

AGENDA
**Regional Transportation Technical Advisory
Committee**

Wednesday, May 13, 2020 1:30 p.m.

Virtual Meeting

https://us02web.zoom.us/webinar/register/WN_EQBxJL14SISqJwWLU5MKLw

In response to the COVID-19 situation, in order to allow for social distancing, our meetings are being held virtually. Participants & attendees must click here to register and join the meeting:

https://zoom.us/webinar/register/WN_EQBxJL14SISqJwWLU5MKLw

REGULAR ITEMS

(All Items Open for Public Comment)

1. Call to Order, Roll Call and Recognition of Quorum
2. [Approval of Minutes - March 11, 2020](#)
3. Approval of Agenda
4. Public Comments
5. Comments from the Chair

ACTION ITEMS

1. NO ACTION ITEMS

NON-ACTION ITEMS

1. 2045 Regional Transportation Plan Update
2. Draft 2045 Regional Transportation Plan Document
3. DRAFT Resolution of Support for Regional Transportation Plan Policies
4. 2045 Regional Transportation Plan Outreach Update

5. Probed GPS / Mobile Spatial and Temporal Data DRAFT - Memorandum of Understanding

COMMITTEE REPORTS - no discussion

ADMINISTRATIVE ITEMS

1. Member Comments

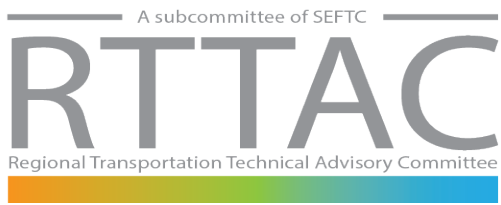
NEXT MEETING: June 10, 2020

***MOTION TO ADJOURN**

* Motion Requested

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. Persons who require special accommodations under the Americans with Disabilities Act or persons who require translation services (free of charge) should contact Erica Lychak, Title VI Coordinator at (954) 876-0033/0058 or lychake@browardmpo.org (or via Florida Relay at 711) at least seven days prior to the meeting.

For complaints, questions or concerns about civil rights or non-discrimination please contact: Erica Lychak, Title VI Coordinator at the numbers or e-mail above.



**Regional Transportation Technical Advisory
Committee (RTTAC)**

2.

Meeting Date: 05/13/2020

SUMMARY:

[Approval of Minutes - March 11, 2020](#)

Attachments

Approval of Minutes - March 11, 2020



DRAFT

MEETING MINUTES
BROWARD METROPOLITAN PLANNING ORGANIZATION
Regional Transportation
Technical Advisory Committee (RTTAC) Meeting
Wednesday, March 11, 2020 1:30 PM
100 West Cypress Creek Road
6th Floor, Suite 650
Fort Lauderdale, FL 33309-2181

Members Present

Acting Chair Bill Cross, Broward Metropolitan Planning Organization
Anna Bielawska, Palm Tran
Lois Bush, Florida Department of Transportation District 4
Loraine Cargill, South Florida Regional Transportation Authority
Kim Delaney, Treasure Coast Regional Planning Council
Tewari Edmonson, Miami-Dade Transportation Planning Organization
Ken Jeffries, Florida Department of Transportation District 6
Christina Miskis, South Florida Regional Planning Council
Jonathan Roberson, Broward County Transit
Andrew Uhlir, Palm Beach Transportation Planning Agency

Staff

Paul Calvaresi, Broward Metropolitan Planning Organization
Paul Flavien, Broward Metropolitan Planning Organization
Lisa Tayar, Recording Secretary, Prototype, Inc.

REGULAR ITEMS

(All Items Open for Public Comment)

1. Call to Order, Roll Call, and Recognition of Quorum

Acting Chair (A/Chair) Cross called the meeting to order at 1:32 p.m. Roll was called and it was noted a quorum was present.

2. Approval of Minutes – February 12, 2020

Motion made by Mr. Uhlir, seconded by Mr. Edmonson, to approve.

Ms. Cargill noted the following correction on p.7, paragraph 5: her question regarding connectivity had requested clarification of a funding match, as well as the reason the project was listed in fiscal year (FY) 2025 rather than FY 2026. It was determined that Ms. Cargill and Paul Calvaresi of Broward MPO Staff would make the necessary correction following today's meeting.

In a voice vote, the **motion** passed unanimously [as amended].

3. Approval of Agenda

Motion made, and duly seconded, to approve. In a voice vote, the **motion** passed unanimously.

4. Public Comments

None.

5. Comments from the Chair

A/Chair Cross noted that only two Regional Transportation Technical Advisory Committee (RTTAC) meetings remain, as the Regional Transportation Plan (RTP) will be complete in August 7, 2020.

ACTION ITEMS

1. Endorsement of the 2045 Regional Transportation Plan Policy Recommendations

Motion made by Ms. Delaney, seconded by Mr. Edmonson, to approve.

The Committee discussed the 2045 RTP policy recommendations, with Mr. Roberson requesting that the document's terminology refer to "transportation systems" rather than citing a specific mode. Mr. Calvaresi advised that there are some references to highway systems in order to show state partners there are no plans to replace or undermine those systems.

Mr. Roberson pointed out that transit has ongoing funding issues regarding operations and maintenance. Ms. Delaney recommended the addition of a clause to clarify that the highway system is one of multiple modes of transportation.

A/Chair Cross explained that one intention of the document is to focus on the need for increased flexibility in capacity programs while not taking away funds dedicated to the operations and maintenance of the state highway system. It was noted that these funds contribute to the overall system's state of good repair.

