstrated a reluctance to reduce the number of vehicle lanes due to concerns over the potential for both daily congestion and interference with evacuation efforts; the second eastbound lane was

intended to prevent congestion onto the Island, while all lanes could be converted to westbound travel in case of evacuation.

In response to Ms. Fasiska's question, Mr. Robertson provided information regarding the level of service for the intersection of Indian River Drive and S.R. A1A, with Mr. Buchwald confirming that the report had already been sent to FDOT.

Chairman Sanders inquired about the age and expected life span of the bridge. Mr. Robertson indicated that it had been constructed in the 1960s. Mr. Buchwald explained that the bridge, while still structurally sound, was likely 15 to 20 years away from replacement despite being functionally obsolete.

Lieutenant Elizondo expressed concern over the potential impact of the westbound lane reduction on emergency services considering that the majority of the Seaway Drive Fire Station's responses were on the mainland. He requested that a plan be worked out for how to circumvent congestion in emergency situations. Mr. Robertson commented that any congestion would likely occur at the Indian River Drive intersection, where there was a small gore lane that emergency vehicles could use for passing. Chairman Sanders inquired about the possibility of extending the pavement alongside the westbound lanes, and Mr. Buchwald remarked on the temporary nature of the project.

In response to Mr. Dayan's question, Mr. Robertson indicated that there were sidewalks on State Route A1A between U.S. Highway 1 and Indian River Drive but no bike lanes. He then elaborated on plans for a shared-use path in the vicinity.

Ms. Griffett reiterated that the City of Fort Pierce was not opposed to the project and suggested that the relevant reviewing agencies be given an opportunity to consider it.

* MOTION by Ms. Griffett to recommend approval of the proposed Pilot Project and potential funding source.

** SECONDED by Mr. DeFronzo Carried UNANIMOUSLY

6d. Standardized Traffic Impact Studies (TIS) Methodology and Procedures Update Agenda Item: Consideration of placing an update to the Standardized TIS Methodology and Procedures on the agenda for a future TAC meeting.

Mr. Buchwald explained that Mr. DeFronzo had requested that the TAC consider an update to the Standardized Traffic Impact Studies (TIS) Methodology and Procedures in accordance with TAC By-laws. He noted that the TIS Methodology and Procedures had been adopted in 2014 and could potentially benefit from a review in light of changing multimodal priorities in recent years. Mr. DeFronzo then elaborated on the rationale for seeking the update, recounting numerous conversations with various City of Port St. Lucie departments concerning the need to emphasize multimodality, safety and mobility.

In response to Ms. Griffett's question, Mr. DeFronzo explained how the TIS Methodology and Procedures document was used.

Ms. Griffett expressed approval regarding the update, noting a number of entities that would likewise need to approve it. In answer to Chairman Sanders' question, Mr. DeFronzo further clarified the purpose of the document as outlining the standard methodology for conducting a traffic impact study in the TPO area, a methodology that no longer appeared to be in line with current multimodal priorities. Mr. Buchwald summarized the history of the document's development and described its use by local jurisdictions, both past and potential.

Mr. Dayan indicated his approval for the update, remarking on some of the challenges associated with navigating the technical aspects of such studies. He then commented on the possibility of using external resources to help inform the conversation on multimodal impacts. In response to Chairman Sanders' question, Mr. Buchwald explained that the TPO staff and the jurisdictions' regular consultants would likely be able to complete the update. Chairman Sanders suggested involving the City of Port St. Lucie's mobility consultant and FDOT, while Ms. Griffett recommended involving the development community. Mr. Buchwald noted that all meetings are open to the public and commented on ways to move forward.

* MOTION by Ms. Griffett to approve the placement of an update to the Standardized TIS Methodology and Procedures on the agenda for the January 2023 TAC meeting.

** SECONDED by Vice Chairman Balcer Carried UNANIMOUSLY

7. Recommendations/Comments by Members – None.

- 8. Staff Comments – Mr. Buchwald reminded the members of the Joint Advisory Committee meeting scheduled for November, noting that FDOT would be presenting the Draft Tentative Work Program. He then thanked the members for their input.

- 9. Next Meeting: The next St. Lucie TPO TAC meeting is a joint meeting with the Citizens Advisory Committee and the Bicycle-Pedestrian Advisory Committee scheduled for 1:30 pm on Tuesday, November 29, 2022.

- 10. Adjourn – The meeting was adjourned at 2:45 pm.

Respectfully submitted:

Approved by:

 Rachel Harrison
 Recording Specialist

 Marty Sanders
 Chairman



AGENDA ITEM SUMMARY

Board/Committee: Technical Advisory Committee (TAC)

Meeting Date: January 17, 2023

Item Number: 6a

Item Title: Annual Officer Elections

Item Origination: TPO By-Laws, Rules, and Procedures

UPWP Reference: Task 1.1 - Program Management

Requested Action: Nominate and elect a Chairperson and a Vice Chairperson for the TAC. In 2022, the Chairperson was Marty Sanders, and the Vice Chairperson was Ben Balcer.

Staff Recommendation: Not applicable

Attachments

- None



AGENDA ITEM SUMMARY

Board/Committee:	Technical Advisory Committee (TAC)
Meeting Date:	January 17, 2023
Item Number:	6b
Item Title:	2023 Meeting Dates
Item Origination:	Annual administrative business
UPWP Reference:	Task 1.1 - Program Management
Requested Action:	Approve the proposed remaining 2023 meeting dates, approve with conditions, or do not approve.
Staff Recommendation:	It is recommended that the proposed remaining 2023 meeting dates be approved.

Attachments

- TAC Proposed 2023 Meeting Dates



Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

Technical Advisory Committee (TAC) **PROPOSED** 2023 Meeting Dates (Approved: _____)

Tuesday, January 17, 2023, 1:30 pm

Tuesday, March 21, 2023, 1:30 pm

Tuesday, May 16, 2023, 1:30 pm

Tuesday, July 18, 2023, 1:30 pm

Tuesday, October 17, 2023, 1:30 pm
(Joint Meeting with the Citizens Advisory Committee
and the Bicycle-Pedestrian Advisory Committee)

Tuesday, November 14, 2023, 1:30 pm

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Kreyòl Aysisyen: Si ou ta renmen resewva enfòmasyon sa a nan lang Kreyòl Aysisyen, tanpri rele nimewo 772-462-1593.

Español: Si usted desea recibir esta información en español, por favor llame al 772-462-1593.



AGENDA ITEM SUMMARY

Board/Committee:	Technical Advisory Committee (TAC)
Meeting Date:	January 17, 2023
Item Number:	6c
Item Title:	Amendments to the FY 2022/23 – FY 2026/27 Transportation Improvement Program (TIP)
Item Origination:	Florida Department of Transportation (FDOT)
UPWP Reference:	Task 3.3 – TIP
Requested Action:	Review and recommend adoption of the TIP Amendments, recommend adoption with conditions, or do not recommend adoption.
Staff Recommendation:	Because the proposed TIP amendments are consistent with the SmartMoves 2045 Long Range Transportation Plan and do not impact the fiscal constraint of the TIP, it is recommended that the proposed TIP amendments to add funding for Paratransit Demand Response Service and Transit Travel Training be recommended to the TPO Board for adoption.

Attachments

- Staff Report
- TIP Amendment Request
- Draft TIP Amendment Summaries



Coco Vista Centre
 466 SW Port St. Lucie Blvd, Suite 111
 Port St. Lucie, Florida 34953
 772-462-1593 www.stlucietpo.org

MEMORANDUM

TO: Technical Advisory Committee (TAC)

FROM: Peter Buchwald
 Executive Director

DATE: January 10, 2023

SUBJECT: Amendments to the FY 2022/23 – FY 2026/27
 Transportation Improvement Program (TIP)

BACKGROUND

The FY 2022/23 – FY 2026/27 TIP was adopted by the TPO Board on June 1, 2022. Florida Department of Transportation (FDOT) District 4 recently added two new transit projects to its Work Program subsequent to the TPO's adoption of the TIP and requests amendments to add the projects to the TPO's TIP.

ANALYSIS

As summarized in the attached request from FDOT District 4, the purposes of the projects are to provide operating assistance to St. Lucie County to provide Paratransit Demand Response Service and Transit Travel Training to seniors and individuals with disabilities. These funds are being awarded to the County under the Federal Transit Administration (FTA) Section 5310 Grant Program.

St. Lucie County applied for FTA Section 5310 operating funds to assist with the cost of its Paratransit Service and to provide Transit Travel Training for seniors and individuals with disabilities because the County does not receive enough funds from the Florida Commission for the Transportation Disadvantaged to cover all of the Transportation Disadvantaged trips and the cost of the training.

As identified in the attached draft TIP Amendment Summary, the project to provide Paratransit Demand Response Service will cost a total of \$491,558, with FDOT and St. Lucie County splitting the funding of the cost. The project to provide Transit Travel Training will cost a total of \$318,914 with FDOT

funding all of the cost except for \$31,892 which will be funded by St. Lucie County.

Because new funding sources will be added to the TIP that equal the cost of the projects, the projects will not impact the fiscal constraint of the TIP. The TPO's SmartMoves 2045 Long Range Transportation Plan (LRTP) identifies on page 3-13 one of its objectives to be "Provide for transportation needs of transportation disadvantaged". Therefore, the TIP amendments are consistent with the SmartMoves 2045 LRTP.

RECOMMENDATION

Because the proposed TIP amendments are consistent with the SmartMoves 2045 LRTP and do not impact the fiscal constraint of the TIP, it is recommended that the proposed TIP amendments to add funding for Paratransit Demand Response Service and Transit Travel Training be recommended to the TPO Board for adoption.



Florida Department of Transportation

RON DESANTIS
GOVERNOR

3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

JARED W. PERDUE, P.E.
SECRETARY

January 9, 2023

Mr. Peter Buchwald, MPO Executive Director
St. Lucie Transportation Planning Organization
466 SW Port St. Lucie Boulevard, Suite 111
Port St. Lucie, FL 34953

**SUBJECT: St. Lucie Transportation Planning Organization
TIP Amendment Request FY 2022/23 – 2026/27
FM # 452479-1 and FM # 452479-2**

Dear Mr. Buchwald:

Pursuant to *Part IV – Chapter 5: Statewide and Local Transportation Improvement Programs (STIP and TIP) of the Work Program Instructions*, the Florida Department of Transportation (FDOT) requests your processing and approval of the attached amendment to the FY 2022/23 – 2026/27 Transportation Improvement Program. This amendment is required because a new project has been added to the work program and needs to be reflected in the TIP.

The purposes of the projects are to provide operating assistance to the County to provide paratransit demand response service to seniors and individuals with disabilities (452479-1) and to provide travel training to senior and individuals with disabilities (452479-2). These funds were awarded under the section 5310 grant program.

This Transportation Improvement Program Amendment should be consistent with the Adopted Long-Range Transportation Plan. The adopted TIP remains financially constrained. The TIP amendment is as follows:

PROPOSED	FM#	Project Title	Type of Work
	452479-1	5310 OPERATING - PORT ST LUCIE UZA - ST LUCIE BOCC	84-01 = OPERATING ASSISTANCE
	Phase	Fund	FY 2023
	OPS	DU	245,779
	OPS	LF	245,779
	TOTAL		491,558

PROPOSED	FM#	Project Title	Type of Work
	452479-2	5310 OPERATING - PORT ST LUCIE UZA - ST LUCIE BOCC	94-01 = MOBILITY MANAGEMENT
	Phase	Fund	FY 2023
	OPS	DPTO	31,892
	OPS	DU	255,130
	OPS	LF	31,892
	TOTAL		318,914

If you have any questions or need additional information, please contact Kurt Lehmann at (954) 777-4365
Sincerely,

Kurt Lehmann

Kurt Lehmann
Interim MPO Liaison
District Four

The above TIP amendment was authorized to be included in the FY 2022/23-2026/27 Transportation Improvement Program.

MPO Chairman or Designee

Date

Signature

**Transportation Improvement Program (TIP) Amendment
FY 2022/23 - FY 2026/27**



TIP Amendment Number: 4
 Current TIP Page Number: N/A
 New TIP Page Number (if applicable): C 3-10

___ Is a STIP amendment needed for this TIP Amendment? (check if yes)

STIP Page Number (if applicable): _____

On February 1, 2023, the St. Lucie Transportation Planning Organization (St. Lucie TPO) authorized the Executive Director to amend the St. Lucie TPO TIP that was developed and adopted in compliance with U.S.C. Title 23 and Title 49 in a continuing, cooperative, and comprehensive transportation planning process, as a condition to the receipt of federal assistance, and to approve the associated STIP amendments.

This TIP Amendment is consistent with the SmartMoves 2045 Long Range Transportation Plan (LRTP) and does not change financial constraints. 2045 LRTP Page Number (if applicable): 3-13

TIP Amendment Criteria:

- A The change adds new individual projects to the current TIP
- B The change adversely impacts financial constraint
- C The change results in major scope changes
- D The change removes or deletes an individually listed project from the TIP
- E The change results in a cost increase that is greater than 20 percent and greater than \$2 million.

