

AGREEMENT

Between

BROWARD METROPOLITAN PLANNING ORGANIZATION

And

CARTER & BURGESS, INC.

For

**CONSULTANT SERVICES FOR
PREPARATION OF BROWARD COUNTY
YEAR 2035 LONG RANGE TRANSPORTATION PLAN UPDATE**



SCOPE OF SERVICES

for

THE PREPARATION OF

BROWARD METROPOLITAN PLANNING ORGANIZATION

YEAR 2035 LONG RANGE TRANSPORTATION PLAN UPDATE

TABLE OF CONTENTS

1. INTRODUCTION..... 1

2. TASKS 2

TASK 1 PUBLIC INVOLVEMENT PROCESS 3

TASK 2 GOALS, OBJECTIVES AND POLICIES (GOPs) 8

TASK 3 DATA COMPILATION AND REVIEW 9

TASK 4 MODEL DEVELOPMENT AND REVIEW 12

TASK 5 NEEDS ASSESSMENT 13

TASK 6 EFFICIENT TRANSPORTATION DECISION MAKING (ETDM) 19

TASK 7 FINANCIAL RESOURCES 19

TASK 8 COST FEASIBLE PLAN 21

TASK 9 ENVIRONMENTAL JUSTICE 23

TASK 10 REGIONAL PLAN 24

TASK 11 2035 LRTP ADOPTION 25

3. REPORTING 27

4. DOCUMENTATION..... 28

5. SCHEDULE..... 30

6. MEETINGS 31

7. RESPONSIBILITIES 33

LIST OF TABLES

Table 1..... 7

Table 2..... 27

1. INTRODUCTION

The CONSULTANT and the Broward Metropolitan Planning Organization (MPO) mutually agree to furnish, each to the other, the respective services, information, and items as described herein for the Year 2035 Long Range Transportation Plan (LRTP) update. This consists of the preparation of an update of the LRTP for the Broward Metropolitan Planning Area in accordance with the requirements of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, Public Law 109-59); the Metropolitan Transportation Planning regulations contained in 23 CFR Part 450 and 49 CFR Part 613; the requirements of section 339.175 of the Florida Statutes; and the provisions and specifications herein.

This scope of services specifies the tasks to be accomplished in the LRTP update. The updated LRTP will have 2035 as the target horizon year and must be cost feasible and implementable by the appropriate local and state transportation agencies. The LRTP will include long-range and short-range strategies/actions that lead to the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods. In keeping with the intent and requirements of SAFETEA-LU and the requirements stipulated by the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Florida Department of Transportation (FDOT) this plan update will be multimodal in nature and include highways, mass transit, pedestrian facilities, bikeways, waterborne transportation, and freight transportation. The plan will also include an Intelligent Transportation System (ITS) element, consistent with the National ITS Architecture, and provisions to improve safety and security and protect the environment as required by the SAFETEA-LU legislation. In addition, the plan will include safety and security elements to meet the Federal requirements indicated in 23 CFR 450.322(h).

The update will include a Public Involvement Process (PIP), which shall provide interested parties with reasonable opportunities to be involved in the development of the Year 2035 LRTP. The PIP will define strategies to be used in promoting public participation in the LRTP update. The LRTP development will consider innovative funding strategies in producing a cost feasible plan and will include visualization techniques to make the plan easier to understand by the public. Plan development should be consistent with guidelines in Chapter 4 of FDOT's Metropolitan Planning Organization Program Management Handbook.

Broward MPO staff in cooperation with FDOT staff will manage the LRTP development project. Reports, plans, maps and other work products resulting from the development of the LRTP will be reviewed by a Project Manager (PM) in cooperation with FDOT staff. The update process will be reviewed by a Steering Committee (PUSC) consisting of membership from the different MPO advisory committees, League of Cities, South Florida Regional Transportation Authority, in addition to Palm Beach and Miami-Dade MPO staffs.

The development of Broward County's 2035 LRTP will require full coordination with the neighboring MPOs (Miami-Dade and Palm Beach) and their consultants. Coordination is also required with the Regional LRTP and FDOT consultants.

2. TASKS

The basic structure of the LRTP update is divided into eleven (11) tasks:

- Task 1 Public Involvement Process
- Task 2 Goals, Objectives and Policies (GOPs)
- Task 3 Data Compilation and Review
- Task 4 Model Development and Review
- Task 5 Needs Assessment
 - Highways
 - Mass Transit
 - Bikeways (include Greenways)
 - Waterborne Transportation
 - Freight Transportation
 - Intelligent Transportation System (ITS)
- Task 6 Efficient Transportation Decision Making (ETDM)
- Task 7 Financial Resources
- Task 8 Cost Feasible Plan
- Task 9 Environmental Justice
- Task 10 Regional Plan
- Task 11 2035 LRTP Adoption

Task 1 Public Involvement Process

The Public Involvement Process (PIP) is meant to encourage early and continuing participation by the public and the Community Involvement Roundtable (CIR) in the development of the Year 2035 LRTP. As directed by the Metropolitan Planning Organization (MPO), the LRTP is the “public’s plan,” so input from the public is a key ingredient in plan development. This process is continuous throughout the plan development period from inception until completion.

The PIP must provide opportunities for public participation and input as necessary on all applicable tasks in the LRTP update. The CONSULTANT shall undertake explicit outreach efforts to cover most of the demographics in Broward County especially the traditionally underserved such as minority and low-income populations. The analysis should investigate both beneficiaries and those who may be negatively affected by the transportation decisions. The efforts shall be in accordance with Federal Environmental Justice policies as outlined in Executive Order 12898.