Mr. Edmonson stated that a bullet point referring to the demand for auto travel should also mention the limited ability to increase roadway capacity and the importance of regional transit to long-term mobility in support of expected growth. He also recommended mentioning the amount of growth anticipated in the region when referring to land use components, and noting the need for transit-oriented development (TOD) and

mixed-use development. The intent of the policy recommendations is to slow the rate of increased demand, which cannot entirely be addressed through transit.

The members further discussed technical, grammatical, and other changes to the language of the policy recommendations.

In a voice vote, the **motion** passed unanimously.

NON-ACTION ITEMS

1. 2045 Regional Transportation Plan Update

Mr. Calvaresi reported that the 2045 RTP remains on schedule. Now that policy recommendations have been approved, the document will go before SEFTC on April 3, 2020. The target adoption date for the RTP is August 7, 2020.

Over the next weeks, Committee members will receive emails and links to the RTP website so they may review documents. Staff is working to compile the results of all three Long Range Transportation Plans (LRTPs). Preliminary findings have identified gaps between the plans' cost feasible lists and unfunded needs. Staff is still working to identify what this means and how this affects policies.

Now that the policies have been endorsed, next steps include public outreach through the three transportation entities and the Public Participation Subcommittee. These groups will champion the RTP to the public, including business leaders and elected officials. The policies will be included in a handout that will be provided as part of larger presentations.

The documents emailed to members for review will lead up to the final 2045 RTP. This document will be approximately 30 pages, with online technical appendices. A draft RTP will come before the RTTAC in June 2020 before going to SEFTC in August. The Public Participation Subcommittee is developing a public outreach schedule tentatively extending from August through November. This will consist primarily of providing presentations at existing meetings.

A/Chair Cross reiterated that the intent of coordinated public outreach is to engage elected officials and business leaders to build support for legislative policy changes. The first public outreach will take place at the Southeast Florida Transportation Summit, which will be held by the Urban Land Institute (ULI) on April 22, 2020.

2. Draft Southeast Florida Transportation Council (SEFTC) Agenda

Mr. Calvaresi reviewed the draft Agenda for the April 3, 2020 SEFTC meeting, noting that in-depth presentations and discussions will accompany the RTP update in light of pending public outreach.

A/Chair Cross addressed an Agenda Item related to potential emergency powers for SEFTC in the event that physical meetings cannot be held. One possibility is for SEFTC members to determine and vote upon an emergency process for meetings at which all are not present in person. Another proposal is that the SEFTC members delegate authority to the three Executive Directors of the transportation agencies, with any action taken under this delegated authority to come back before the next physical SEFTC meeting.

The members discussed this Agenda Item, with Mr. Uhlir pointing out that there are few items on which SEFTC takes official action. A/Chair Cross suggested that if there is no opposition to the proposal of emergency powers, it should be placed on the Agenda so they may come to a decision. There was consensus among the RTTAC members to place emergency powers on the SEFTC Agenda and allow that body to determine if action is necessary for continuity of operations.

3. Florida Transportation Plan Update

Ms. Bush showed a PowerPoint presentation on the update of the Florida Transportation Plan (FTP), stating that her primary goal was to encourage the Committee members to provide input that will help shape the plan. The FTP provides policy guidance and establishes a policy framework for allocation of the state and federal funds that flow through the Florida Department of Transportation's (FDOT's) five-year Work Program.

The FTP not only sets a long-range vision for the future, it guides current transportation decision-making. The plan helps determine how to reach the goal of zero fatalities on Florida's transportation system, provide a more efficient mobile transportation system, meet the needs of a growing population, make the economy more competitive, enhance quality of life, increase opportunities for access to transit and other modes of transportation, and address emerging issues, including technology.

The 2020 FTP led to the creation of the Strategic Intermodal System (SIS), which includes the state's largest and most strategic transportation facilities across multiple modes of travel. The current FTP added choices as a goal in response to demand for a wider range of transportation options. It also added resilience to the infrastructure goal and emphasizes safety, the workforce, and plan implementation.

The updated FTP will have three elements:

- Vision element: focuses on major trends and themes that will shape the future of transportation in Florida over a long period of time
- Policy element: establishes goals and elements to guide FDOT and partners in making planning and investment decisions over a 25-year horizon
- Implementation element: focuses on the topics of technology, resilience, state/regional transportation, and regional/local needs, with specific defined actions for the short and medium terms

The seven FTP goals determined in the last update remain intact, with the addition of refinements such as addressing accessibility and equity in conjunction with the transportation choices goal based on input from the public and partners. These goals represent the themes historically highlighted in FTPs and also consider emerging trends in transportation systems.

Objectives identified for these goals often overlap across goal areas. The current update of the FTP will consider objectives and strategies across multiple topics to provide clear direction for implementation. FDOT prepares a number of statewide plans that are both guided by and inform the FTP. The plans of transportation partners, including transportation planning agencies and regional planning councils, are key source materials for the FTP update.

Ms. Bush reviewed polling software that would allow individual RTTAC members to provide input relating to the FTP's four key cross-cutting topics: technology, resilience, state/interregional transportation, and regional/local needs. All present provided responses to polling questions. Emerging trends documents were provided for several of the topics.

All input received will be considered by the project team and steering committee in updating the FTP. Regional workshops on the FTP will be held later in the year, including one in Miami on June 6, 2020, and one in Palm Beach County on June 17, 2020. Once a draft plan has been released in the fall, there will be a 30-day review period during which comments from the public may be submitted. The final FTP will be published by December 2020. Additional information can be found at www.floridatransportationplan.com.