----- **PROJECT INFORMATION** -----

Project Name: Paratransit Demand Response Service (5310 Operating - Port St. Lucie UZA - St. Lucie BOCC)

TIP Amendment Criteria: A

Reason for Change/Notes: To add a project under the Federal Transit Administration Section 5310 Grant Program that was not included in the FDOT Work Program materials provided to the TPO at the time of FDOT Draft Tentative Work Program Endorsement and TIP adoption. St. Lucie County applied for 5310 operating funds to assist with the cost of its Paratransit Service for seniors and individuals with disabilities as the County does not receive enough funds from the Florida Commission for the Transportation Disadvantaged to cover all of the Transportation Disadvantaged trips.

Status	FPN	Limits	Description	Phase	Fund	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
Current										
Proposed	452479-1	St. Lucie TPO Areawide	Paratransit Service for seniors and individuals with disabilities	OPS OPS	DU LF	\$245,779 \$245,779				
Net Change						\$491,558				

This TIP Amendment has been prepared in accordance with Federal requirements.

Authorized Signature:

 St. Lucie TPO Chairperson or Executive Director

**Transportation Improvement Program (TIP) Amendment
FY 2022/23 - FY 2026/27**



TIP Amendment Number: 5
 Current TIP Page Number: N/A
 New TIP Page Number (if applicable): C 3-11

___ Is a STIP amendment needed for this TIP Amendment? (check if yes)

STIP Page Number (if applicable): _____

On February 1, 2023, the St. Lucie Transportation Planning Organization (St. Lucie TPO) authorized the Executive Director to amend the St. Lucie TPO TIP that was developed and adopted in compliance with U.S.C. Title 23 and Title 49 in a continuing, cooperative, and comprehensive transportation planning process, as a condition to the receipt of federal assistance, and to approve the associated STIP amendments.

This TIP Amendment is consistent with the SmartMoves 2045 Long Range Transportation Plan (LRTP) and does not change financial constraints.

2045 LRTP Page Number (if applicable): 3-13

TIP Amendment Criteria:

- A The change adds new individual projects to the current TIP
- B The change adversely impacts financial constraint
- C The change results in major scope changes
- D The change removes or deletes an individually listed project from the TIP
- E The change results in a cost increase that is greater than 20 percent and greater than \$2 million.

----- **PROJECT INFORMATION** -----

Project Name: Transit Travel Training (5310 Operating - Port St. Lucie UZA - St. Lucie BOCC)

TIP Amendment Criteria: A

Reason for Change/Notes: To add a project under the Federal Transit Administration Section 5310 Grant Program that was not included in the FDOT Work Program materials provided to the TPO at the time of FDOT Draft Tentative Work Program Endorsement and TIP adoption. St. Lucie County applied for 5310 operating funds to assist with the cost of providing Transit Travel Training for seniors and individuals with disabilities as the County does not receive enough funds from the Florida Commission for the Transportation Disadvantaged to cover the cost of the training.

Status	FPN	Limits	Description	Phase	Fund	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
Current										
Proposed	452479-2	St. Lucie TPO Areawide	Transit Travel Training for seniors and individuals with disabilities	OPS OPS OPS	DU LF DPTO	\$255,130 \$31,892 \$31,892				
Net Change						\$318,914				

This TIP Amendment has been prepared in accordance with Federal requirements.

Authorized Signature:

 St. Lucie TPO Chairperson or Executive Director



AGENDA ITEM SUMMARY

Board/Committee:	Technical Advisory Committee (TAC)
Meeting Date:	January 17, 2023
Item Number:	6d
Item Title:	Public Participation Plan (PPP) 2022 Annual Evaluation
Item Origination:	Unified Planning Work Program (UPWP) and Federal and State requirements
UPWP Reference:	Task 5.1 - Public Participation, Education & Outreach
Requested Action:	Recommend acceptance of the Evaluation, recommend acceptance with conditions, or do not recommend acceptance.
Staff Recommendation:	Because the PPP 2022 Annual Evaluation analyzes the effectiveness of the PPP in improving public access to transportation planning decision-making, it is recommended that the PPP 2022 Annual Evaluation be recommended for acceptance by the TPO Board.

Attachments

- Staff Report
- Draft 2022 PPP Annual Evaluation



Coco Vista Centre
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MEMORANDUM

TO: Technical Advisory Committee (TAC)

THROUGH: Peter Buchwald
 Executive Director

FROM: Marceia Lathou
 Transit/ACES Program Manager

DATE: January 5, 2023

SUBJECT: Public Participation Plan (PPP) 2022 Annual
 Evaluation

BACKGROUND

The TPO's Unified Planning Work Program (UPWP) includes substantial public involvement efforts within a continuous and ongoing task which includes compliance with all Title VI/Environmental Justice and nondiscrimination requirements. These efforts are advanced through the TPO's Public Participation Plan (PPP). Annual evaluations of the PPP quantify the effectiveness in meeting or implementing the PPP outreach strategies.

A major update to the PPP was adopted by the TPO Board in February 2020. A 2020 evaluation of the PPP was conducted which initially served as the base year for subsequent annual evaluations.

Shortly after the PPP Major Update adoption, the COVID-19 Pandemic disrupted planned public involvement activities nationwide. Although Pandemic concerns continued to linger, the TPO conducted an effective public participation process in 2022.

ANALYSIS

Major outreach efforts during 2022 were conducted during the development of the Micro-Mobility Study, Unified Planning Work Program, Comprehensive Safety Action Plan, and Electric Vehicle Charging Station Plan Update. The

attached 2022 Public Participation Plan Evaluation table demonstrates the effectiveness of outreach for these projects and other efforts.

The Public Participation Plan Evaluation table uses both 2020 and 2021 data for the baseline data. If in 2021, a baseline 2020 target was met then the 2021 data became the new baseline data. If in 2021, a baseline 2020 target was not met, then the 2020 data remained the baseline data. It should be noted that the 2020 baseline data may be skewed by the major public participation efforts of the SmartMoves 2045 Long Range Transportation Plan. Nevertheless, public participation in 2022 exceeded the 2020 or 2021 efforts in numerous categories. Highlights of the 2022 PPP Evaluation include:

- 906% increase, Environmental Justice/Title VI participation rate for online activities (5% target)
- 250% increase, eblasts sent (5% target)
- 125% increase, online survey engagements (5% target)
- 4,780% increase, social media engagements (5% target)
- 43% increase, interactions at events hosted by other organizations (5% target)
- 30% increase, in-person survey engagements (5% target)
- 940% increase, public comments at TPO gallery and kiosks (5% target)

RECOMMENDATION

Because the PPP 2022 Annual Evaluation analyzes the effectiveness of the PPP in improving public access to transportation planning decision-making, it is recommended that the PPP 2022 Annual Evaluation be recommended for acceptance by the TPO Board.

2022 Public Participation Plan Annual Evaluation

Environmental Justice/Title VI Participation

Participation Method	Tracking Method	Baseline Performance Measures ^{1,2,3}	2022 Targets	2022 Actual ⁴	2022 % Change
Online Activities	Electronic Tracking	16 engagements from targeted zip codes with significant EJ/Title VI populations ²	5% increase	161 engagements from targeted zip codes with significant EJ/Title VI populations	906%
In-Person Activities	Manual Tracking	116/502 (23%) EJ/Title VI attendees ³	5% increase	99/408 (24%)	+4%

¹If in 2021 a target for a particular activity category was met, then 2021 became the new baseline data year. If in 2021 a target for a particular activity category was not met, the performance metrics from 2020 remained the baseline for calculating the 2022 metrics.

²2020 Baseline Measure

³2021 Baseline Measure

⁴In 2022, EJ/Title VI populations were targeted exclusively for certain online engagements.

Online Activities

Participation Method	Tracking Method	Baseline Performance Measures	2022 Targets	2022 Actual	2022 % Change
Community Engagement Dashboard	Electronic Tracking	51 visitors ³	400% increase	11	-78%
Eblasts	Electronic Tracking	266 subscribers 42% opens for 2 eblasts sent ³	5% increase	261 subscribers 33% opens for 7 eblasts sent	-2% subscribers -21% opens +250% eblasts sent
Email	Electronic Tracking	6 ³	400% increase	26	+333%

Participation Method	Tracking Method	Baseline Performance Measures	2022 Targets	2022 Actual	2022 % Change
Interactive Maps	Electronic Tracking	625 visitors 136 comments ²	5% increase	301 visitors 18 comments	-52% visitors -87% comments
Online Surveys	Electronic Tracking	68 engagements ³	5% increase	153 engagements	+125%
Social Media	Facebook Twitter YouTube	11,007 Facebook users reached 10 Twitter mentions ²	5% increase	7,483 Facebook reached, 468 engaged, 5 boosted posts, 15 Twitter likes	-32% reach +4,780% engagements
Virtual Workshop	Electronic Tracking	29 attendees ²	5% increase	Not applicable	N/A
Website	Electronic Tracking	16,000 page views 13,332 unique page views ³	5% increase	13,395 page views 8,660 unique page views	-16% page views -35% decrease unique page views

In-Person Activities

Participation Method	Tracking Method	Baseline Performance Measures	2022 Targets	2022 Actual	2022 % Change
Mail, Telephone, In-Person	Manual Tracking	206 inquiries ³	5% increase	97 inquiries	-53%
Events	Manual Tracking	291 interactions ³	5% increase	416 interactions	+43%
Surveys	Completed Surveys	228 completed surveys ³	5% increase	297 completed surveys	+30%

Participation Method	Tracking Method	Baseline Performance Measures	2022 Targets	2022 Actual	2022 % Change
Gallery & Kiosks	Attendance Records, Sign-in Sheets	10 public comments ³	5% increase	104 public comments	940%
Public events/presentations	Attendance Records, Meeting Summaries, Sign-in Sheets	207 attendees ³	Maintain	95 attendees	-54%
Public Meetings	Attendance Records, Meeting Summaries, Sign-in Sheets	482 attendees ³	5% increase	408 attendees	-15%
Press Releases	Manual Tracking	1 press release ²	Not applicable	Not applicable	Not applicable
Radio & Television	Manual Tracking	3 shows/interviews ²	Not applicable	Not applicable	Not applicable
Workshops, Forums, Open Houses	Attendance Records, Meeting Summaries, Sign-in Sheets	140 attendees ²	5% increase	0 attendees	-100%



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AGENDA ITEM SUMMARY

Board/Committee:	Technical Advisory Committee (TAC)
Meeting Date:	January 17, 2023
Item Number:	6e
Item Title:	2023 Safety Performance Targets
Item Origination:	Unified Planning Work Program (UPWP), Federal Requirements, and the Florida Department of Transportation (FDOT)
UPWP Reference:	Task 2.4 - Performance Management
Requested Action:	Review and recommend adoption of the 2023 Safety Performance Targets and the 2023 Interim Benchmarks, recommend adoption with conditions, or do not recommend adoption.
Staff Recommendation:	Based on sharing the understanding with FDOT that the death or injury of any person is unacceptable, it is recommended that the same targets as FDOT's 2023 Safety Performance Targets and the 2023 Safety Performance Interim Benchmarks be recommended for adoption by the TPO Board.

Attachments

- Staff Report
- Excerpt from FDOT's FY 2023 Highway Safety Plan



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MEMORANDUM

TO: Technical Advisory Committee (TAC)

THROUGH: Peter Buchwald
 Executive Director

FROM: Yi Ding
 Transportation Systems Manager

DATE: January 11, 2023

SUBJECT: 2023 Safety Performance Targets

BACKGROUND

Federal Transportation Performance Management (TPM) requirements ensure that State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) choose the most efficient investments for Federal transportation funds. To comply with the requirement, State DOTs are required to establish statewide targets annually for the safety performance measures, and MPOs have the option to support the statewide targets or adopt their own quantifiable targets for the MPO's planning area. The St. Lucie TPO (TPO) incorporated TPM into its planning process by dedicating a task to it in the FY 2022/23-FY 2023/24 Unified Planning Work Program.

Since 2017, the Florida Department of Transportation (FDOT) has adopted "0" annually for all five safety performance measures to reflect its goal of zero deaths and injuries, and the TPO Board has adopted the same target as the FDOT's Safety Targets every year. For calendar year 2023, FDOT continues to stay with its Vision Zero targets for all five safety performance measures. Consequently, to comply with the Federal requirements, the TPO must support the FDOT Safety Performance Targets or establish its own targets by February 27, 2023.