The CONSULTANT shall organize a public involvement team, which will develop a detailed PIP including strategies to promote proactive public participation in accordance with the MPO adopted Public Involvement Plan. The PIP will include but not be limited to the following activities:

- 1.1 Introductory Video
- 1.2 Public Workshops
- 1.3 Meetings with local civic associations and the traditionally underrepresented populations
- 1.4 Surveys
- 1.5 Media outreach
- 1.6 Transportation Hotline
- 1.7 Direct Mailings
- 1.8 Interactive Project Web Page
- 1.9 Publications
- 1.10 Documentation

1.1 Introductory Video

The introductory video will introduce the LRTP update to the public in an easy to understand manner. The video would include an interview with the MPO Chair and/or the County Mayor, a highlight of existing transportation deficiencies, future growth, the importance of the transportation network in economic development and other factors that support the investment in the future county transportation infrastructure. The CONSULTANT shall use the services of a professional video production agency to develop the LRTP introductory video, develop a script and a theme that will be reviewed and approved by the MPO and its advisory committees. The video length would be about 5 minutes and shall be developed by the CONSULTANT. The consultant may coordinate with the Broward County Public

Communications Office to take advantage of available price agreements between the county and outside video production agencies.

1.2 Public Workshops

The public workshops will be conducted at the beginning and end of the LRTP development process. Ten workshops will be held through the LRTP update process. Five workshops will be held in the beginning of the process one in each MPO district and five at the end. The MPO staff will provide a map showing the geographic boundaries of the five MPO districts. The workshops will be conducted during different times of the day so people can select the time that best suits their schedule. For example, two workshops could be held during the work hours of 9:00 AM to 5:00 PM and three after work hours at 6:00 PM. The CONSULTANT shall organize workshop locations, coordinate with one of the local governments in each MPO district to host the workshop, advertise all workshops in the public and minority newspapers in accordance with the MPO Public Involvement Plan, prepare workshop presentation materials, refreshments, take minutes and use any available professional technique to maximize attendance and conduct successful workshops. Workshop participants will identify what is important to them individually when investing in the transportation infrastructure and then develop priorities as a group. Input from the workshops will help in developing the Goals, Objectives and Policies (GOPs) in Chapter 2. The CONSULTANT shall arrange for interpreters at all meetings as needed and requested by attendees. The CONSULTANT shall summarize, document, and analyze the public input for use in the LRTP development process. The CONSULTANT shall also document the responses to the public input received.

1.3 Meetings with local civic associations and the traditionally underrepresented populations

The CONSULTANT shall hold ten meetings under this sub-task, five in the beginning of the LRTP update process and five at the end after completing the draft Cost Feasible Plan. The meetings will be located in each of the MPO's five districts two meetings will be held in each district one in the beginning and one at the end of the update process. The purpose of these meetings is to reach out to local communities such as civic associations and traditionally underrepresented groups to inform them about the plan update and solicit input regarding community values and their priorities when investing in transportation improvements. The CONSULTANT shall identify a suitable location or a meeting place and send invitations to all civic associations/groups in the MPO district to attend the meeting. The consultant shall invite local leaders to serve as meeting host/speakers to attract more attendees. The CONSULTANT shall prepare all meeting materials, provide light food and refreshments, take meeting minutes, make presentations and provide handouts to make each event productive, interactive and a successful experience. The CONSULTANT shall arrange for interpreters at all meetings as needed and requested by attendees

In addition, the CONSULTANT shall visit shopping centers, transit stops, accompany the MPO public involvement staff at their outreach efforts at community events, distribute brochures, surveys and literature and lead some of these events to focus on the LRTP update process. The CONSULTANT shall summarize, document, and analyze the public input for use

in the LRTP development process. The CONSULTANT shall also document the responses to the public input received.

1.4 Surveys

The purpose of this sub-task is two fold; one is to learn about people's opinions regarding the deficiencies in the current transportation infrastructure, and the second is to learn about people's everyday journey to work.

The CONSULTANT shall prepare a survey for distribution at the initial workshops and public meetings, in the initial newsletter and brochure, and be made available on the interactive project website. The survey should be available in English and in Spanish as needed. The survey should be easy to understand and fill out. It should be designed to solicit people's input regarding the current and future transportation infrastructure, community values, and how residents want to deal with the challenges of growth in terms of the different modes of transportation improvements. Each survey will be self addressed with free return postage for mailing back to the CONSULTANT.

The CONSULTANT shall survey all major employers in Broward County with 400 or more employees (about 200 employers). The survey will include but not be limited to the employer's address and an electronic listing of all employee's zip codes. This information maybe available from the Census Bureau or major employers. The CONSULTANT shall use GIS to create origin and destination pairs for work trips and draw travel desire lines throughout the county.

1.5 Media Outreach

Media outreach will be an on going feature throughout the LRTP development. The CONSULTANT shall arrange for news releases in local public and minority newspapers, magazines, TV and radio stations. The CONSULTANT shall inform the media of public meetings and workshops well prior to the date of the meetings/workshops. The CONSULTANT shall prepare a media list and make all preparations, printing, and distribution of materials as necessary to make the media outreach a successful process. The CONSULTANT shall take advantage of available cost efficient media outlets to reach the public. These outlets/strategies include but will not be limited to the following.

- Schedule interviews with high profile people on public affairs programs
- Post key meetings on the interactive LRTP project website
- Distribute media advisories
- Distribute press releases prior to key events
- Submit photos/press releases of event highlights to community papers
- Conduct interviews of transportation users or providers and post on website
- Write/distribute public service announcements

1.6 Transportation Hotline

The Transportation Hotline will enable the public to communicate their ideas and respond to surveys using the phone service. The CONSULTANT shall create an 800 number with a theme name such as “1-800-NEW-2035,” “1-800-NEW-PLAN,” “1-800-NEW-LRTP,” or some other number/letter/word combination that is easy for the public to remember. The CONSULTANT shall create a friendly electronic answering service that directs the caller to a simple menu to fill out a survey or record their input into the LRTP update process. The answering service should be available in English and Spanish. The CONSULTANT shall summarize, document, and analyze the public input for use in the LRTP development process. The CONSULTANT shall also document the responses to the public input received.