4. Probed GPS / Mobile Spatial and Temporal Data Update and Discussion

Paul Flavien of Broward MPO Staff advised that this item refers to the acquisition of data. The three transportation agencies and Broward County heard request for information (RFI) presentations from multiple vendors and met afterward to discuss next steps. Mr. Edmonson, as Chair of the RTTAC Modeling Subcommittee, will develop a draft scope of services, while Mr. Flavien will write the memorandum of understanding (MOU) for the acquisition of data. The plan is for these two draft items to be available at the next RTTAC meeting.

COMMITTEE REPORTS (no discussion)

1. Modeling Subcommittee

Training for Southeast Florida Regional Planning Model (SERPM) 8 is scheduled for March 18, 2020, followed by a meeting of the Modeling Subcommittee on March 19.

2. Public Participation Subcommittee

Mr. Calvaresi advised that the Public Participation Subcommittee will contact the RTTAC members via email to coordinate an outreach schedule identifying potential stakeholders and appropriate meetings for presentations.

3. TSM&O Subcommittee

There was no update at this time.

ADMINISTRATIVE ITEMS

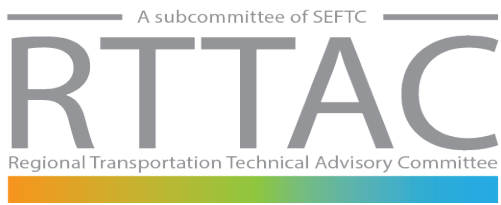
1. Member Comments

Mr. Uhlir reminded all present that Palm Beach County will host a Mobility Summit on April 1, 2020 at the Convention Center.

The members agreed by consensus to cancel the April 8, 2020 RTTAC meeting. Staff may contact the members regarding the possibility of electronic conferencing and/or communications.

There being no further business to come before the Committee at this time, the meeting was adjourned at 3:00 p.m.

NEXT SEFTC MEETING: April 3, 2020 @ Broward MPO Office



**Regional Transportation Technical Advisory
Committee (RTTAC)**

3.

Meeting Date: 05/13/2020

SUMMARY:

DRAFT Resolution of Support for Regional Transportation Plan Policies

Attachments

DRAFT RTP Policy Resolution

RESOLUTION NO. 2020-1

**A RESOLUTION OF THE _____ PLANNING _____
SUPPORTING THE TRANSPORTATION POLICIES IDENTIFIED IN THE
SOUTHEAST FLORIDA TRANSPORTATION COUNCIL (SEFTC) 2045
REGIONAL TRANSPORTATION PLAN**

WHEREAS, SEFTC was created in 2006 through an Interlocal Agreement among the Broward, Miami-Dade and Palm Beach Metropolitan/Transportation Planning Organizations/Agencies (B/M/TPO/A) to strengthen regional transportation planning coordination and to prepare a Regional Transportation Plan; and

WHEREAS, SEFTC facilitates transportation planning by engaging the public and fostering strong partnerships between the three MPOs with other agencies, local governments, and communities; and

WHEREAS, every five years SEFTC creates a Regional Transportation Plan (RTP) for Southeast Florida, in coordination with other regional and local plans, while moving toward an agreed-upon vision for transportation in South Florida; and

WHEREAS, the SEFTC unanimously adopted the 2045 RTP on August 7, 2020; and

WHEREAS, the 2045 RTP contains a comprehensive review of transportation funding sources and programs currently utilized and available to the Southeast Florida region, and;

WHEREAS, every five years the _____ MPO/TPO/TPA identifies transportation needs and assigns eligible funds through the long range planning process, and;

WHEREAS, there is currently a misalignment between eligible funding uses and the identified transportation needs, and;

WHEREAS, the adopted 2045 RTP concluded transportation planning and funding policies would need to change to meet the transportation needs of Southeast Florida's growing population and economy, and;

WHEREAS, the analysis has shown that investments in a robust transit system and associated land use will accommodate both the current and future population at no additional cost, and;

WHEREAS, the adopted 2045 RTP includes recommendations for transportation planning and funding policies to meet future needs; and

WHEREAS, Regional transit is key to support anticipated growth and long-term mobility, complementary land use is essential, increased flexibility within funding programs is crucial and New revenue sources are necessary, to move the growing population of Southeast Florida;

NOW, THEREFORE, BE IT RESOLVED BY THE _____ Planning _____, that this Board supports the policy recommendations of the 2045 Regional Transportation Plan.

SECTION 2. SEVERABILITY

If any section, sentence, clause or phrase of this Resolution is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this Resolution.

SECTION 3. EFFECTIVE DATE

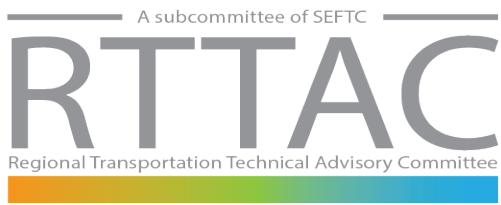
This Resolution shall become effective upon adoption.

The foregoing Resolution was offered by _____ who moved its adoption. The motion was seconded by _____ and upon being put to a vote, the motion passed. The Chairman thereupon declared the Resolution duly adopted this ___ day of _____, 2020.

SOUTHEAST FLORIDA TRANSPORTATION COUNCIL

By: _____
Chairman

_____, Chairman,
MPO/TPO/TPA



**Regional Transportation Technical Advisory
Committee (RTTAC)**

4.