ANALYSIS

As meeting the target of zero deaths and injuries is a tremendous challenge, FDOT publishes every year a safety performance forecast that is statistically probable as they strive to drive down fatalities and serious injuries with an ultimate vision of zero. The TPO has been setting interim benchmarks to monitor the progress toward meeting the final "0" targets. The safety performance results for both FDOT and the TPO, which include the newly released 2021 results, compared to the 2021 FDOT forecasts and TPO interim benchmarks are provided as follows:

2021 Safety Performance Results												
	Fatality	%D	VMT (100 million)	%D	Fatality Rate*	%D	Serious Injury	%D	Serious Injury Rate*	%D	Non- Motorized Fatality and Serious Injuries	%D
Statewide												
2014 5-Year Rolling Average	2,433		1,944.41		1.243		20,519		10.48		3,109.6	
2015 5-Year Rolling Average	2,531	4.0%	1,966.34	1.1%	1.277	2.7%	20,505	-0.1%	10.36	-1.2%	3,207.6	3.2%
2016 5-Year Rolling Average	2,684	6.0%	2,011.91	2.3%	1.329	4.1%	20,833	1.6%	10.35	-0.1%	3,289.0	2.5%
2017 5-Year Rolling Average	2,825	5.3%	2,067.86	2.8%	1.361	2.4%	20,917	0.4%	10.13	-2.2%	3,286.0	-0.1%
2018 5-Year Rolling Average	2,972	5.2%	2,126.09	2.8%	1.398	2.7%	20,727	-0.9%	9.77	-3.5%	3,308.8	0.7%
2019 5-Year Rolling Average	3,109	4.6%	2,175.46	2.3%	1.420	1.6%	20,170	-2.7%	9.22	-5.6%	3,287.4	-0.6%
2020 5-Year Rolling Average	3,189	2.6%	2,177.22	0.1%	1.450	2.1%	18,992	-5.8%	8.64	-6.3%	3,192.0	-2.9%
2021 5-Year Rolling Average	3,283	3.0%	2,183.07	0.3%	1.517	4.6%	18,634	-1.9%	8.25	-4.5%	3,190.4	-0.1%
2021 Forecast	3,192				1.52		17,720		8.32		3,143	
St. Lucie TPO												
2014 5-Year Rolling Average	30		30.56		0.97		174		5.69		28	
2015 5-Year Rolling Average	31	4.0%	30.84	0.9%	1.00	3.0%	167	-4.3%	5.40	-5.0%	27	-4.2%
2016 5-Year Rolling Average	34	8.4%	31.53	2.2%	1.07	6.3%	165	-1.0%	5.21	-3.5%	24	-10.3%
2017 5-Year Rolling Average	36	7.7%	32.23	2.2%	1.12	5.5%	164	-0.5%	5.10	-2.1%	27	9.8%
2018 5-Year Rolling Average	38	5.0%	33.29	3.3%	1.14	1.6%	162	-1.2%	4.91	-3.7%	29	9.0%
2019 5-Year Rolling Average	38	0.5%	34.35	3.2%	1.11	-2.6%	146	-9.9%	4.29	-12.8%	26	-10.3%
2020 5-Year Rolling Average	41	6.8%	34.64	0.8%	1.18	6.1%	145	-0.7%	4.21	-1.7%	28	6.1%
2021 5-Year Rolling Average	44	7.4%	35.10	1.3%	1.25	6.0%	148	1.9%	4.23	0.5%	32	15.8%
2021 Interim Safety Performance Benchmarks	35.0				1.04		151		4.05		24	

Data Source: FDOT Safety Office, FDOT Transportation Data and Analytics Office

*Rate per 100 million Vehicle Miles Traveled (VMT)

The data above indicates that the Statewide vehicle fatalities and fatality rate trended upward while vehicle serious injury and serious injury rate and non-motorized fatality and serious injuries trended downward in 2021. It also shows that in the TPO area all five safety performance measures trended upward in 2021 meeting the interim benchmarks for serious injury while missing the other four benchmarks.

Although the TPO's 2021 safety performance results do not meet all the 2021 interim performance benchmarks, the table below shows the TPO serious injuries, serious injury rate, and non-motorized fatality and serious injuries continue to outrank the MPOs/TPOs with populations between 250,000 and 400,000 while fatalities and fatality rate rank second.

2021 Safety Performance Results						
MPO/TPO	Fatality	Fatality Rate *	Serious Injury	Serious Injury Rate *	Non-motorized Fatality and Serious Injury	Population **
Heartland Regional TPO	86	2.84	433.7	13.10	39	266,000
St Lucie TPO	44	1.25	148.0	4.23	32	322,300
Hernando/Citrus MPO	64	1.78	527.8	14.22	48	341,600
Ocala/Marion County TPO	89	2.02	386.3	8.50	56	368,100
Capital Region TPA	63	1.35	241.2	5.37	40	380,200
Collier County MPO	40	1.08	225.3	6.05	41	387,500

Data Source: FDOT Safety Office, FDOT Transportation Data and Analytics Office
 *Rate per 100 million Vehicle Miles Traveled (VMT)
 ** 2020 population

According to the attached excerpt from FDOT’s FY 2023 Highway Safety Plan, Florida’s five-year rolling average for fatalities will increase while fatality rate and serious injury will decrease in 2023. As a result, FDOT has established the following 2023 forecasts along with the final “0” targets:

2023 Safety Performance Forecast, Statewide					
	Fatality	Fatality Rate*	Serious Injury	Serious Injury Rate*	Non-Motorized Fatality and Serious Injuries
2018 Forecast	3,052	1.65	20,861	11.06	3,447
2019 Forecast	3,117	1.63	21,107	10.85	3,801
2020 Forecast	3,175	1.6	19,123	9.44	3,283
2021 Forecast	3,192	1.52	17,720	8.32	3,143
2022 Forecast	3,233	1.57	16,724	7.95	3,077
2023 Forecast	3,445	1.53	16,330	n/a	n/a
Final Performance Targets	0	0	0	0	0

Data Source: Signal Four Analytics, FDOT Safety Office, FDOT Transportation Data and Analytics Office
 *Rate per 100 million Vehicle Miles Traveled (VMT)

Because TPO’s all five safety performance measures trended upward in 2021 it appears to be appropriate to keep the safety performance interim benchmarks the same as 2022 for 2023 as identified in the following table:

2023 Safety Performance Targets, St. Lucie TPO					
	Fatality	Fatality Rate*	Serious Injury	Serious Injury Rate*	Non-Motorized Fatality and Serious Injuries
2018 Interim Safety Performance Benchmarks	38	1.10	159	4.64	25
2019 Interim Safety Performance Benchmarks	35	1.04	154	4.24	24
2020 Interim Safety Performance Benchmarks	35	1.04	154	4.24	24
2021 Interim Safety Performance Benchmarks	35	1.04	151	4.05	24
2022 Interim Safety Performance Benchmarks	38	1.09	148	4.04	26
2023 Interim Safety Performance Benchmarks	38	1.09	148	4.04	26
Final Performance Targets	0	0	0	0	0

After examining all fatal crashes that occurred in 2021 within the TPO area, TPO staff did not identify any crash clusters. However, it is noted that among the total of 50 fatal crashes, 17 fatal crashes involved impaired driving and 18 fatal crashes involved senior drivers. And even more significant, 80 percent of the fatal crashes occurred on roadways with posted speeds of 40 miles per hour or greater.

To improve roadway safety through speed management, the TPO staff conducted a Speed Kills Analysis in 2021 to further examine the link between vehicle speed and crash severity and identify high crash locations within the TPO area. Subsequently, Spot Speed Studies for three high crash locations on the local roadway network were included in the Unified Planning Work Program (UPWP) and are expected to be completed by April 2023. The TPO staff also coordinated with FDOT District 4 to conduct the Spot Speed Studies for two high crash locations on the State roadway system.

Understanding that meeting the "0" targets is a comprehensive effort and cannot be achieved within a short period, it is expected that the speed management projects chosen for funding will ultimately reduce the number of traffic fatalities and injuries.

It appears to be appropriate for the TPO to continue to share FDOT's approach to safety that the death or injury of any person is unacceptable and to partner with FDOT in meeting the safety targets to optimize the use of Federal funds. Therefore, it appears to be appropriate for the TPO to adopt the same targets as FDOT's 2023 Safety Performance Targets of "0" and for the TPO to adopt the 2023 Safety Performance Interim Benchmarks to monitor the TPO's progress in meeting the "0" targets.

RECOMMENDATION

Based on sharing the understanding with FDOT that the death or injury of any person is unacceptable, it is recommended that the same targets as FDOT's 2023 Safety Performance Targets and the 2023 Safety Performance Interim Benchmarks be recommended for adoption by the TPO Board.

TARGETS

Florida shares the national traffic safety vision, “Toward Zero Deaths,” and formally adopted our own version of the national vision, “Target Zero Fatalities & Serious Injuries,” in 2021. FDOT and its traffic safety partners are committed to eliminating fatalities and reducing serious injuries with the understanding that the death of any person is unacceptable and based on that, zero deaths is our safety performance target. This target is consistent throughout our Strategic Highway Safety Plan, Highway Safety Improvement Program and Highway Safety Plan.



DATA FORECASTS

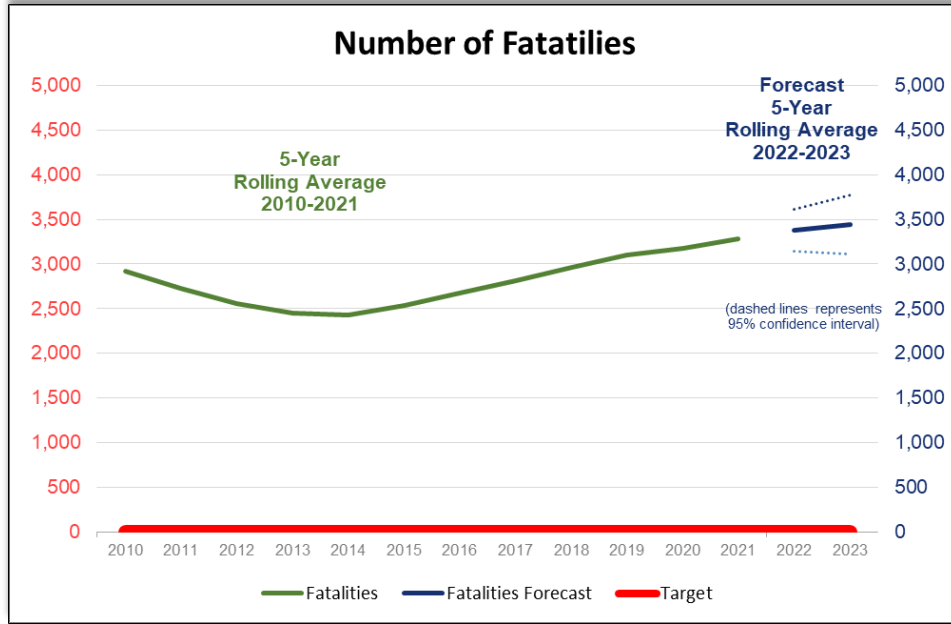
Understanding that zero fatalities cannot be reached within the HSP FY 2023 year, Florida uses data models to forecast the fatalities that are statistically probable as we diligently strive to drive down fatalities and serious injuries with an ultimate vision of zero.

Florida’s data forecasts have been established using an ARIMA Hybrid Regression Model (0, 1,1)(2,0,0)(12) with VMT. Nine independent variables were tested to assess correlations between fatalities against possible influencing factors, including vehicle miles traveled (VMT), gas consumption, vehicle registration, temperature, precipitation, gross domestic product (GDP), and tourists. Only Vehicle Miles Traveled (VMT) and gas consumption have relatively high correlations with fatalities and serious injuries and of these two variables only VMT was useful in predicting future fatalities and serious injuries. The first three performance measures (number of fatalities, number of serious injuries, and fatality rate per 100M VMT) have been forecasted based on a five-year rolling average and the remaining performance measures will be forecasted annually. The forecasts for 2022 and 2023 are based on monthly data from 2006 through 2021 using statistical forecasting methodologies. Each year, the data forecasts are recalculated with the most recent data to create the updated forecasts. Forecasts for 2022 and 2023 were calculated by using the established trend percentage for VMT to normalize the 2020 data due to COVID-19 anomalies.

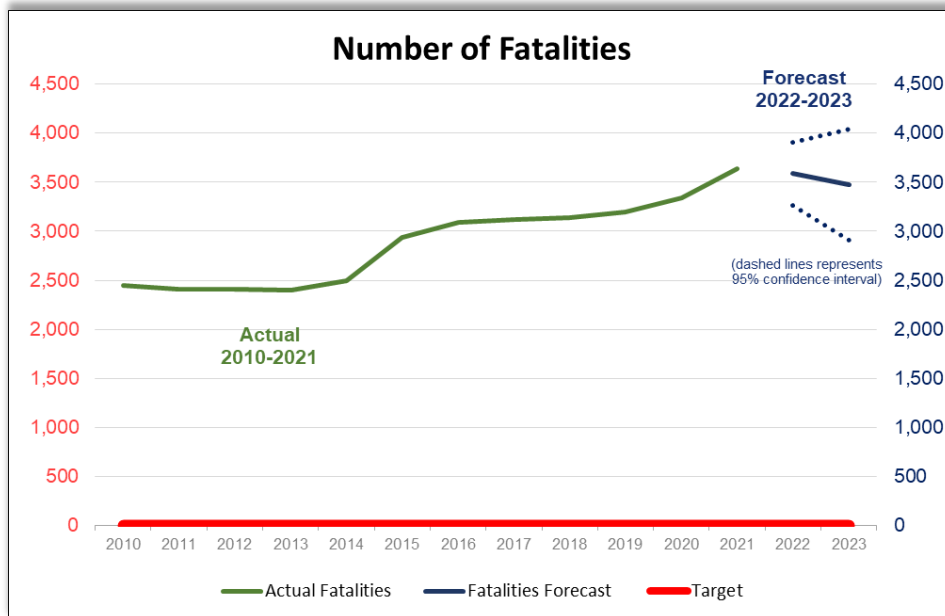
C1 - NUMBER OF FATALITIES

- **Target:** Florida's target for fatalities is zero in 2023.
- **Annual Performance Forecast:** Based on statistical forecasting, the five-year rolling average for total fatalities on Florida's roads is forecasted as 3,445 in 2023. This forecast was made with historical and current state data from 2005 to 2021 to predict probable outcomes for 2022 and 2023.
- **Strategy:** The data forecast indicates Florida's five-year rolling average for fatalities could slowly trend upward in 2022 and 2023. The FDOT State Safety Office intends to execute the subgrants identified in this annual HSP in areas with high frequency of fatalities to increase preventative measures such as enforcement of traffic laws, education of traffic laws and safety practices, provide and educate regarding alternate transportation methods, public traffic safety outreach and education, coordination of external safety partners to implement additional unified education methods, and other strategies consistent with traffic safety improvement planning. While the data forecast indicates Florida's five-year rolling average for fatalities could slowly trend upward in 2022 and 2023, the FDOT State Safety Office expects the projects chosen for funding and included in this HSP will reduce the upward trend to ultimately reduce the number of traffic fatalities.
- **Justification:** Forecasts were made using a three-step analytical approach consisting of exploratory analysis, development of pre-forecast to choose a preferred model for each measure, and development of the final forecast. The exploratory analysis tested multiple independent variables (in addition to the stratification of the dependent safety measure variable into two categories) to assess statistical association. The results showed that fatalities are statistically correlated with VMT, gas consumption, vehicle registration and Florida GDP – with weak to moderate explanatory power. While the exploratory analysis identified correlations with multiple independent variables – the pre-forecasting process indication that most of the independent variables were not useful in estimating future fatalities or serious injuries. An ARIMA model was ultimately chosen which uses past values of the dependent variable as independent variables (e.g., fatalities) and year-to-year difference in the values to forecast future values.