1.7 Direct Mailing

The CONSULTANT shall update the comprehensive mailing list developed by the Broward MPO to include missing civic and homeowner associations in new and redeveloped areas. The CONSULTANT shall insure that the mailing list includes all county and municipal elected officials, transportation agencies and that the list is free of any duplication. Throughout the process, correspondees and attendees at meetings will be encouraged to provide their addresses to add to the mailing list, which shall be maintained by the CONSULTANT throughout the project. Where people identify the preference, e-mail distribution of information will be utilized in place of regular mail to save project resources. The CONSULTANT shall use the comprehensive mailing list to mail surveys (free return postage), newsletters, project brochures, and invitations to public meetings/workshops.

1.8 Interactive Project Website

The CONSULTANT shall develop, host, and maintain an interactive website that will be in use during the entire LRTP update process. The website will allow citizens to interact with the CONSULTANT and the MPO staff as well as be able to access current data, fill out surveys and provide input. The CONSULTANT shall ensure that all public informational materials are available and transferable to the MPO for inclusion on the MPO website after the completion of the LRTP update.

1.9 Publications

The CONSULTANT shall create a project theme or brand concept/logo for the LRTP Update to be used throughout the public involvement and documentation. The CONSULTANT shall develop three brochures one at the beginning of the LRTP development, one in the middle, and one close to the end after the Cost Feasible Plan is completed. The CONSULTANT will provide translation and interpretation services for the brochures and meetings as needed.

Based on above activities (sub-tasks 1.1 thru 1.9), the CONSULTANT shall develop a vision for the 2035 LRTP update, which will determine what communities think about the existing deficiencies in the transportation system, and document their priorities for investing in the transportation infrastructure to correct these deficiencies at present and in the future. The CONSULTANT shall coordinate the vision with other similar activities such as the Century

Commission for a Sustainable Florida, 1000 Friends of Florida's Florida 2060, and the South Florida Regional Planning Councils 2060 visioning exercise.

The PIP will provide for a 3-month public comment period before the adoption of the final LRTP by the MPO in December 2009. When significant written and oral comments are received on the draft LRTP as a result of the PIP, the CONSULTANT shall prepare a summary, analysis, and report on the disposition of comments which will be made a part of the final LRTP. Table 1 shows the minimum number of meetings, workshops and public hearings required for the plan update.

**TABLE 1
MEETINGS, WORKSHOPS AND PUBLIC HEARINGS SCHEDULE**

Meeting	MPO	TCC	CIR	PUSC	BPAC	PM	Workshop	Local
Kick off	1	1	1	0	1	1	0	0
PIP	1	1	1	0	0	1	<u>5</u>	5
GOPs	1	1	1	0	0	1	0	0
Data Compilation	1	1	1	0	0	2	0	0
Model Review	0	1	0	1	0	2	0	0
Needs Alts	1	1	1	0	0	2	0	0
Needs Assessment	2	2	2	1	1	2	0	0
Draft Cost Feasible	1	1	1	1	1	2	<u>5</u>	5
Final CF Plan	1	1	1	1	1	1	0	0
Plan Adoption	<u>1</u>	1	1	0	0	1	0	0
Total	10	11	10	4	4	15	10	10

1 Underline numbers imply an advertised Public workshop or hearing

Meeting dates and times

TCC Technical Coordinating Committee meets the 4th Monday of the month (2:00 P.M.).

MPO Metropolitan Planning Organization meets the 2nd Thursday of the month (9:30 A.M.).

CIR Community Involvement Roundtable meets the 1st Tuesday of the month (6:00 P.M.).

BPAC Bicycle and Pedestrian Advisory Committee meets the 2nd Wednesday of the month (6:30 P.M.)

PM As directed by project manager

PUSC Plan Update Steering Committee meets as directed by project manager.

The above table does not include meetings with other agencies to compile data and plans.

1.10 Documentation

The CONSULTANT shall prepare Technical Report Number 1 (TR1) titled “Public Involvement Process” to document the proposed visioning, public input and public participation activities. TR1 shall include the proposed meetings schedule, meeting minutes, statistical analysis of public input, map of mailing list coverage, outreach plan to minorities and traditionally underrepresented groups, proposed design for promotional brochures, input to the MPO quarterly Newsletter, plan update web site design, and all other activities proposed by the CONSULTANT to make the PIP a productive and successful process. A copy of this technical report will be circulated to the PM with a period of two weeks for review and submittal of comments. A revised TR1 will be circulated to the reviewing groups according to the meetings schedule in Table 1. Consolidated reviewer comments will be incorporated within 15 days into a revised TR1 which will be provided to PM in the form of one electronic copy and two double-sided paper documents.

Task 2 Goals, Objectives and Policies (GOPs)

The GOPs in the LRTP will direct and evaluate the development of the future transportation system in the Broward Metropolitan Planning Area. This Task is built on the public involvement process in Task 1 and the input from the public, elected officials, transportation officials and implementing agencies.

2.1 GOPs Review

The CONSULTANT shall examine and reevaluate the GOPs included in the current 2030 LRTP, then refine and/or revise them as necessary to develop GOPs for the 2035 LRTP Update in accordance with input from the public involvement process. In addition, the GOPs must incorporate the eight (8) SAFETEA-LU planning factors as indicated in 23 USC 134(h)(1), as amended by SAFETEA-LU, and the guidelines in Chapter 4 of the FDOT’s latest Metropolitan Planning Organization Program Management Handbook.