Meeting Date: 05/13/2020

SUMMARY:

2045 Regional Transportation Plan Outreach Update

Attachments

DRAFT RTP Outreach Plan



DRAFT RTP Policy Outreach Plan

April 28, 2020

Audience	Timeline	Counties	Description	Delivery Method	Desired Action
SEFTC	August 2020	PB Br MD	Present RTP and associated policies	Sunshined meeting PowerPoint Web companion (draft)	Adopt RTP and policies
Advocacy teams	August 2020	Br MD	Present RTP and associated policies	Meeting PowerPoint Web companion	Provide plan for bringing policies to fruition
MPO Boards	September 2020	PB Br MD	Present RTP and associated policies Resolution of Support for policies	Sunshined meeting PowerPoint Web companion (draft)	Adopt resolution of support for policies
League of Cities	September 2020	PB Br MD	Present RTP policies Resolution of Support	Meeting PowerPoint Web companion	Resolution of Support
State Delegation	September – November 2020	PB Br MD	Present RTP policies	Meeting PowerPoint Web companion	Willingness to sponsor a bill or make amendments to bills
Chambers of Commerce	October 2020	PB Br MD	Present RTP policies	Meeting PowerPoint Web companion	RTP policies incorporated into CoC policies.
MPOAC	October 2020	Statewide	Present RTP and associated policies	Sunshined meeting PowerPoint Web companion	RTP policies incorporated into MPOAC policies.



**Regional Transportation Technical Advisory
Committee (RTTAC)**

5.

Meeting Date: 05/13/2020

SUMMARY:

Probed GPS / Mobile Spatial and Temporal Data DRAFT - Memorandum of Understanding

Attachments

Probed GPS / Mobile Spatial and Temporal Data DRAFT MOU

Probed GPS / Mobile Spatial and Temporal Data DRAFT Scope

MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN THE BROWARD METROPOLITAN PLANNING ORGANIZATION, THE MIAMI-DADE TRANSPORTATION PLANNING ORGANIZATION, THE PALM BEACH TRANSPORTATION PLANNING AGENCY, THE FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT FOUR AND DISTRICT SIX AND BROWARD COUNTY FOR ACQUISITION OF PROBED GPS/MOBILE SPATIAL AND TEMPORAL DATA FOR SOUTHEAST REGIONAL PLANNING MODEL (SERPM) DEVELOPMENT, MULTI-MODAL TRANSPORTATION PLANNING AND PERFORMANCE MANAGEMENT RELATED ACTIVITIES

1. PURPOSE

This Memorandum of Understanding (MOU) is entered into jointly by the following six (6) entities: Florida Department of Transportation, District 6 (FDOT-D6) - an agency of the State of Florida; the Florida Department of Transportation, District 4 (FDOT-D4) - an agency of the State of Florida; Broward County (BC); the Broward Metropolitan Planning Organization (MPO); the Miami-Dade Transportation Planning Organization; and the Palm Beach Transportation Planning Agency, (hereafter these agencies are called PARTNERS and the aforementioned Counties will be called the Tri-County Region). The PARTNERS are committed to data collection methodologies that are both cost effective and provide quantifiable value for multi-modal transportation planning efforts in the Tri-County Region.

The purpose of this MOU is to assign roles and responsibilities to PARTNERS and create a decision-making framework for the acquisition of probed GPS/mobile spatial and temporal data ("Big Data"). This data will serve to support both the Southeast Regional Planning Model (SERPM), various other multi-modal transportation planning and performance management activities in the Tri-County Region. Furthermore, this MOU is to ensure mutual compliance and adherence with the statutory federal, state, county requirements, and other related policies and procedures in procurement and production.

2. BACKGROUND

Beginning with the 2035 Long Range Transportation Plan (LRTP) effort, the Tri-County Region formally recognized SERPM as the region's travel demand model tool. SERPM 8 development was supported by these agencies conducting a Tri-County Regional Travel Survey completed in 2017. This shared and coordinated approach led to an effective and efficient use of transportation planning funds among the PARTNERS. Prior to this, each of the MPOs supported their respective county-wide models, which lacked the ability to dynamically model the heavy travel interactions between counties.

2.1. Southeast Florida Transportation Council (SEFTC)

After several years of ad hoc cooperation, the Southeast Florida Transportation Council was created, under Florida Statutes Chapter 339. 175, to serve as a formal forum for policy coordination and communication to carry out these regional initiatives agreed upon by the MPOs from Miami-Dade, Broward, and Palm Beach Counties. An Interlocal Agreement between the three parties was completed in 2005 paving the way for the first SEFTC meeting in January 2006. SEFTC is the primary policy

coordinating body for regional matters within the Tri-County region. The Regional Transportation Technical Advisory Committee (RTTAC) is the body reporting to the SEFTC and coordinating all aspects of technical issues. It also comprises several subcommittees, including a Modeling Subcommittee, RTTAC-MS.

2.2. Regional Transportation Technical Advisory Committee (RTTAC)

Pursuant to, the RTTAC and RTTAC-MS structure, membership and roles will follow those identified in the Interlocal Agreement creating SEFTC and subsequent amendments between the MPOs in the Tri-County Region.