- **Five-Year Rolling Average Graph:** The chart below reflects the five-year rolling average of traffic fatalities for each year and the data forecast for 2022 and 2023.



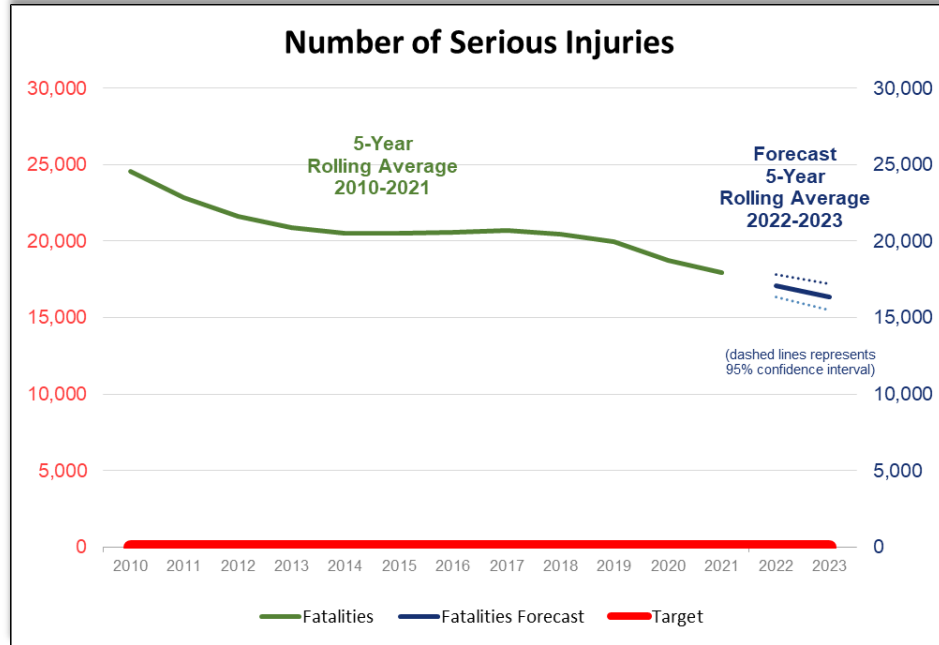
- **Actual Annual Graph:** The chart below reflects the annual traffic fatalities for each year and the data forecast for 2022 and 2023.



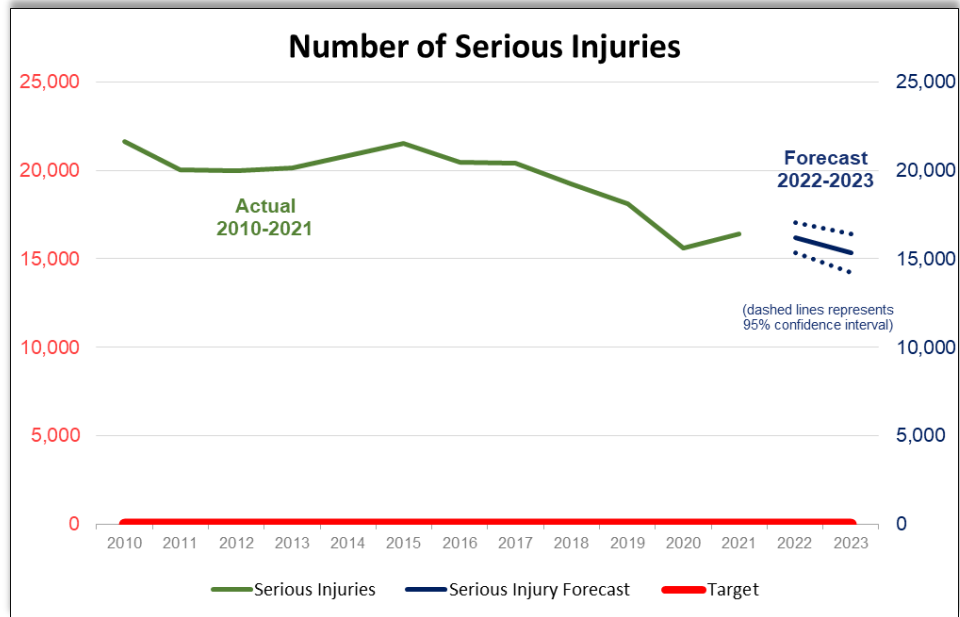
C2 - NUMBER OF SERIOUS INJURIES

- **Target:** Florida's target for serious injuries is zero in 2023.
- **Annual Performance Forecast:** Based on statistical forecasting, the five-year rolling average for total serious injuries on Florida's roads is forecasted as 16,330 in 2023. This forecast was made with historical and current state data from 2005 to 2021 to predict probable outcomes for 2022 and 2023.
- **Strategy:** The data forecast indicates Florida's five-year rolling average for serious injuries could slowly trend downward in 2022 and 2023. The FDOT State Safety Office intends to execute the subgrants identified in this annual HSP in areas with high frequency of fatalities to increase preventative measures such as enforcement of traffic laws, education of traffic laws and safety practices, provide and educate regarding alternate transportation methods, public traffic safety outreach and education, coordination of external safety partners to implement additional unified education methods, and other strategies consistent with traffic safety improvement planning. While the data forecast indicates Florida's five-year rolling average for fatalities could trend downward in 2022 and 2023, the FDOT State Safety Office expects the projects chosen for funding and included in this HSP will enhance the downward trend to ultimately reduce the number of serious injuries.
- **Justification:** Forecasts were made using a three-step analytical approach consisting of exploratory analysis, development of pre-forecast to choose a preferred model for each measure, and development of the final forecast. The exploratory analysis tested multiple independent variables (in addition to the stratification of the dependent safety measure variable into two categories) to assess statistical association. The results showed that fatalities are statistically correlated with VMT, gas consumption, vehicle registration and Florida GDP – with weak to moderate explanatory power. While the exploratory analysis identified correlations with multiple independent variables – the pre-forecasting process indication that most of the independent variables were not useful in estimating future fatalities or serious injuries. An ARIMA model was ultimately chosen which uses past values of the dependent variable as independent variables (e.g., fatalities) and year-to-year difference in the values to forecast future values.

- **Five-Year Rolling Average Graph:** The chart below reflects the five-year rolling average of serious injuries for each year and the data forecast for 2022 and 2023.



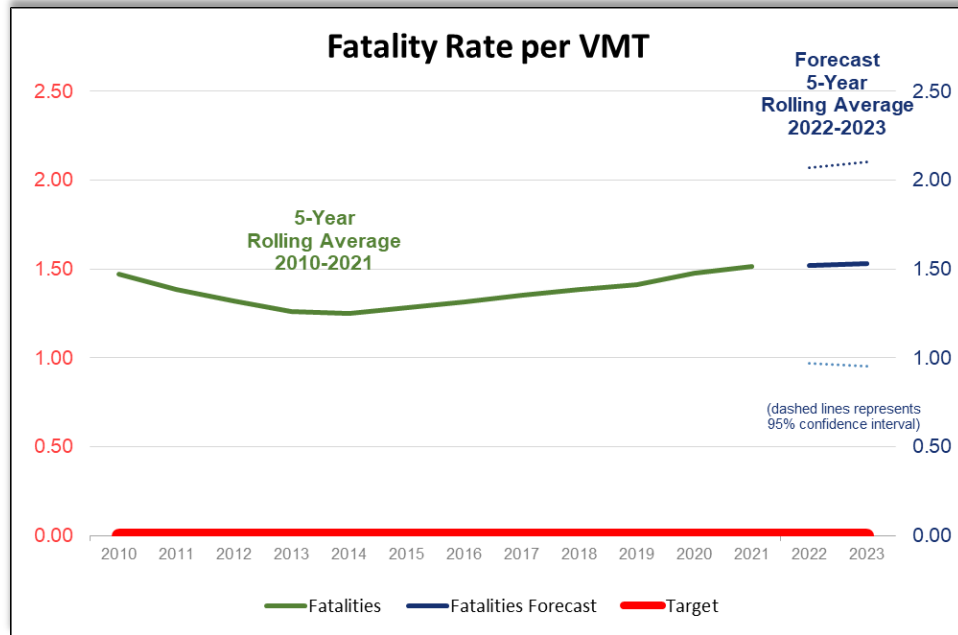
- **Actual Annual Graph:** The chart below reflects the annual serious injuries for each year and the data forecast for 2022 and 2023.



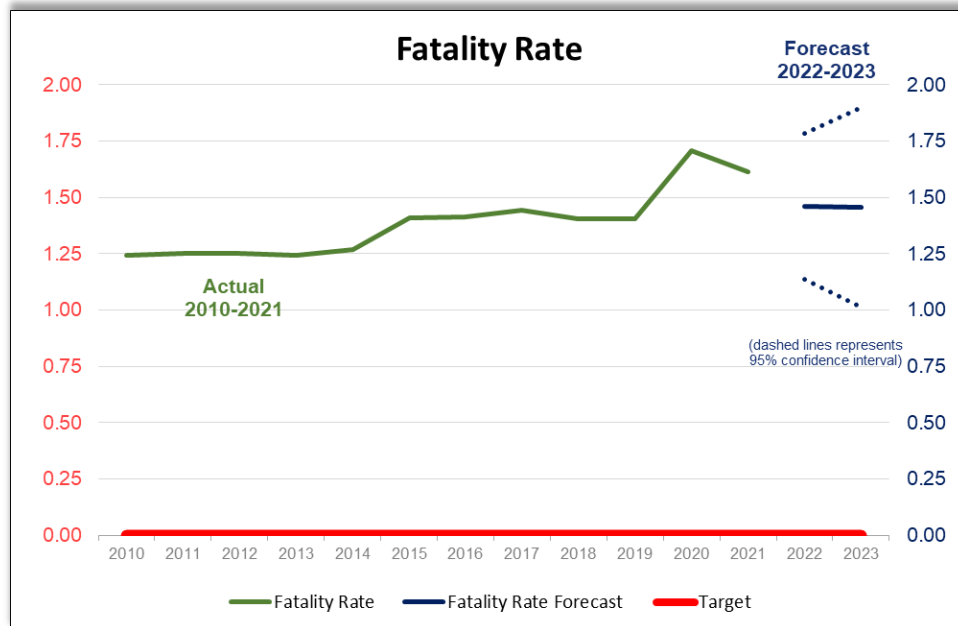
C3 - FATALITY RATE PER 100M VMT

- **Target:** Florida's target for fatality rate is zero in 2023.
- **Annual Performance Forecast:** Based on statistical forecasting, the five-year rolling average for fatality rate per 100M VMT on Florida's roads is forecasted as 1.53 in 2023. This forecast was made with historical and current state data from 2005 to 2021 to predict probable outcomes for 2022 and 2023.
- **Strategy:** The data forecast indicates Florida's five-year rolling average for fatality rate could slowly trend upward in 2022 and 2023. The FDOT State Safety Office intends to execute the subgrants identified in this annual HSP in areas with high frequency of fatalities to increase preventative measures such as enforcement of traffic laws, education of traffic laws and safety practices, provide and educate regarding alternate transportation methods, public traffic safety outreach and education, coordination of external safety partners to implement additional unified education methods, and other strategies consistent with traffic safety improvement planning. While the data forecast indicates Florida's five-year rolling average for fatality rate could trend upward in 2022 and 2023, the FDOT State Safety Office expects the projects chosen for funding and included in this HSP will enhance the upward trend to ultimately reduce the fatality rate per 100M VMT.
- **Justification:** Forecasts were made using a three-step analytical approach consisting of exploratory analysis, development of pre-forecast to choose a preferred model for each measure, and development of the final forecast. The exploratory analysis tested multiple independent variables (in addition to the stratification of the dependent safety measure variable into two categories) to assess statistical association. The results showed that fatalities are statistically correlated with VMT, gas consumption, vehicle registration and Florida GDP – with weak to moderate explanatory power. While the exploratory analysis identified correlations with multiple independent variables – the pre-forecasting process indication that most of the independent variables were not useful in estimating future fatalities or serious injuries. An ARIMA model was ultimately chosen which uses past values of the dependent variable as independent variables (e.g., fatalities) and year-to-year difference in the values to forecast future values.