The CONSULTANT shall review the proposed new GOPs for consistency with the Broward County (BC) Comprehensive Plan, BC Aviation Plans, BC Office of Transportation Plans, South Florida Regional Transportation Authority (SFRTA) Plans, the Florida Transportation Plan, and FDOT and FHWA requirements as documented in Chapter 4 of the MPO Program Management Handbook. The CONSULTANT’s review shall include professional literature, research reports, local governments’ comprehensive plans, FDOT policies contained in the Florida Transportation Plan (FTP), and other sources, which may have concepts applicable to the LRTP development. The review of the GOPs must consider the performance measures and standards set forth in the various SAFETEA-LU transportation management programs. Performance standards for non-highway and highway modes must be developed if not available in local comprehensive plans or ordinances. The CONSULTANT shall investigate the applicability of the latest FDOT’s Quality/ Level of Service Handbook and the Transit Capacity and Level of Service Manual, or other publications in developing these standards.

The CONSULTANT shall be responsible for obtaining and compiling, for the PM's review, ideas from the PIP, MPO Board, the Technical Coordinating Committee (TCC), the Community Involvement Roundtable (CIR), the Bicycle and Pedestrian Advisory Committee (BPAC) and other interested parties regarding the GOPs and performance standards. The CONSULTANT shall keep records of all information-gathering efforts in such a way that is easily presented and understood.

The CONSULTANT shall review the GOPs of neighboring counties such as Palm Beach and Miami-Dade in order to identify any potential conflicts with GOPs proposed for Broward County and to insure regional consistency between the three counties. The MPO staff will assist in acquiring available documents from the neighboring counties.

2.2 Evaluation Criteria

The CONSULTANT shall develop numerical evaluation criteria based on the GOPs and community values. The criteria will be used to evaluate and prioritize the proposed transportation improvement projects recommended in the Needs Assessment and Cost Feasible Plan. Higher rankings will be given to projects that are consistent with people's vision and community values and improve the overall mobility of people and goods.

2.3 Documentation

The GOPs, input from public meetings, and the evaluation criteria will be documented in Technical Report Number 2 (TR2) titled "Goals, Objectives and Policies" prepared by the CONSULTANT. A draft of TR2 will be circulated to the PM with a period of two weeks for review and submittal of comments. A revised draft will be circulated to the review groups according to the meeting schedule in Table 1. Consolidated review comments received from these groups will be incorporated within 15 days into a revised TR2, which will be provided to the PM in the form of one electronic copy and two double-sided paper documents.

Task 3 Data Compilation and Review

This task covers the development of data needed to run the travel forecast model, which is used mainly to develop the highway and transit networks. Other data include but are not limited to planning for bikeway, pedestrian, waterborne transportation, ITS, and freight.

3.1 Data Required for Highway and Mass Transit

The socioeconomic data is used in the travel forecast model to forecast mainly the highway and transit needs. The data and/or the model could be used to help planning for other modes of transportation such as bikeways, sidewalks, freight and waterborne transportation. The data in this chapter is divided into different sections: ZDATA1 (population), ZDATA2 (employment), ZDATA3 (special generators), ZDATA4 (external loading, as applicable), school enrollment, and airport enplanement. The Broward County Urban Planning and Redevelopment

Department (UPRD) will prepare a draft ZDATA1 and ZDATA2 for the Year 2035. The CONSULTANT shall check this data for accuracy, consistency and make corrections or modifications as necessary. The consultant shall obtain ZDATA3, ZDATA4, school enrollment, and enrollment data for the base-year model from the MPO staff. The CONSULTANT shall update this data and other necessary data needed to run the travel forecast model (FSUTMS) for horizon year 2035. The updated data will be the responsibility of the CONSULTANT. The CONSULTANT will use interpolation to develop interim year's zonal data including 2015, 2020, 2025, and 2030.

The consultant shall use the socioeconomic data primarily to develop the Needs Assessment network and the Cost Feasible Plan network for horizon year 2035 and the interim years 2015, 2020, 2025, and 2030. These networks include highway, mass transit pedestrian facilities, bikeways, waterborne transportation, ITS and freight transportation. The CONSULTANT shall compile available safety and accident data, and existing and future land-use information to enhance the projects evaluation criteria. A great deal of data for this task is available at the MPO staff data files, and will be made available for the CONSULTANT.

The CONSULTANT shall utilize GIS applications to analyze all socioeconomic data to insure its accuracy and prepare maps and graphs showing population, employment, auto ownership, workforce, school enrollment and other socioeconomic variables by Traffic Analysis Zones (TAZ) for base year 2005 and horizon year 2035. The GIS maps should be based on density per square mile to avoid bias due to the difference in TAZ areas. This will involve close coordination with MPO staff.

3.2 Data Required for Pedestrian Facilities and Bikeways Including Greenways

The CONSULTANT shall compile the necessary data to complete the inventory of existing pedestrian facilities and bikeways networks. The CONSULTANT shall develop the needs and cost feasible plans for the 2035 horizon year and interim years. The MPO staff in cooperation with the Bicycle Coordinator and FDOT will transmit to the CONSULTANT the available sidewalk and bikeway data from the MPO, Broward County, FDOT and the Bicycle and Pedestrian Advisory Committee databases. The CONSULTANT shall use GIS to produce the existing pedestrian, greenways and bikeway facilities maps. The CONSULTANT shall identify on these maps major traffic generators for pedestrian and bicycle trips such as schools, beaches, major employers and others. The recommended pedestrian and bikeway improvement projects will be geared to enhance access, improve level of service and safety to/from these generators. The CONSULTANT shall focus on improving level of service, safety and security for bikeways and pedestrian facilities leading to/from schools. The CONSULTANT shall coordinate with the MPO staff to conduct a pedestrian/bicycle forum to solicit input from users regarding future network needs. The CONSULTANT shall organize and advertise for that forum.

3.3 Data Required for the Waterborne Transportation Network

The development of a 2035 waterborne transportation network requires a survey of existing and potentially navigable waterways in Broward County. The CONSULTANT shall develop

an inventory and GIS maps showing these waterways within the urbanized area, which could be used to provide a successful and efficient waterborne transportation service. The CONSULTANT shall assemble an inventory of existing Broward County waterways, identify the navigable ones and their dimensions, produce an annotated waterway map.