The RTTAC is a staff-level working group tasked to address many of the issues brought before the SEFTC. The RTTAC is comprised of numerous agencies within the region including the following:

- Florida Department of Transportation District 4 (FDOT-D4)
- Florida Department of Transportation District 6 (FDOT-D6)
- Miami-Dade Transportation Planning Organization (TPO)
- Broward Metropolitan Planning Organization (MPO)
- Palm Beach Transportation Planning Agency (TPA)
- Palm Tran
- Miami-Dade Transportation and Public Works (DTPW)
- Broward County Transit (BCT)
- South Florida Regional Planning Council (SFRPC)
- Treasure Coast Regional Planning Council (TCRPC)
- Miami-Dade Expressway Authority (MDX)
- South Florida Regional Transportation Authority (SFRTA)
- Florida Turnpike Enterprise

2.3. Regional Transportation Technical Advisory Committee - Modeling Subcommittee (RTTAC-MS)

The Regional Transportation Technical Advisory Committee - Modeling Subcommittee (RTTAC-MS) was created in 2008 to provide a forum for coordination of modeling activities. The RTTAC-MS is a technical staff-level working group tasked to address many of the modeling related issues brought before the RTTAC and SEFTC. The RTTAC-MS is made up of five voting representatives: one each from FDOT-D4, FDOT-D6, Broward MPO, Miami-Dade TPO and Palm Beach TPA. Additional agencies also contribute to the RTTAC-MS through participation in discussions and meetings. As such, the RTTAC-MS has overseen the model development and maintenance efforts as part of the 2035, 2040 and 2045 LRTP cycles.

The RTTAC-MS provided major input into coordination of funding for model related activities and decision to transition into an Activity Based Model (ABM). It has also served as the oversight body for the SERPM 8 development and supports activities outlined in the prior MOU. The RTTAC-MS is expected to continue its oversight role under this MOU. Under this effort only, Broward County, as they will be providing funding will be considered a PARTNER and therefore will have all rights and responsibilities.

3. ROLES AND RESPONSIBILITIES

All PARTNERS shall abide by the defined roles and responsibilities in the following section. Each PARTNER plays a critical role in the successful implementation of regional efforts such as Big Data Acquisition. Awareness and appreciation of each other's roles is essential for effective co-operation. Joint coordination should extend across the planning, management, and delivery of major products.

3.1. Travel Data Collection

Travel behavior is dynamic and fluctuates along with trends in urban development and advances in technology. Since the year 2000, these changes have accelerated within the Tri-County Region. As such, the PARTNERS recognize the need for a robust and multi-dimensional data collection effort to primarily enhance the SERPM product through a more comprehensive understanding of the Tri-County Region's travel characteristics and the variations over time. The PARTNERS also recognize that the data collected can serve to support other transportation and non-transportation-related functions.

The Southeast Florida Regional Travel Study was completed in 2017 and represented a major effort for the region to collect information on household characteristics and travel activity on selected sample household's representative of the Tri-County Region. The findings from the household survey were instrumental in development of SERPM 8. Additionally, the Regional Travel Study collected GPS based travel data for system and freight movement. This data was very useful in understanding regional travel behavior and served as a supplement to the household information. It is the intent of the parties to further explore the utility of these "big data" sources to support the enhancements and the development of SERPM and other transportation planning activities.

PARTNERS desire to use probed GPS/mobile spatial and temporal data ("Big Data"). Big Data is quickly becoming the state-of-the-art data collection methodology as it provides a more cost-effective means of collecting vital travel information than traditional methods such as household travel surveys. In addition, Big Data can be used to inform various multi-modal transportation planning and performance management efforts being undertaken by the PARTNERS.

3.1.1 Big Data Acquisition

The following is a list of key responsibilities of the PARTNERS related to Big Data Acquisition activities in support of SERPM9 development that all PARTNERS shall abide by:

1. The PARTNERS agree that Broward MPO will serve as the lead agency for the acquisition of the Big Data to support: the SERPM 9 development, 2050 LRTP development, multi-modal transportation planning and performance management activities in Southeast Florida, as identified in this MOU. In close coordination and direction from the PARTNERS through RTTAC-MS, the Broward MPO will be responsible for coordination of the Big Data Acquisition vendor contract development, vendor procurement and services performed under the Big Data

Acquisition effort. The Broward MPO will also coordinate the Big Data Acquisition effort with federal agencies, state agencies, and other private and public entities.

2. All PARTNERS of this MOU will participate in the selection of the Big Data Acquisition vendor by following the Broward MPO's vendor selection process. All the PARTNERS will participate in the management of the Big Data Acquisition vendor through a cooperative decision-making process guided by the RTTAC-MS.
3. PARTNERS agree to provide funds as specified in **Table 2** to acquire at a minimum:
 - a. probed GPS/mobile spatial and temporal data which depict people and vehicles movements and can portray trip origins and destinations of the region, including transit, freight and non-motorized trips. (All data deliverables will be specified in a separate scope of services)
4. PARTNERS agree that the RTTAC-MS will serve as the primary oversight and coordination mechanism for the Big Data Collection efforts. Each party to this MOU will designate a representative and alternate who has the authority to speak for their respective agency on the RTTAC-MS in relations to the Big Data Acquisition. The representatives will be available, upon adequate notice, to attend and participate in the RTTAC-MS meetings or otherwise provide timely input into the preparation, coordination and review of the Big Data Acquisition interim and final products. Prompt requests for input will be forwarded to the appropriate contact person(s) for a timely review and comment period.
5. PARTNERS cooperatively will develop selection criteria for Big Data Acquisition vendor.
6. PARTNERS agree to make available to the Broward MPO and the Consultant, at no cost to the PARTNERS, relevant, readily available, resources such as data and information systems to the extent achievable for use in the proposed Big Data Collection.
7. All PARTNERS will be guaranteed access to the Big Data acquired in accordance to the MOU.
8. PARTNERS will bear in-kind contribution in their respective capacities for vendor contract selection or administration.