- **Five-Year Rolling Average Graph:** The chart below reflects the five-year rolling average for fatality rate per 100M VMT for each year and the data forecast for 2022 and 2023.



- **Actual Annual Graph:** The chart below reflects the annual fatality rate per 100M VMT for each year and the data forecast for 2021 and 2022.





AGENDA ITEM SUMMARY

Board/Committee:	Technical Advisory Committee (TAC)
Meeting Date:	January 17, 2023
Item Number:	6f
Item Title:	East Midway Road Corridor Study Scope of Services
Item Origination:	Unified Planning Work Program (UPWP)
UPWP Reference:	Task 3.7 – Safety and Security Planning
Requested Action:	Recommend approval of the draft Scope of Services, recommend approval with conditions, or do not recommend approval.
Staff Recommendation:	Because the East Midway Road Corridor Study responds to public and local agency input regarding safety issues on East Midway Road and the Scope of Services is consistent with Task 3.7 of the UPWP, it is recommended that the draft Scope of Services for the East Midway Road Corridor Study be recommended for approval by the TPO Board.

Attachments

- Staff Report
- East Midway Road Corridor Study Scope of Services



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MEMORANDUM

TO: Technical Advisory Committee (TAC)

FROM: Peter Buchwald
 Executive Director

DATE: January 10, 2023

SUBJECT: East Midway Road Corridor Study Scope of Services

BACKGROUND

During the development of the TPO's Unified Planning Work Program (UPWP), public and local agency input identified the presence of safety issues on Midway Road from U.S. Highway 1 to Indian River Drive. These safety issues were identified to pertain to excessive speeding, inadequate bicycle and pedestrian infrastructure, the intersection at Wetherbee Road, and the entrance to the St. Lucie County Savannas Recreation Area. In addition, this segment of Midway Road will include a future crossing of the East Coast Greenway/Florida Shared-Use Network (SUN) Trail which may exacerbate the issues.

Therefore, Task 3.7, *Safety and Security Planning*, of the UPWP includes the completion of the East Midway Road Corridor Study to evaluate the issues. The attached draft Scope of Services for the East Midway Road Corridor Study has been prepared for review and recommendation by the TPO Advisory Committees.

ANALYSIS

The draft Scope of Services consists of an operational and safety analyses for East Midway Road between U.S. Highway 1 and Indian River Drive. As part of the Scope of Services, goals and objectives will be developed in a collaborative effort with local agency partners, traffic and crash data will be collected within the corridor, intersection turning movement counts will be collected at three intersections, and a field review will be completed. The results from these efforts will be summarized and evaluated to determine the existing traffic

patterns, operational issues, and the magnitude of the speeding concerns. Based on the evaluation of the results, a set of recommendations will be developed to improve traffic operations and safety and accommodate multimodal needs along the corridor.

The attached Scope of Services will be completed by Kimley-Horn, one of the TPO's General Planning Consultants. The Study will be completed by August 2023 at a cost of \$50,000 which is consistent with the UPWP.

RECOMMENDATION

Because the East Midway Road Corridor Study responds to public and local agency input regarding safety issues on East Midway Road and the Scope of Services is consistent with Task 3.7 of the UPWP, it is recommended that the draft Scope of Services for the East Midway Road Corridor Study be recommended for approval by the TPO Board.

St. Lucie TPO East Midway Road Corridor Study

Project Understanding:

The St. Lucie TPO desires to conduct an operational analysis and safety study for East Midway Road between US-1 and Indian River Drive. According to FDOT's Systemwide Provisional Context Classification (SPCC), East Midway Road is identified as a C4-Urban General context from US-1 to Buchanan Street and C3R-Suburban Residential from Buchanan Street to Indian River Drive. East Midway Road provides connectivity between US-1 and Indian River Drive, and in fact is one of only three roadways that provides connectivity to Indian River Drive between Jensen Beach and Fort Pierce.

East Midway Road also connects to Wetherbee Road/Sunset Boulevard in an intersection with an odd geometry as Wetherbee Road curves adjacent to the East Midway Road intersection. East Midway Road provides access to the S. Lucie County Savannas Recreation Area and will include a future crossing of the East Coast Greenway corridor.

Task 1: Goals and Objectives

In a collaborative effort with local government partners, the TPO will identify a set of goals and objectives to achieve desired outcomes for the East Midway Road Corridor Study.

Deliverable: Goals and objectives memorandum.

Task 2: Data Collection

Traffic data will be collected to establish existing traffic conditions at four (4) key locations within the corridor. Traffic data collection will include continuous 24-hour weekday (Tuesday, Wednesday, or Thursday) roadway volume and speed classification counts. Traffic counts will be collected when schools are in session. All traffic counts will be adjusted to account for seasonal variation using the appropriate Florida Department of Transportation (FDOT) seasonal adjustment factors to represent peak season traffic conditions.

Intersection turning movement counts (TMCs) will be collected at three (3) intersections – East Midway Road @ US-1, East Midway Road at Wetherbee Road, and East Midway Road at Indian River Drive.

In addition to the above listed traffic data, a field review of the study area will be conducted to help identify operational issues. The field review will evaluate operational issues during the weekday A.M. and P.M. peak hours as well as lighting conditions during the evening hours.

Deliverable: Data collection plan, traffic data collection for speed and volume, intersection turning movement counts (TMCs).

Task 3: Safety Analysis

Traffic crash data will be collected using readily available information from Signal Four Analytics.

Crash data will be analyzed to provide a safety review including type, frequency, and severity of crashes that have occurred within the prior five (5) years.

Deliverable: Safety analysis memorandum.

Task 4: Traffic Analysis

Results from the data collection efforts will be summarized and evaluated to determine the existing traffic conditions including traffic patterns, operational issues, and an evaluation of the magnitude of any speeding concerns that may be identified. Graphics will be prepared depicting traffic volumes, 50th percentile speeds, 85th percentile speeds, and speeds exceeding posted speed limit by five (5) or more miles per hour.

Based on the results of the traffic analysis and safety analysis, the TPO will identify a set of recommendations to improve traffic operations, improve safety outcomes, and accommodate multimodal needs along the corridor.

Deliverable: Recommendations memorandum.

Task 5: Documentation

Develop a brief report for documentation purposes that analyzes the results of the East Midway Road Corridor Study. Prepare the draft report documentation. Develop a summary presentation and present to the TPO Committees and TPO Board.

Prepare the Final East Midway Road Corridor Study documentation after presenting to the TPO Committees and TPO Board.

Deliverable: Final Report documentation; presentation slide deck; meeting summaries.

Schedule

The project will be completed by August 2023.

Fee

The following task items represent a breakdown of the lump sum amount for reference.

Task Name		Total
Task 1	Goals and Objectives	\$5,000.00
Task 2	Data Collection	\$8,000.00
Task 3	Safety Analysis	\$10,000.00
Task 4	Traffic Analysis	\$20,000.00
Task 5	Documentation	\$7,000.00
TOTAL FEE		\$50,000.00



AGENDA ITEM SUMMARY

Board/Committee:	Technical Advisory Committee (TAC)
Meeting Date:	January 17, 2023
Item Number:	6g
Item Title:	Updates to the Transportation Alternatives Program (TAP) Project Prioritization Methodology and Standardized Traffic Impact Studies (TIS) Methodology and Procedures
Item Origination:	TAC
UPWP Reference:	Task 3.5 - Bicycle-Pedestrian/Complete Streets Planning Task 4.2 – Intergovernmental Planning and Coordination
Requested Action:	Recommend adoption of the updates, recommend adoption with conditions, or do not recommend adoption.
Staff Recommendation:	It is recommended that the TAP Project Prioritization Methodology and the TIS Methodology and Procedures be reviewed and updates be recommended based on the reviews.

Attachments

- Staff Report
- TAP Project Prioritization Methodology with Suggested Revisions
- Standardized TIS Methodology and Procedures



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MEMORANDUM

TO: Technical Advisory Committee (TAC)

FROM: Peter Buchwald
 Executive Director

DATE: January 11, 2023

SUBJECT: Updates to the Transportation Alternatives Program (TAP) Project Prioritization Methodology and Standardized Traffic Impact Studies (TIS) Methodology and Procedures

BACKGROUND

The Transportation Alternatives Program (TAP) Project Prioritization Methodology was developed in collaboration with the St. Lucie Transportation Planning Organization (TPO) Advisory Committees and was subsequently adopted by the TPO Board in June 2011. The TAP Project Prioritization Methodology has been used successfully by the TPO since its adoption to transparently rank and prioritize Transportation Alternatives (TA) Projects for the TPO's List of Priority Projects (LOPP).

The Standardized Traffic Impact Studies (TIS) Methodology and Procedures were initially developed by the TPO in January 2014 and informally updated in June 2016. The TIS Methodology and Procedures are used in varying degrees by the local agencies as part of their development review processes to ensure at least a minimum level of reliability in the TIS conducted by applicants for proposed developments within the jurisdictions of the local agencies.

At previous meetings of the Technical Advisory Committee (TAC), including at the most recent meeting in September 2022, consensus was obtained by the TAC to request that the TAP Project Prioritization Methodology and the TIS Methodology and Procedures be reviewed and updated as appropriate based on the reviews. Therefore, the processes for reviewing and updating the TAP Project Prioritization Methodology and the TIS Methodology and Procedures are being initiated at this time.

ANALYSIS

The adopted TAP Project Prioritization Methodology is attached with suggested revisions by the TPO Staff indicated by strikethroughs and underlines. The TAP revisions are based on the TPO Staff experiences of ranking TAP projects since the adoption of the TAP Project Prioritization Methodology.

The suggested revisions include the broadening of the Project Need/Function criteria to include the implementation of the recommendations of any objective, safety-related study such as a Road Safety Audit or Corridor Study and the location of a project within an Environmental Justice (EJ) neighborhood. The suggested revisions also include the clarification of the Project Details criteria with regard to whether a project addresses a roadway segment with a history of pedestrian and bicycle crashes and whether local/private funds have already been raised/appropriated and dedicated to the project.

The TIS Methodology and Procedures are attached, and the TAC has identified that the multimodal priorities of the local agencies have changed in recent years and should be reflected in the TIS Methodology and Procedures with safety and mobility being emphasized. The challenge of navigating the technical aspects of a TIS was also identified by the TAC as a consideration in the update of the TIS Methodology and Procedures. And finally, with the reduction in statutory support for transportation concurrency and for the mitigation of traffic impacts by proposed developments and the implementation of Mobility Fees by the local agencies in place of Transportation impact Fees, it may be appropriate to consider the specification of the potential improvements to mitigate the traffic impacts and the thresholds which trigger the improvements by the proposed development.

RECOMMENDATION

It is recommended that the TAP Project Prioritization Methodology and the TIS Methodology and Procedures be reviewed and updates be recommended based on the reviews.



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TRANSPORTATION ALTERNATIVES PROGRAM (TAP) PROJECT PRIORITIZATION METHODOLOGY

(Adopted June 1, 2011)

PRIORITIZATION CRITERIA

The following five criteria have been established for prioritizing TAP Projects:

1. Project Need/Function
2. Project Usage
3. Project Details
4. Cost-Effectiveness
5. Equitable Distribution

PROJECT SCORING

TAP projects will be prioritized based on the total project score it receives within the project category identified by the project applicant/sponsor with a maximum total score of 100 points being possible. The following maximum points are possible for each prioritization criteria within the identified project category:

Prioritization Criteria	Project Categories		
	A) Bicycle and Pedestrian	B) Historic Preservation/ Archeological	C) Other Transportation Enhancement and Beautification
1. Project Need/Function	45 Points Maximum	20 Points Maximum	35 Points Maximum
2. Project Usage	10 Points Maximum	20 Points Maximum	15 Points Maximum
3. Project Details	25 30 Points Maximum	40 Points Maximum	30 Points Maximum
4. Cost-Effectiveness	10 7.5 Points Maximum	10 Points Maximum	10 Points Maximum
5. Equitable Distribution	10 7.5 Points Maximum	10 Points Maximum	10 Points Maximum
TOTAL POSSIBLE SCORE	100 Points Maximum	100 Points Maximum	100 Points Maximum

TAP projects receive points for each of the prioritization criteria within the project category identified by the project applicant/sponsor as follows:

A. Bicycle and Pedestrian Projects

1. Project Need/Function (45 points maximum)

Score	Project Need/Function
10 points	Included in the regional bicycle <u>or pedestrian</u> plan
5 points	Included in an adopted local bike or pedestrian plan
<u>5 points</u>	<u>Implement the recommendations of any objective, safety-related study (e.g. Road Safety Audit, Corridor Study, etc)?</u>
10 <u>5</u> points	Completion and/or extension of a missing link where there is an identified need closes a pedestrian or bicycle system gap, such as connecting two existing pathways
10 <u>5</u> points	facilitate connections between multiple modes of transportation (e.g. walking, biking, transit, rail, air, etc) Connection to school bus stops or transit facilities
0 to 5 points	Provides access to major destinations such as existing commercial uses, institutional uses, etc. (1 point per destination with a maximum of 5 points possible)
5 points	Improves accessibility for the physically disabled
<u>5 points</u>	<u>located within an Environmental Justice (EJ) neighborhood</u>

2. Project Usage (10 points maximum)

Score	Estimated Number of Users
2 points	<1,000
4 points	1,000 - 3,000
6 points	3,001 - 5,000
8 points	5,001 - 10,000
10 points	>10,000

For usage estimates, a 1-mile distance will be used for bicycle projects, and a 0.25 -mile distance will be used for pedestrian projects. The most recent Census Block population/employment data will be used to estimate the number of users.