The map should include waterways, major roadways, major activity centers, municipal boundaries, structures crossing waterways and their clearance above high water elevation, dams, weirs, cable lines and other obstacles. The CONSULTANT shall identify operational constraints such as manatee protection zones, speed controls and define a preliminary feasible waterway network to support this service.

3.4 Data Required for Freight Transportation Network

The development of the 2035 highway network will include provisions to facilitate the movement of freights and goods. The CONSULTANT shall collect, summarize and document freight and goods movement data available at the MPO such as the Urban Freight/Intermodal Mobility Study and other outreach initiatives to the freight industry. The CONSULTANT shall identify the transportation improvement projects needed to provide for the safe and efficient movement of freight and goods.

3.5 Data Needs for ITS Applications

The CONSULTANT shall work with Broward County Traffic Engineering Division and FDOT Traffic Operations to collect and incorporate the findings of previously completed ITS studies in Broward County. The CONSULTANT shall develop an inventory of existing and programmed/planned ITS applications in the county, determine ITS planning data and information needs, and recommend ITS improvements as necessary to improve level of service and safety of moving people and goods. The CONSULTANT shall include alternative mode ITS efforts by the South Florida Commuter Services, the Universal Fare Card and other projects that are currently underway or planned.

3.6 Documentation

Numerous maps and plots are required to help in the development and analysis of the data needed for highway, mass transit, pedestrian facilities, bikeways, ITS, waterborne and freight transportation. The analysis include but is not limited to population and employment densities, major generators, the bicycle suitability map, the sidewalk inventory, the mass transit network map, the study boundary map, the census boundary map, the traffic analysis zonal map, the principal street system map, the underway and committed improvements map, and other maps and plots required as working instruments. Most of these maps (representing current year condition) are available from the MPO in GIS format. The CONSULTANT shall obtain the available maps and/or data from the MPO staff, update maps and data to reflect year 2035 condition and develop any other missing maps and/or data to complete this task. The CONSULTANT shall be responsible for the contents and the accuracy of these maps/data. All GIS data should be maintained in the State Plane Coordinate System (NAD83.)

Activities undertaken in Task 3 shall be documented by the CONSULTANT in Technical Report Number 3 (TR3) titled "Data Compilation and Review." TR3 will provide detailed information on how the data was developed and quality checked for accuracy and consistency. A draft TR3 will be circulated to the PM with a period of two weeks for review and submittal of comments. A revised TR3 including consolidated comments will be developed by the CONSULTANT and provided to the PM within 15 days in the form of, one electronic copy and two double-sided paper documents.

Task 4 Model Development and Review

The CONSULTANT shall use the validated regional model as a base to develop the 2035 LRTP update. That includes updating and developing all adjustment factors, networks, input files to reflect future conditions and produce accurate and dependable travel forecast results and traffic projections. The CONSULTANT shall coordinate with neighboring MPOs (Miami-Dade and Palm Beach) to update the transportation network pertaining to their respective planning areas. Updating the network for neighboring MPOs is the responsibility of FDOT's consultant. The CONSULTANT shall insure that the LRTP update effort is fully coordinated with these neighboring MPOs. A regional LRTP will be developed under a separate effort. The CONSULTANT shall coordinate with that effort as well.

4.1 Model Application Methodology

The CONSULTANT shall review base-year 2005 model validation data and results to identify the strength and weakness of the validated model, identify links where the model tends to over report and under report trips, and determine how the model output should be adjusted to develop the needs assessment and cost feasible plan for both the mass transit and highway networks.

The CONSULTANT shall complete this subtask by using model validation results. For the highway, the CONSULTANT shall compare the 2005 highway assignment results with 2005 traffic count information by link (a link is the road segment between two signalized intersections of collectors and above). For the transit, the CONSULTANT shall compare the 2005 transit assignment results with the ridership inventory by route for year 2005. The CONSULTANT is responsible for making any necessary adjustment to improve model results and improve traffic projection. The MPO staff will help to make the validated 2005 regional model, users' files, traffic count data, and transit ridership information for the Broward area available to the CONSULTANT.

4.2 Development of Existing plus Committed (E+C) Transit and Highway Networks

This task is primarily directed at compiling the E+C for transit and highway networks for the Year 2014 condition, which is the end year in the latest available Transportation Improvement Program (TIP). All transportation projects in the TIP are considered committed. The CONSULTANT shall develop the E+C network by adding the completed and committed transportation improvements in Broward County to the base-year 2005. The committed

improvements are documented in the latest TIP and any local government Capital Plan (CP) including any existing community bus systems to bring the transportation network to Year 2014 condition. The CONSULTANT shall use standard procedures in coding all completed and committed transportation improvements in the base-year travel forecast model to develop the E+C network. The MPO staff will provide assistance in acquiring these programs and plans as necessary. This work shall include the characterization and treatment of High Occupancy Vehicle (HOV) lanes, managed lanes, High Occupancy Toll (HOT) lanes and toll facilities. The CONSULTANT shall coordinate this effort with the neighboring counties and FDOT to code the regional E+C networks. Coding E+C in the neighboring counties is the responsibility of FDOT's consultant. The CONSULTANT shall use the regional E+C network to test the "*do nothing scenario*" using the 2035 socioeconomic data and E+C regional networks. This test is part of the needs assessment in the next chapter.

4.3 Review and Update the External Trip Model

The CONSULTANT shall review the validated external trip model as applicable; develop the External-External (EE), Internal-External (IE) and External-Internal (EI) trip matrix for horizon year 2035. The external trip matrix maybe limited to I-75 since the regional model is used in the plan update. The CONSULTANT shall coordinate this effort with FDOT, Miami-Dade and Palm Beach Counties.