4. DURATION OF MEMORANDUM OF UNDERSTANDING

This MOU shall take effect September 1, 2020 and shall be in force through December 31, 2024. Nine (9) months before the expiration of the MOU, the PARTNERS will examine the terms hereof and agree to either reaffirm the same, amend provisions or discontinue MOU arrangement. However, the failure to amend or to reaffirm the terms of this MOU shall not invalidate the decisions rendered among the PARTNERS during the term of this MOU.

It is recognized that continued coordination will be necessary to ensure the utility of SERPM 9 products beyond 2024. Future coordination may lead to the development of new MOU's or Joint Participation Agreements (JPA) among the various PARTNERS and federal, state, and/or regional agencies.

The following is a general schedule of the major work elements related to the SERPM support including Big Data Acquisition. Detailed schedules and timetables will set by the PARTNERS through the RTTAC-MS.

Table 1 – SERPM 9 Support Schedule

Calendar Year Task (Jan-Dec)	2020	2021	2022	2023	2024	
Fiscal Year Task (Jul-Jun)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
SERPM 8 Maintenance/Support						
SERPM 9 Procurement						
Travel Data Collection						
SE Data Development						
SERPM 9 Model Development (to Delivery)						
SERPM 9 Development Refinements						

5. FUNDING

Because the proposals may involve funding, concurrence, or permitting actions from several of the PARTNERS, each PARTNER will be responsible for identifying the issues that must be addressed in the process to satisfy its respective statutory requirements. Each of the signatories to this MOU agree to the funding schedule as shown in **Table 2** which covers the activities outlined in this MOU. This funding arrangement shall be included as part of the respective MPO’s Unified Planning Work Programs (UPWP) for the time periods covered under this MOU.

Given that the data collection level of effort is largely based on the population distribution, The MPO’s contributions represent a per capita distribution of funding.

The annual breakdowns for these activities may be modified based on expected workload/costs by the RTTAC-MS without a formal amendment of the MOU, if said modification does not exceed the total amount of the MOU. Such modifications shall be reflected accordingly in the respective M/TPO/A’s UPWPs.

The Broward, Miami-Dade and Palm Beach M/TPOs/As agree to fully fund the cost of socio-economic data development and updates of their respective jurisdictions.

Table 2 - SERPM 9 Partner Funding Schedule

		FY 2020	FY 2021	FY2022	FY 2023	FY 2024	TOTAL
Travel Data Collection							300,000
	FDOT	0	75,000	75,000	0	0	150,000
	MPO	0	12,500	12,500	0	0	25,000
	TPO	0	30,000	30,000	0	0	60,000
	BC		12,500	12,500			25,000
	TPA	0	20,000	20,000	0	0	40,000

6. AMENDMENTS

PARTNERS may only modify this MOU by unanimous agreement of the parties to the MOU. This MOU and any amendments or modifications to the MOU shall become effective upon execution.

7. SEVERABILITY

All PARTNERS agree not to withdraw from their participation in this MOU prior to its expiration date, since withdrawing participation may adversely impact the development schedule for SERPM 9. Withdrawal could also adversely impact other partners’ ability to complete their respective 2050 LRTPs before the adopted 2045 LRTPs expire.

8. CONCLUSIONS

In signing this MOU, the undersigned understands and accept the roles and responsibilities assigned to each of the parties. Each of the parties agrees to pursue maximum cooperation and communication to ensure that the project fully complies with applicable Federal, State and County requirements and results in a minimum duplication of effort and is performed in a cost-effective manner.

SIGNATURE OF PARTICIPATING PARTNERS

For the Florida Department of Transportation FDOT - District 6

Date

Witness

For the Florida Department of Transportation FDOT - District 4

Date

Witness

For the Broward Metropolitan Planning Organization

Date

Witness

For the Miami-Dade Transportation Planning Organization

Date

Witness

For the Palm Beach Transportation Planning Agency

Date

Witness

For Broward County

Date

Witness

Work Order # XX
Activity Based Model Development/Performance Management
Big Data Acquisition
Scope of Services
Version 5/4/2020

I. Purpose

The Regional Transportation Technical Advisory Committee – Modeling Subcommittee (RTTAC-MS) is looking for Big Data sources and their applicability in evaluating regional travel behavior and in estimating, calibrating, and validating regional travel demand models. The data set should also lend itself for uses related to federal performance management measures and transportation planning activities. The Committee is looking to award a contract to purchase a Twelve (12) month data set from a qualified firm who can provide a Big Data set to support the aforementioned activities.

- A. As a part of this effort the RTTAC-MS will evaluate proposals based on criteria that will generally fall into the following three (3) broad categories:
 - 1. Review and comparison of how other metropolitan areas have used the proposed Big Data set in similar applications
 - 2. Identification and analysis of potential Big Data uses, including strengths, limitations, and appropriateness for various types of analytical studies
 - 3. Recommendation of whether the RTTAC-MS should pursue a Big Data set purchase and, if so, provide a corresponding strategy to invest in Big Data to support future transportation planning studies and analyses as well as support for regional travel demand forecasting activities.
- B. The RTTAC-MS is ultimately interested in whether Big Data analytics can be used to appropriately examine travel behavior and mobility in the South Florida region, and gain insight on the strengths and limitations of Big Data sources in conducting mobility analyses.
- C. Proposals are intended to provide the RTTAC-MS with necessary detailed information and understanding of the strengths, limitations, applicability, and acquisition costs of the proposed Big Data set before committing to an investment in Big Data. The RTTAC-MS seeks to determine the feasibility of using the Big Data set to:
 - 1. Analyze regional travel and mobility to help validate data the region collected through conventional survey and traffic monitoring programs, and to provide additional information and understanding of aspects of mobility that are not easily captured through conventional programs.
 - 2. Estimate, calibrate, and validate its regional travel demand model.
 - 3. Fulfill federal mandates for a regional Congestion Management Process (CMP).
 - 4. Understand the characteristics and impacts of emergent travel options and technologies on travel throughout the region, including, but not limited to, the rapid rise in the use of Transportation Network Companies (TNCs), such as Uber and Lyft, traffic information and route navigation apps such as Google Maps and Waze, and real-time arrival and trip-planning for transit, ridesharing, bike sharing, etc.