3. Project Details (~~25~~ 30 points maximum)

Score	Project Details
5 points or 2.5 points	Provides paved pathway (shared-use) at least 8 feet wide Provides paved pathway (sidewalk) that meets minimum applicable requirements
5 points or 2.5 points	Provides a designated bike lane Provides paved shoulder that meets applicable standards
2.5 points	Provides safe accommodation for bicyclists and/or pedestrians for crossing at an intersection where the crossing pavement width is at least 40 feet
2.5 points	Provides a signalized crossing or enhanced pedestrian accommodations

10 points or 5 points	Located along a road segment with pedestrian and bicycle fatal (10 points) or injury (5 points) crashes during the past three years Addresses a bicycle/pedestrian accident history
0 to 2.5 points	Located on or adjacent to a roadway with a posted speed limit greater than 25 mph (0.5 points for every 5-mph increment greater than 25 mph)
2.5 points	More than one jurisdiction is collaborating in the project (e.g. assisting with project application, providing in-kind services, contributing matching funds) local/private funds are already raised/appropriated and dedicated to the project

4. Cost-Effectiveness (~~10~~ 7.5 points maximum)

Score	Project Cost-Effectiveness
10 <u>7.5</u> points	Project includes an analysis demonstrating its cost-effectiveness

5. Equitable Distribution (~~10~~ 7.5 points maximum)

Score	Equitable Distribution
10 <u>7.5</u> points	Project demonstrates equitable distribution of available funding (e.g. does not consume an excessive amount of an annual grant allocation)

B. Historic Preservation/Archeological Projects

1. **Project Need/Function (20 points maximum)**

Score	Project Need/Function
5 points	Supported by an existing local or regional transportation plan
5 points	Positively affects the local transportation system/network
5 points	Is part of a local preservation/archaeological effort
5 points	Relieves a threat to an existing historic/archeological resource

2. **Project Usage (20 points maximum)**

Score	Project Usage
20 points	Open to the public
0 points	Not open to the public

3. **Project Details (40 points maximum)**

Score	Project Details
10 points	Determined by the State Historic Preservation Officer to be eligible for inclusion on the National Register of Historic Places
5 points	Appropriately represents the significance of the historical/archeological resource
5 points	Addresses a specific transportation issue or impact from a historical or archeological perspective
5 points	Is connected to the overall local transportation network/system
5 points	Serves a current or planned transportation facility or function
5 points	Is connected to a transportation network/system of regional significance
5 points	More than one jurisdiction is collaborating in the project (e.g. assisting with project application, providing in-kind services, contributing matching funds)

4. **Cost-Effectiveness (10 points maximum)**

Score	Project Cost-Effectiveness
10 points	Project includes an analysis demonstrating its cost-effectiveness

5. **Equitable Distribution (10 points maximum)**

Score	Equitable Distribution
10 points	Project demonstrates equitable distribution of available funding (e.g. does not consume an excessive amount of an annual grant allocation)

C. Other Transportation Enhancement and Beautification Projects

1. Project Need/Function (35 points maximum)

Score	Project Need/Function
7 points	Supported by an existing local or regional transportation plan
7 points	Positively affects the local transportation system/network
7 points	Is part of a local enhancement or beautification effort
7 points	Addresses an environmental issue
7 points	Addresses an aesthetic issue

2. Project Usage (15 points maximum)

Score	Estimated Number of Residents and Workers Served by the Project
5 points	<5,000
10 points	5,000 - 20,000
15 points	>20,000

or

Score	Number of Vehicles Traveling Past the Project (AADT)
5 points	<5,000
10 points	5,000 - 12,000
15 points	>12,000

3. Project Details (30 points maximum)

Score	Project Details
10 points	Removes existing visual blight or its influence
5 points	Creates a visual effect unique to the local or regional identity
5 points	Is connected to the overall local transportation network/system
5 points	Serves a current or planned transportation facility or function
5 points	Is connected to a transportation network/system of regional significance

4. Cost-Effectiveness (10 points maximum)

Score	Project Cost-Effectiveness
10 points	Project includes an analysis demonstrating its cost-effectiveness

5. Equitable Distribution (10 points maximum)

Score	Equitable Distribution
10 points	Project demonstrates equitable distribution of available funding (e.g. does not consume an excessive amount of an annual grant allocation)



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STANDARDIZED

TRAFFIC IMPACT STUDIES (TIS)

METHODOLOGY AND PROCEDURES

- ST. LUCIE COUNTY
- CITY OF FORT PIERCE
- CITY OF PORT ST. LUCIE

January 2014, updated June 2016

TRAFFIC IMPACT STUDIES METHODOLOGY AND PROCEDURES

(DRAFT)

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1. PURPOSE AND APPLICABILITY

The purpose is to provide a generally uniform methodology for identifying potential traffic impacts of new development and redevelopment on the transportation system and developing mitigation strategies to offset those impacts. However, the need to perform a Traffic Impact Study (TIS) will be determined in accordance with the applicable local government requirements and provisions.

The TIS is to be signed and sealed by a registered professional engineer licensed to practice in Florida.

Any reference to the "Local Government" in these guidelines shall mean the City of Ft. Pierce, City of Port St. Lucie, St. Lucie County, their consultants, sub-consultants, contractors, or employees, as applicable. Any reference to the "Applicant" in these guidelines shall mean the person or party making application to the Local Government, to include the Applicant's consultants, sub-consultants, and contractors.

Unless otherwise agreed to in an approved Methodology Statement, the procedures of this unified methodology document will be followed.

2. METHODOLOGY STATEMENT

Prior to conducting any study, a Methodology Statement shall be prepared by the Applicant and submitted to the Local Government for review and approval. The purpose of the Methodology Statement is to establish agreed upon methodologies and assumptions prior to the start of the study. The methodology shall address the following minimum elements:

- Description of land uses, site location, build-out schedule, and phasing
- Preliminary site plan
- Trip Generation
- Internal Capture
- Background Traffic Growth Procedure
- Distribution and Assignment
- Committed Network

It shall be the Applicant's responsibility to ensure that a traffic study is not prepared or submitted without an approved Methodology Statement signed by the Local Government.

3. IMPACTED ROADWAYS/INTERSECTIONS

At a minimum, the following impacted roadway segments and intersections shall be analyzed in the TIS:

- a. Any Road Segment to which development traffic makes its first connection to the Major Road Network, provided the development traffic consumes one percent or

more of the existing or committed two-way peak-hour service capacity,

- b. Major Road Segment on which the two-way peak-hour project traffic consumes 5 (five) percent or more of the existing or committed two-way peak-hour service capacity,
- c. Site driveway connections to public roads. In addition, if the development has no direct connection to the Major Road Network, the intersections of the local/non-major roads (that provides access to the development) with the Major Road Network shall be analyzed, and
- d. Major Intersections that are part of the impacted roadways.

To determine whether peak-hour development traffic consumes one percent or five percent or more of the existing service capacity of a road, the generalized roadway service volumes from the latest version of the Generalized Service Volumes tables of the Florida Department of Transportation (FDOT) shall be used. Roadway functional classification shall be based on the St. Lucie TPO's Federal Functional Classification Map and, for roads that are not contained on the map, it shall be based on the Local Government's Comprehensive Plan.

An alternative study network identification methodology can be followed by the Applicant; this methodology is described in Appendix B. Agreement on the use of the alternative study network methodology shall be reached during the methodology phase and its use acceptance is at the Local Government's discretion.

4. ANALYSIS SCENARIOS

The Applicant shall be required to provide an analysis of the following scenarios:

- e. Existing scenario is defined as the analysis of existing traffic on the Existing Network.
- f. Background scenario is defined as the analysis of existing traffic plus background traffic on the committed network.
- g. Background scenario with mitigation is defined as the analysis of existing traffic plus background traffic on the committed network with the inclusion of any other improvements that are required to restore a facility to its adopted level of service standard.
- h. Future scenario is defined as analysis of existing traffic, plus background traffic, plus project traffic on the committed network.
- i. Future Scenario with mitigation is defined as analysis of existing traffic, plus background traffic, plus project traffic on the committed network with the inclusion of any other improvements (if needed) that are required to restore a facility to its adopted level of service standard.

A detailed definition of the analysis scenarios is included in Appendix A.

5. GENERAL ANALYSIS REQUIREMENTS

A Level of Service (LOS) analysis shall be undertaken for all impacted roadways and intersections (as listed in Section 3 of this document) in accordance with the procedures below:

- a. For the facility on the Major Road Network to which the development has direct access:
 - Detailed capacity and turn-lane length analyses shall be undertaken for site driveway connections to that facility and/or of the local street providing site traffic access to that Major Road facility.
 - Turn-lane length analysis shall only be required for the first impacted signalized or major unsignalized intersections along the directly accessed facility.
- b. For analysis of roadways outside of the area as described in Sub-section 5.a above, the latest version of FDOT's generalized tables shall be used as an initial screening tool. If failure is estimated, more detailed analysis is required using the procedures described below.
 - i. Road segment limits shall be as defined in the Annual Level of Service Report prepared by the St. Lucie TPO. Adjustments, if appropriate, shall be proposed in the Methodology Statement and be developed based on acceptable engineering and planning practices as set forth in the *Highway Capacity Manual*.
 - ii. All analyses undertaken shall be adjusted to the average of the peak season using FDOT's Peak Season Conversion Factors (PSCF). Other time periods or a.m. analysis may be required if requested during the methodology meeting or during the first review round.
- c. All signalized intersections and major unsignalized intersections within the study area shall be analyzed.
- d. When the FDOT generalized roadway service volume tables are used, the following information shall be provided for each facility in a separate table:
 - Class of roadway (interrupted or uninterrupted)
 - Maintenance jurisdiction (city, county, or state-maintained)
 - Area type
 - Posted speed
 - LOS standard
- e. Other parameters that govern the roadway/intersection capacity analysis shall be based on the parameters described in the latest version of the *Highway Capacity Manual*.
- f. Where driveway movements are restricted (e.g. right-in/right-out driveways), the necessary U-turn movements and project traffic added at the upstream and

downstream median openings or intersections should be identified and analyzed.

In addition to the requirements of Sub-sections (a) through (f) above, the Local Government may require the inclusion of proposed or anticipated traffic signals in the future year condition that may not exist in the "existing condition", including signals at development entrances.

6. SOFTWARE

Use of analysis software shall be discussed and agreed to during the Methodology phase. The Applicant shall provide an electronic copy of the analysis files as well as a hard copy of the summary sheets, unless an electronic from is requested by the Local Government. Preferred analysis softwares are listed below:

- a. For unsignalized intersections, the Highway Capacity Software (HCS) is the preferred software for analyzing delay and LOS.
- b. For signalized intersections, the use of the Highway Capacity Software is considered acceptable; however, the latest version of Synchro software using the latest HCM methodology is preferred.
- c. For interrupted flow road segment (i.e. signalized roadways) analysis, the preferred software is the latest version of Synchro.
- d. For uninterrupted flow roads (those with more than two-mile signal spacing) the latest version of the FDOT's HighPlan software is recommended.
- e. Other analysis software may be required by the Local Government to address situations not addressed by the above provisions, or if requested by the Applicant and approved by the Local Government during the Methodology Statement in Section 2 of this guideline.

For additional information regarding analysis requirements and software please refer to Appendix C.

7. TRIP GENERATION

Trips from/to the site shall be estimated using the latest Institute of Transportation Engineers (ITE) *Trip Generation Manual*, including separate trip generation estimates for interim traffic-generating uses. Other trip rates may be required by the Local Government or may be used if requested by the Applicant and approved by the Local Government during the Methodology Statement process (Section 2 of this document).

To encourage redevelopment of previously developed sites, a credit for any previously existing land uses may be given for the replacement of any traffic-generating building or structure that previously existed on the site. The applicability and/or magnitude of the credit shall be discussed with the Local Government during the Methodology Statement process. If the site was dormant during the time when collection of the traffic count data was conducted, then the "prior vested" portion of

the development traffic must be added as “background” traffic. For purposes of access management analysis, the total trips (prior vested plus additional, new trips) should be analyzed at site access and connection points to the Major Road network.

8. INTERNAL CAPTURE

Internal capture estimates shall be based on acceptable methodologies contained in the most current *ITE Handbook*, or, where the ITE data is not applicable, professional judgment should be applied.

9. PASSER-BY CAPTURE

The total gross external trips of the project traffic may be reduced by a passer-by factor to account for traffic that is already traveling on the adjacent roadway and once the project is constructed it will stop by the project on their way from an origin to a primary destination. Such factor shall be based on ITE acceptable methodologies and percentages.

In no event shall the total number of passer-by trips (i.e. entering plus exiting the site) exceed 10 percent of the total background traffic on the adjacent roadway. In analysis of the site-access intersections with major roads, the passer-by trips shall be included and separately identified.

In cases where median controls limit left-in/left-out access to the site, traffic on the “far side” of the road can be considered in assessing the upper limit of captured trips; however, the effects of that traffic in the associated necessary U-turns and added flow at the upstream and downstream median openings or intersections should be identified as development traffic at those locations.

In accordance with the Florida Traffic Impact Handbook, the passer-by capture percentage shall be computed as the total number of trips entering and exiting the site that is claimed as captured divided by the number of background trips passing by the site on major roads directly abutting or passing through the site. An example of this computation is provided in Appendix D.