4.4 Documentation

The CONSULTANT shall provide documentation for Task 4 in Technical Report Number 4 (TR4) titled "Model Application Methodology." Detailed operating manuals or other guidelines will be required for those cases where model modifications have been performed or where alternative methods have been incorporated to improve model results. The CONSULTANT shall document the applicability of using the regional model in testing transportation alternatives across county lines. A draft of TR4 will be circulated to the PM with a period of two weeks for review and submittal of comments. A revised TR4 including consolidated comments will be developed by the CONSULTANT and provided to the PM within 15 days in the form of one electronic copy and two double-sided paper documents.

Task 5 Needs Assessment

The purpose of this task is to analyze the deficiencies of the existing plus committed (E + C) transportation facilities in coping with transportation demands in year 2035. Future (2035) socioeconomic data, in addition to potential bicycle, pedestrian, greenways and waterborne activities will be used to develop the travel demand estimates for this Task. The Needs Assessment is an attempt to identify the efficient transportation infrastructure needs to accommodate future travel demand without regard to economic, local, or political considerations.

5.1 Identify Deficiencies in the Existing + Committed (E+C) Network

The CONSULTANT shall make an equilibrium assignment to the regional E+C Network with the 2035 socioeconomic data to determine the deficiencies on the highway and transit networks that will occur by the Year 2035. This will represent the “*do nothing alternative*” since the E+C network includes committed improvements in the latest TIP but not beyond that. The CONSULTANT shall use the regional travel forecast model, the Broward County Roadway Level of Service Report, the most current Highway Capacity Manual, and other software necessary to perform this task. Capacity shortfalls will be identified using the GOPs and performance measures developed in Task 2. The Broward MPO and its advisory committees, with guidance from the Steering Committee (as needed), will define the congestion levels at which a facility becomes “*deficient*”. The adopted year 2030 cost feasible plan maybe used as a starting point to develop a year 2035 needs assessment project list. Particular attention should be given to the potential inaccuracy of the validated model in simulating actual link traffic and transit ridership by route. The consultant shall develop adjustment factors to correct model simulation inaccuracies where applicable to improve projection results. These factors should be based on the validated model for base year 2005 and the same year traffic count and transit ridership by route information.

Capacity shortfalls for some of the above items such as the need for bikeways, pedestrian facilities, greenways and others that cannot be directly evaluated using the existing FSUTMS model. However, the CONSULTANT may use other appropriate methods such as the pedestrian and bikeway facilities development guide books, the proposed greenway plan, the Bicycle Suitability Map, sidewalk inventory, input from the Bicycle and Pedestrian Advisory Committee, FDOT Quality/Level of Service Manual, Transit Capacity and Level of Service Manual (TCQSM), ITS screening, and others to evaluate transportation needs that cannot be modeled using FSUTMS. The CONSULTANT shall develop and examine future travel desire-lines using the FSUTMS travel forecast model and an aggregate of the zonal structure to assess the needs for future transportation facilities other than highways. The CONSULTANT shall use the output from the second survey in sub-task 1.4 to develop home-based to work travel desire lines.

5.2 Identification of Needs

The multimodal needs assessment must include, at a minimum, a needs analysis of the following:

- new bus routes
- improvements to existing bus routes
- new roadway construction
- widening existing roadways;
- roadway improvements where widening is not feasible
- ITS strategies and applications
- arterial intersection improvements and grade separations
- pedestrian walkways
- greenways

- bikeway facilities
- transportation disadvantaged services
- potential Rail Road Crossings grade separation
- potential new bridges and tunnels
- high occupancy vehicle treatments
- intermodal linkage and access needs
- freight related transportation improvements
- waterborne transportation network

5.3 Mass Transit and Highway Needs Assessment

The CONSULTANT shall develop three (3) alternative plans to address the capacity shortfalls identified by FSUTMS due to loading the E+C highway and transit networks with the trips generated by the 2035 socioeconomic data. The three alternatives can be outlined as follows:

- a) Maximum Transit Alternative: Urban public transportation or “mass transit” has been referred to as the “lifeblood of cities.” Neglected in south Florida during the period of rapid growth of auto ownership, its role has now been recognized as essential for achieving physically attractive, economically sound, and energy-efficient counties and cities.

This alternative will focus on maximizing transit improvements and minimizing highway improvements to correct future potential transportation network deficiencies. The CONSULTANT shall examine the transportation network deficiencies due to loading 2035 socioeconomic data on the E+C network and recommend appropriate transit and minimum highway improvements to correct and/or reduce these deficiencies.

- b) Maximum Highway Alternative: According to transportation statistics, most trips made in Broward County and other urban areas in the nation use the auto mode for travel. This mode is expected to continue to dominate the future transportation market share and as such should be seriously considered in any future transportation network development.

This alternative will focus on maximizing highway improvements and minimizing transit improvements to correct transportation network deficiencies. The CONSULTANT shall examine the transportation network deficiencies due to loading 2035 socioeconomic data on the E+C network and recommend appropriate highway and minimum transit improvements to correct and/or reduce these deficiencies.

- c) Final Needs Assessment: The CONSULTANT shall use the analysis of the above two alternatives to develop the final 2035 Needs Assessment for highway and mass transit. The Needs Assessment may incorporate the best components of the alternatives or use an alternative with elements taken from other alternatives. The final Needs Assessment will be based on the extent to which it fosters the goals and objectives as substantiated by public input and interagency staff recommendations. The CONSULTANT shall also address congestion and mobility issues within specific corridors, which may require a separate detailed study. Examples of these studies include but are not limited to Strategic Intermodal System (SIS) corridor, Airport/Seaport People Mover, and downtown transit. The

CONSULTANT shall coordinate the LRTP update effort with the outcome of these studies in cooperation with the agencies managing them. Some of these studies have been completed or are underway. The CONSULTANT shall obtain a copy of each study from the appropriate agency and evaluate the pros and cons of including the study finding in the Needs Assessment.