II. Background

The RTTAC-MS is made up of the three Metropolitan Planning Organizations of the Miami Urbanized Area (Broward Metropolitan Planning Organization, the Miami-Dade Transportation

Planning Organization and Palm Beach Transportation Planning Agency) and Districts Four and Six of the Florida Department of Transportation (PARTNERS). The RTTAC-MS is a subcommittee of the Southeast Florida Transportation Council (SEFTC). The PARTNERS share the responsibility of developing, updating and maintaining the Southeast Florida Regional Planning Model (SERPM). The SERPM is used by the three MPOs in the development of their respective Metropolitan Transportation Plans and is also used by FDOT Districts Four and Six for multimodal projects.

One of the critical elements in the development and update of the SERPM model is current travel behavior data. As this is an ever-evolving field with technological advances in general and urban infill trends within the Tri-County Region (Broward, Miami Dade and Palm Beach Counties), the PARTNERS recognize the need for a robust and multi-dimensional data collection effort to continue to enhance the SERPM model through better understanding the Tri-County Region's travel patterns and characteristics. The PARTNERS also acknowledge that the data collected may be able to support activities beyond transportation-related functions.

The Southeast Florida Regional Travel Study was completed in 2017 and represented a major effort for the region to collect information on household characteristics and travel activity on selected sample household's representative of the Tri-County Region. The findings from the household survey were instrumental in the development of SERPM Version 8. Additionally, the Regional Travel Study collected global positioning systems (GPS) based travel data showing origin-destination, system and freight movement at the Traffic Analysis District (TAD) level. This data was very useful for the PARTNERS to understand travel behavior and supplemented the household trip making information obtained from the Regional Travel Study. It is the intent of the PARTNERS to further explore the utility of these "big data" sources of location-based data to support the enhancements and the development of SERPM and other transportation planning activities.

The PARTNERS intend to use state-of-the-art and innovative techniques for data collection that will lead to more cost-effective means of collecting vital travel behavior information. Innovative techniques refer to methods such as usage of mobile device data for anonymously identifying origin-destinations or usage of existing National Household Travel Survey (NHTS) data to supplement and potentially supplant some of the traditional methods of identifying household travel characteristics.

III. Proposal Format

Section 1 – State-of-the-practice review of the use of the Big Data set to analyze mobility and travel behavior by other Metropolitan Planning Organizations.

- A. Proposal shall include the following evidence of other metropolitan areas' experience using the proposed Big Data set to support mobility and travel behavior analyses and regional travel demand modeling activities.
 1. Documented evidence of Origin-Destination matrix outputs from a travel demand model where the provided data set improved the model output results,

2. Quantified examples and explanations of the modifications made to the model inputs that improved the calibrated model outputs, and
 3. Documentation and/or letters of support from MPO/Consultant(s) that the provided data set improved model results.
- B. The metropolitan areas examined should be comparable to the South Florida region in size, population, population diversity, land mass, complexity of regulatory environment, or other appropriate measure(s) that would provide appropriate insights for the Region.
- C. The analysis should identify the following:
1. Evidence of MPO's using/used the proposed Big Data set,
 2. How the data set was applied, including what tasks (model calibration, congestion monitoring etc.) it helped accomplish and the quantifiable effectiveness,
 3. Whether the data set was used, or could be used, to replace existing data collection/analysis methods and programs,
 4. Whether the data set was used, or could be used, to supplement and validate existing methods and programs,
 5. Whether the data set was used as a part of a first-time methodology to address a new requirement or planning study,
 6. Lessons learned or changes in course of action in applying the data set to regional planning analysis,
 7. What the strengths, limitations, reliability, and appropriateness of the data set are and what the various analyses and applications can be used for,
 8. Methodology conveying any remedy in data limitation, bias, any over representation.

Section 2 – Key items to be addressed in the proposed data set relating to regional travel and mobility as well as travel demand modeling.

The data should depict people, freight and goods, vehicles movements, and trip origins and destinations in the Tri-County region at a Traffic Analysis District (TAD) and/or Traffic Analysis Zone (TAZ) level to provide insights and/or inferences on the following metrics and address the below considerations:

- A. Travel Demand Modeling – *Person and Vehicle Origin-Destination*
1. How are the Origin-Destination (O-D) patterns obtained; and by what modes is the data available?
 2. How is the data set generated and cleaned?
 3. What is the sampling frequency on the data set and how does the data set address the adverse effects on GPS positional accuracy caused by dense urban environments?
 4. What is the ability of data to obtain geographic O-D for trips that use a specific road segment?
 5. How does the data set determine mode choice behavior? – For example can data identify the destination choice and mode choice for areas with high concentrations of low-income and/or minority residents?