10. DISTRIBUTION AND ASSIGNMENT

Manual trip distribution and assignment is acceptable for use as long as they are reviewed and accepted by the Local Government and logically replicates the existing and future travel patterns.

The latest adopted Greater Treasure Coast Regional Planning Model (GTCRPM) is also acceptable in determining the trip distribution percentages and trip assignments, especially when TIS is being performed for sizable developments and for multi-land use developments. The results of the model will be reviewed by the Local Government for reasonableness and to ensure that existing and future travel patterns are correctly simulated.

11. TRAFFIC COUNTS

All counts shall be conducted based on acceptable professional engineering standards. Raw-turning movement counts (minimum 2 hours) and daily tube counts (minimum 48 hours) shall be provided for all the intersections and road segments that are being analyzed. The raw counts shall be adjusted to the average of the peak season using FDOT's Peak Season Conversion Factors. The Local Government may request other peak-season adjustment factors or adjustment methodologies that may result in different peak-season adjustment factors; however, this request shall be evaluated during the development of the Methodology Statement. Please refer to Appendix E for additional information regarding traffic counts requirements.

12. BACKGROUND TRAFFIC GROWTH/FUTURE TRAFFIC

Existing traffic counts shall be increased by a growth factor up to the project's build-out date, which shall be reasonably specified, to account for increases in existing traffic due to other approved or Pending Developments. The development build-out date shall be no less than three years and no more than ten years from the date of the initial transportation methodology submittal.

For acceptable techniques to estimate annual traffic growth rates please refer to Appendix F.

13. LEVEL OF SERVICE STANDARDS

- a. The adopted LOS standards for all major road segments shall be consistent with the standards per the Local Government's latest adopted Comprehensive Plan.
- b. The overall intersection LOS standard shall be the same standard as that of the segment (facility) within which the intersection is located. Where different LOS standards apply to different legs of an intersection, the overall intersection LOS standard will be the same as the leg with the least restrictive LOS (e.g. one road LOS Standard "D" and the other road LOS Standard "E", then intersection LOS Standard is "E").
- c. The delay for individual turning-movements and through-movements may exceed the segment standard by one letter grade provided that the volume/capacity (V/C) ratio for the subject movement remains less than or equal to one. Average delays of up to 100 seconds are acceptable for individual turning movements where the V/C ratio is less than 0.8.
- d. For site access driveways and local street connections serving site access traffic, delays of up to 100 seconds will be considered acceptable.

14. INVENTORY OF EXISTING AND FUTURE CONDITIONS

At minimum, the following additional information shall be provided:

- a. The geometry, speed limit, and the adopted LOS standard of all the existing roadways and intersections, based on the Local Government's adopted Comprehensive Plan, and committed intersection and roadway improvement projects within the impacted area,
- b. Existing vehicle counts and data supporting heavy vehicle factors for capacity analysis,
- c. Graphic representation (stick diagrams) of the project's proposed access locations, types, and internal roads with connections to public roadways. The graphic shall also cover the area immediately adjacent to the project and this graphic should include:
 - All external, major roadways,
 - Existing or future access points, and
 - Types of developments surrounding the project,
- d. Pavement marking plans/concept plans of roadways that provide direct access to the project and that have been completed or are undergoing design or route study phase, if available,
- e. Graphic representation of project traffic (volume and percent distribution), existing traffic volumes, future background volumes, and future total volumes, and
- f. Inventory of existing or committed traffic-control devices (i.e. traffic signals and stop signs).

15. SITE ACCESS

Driveway location(s) shall meet the Local Government's and/or FDOT's minimum standards regarding location, corner clearance, minimum distance between driveways, number of driveways serving a site, minimum sight distances, median openings, and U-turn restrictions, as or where applicable. Appendix G documents the procedures to determine the need for turn lanes and corresponding turn lane lengths.

16. MULTIMODAL CONSIDERATIONS

When designing the site, the following multimodal recommendations should be taken into consideration, and their applicability should be discussed with the Local Government during the Methodology Statement process in Section 2 of this document.

- a. For pedestrians:
 - 1) Provide connectivity from the building structures to existing sidewalks adjacent to the site,
 - 2) Internal circulation and connections to existing sidewalks should be provided

so that pedestrians do not need to walk significantly “out of the way”. In other words, pedestrian connections should be direct and reasonable, minimizing the distance that pedestrians need to walk to go from one place to another,

- 3) New external and internal crosswalks and any associated traffic control devices (if required),
 - 4) To the extent possible, minimize pedestrian-vehicle conflicts,
 - 5) Specify minimum cross-walk widths, and
 - 6) Depending on the hours of operation of the site, consideration should be given to the need for illuminated sidewalks and crosswalks.
- b. For transit vehicles/users:
- 1) If there is a transit stop adjacent to the site or within walking distance of the site, adequate pedestrian connections need to be provided not only between the site and the bus stop but also between the main entrance of the building and the bus stop,
 - 2) Relocation of an existing bus stop or creation of a new stop, in coordination with the Local Government Transit Manager and/or Community Transit, as applicable, to provide for safe or better access to the building and site, and
 - 3) Appropriate design of relocated or a new bus stop to address amenities (bench, shelter, etc.).
- c. For bicycles:
- 1) If internal bike facilities are proposed, adequate connections to existing bike lanes should be provided, and
 - 2) Provision of bike racks.

17. MITIGATION OF IMPACTS

It is the responsibility of Local Governments to apply the technical guidance provided in the previous sections and in the Appendices in a manner consistent with the current Florida Statutes and Local Government ordinances and land development code.

Acceptable mitigation options are:

- 1) Restore to adopted standard
- 2) Proportionate Share Mitigation

For general guidance about mitigation and further detail about identification of adequate mitigation, please refer to Appendix H.

APPENDICES

APPENDIX A DEFINITIONS

For purposes of this document, the following definitions shall apply:

- a. Committed Network – Existing Network plus transportation system improvements included in the adopted work programs of the County, the FDOT, or other agencies with authority and responsibility for providing transportation system capacity, or other improvements that are guaranteed by a security instrument acceptable to the Local Government that ensures construction will begin in the current fiscal year of such work programs.
- b. Background Traffic: Existing traffic plus growth in existing traffic between the existing conditions and the future conditions. Please refer to Appendix F for acceptable techniques to estimate future background traffic volumes.
- c. Existing Network – Major Roads which are currently in use by the public.
- d. Existing Scenario - Analysis of existing traffic on the Existing Network.
- e. Background Scenario – Analysis of existing traffic, plus background traffic on the committed network.
- f. Background Scenario with Mitigation – Analysis of existing traffic, plus background traffic on the committed network. For locations which are estimated to fail under background conditions, the Applicant shall identify improvements needed to restore level of service to the adopted level of service standard.
- g. Future Scenario – Analysis of existing traffic, plus background traffic, plus the project's traffic on the committed network. For locations which are estimated to fail, the Applicant shall identify when each failure is expected to occur as a fraction of the development trips associated with on-site land use quantities, and estimated year. These parameters may be estimated by interpolating between the "Existing Scenario" analysis and the "Future Scenario" (without mitigation) analysis. If new corridors that shift travel patterns are proposed as the solution, the interpolation should be based on an analysis that does not consider the new corridor. In the case of large Mixed Use Planned Unit Developments (MPUDs), the Local Government reserves the right to modify timing of failure estimates to reflect or incorporate other pending or approved developments that are presented or become effective between the time the methodology is approved and the time when the list of improvements to cure identified deficiencies at build-out are finalized by the Local Government.
- h. Future Scenario with Mitigation – Analysis of existing traffic, plus background traffic, plus project traffic on the committed network with the inclusion of any other improvements that are required to restore the adopted level of service standard. This analysis scenario will be required only if mitigation is necessary as the result of the future scenario analysis. For purposes of analyzing site access

requirements only, the Local Government may allow consideration of improvements scheduled in the first five years of the Capital Improvement Program. For large MPUDs, the Local Government may require an additional five, ten, and/or fifteen year analysis of the financial feasibility of the improvements that are required to restore level of service to the adopted level of service standard.

- i. Heavy Vehicle – Vehicles that have more than four tires touching the pavement, including trucks, buses, and recreational vehicles (RVs). Trucks cover a wide range of vehicles, from lightly loaded vans and panel trucks to the most heavily loaded coal, timber and gravel haulers. RVs also include a broad range, including campers, both self-propelled and towed; motor homes; and passenger cars or small trucks towing a variety of recreational equipment, such as boats, snowmobiles, and motorcycle trailers.
- j. Major Intersections - All signalized intersections and/or unsignalized intersections with other major roadways.
- k. Major Roadway, Major Road Network, or Regulated Road – Shall include all collector and above-classified roadways per the latest St. Lucie TPO’s Federal Functional Classification Map.
- l. Pending Development – Is a development for which a complete application has been filed for (a) a Traffic Impact Study, (b) an Initial or Final Certificate of Capacity, or (c) an Initial or Final Certificate of Capacity Development Order.
- m. Road Segment – In an interrupted flow facility, a road segment is the piece of road from one traffic signal to the next traffic signal and is usually considered to include the traffic signal at the “downstream” end of the segment. “Road Facilities” are usually composed of several contiguous road segments.

APPENDIX B

ALTERNATIVE STUDY NETWORK IDENTIFICATION METHODOLOGY

Area of Influence Based

- a. The area to be studied will be based on the New External Trip Generation of the proposed development. The table below shall determine the development's area of influence.

New External Daily Trip Generation	Radius of Area of Influence
0 – 200	Only segments directly accessed by the proposed development
201 – 500	0.5 miles
501 – 1,000	1.0 miles
1,001 – 5,000	2.0 miles
5,001 – 10,000	3.0 miles
10,001 – 20,000	4.0 miles
Over 20,000	5.0 miles

- b. The radius of influence shall be measured from each connection of the project to the Major Road Network.
- c. All major signalized and unsignalized intersections on the roadway segments within the area of influence shall be studied.
- d. If the study radius ends between intersections identified in c. above, the study area shall extend to the next major intersection.

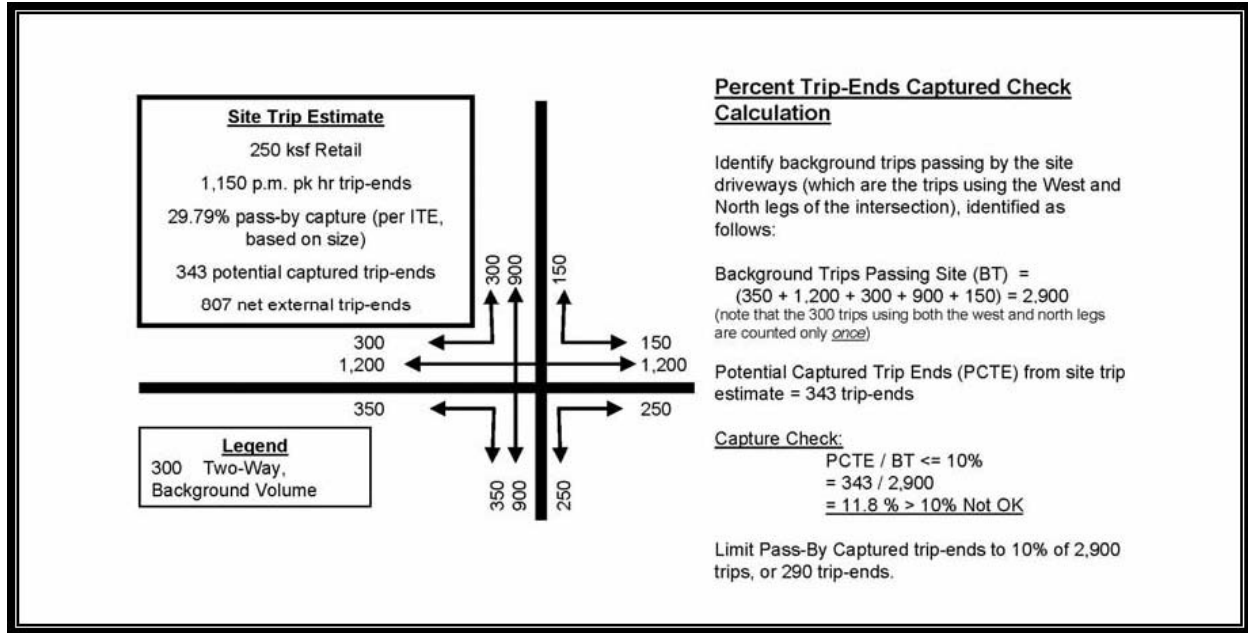
APPENDIX C

ANALYSIS REQUIREMENTS

- (1) If any analysis software is used as an alternative to the FDOT's generalized tables, a detailed LOS analysis of all Major Intersections within the facility is required.
- (2) The input data to the software shall be field verified and provided in the report including, but not limited to:
 - Geometry, including lane widths and turn-lane lengths
 - Heavy vehicle factor
 - Directional factor (D Factor, not to be less than 0.52 for the future conditions analysis)
 - Peak-hour factor (PHF, not to exceed 0.95 for the future conditions analysis)
 - Values of the above parameters should be estimated in the future conditions analysis to reflect unconstrained demand conditions
 - Existing signal timing and phasing can be obtained from the traffic signal maintaining agency. The existing signal timing, including its maximum and minimum settings, shall be used for the initial analysis of future conditions. Any timing change outside of the existing minimum and maximum setting may be presented for Local Government approval as part of the mitigation strategy
 - Segment lengths
- (3) If the FDOT generalized roadway service volume tables are used, the following information shall be provided in a separate table:
 - Class of roadway (interrupted or uninterrupted)
 - Maintenance jurisdiction (city, county, or state-maintained)
 - Area type
 - Posted speed
 - LOS standard
- (4) Other parameters that govern the roadway/intersection capacity analysis shall be based on the parameters described in the latest version of the Highway Capacity Manual.
- (5) The Local Government may require the inclusion of proposed or anticipated traffic signals in the future year condition that may not exist in the "existing condition", including signals at development entrances.