All proposed plan alternatives shall be described in detail and the CONSULTANT shall develop the appropriate technology, estimates of transit ridership per route, cost estimates and all necessary information to implement each alternative plan. The recommended transportation improvements in each alternative plan shall be consistent with the goals and objectives developed in Task 2 and the input from the public and elected officials. More emphasis shall be placed on transportation improvements that reduce emissions or concentrations of air pollutants from mobile sources by reducing single occupancy vehicle use, reducing travel time, changing traffic flow and/or congestion conditions. The CONSULTANT shall coordinate this task with the neighboring counties and FDOT. The CONSULTANT shall use the regional FSUTMS to test all above alternatives. The CONSULTANT is responsible for coding all transportation networks alternatives in Broward County, coding alternative networks in the neighboring counties is the responsibility of FDOT's consultant.

5.4 Intelligent Transportation System (ITS)

Broward County and other counties, towns and cities in the nation are applying advanced communication and computer technology to improve transportation. The purpose of these technologies, called intelligent transportation systems, or ITS, is to improve the safety, efficiency, dependability and cost effectiveness of the transportation system. ITS strategies are an important part of the LRTP.

The CONSULTANT shall identify areas in the transportation network where ITS application and strategies would be applicable and beneficial. The CONSULTANT shall recommend the type of ITS application for each situation and work with Broward County Traffic Engineering Division, FDOT Traffic Operations and other agencies to insure compliance with the adopted ITS architecture and standards.

5.5 Freight and Goods Movement Needs

The LRTP will provide for an integrated transportation system to enhance the efficiency of freight movement on the surface transportation network. The CONSULTANT shall address freight and goods movement concerns through inclusion of a variety of surface transportation projects focused on improving truck-mediated goods movement throughout the County.

Both Fort Lauderdale-Hollywood International Airport and Port Everglades are recognized as the two most important individual facilities serving as economic engines for Broward County. The CONSULTANT shall identify other major freight and goods generator facilities, evaluate truck traffic between these facilities and the rest of the county. The CONSULTANT shall recommend appropriate transportation improvement projects, which would improve freight and goods movements over the life of the Plan and include these projects in the Needs Assessment.

The CONSULTANT shall review available reports at the MPO office such as the “Urban Freight/ Intermodal Mobility Study”, and input from stakeholders and others to develop this task.

5.6 Other Modes

5.6.1 Pedestrian, Greenways and Bicycle Needs

As population increases, the construction of bicycle, pedestrian and greenway facilities as an alternative to automobile travel becomes increasingly important. To meet the transportation needs of those individuals who walk or bike for mobility, the Broward MPO is focusing on meeting those needs within its transportation Plan.

The CONSULTANT shall review the available Bicycle Facilities Plan, the Bicycle Suitability Map, sidewalk inventory, greenway plan and meet with the Bicycle and Pedestrian Advisory Committee and local governments to develop the Bicycle, Pedestrian and Greenway Needs Assessment. The CONSULTANT, in cooperation with the MPO staff, shall estimate an appropriate level of service (LOS) for the existing bikeways and sidewalks. The needs plan should focus on improving and enhancing LOS for all areas especially around schools, beaches, major traffic generators and other locations identified by the CONSULTANT. The CONSULTANT shall identify barriers to pedestrian and bicycle movements, such as walls, fences, canals, wide roadways, and develop strategies to address such barriers. The CONSULTANT shall examine existing roadway conditions as they relate to bicycle and pedestrian travel, and propose a set of facility improvements in the LRTP to enhance mobility and safety of pedestrian and bikers. The CONSULTANT shall examine the proposed Greenway Plan and recommend additional extensions to this plan to meet Year 2035 travel demand. The CONSULTANT shall examine the future travel desire lines generated by FSUTMS and surveys to estimate potential bike trips and assess bikeway needs.

The CONSULTANT shall identify steps and activities to encourage the usage of bicycle and pedestrian modes of transportation. Activities may include the distribution of safety pamphlets, the introduction of a traffic safety program in Broward public elementary schools, and the provision of materials to the different Police Departments and Sheriff Offices.

5.6.2 Waterborne Transportation Needs

Purpose: the CONSULTANT shall assess the feasibility of utilizing the existing network of canals and waterways to accommodate some of the commuter, recreational and other trip purposes using the highway network. This task will identify the appropriate waterways and supporting facilities that would provide for the efficient and safe mobility of people.

Background research: The CONSULTANT shall research local waterborne transportation efforts, identify and interview stakeholders, characterize successful

waterborne transportation operations, establish parameters for viable waterway facilities and vessels.

Inventory: The CONSULTANT shall assemble an inventory of existing Broward County waterways within the urbanized area, identify the navigable ones and their dimensions, produce an annotated urbanized area waterways map showing waterways, major roadways, major activity centers and municipal boundaries. Include structures crossing waterways and their clearance above high water elevation, dams, weirs, cable lines and other obstacles. The CONSULTANT shall identify operational constraints such as manatee protection zones, speed controls and define a preliminary feasible waterway network.

Service: The CONSULTANT shall evaluate and identify the connectivity between the feasible waterway network and the activity centers and identify potential service routes. Investigate the possibility of using ferries on the ocean as an alternative transportation mode for peak-hour commuter traffic. The CONSULTANT shall review potential travel desire lines between origins and destinations within the feasible waterway network, estimate peak and daily flow, identify potential routes and stops, document parking capacities and other modal needs at each stop. The CONSULTANT shall document regulatory, environmental and safety issues related to the feasible waterway network. Determine the feasibility and estimate the cost associated with removing the obstacles as necessary, the cost to build new docks, improve access, additional parking and other modal needs, maintenance of facilities and waterways. The CONSULTANT shall identify an appropriate waterborne transportation vessel; estimate the capital and operational cost to use such vessel in moving people. The CONSULTANT shall identify the possible routes, schedule, estimate potential daily ridership, facilities and vehicle needs, annual and total cost to run the system for the life of the plan.