6. How does the data set distinguish between transit and auto modes? And how is this validated?
7. Can the data set identify First and Last Mile of persons, goods delivery, and door service delivery?
8. Does the data set quantify Pedestrian, Bike, and Micro-mobility trip making characteristics and patterns?
9. How are bicycle trips identified and validated?
10. Can the data give insights into understanding interactions between traffic, traffic congestion, and transit bus operations?
11. Does the data set provide travel time and speed Data (by time of day)?
12. How is information about vehicle travel speeds, time, and volumes obtained and/or validated?
13. Does the data set include understanding of the dynamically priced express toll lanes system in the region, including who is using them?
14. Does the data set understand and differentiate the volume breakdown between the adjacent general-purpose lanes and dynamically priced lanes as well as the magnitude of changes in traffic volumes in the general purpose and dynamically priced lanes that result in High Occupancy Toll (HOT) lane price changes?
15. Does the data set identify trip purpose and/or type of destination?
16. Does the data set include estimates of through travel and external travel (external-to-internal and internal-to-external), including external transit travel, which is not currently included in the travel demand forecasting model?

B. Transportation Network Companies (TNCs) – *Ride Hailing Usage*

1. Does the data set quantify the magnitude and O-D patterns on TNC trips?
2. Can the data set help with assessing the existing and forecasting the future relationship between TNCs and transit travel (i.e., understanding where TNCs support/enhance transit use and where TNCs compete with/supplant transit travel)?
3. Can the data set inform how and where (across the region, by land use, by residential and commercial density) TNCs are influencing Vehicle Miles of Travel (VMT)?
4. Does the data set provide temporal distribution of TNC ridership (in rush hours, weekday/weekend, monthly, and quarterly)?
5. Does the data set give insights into the demographics of TNC riders in the region, including but not limited to income, race/ethnicity, and gender?

C. Travel Demand Management (TDM)

1. Can the data set aid in evaluating the influence of employer-based TDM policies on travel behavior (e.g. obtaining more insight about the influence of teleworking policies on trip generation)?
2. Does the data set support TDM Model Calibration?
3. Can the data set estimate the current and forecast future share of the workforce that are telecommuting on a given day?

D. Connected Autonomous Vehicles (CAVs) – *Autonomous Vehicle Usage*

1. Does the data set have any information on O-D information about CAVs, both personally owned and fleet vehicles?
 2. Can the data set inform any insights on the impacts of CAVs on parking, including revenue generation?
 3. Any general availability of data on CAVs.
- E. Traffic Counts
1. Does data set provide any permanent/temporary/hourly traffic count data?
 2. Does data set use traffic count data collected by State DOTs, or related partners, for data validation?
- F. System Performance/Congestion Management Process
1. Can the data be used for monitoring and/or evaluating transportation system performance?
 2. How can the data help with understanding the impacts of congestion management strategies?
 3. Can the data help with recognizing trends in new congestion management strategies and begin to predict/track their impacts?
 4. Can the data set help with understanding impacts of specific events, such as major traffic incidents, severe weather events, or major scheduled special events, as well as the impacts of strategies employed to manage transportation impacts of these events?
- G. Other Considerations
1. Does the data set include regional freight and commercial vehicle travel?
 2. Intercity bus or any transit travel.
 3. Can the data set help with validating data collected from household travel surveys and OD transit surveys?
 4. Can the data set be integrated with household travel surveys to provide both long distance and local travel behavior data?
 5. Does the data set allow for real-time monitoring of traffic/transit/rail data?
 6. How can the data set proposed be used for transportation related project selection?
 7. How can the data set help in understanding how the use of alternative modes for commuting (bike, walk, rideshare, transit, car/vanpool, first/last mile, scooter, telework) affects the overall network in terms of major highways and arterials and how the level of service (LOS) would look if the individuals using those modes drove alone instead?
 8. How does the data set address the inherent bias towards younger more affluent commuters by using smartphone data?
 9. How is data filtered, corrected and validated?

Section 3 – Costs and Technical Requirements

Proposal should also include the following information:

- A. The commitment that would be required of the RTTAC-MS to procure Big Data—cost breakdowns of data purchase/subscriptions options.
- B. The ability/limitations of the RTTAC-MS to partner and/or share data with other stakeholders, including licensing restrictions.
- C. Minimum IT requirements to adequately store, process, query, analyze, and document results either locally or in cloud-based platforms.
- D. Technical staff competencies required to manage and conduct Big Data analyses.
- E. Training requirements to ensure continuity of staff competencies to manage and conduct Big Data analyses.
- F. Assurances of a consistent methodology used to develop and maintain Big Data over the long term (years, possibly decades) to ensure the integrity of time-series analyses.
- G. Proposal should also be cognizant of partnering opportunities that may exist with other agencies to leverage resources and gain efficiencies. For example, if one agency already subscribes to a recommended Big Data source but that license only covers a portion of the region, then what incremental investment might be required of the RTTAC-MS in order to have access to this Big Data for the entirety of the region. Similarly, if one agency already subscribes to a recommended Big Data source that covers the entire region but has limited licensing, granularity, and sharing restrictions, what incremental investment might be needed to modify the terms of the license to expand the scope of use and access of the Big Data.

IV. SCHEDULE

The duration of this contract will depend on the pricing options presented to the RTTAC-MS Committee.

VI. ESTIMATED BUDGET

The estimated budget for this contract is a lump sum amount of **\$300,000**; comprised of the below agency funding contributions:

<u>Agency</u>	<u>Funding Contribution</u> <u>(\$)</u>
FDOT	150,000
MPO	25,000
TPO	60,000
BC	25,000
TPA	40,000
TOTAL	300,000