APPENDIX D EXAMPLE OF PASSER-BY CAPTURE

The graphic below depicts an example of how passer-by capture may be computed.



APPENDIX E

TRAFFIC COUNTS

- a. Weekday traffic counts shall be collected during typical weekdays (Tuesdays, Wednesdays, or Thursdays) and not immediately before, during, or immediately after a holiday or special event.
- b. For saturated intersections, the FDOT methodology shall be followed to estimate the turning movement counts by multiplying the average annual daily traffic (AADT) tube count at appropriate locations by field verified "D" and minimum K100 factors and by applying the percentage turns obtained from the field turning-movement counts.
- c. In no event, however, shall the estimated, turning-movement counts be less than the existing field counts.
- d. Tube counts at appropriate locations shall be provided for segment analysis using the FDOT procedures. The segment tube counts at mid-block locations shall be checked against turning-movement counts at near intersections. In general, the mid-block counts and turning-movement counts shall not be significantly different unless the difference can logically be explained.
- e. Approved FDOT or St. Lucie TPO maintained counts may be used if they are less than two years old. However, new counts may be requested if there are recent impacts or improvements to the transportation system that cause significant changes in traffic patterns. Counts more than two years old will not be acceptable unless otherwise approved by the Local Government during the Methodology Statement.

APPENDIX F

ANNUAL TRAFFIC GROWTH RATE DETERMINATION

Background traffic growth rates and background traffic volume estimates to be used in the TIS shall be based on techniques approved in the Methodology Statement (Section 2 of this document). Any combination of the following techniques is considered acceptable:

- a. Historical growth rates (minimum of the past three years) may be used in areas where the expected growth is representative of the past growth.
- b. Traffic from approved and pending developments may be required in areas where the historical trend is determined by the Local Government to be inappropriate. This may be accomplished through application of the latest adopted GTCRPM.
- c. To determine future traffic on roads that currently do not exist, the use of the GTCRPM (the latest, adopted model) is recommended.

The socioeconomic data shall reasonably represent, if appropriate, the approved or pending developments in the vicinity of the project as approved in the Methodology Statement. Minimum annual growth rates in all cases shall be one percent, unless otherwise approved in the Methodology Statement.

The assumed growth rate for each impacted roadway segment analyzed shall be presented in tabular form. The background traffic growth estimates will be reviewed by the Local Government to ensure growth reasonably reflects recent and expected growth trends. The connections of surrounding traffic analysis zones in the model should be reviewed to reflect other approved and pending developments and to ensure appropriate network loading.

APPENDIX G

TURN LANE NEED AND LENGTH DETERMINATION

a. Right Turn Lanes

The potential need for right-turn lanes at the site access connections shall be evaluated based on guidelines provided in the Florida Department of Transportation's Driveway Information Guide (September 2008). These guidelines are essentially based on roadway speed and type.

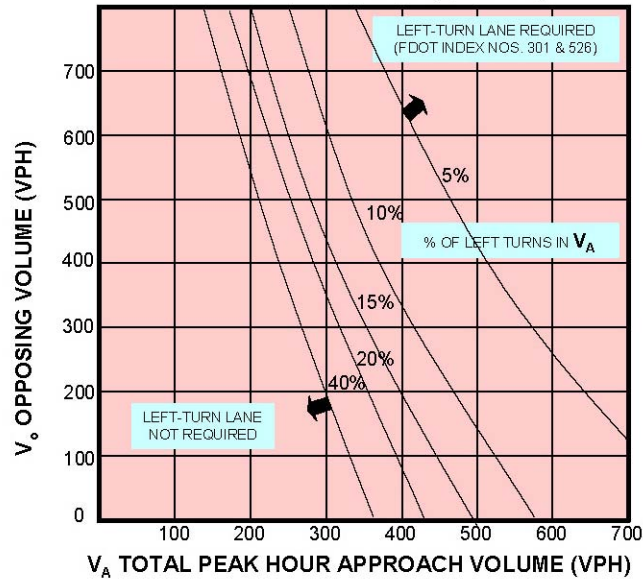
b. Left Turn Lanes

The need for left-turn lanes is typically evaluated based on research documented in National Cooperative Highway Research Program (NCHRP) Report 279 Intersection Channelization Design Guide. The curves included in this report are included below.

c. Deceleration and Storage Lengths

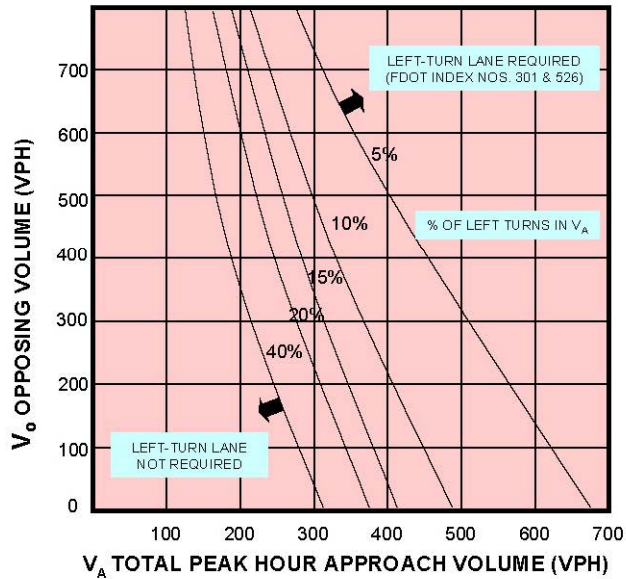
- 1) Deceleration length shall be based on Index 301 of FDOT's *Design Standards*.
- 2) Storage Length shall be based on 95th percentile queue estimates provided by the software used in the level of service computation.
- 3) The provision of deceleration and storage lengths may be modified or waived by the Local Government's Engineer or his/her designee if it is determined that due to site specific constraints, the implementation will not be feasible or practical.

GRAPH 2A. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (≤ 40 MPH)



Note: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A .

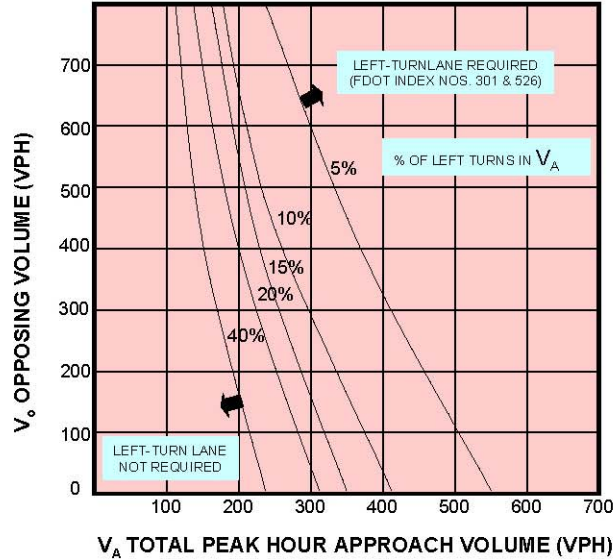
GRAPH 2B. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (45-50 MPH)



Note: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A .

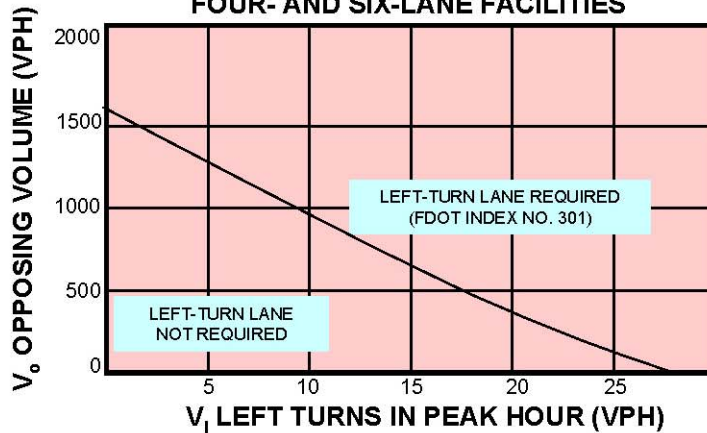
Graph 2A & 2B – Source: Derived from National Cooperative Highway Research Program Report #279.

GRAPH 2C. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (55-60 MPH)



Note: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A .

GRAPH 2D. LEFT-TURN LANE WARRANTS – FOUR- AND SIX-LANE FACILITIES



Note: When $V_O < 400$ VPH, a left-turn lane is not normally warranted unless the advancing volume (V_A) in the same direction as left-turning traffic exceeds 400 VPH. ($V_A > 400$ VPH).

Graph 2C & 2D – Source: Derived from National Cooperative Highway Research Program Report #279.

APPENDIX H

MITIGATION OF IMPACTS

This Appendix provides guidance on how the adequacy of mitigation will be technically determined and reviewed by the Local Government. Further, it is the responsibility of Local Government to ensure that technical calculations are applied in a manner that is consistent with the current Florida Statutes and Local Government ordinances and codes.

a. General Guidance

- 1) Improvements for mitigation of impacts at an individual location must work effectively and flow efficiently and safely relative to upstream and downstream roadway conditions. As examples:
 - A proposed improvement that relies upon dual lefts, three thru lanes, and a right turn lane to provide adequate capacity to serve the traffic demand at an intersection approach where only one lane feeds traffic might not be considered an effective, efficient or safe improvement because (for example) one lane can only feed traffic at a rate of 1,850 vehicles per hour but the intersection capacity analysis relies upon approach lane capacity in excess of the 1,850 vehicles per hour.
 - A proposed improvement that cannot achieve effective lane utilization due to downstream conditions would not be considered an effective improvement. For example, provision of a second through lane with a receiving lane on the far side of an intersection of only 300 feet in length would not be effective
 - Analyses of improvements to closely-spaced intersections should include evaluations of the traffic flow interaction and signal timings of the two intersections to ensure that the proposed improvements will achieve the intended result.
- 2) For unsignalized intersections, below-standard conditions should be mitigated by first considering the addition of auxiliary lanes, then consideration of signalization. If development traffic contributes to side-street volumes but the deficient delay is not mitigated through auxiliary lane addition, warrants for signalization are not met, and signalization is shown to be a viable solution when warranting conditions are met, then a financial contribution to future signalization may be considered as mitigation. See the "Proportionate Share Mitigation" section below for share computation methodology for adding a traffic signal at a previously unsignalized location.
- 3) Widening of the major road may also be necessary.

b. Mitigation Options

1. Restore to adopted standard – Identify an improvement at an impacted location that restores level of service to the adopted standard for the "future year with development traffic" condition, as defined in the Analysis Scenarios section of these Guidelines.

2. Proportionate Share Mitigation – The proportionate share payment shall be calculated as follows:

- a. Identify all the needed improvements to bring all deficient locations in the study network back to the adopted LOS standard,
- b. Submit a cost estimate of the required improvements.
- c. Calculate the proportionate-share cost of those improvements per the following formula:
 - i) For road segments:
 Proportionate share cost = Total cost of improvement triggered by the project X Project traffic / Increase in capacity created by the improvement. The increase in facility capacity shall be based on the generalized service volume table provided in the "Impacted Roadways/Intersections" section of this document. The above values shall be in units of peak hour, two-way values.
 - ii) For signalized and unsignalized intersections (where signalization is not needed):
 Proportionate share cost = Total cost of improvement triggered by the project X Project traffic / Increase in capacity created by the improvement.
 Where: Project traffic is the development traffic in all movements at the intersection increase and in capacity is the sum of the changes in physical capacity of all of the movements at the intersection
 - iii) For installation of signals at unsignalized locations:
 Proportionate share cost = Total cost of improvement x Project traffic / Increase in capacity created by the improvement,
 Where: Project traffic is the development traffic in all movements at the intersection and increase in capacity is the sum of the changes in physical capacity for the minor-street movements only at the intersection
 If other unforeseen situations arise, they will be dealt with on a case-by-case basis.
- d. Cost values shall include route study costs, design, right-of-way, construction, construction engineering/inspection costs, and contingency costs.
- e. Where an improvement to an alternate road (which draws background traffic away from an existing road that has been estimated to fail) is identified as a solution to congestion and where development traffic is assigned to both the existing road as well as the alternate road, the proportionate share computation will include the total development traffic on the existing road and the new road.

APPENDIX I

DE MINIMIS REQUIREMENTS

St. Lucie County, the City of Port St. Lucie and the City of Fort Pierce have different thresholds as to when to require a traffic impact study (project impacts to be considered as non de minimis). Therefore, this Appendix provides a general recommendation about when to consider a project impact as de minimis for transportation concurrency.

De Minimis Threshold

As a general guideline, it is recommended that a project impact is de minimis for transportation concurrency purposes if it would not affect more than 1 percent of the maximum volume at the adopted level of service of the affected transportation facility.