5.7 Documentation

The CONSULTANT shall prepare Technical Report Number 5 (TR 5) titled “2035 Transportation Needs Assessment” documenting the process by which the transportation needs for the year 2035 plan were identified including highway, transit, ITS, freight movement, and other modes. The CONSULTANT shall identify the cost associated with implementing the Needs Assessment, including construction, rights-of-way and business damages, rolling stocks, and operating and maintenance costs where applicable. The CONSULTANT shall develop evaluation criteria consistent with Tasks 1 and 2 to rank all projects by mode recommended in the Needs Assessment. A draft TR5 will be circulated to the PM with a period of three weeks for review and submittal of comments. A revised TR5 will circulate to the appropriate agencies as in Table 1. Comments from these agencies will be incorporated by the CONSULTANT into TR5 and provided to the PM within 15 days in the form of one electronic copy and two double-sided paper documents.

Task 6 Efficient Transportation Decision Making (ETDM)

Efficient Transportation Decision Making (ETDM) creates linkages between land use, transportation and environmental resources through early interactive involvement of permitting and planning agencies. This involvement is expected to save resources and improve decision making by resolving project impact at an early stage. The CONSULTANT shall develop the information needed for review and comment by the Environmental Technical Advisory Team (ETAT). This information will be created for all capacity related projects in the Needs Assessment in accordance with FDOT's guidelines for ETDM. The CONSULTANT shall develop a sociocultural profile for each project for inclusion in the ETDM planning screen.

6.1 ETDM Planning Screen

The CONSULTANT shall electronically submit the created list of candidate projects and supporting information to the ETAT using GIS and the internet. The ETAT will conduct preliminary assessments of the impact of candidate projects on the environment using standardized formats and criteria. The CONSULTANT shall review comments from the ETAT and provide a recommended course of action to address these comments.

6.2 Environmental Mitigation Strategies

The environmental provisions of SAFETEA-LU require that the Long Range Transportation Plan (LRTP) describe the types of potential environmental mitigation activities, and potential location for these activities, to restore and maintain environmental functions that could be affected by the transportation improvements included in the LRTP.

The CONSULTANT shall develop strategies to mitigate the potential impact of the new transportation infrastructure recommended in the needs assessment on wetlands, water resource, protected species habitat and other environmentally sensitive subject.

6.3 Documentation

The CONSULTANT shall develop Technical Report Number 6 (TR6) titled "Efficient Transportation Decision Making (ETDM)" documenting the requirements and results of applying ETDM on the 2035 Needs Assessment and any environmental mitigation measures. A draft of TR6 will be circulated to the PM with a period of two weeks for review and submittal of comments. A revised TR6 including consolidated comments will be developed by the CONSULTANT and provided to the PM within 15 days in the form of one electronic copy and two double-sided paper documents.

Task 7 Financial Resources

The CONSULTANT shall develop a Financial Resources Task describing revenue projections and assumptions supporting these projections. This analysis is crucial to the accuracy of the

cost feasible plan development. The financial feasibility report shall include at minimum the following:

1. Public and private sources reasonably expected to be made available to carry out the plan.
2. Innovative financing techniques to fund proposed projects in the Cost Feasible Plan. Such techniques may include new starts, tolls, new funding sources, local option tax, private funding and congestion value pricing.

This task will be led by the CONSULTANT. However, the CONSULTANT shall use any data available from the MPO, FDOT and other agencies involved in planning and funding of transportation projects. The task will assess the financial resources that may be available to Broward County for funding transportation improvements during the LRTP planning period. The work will consist of the identification and evaluation of existing and prospective transportation improvement funding sources, assessment of funding levels available during each of the interim years of the LRTP planning period, and assembly of broad schedules of financial capacity between the present and 2035 to help guide the development of the LRTP. The CONSULTANT shall discuss the financial feasibility of the Florida's Turnpike (FTP) Enterprise bonding capacity, the FTP propensity to bond for capital improvements, to support the assumption that all bonded funds will be available to complete the Turnpike projects. The CONSULTANT shall identify funding eligibility for each source used in the plan. For example, regional funds can be spent on regional facilities, and Florida Intrastate Highway System (FIHS)/Strategic Intermodal System (SIS) funds cannot be spent on local roads. The consultant shall investigate the use of "flex" funding as allowed to shift from funding highway projects to other modes such as mass transit.

Based on the above information, the CONSULTANT shall forecast potential financial resources for interim and horizon years 2015, 2020, 2025, 2030 and 2035 to build all modes of transportation improvements as documented in Task 5 "Needs Assessment". The CONSULTANT shall show how the cost of transportation improvement projects in the LRTP including capital; operations and maintenance are met using available revenues. This will demonstrate that the cost feasible plan for new construction can be reasonably expected to be completed in the LRTP timeframe. The CONSULTANT shall incorporate a sub-section in the Financial Resources Task to discuss new potential revenue sources that may be available for the implementation of improvements identified in the Needs Assessment, which are not included in the Cost Feasible Plan. Such resources shall be implementable and well-defined and may include but not be limited to additional sale's tax, local option gas tax and other sources. The CONSULTANT shall estimate the amount of revenues expected to be generated from these sources.

7.1 Documentation

The CONSULTANT shall document the financial resources task in Technical Report Number 7 (TR7) titled "Financial Resources." The report shall include detailed analysis of all types of available and potential funding sources earmarked for transportation improvement during the LRTP planning period, i.e., FY 2015 through 2035 (transportation improvements between 2009 and 2014 are already committed in the TIP). A draft of this technical report will be

circulated to the PM with a period of two weeks for review and submittal of comments. A revised TR7 will be provided to the PM within 15 days in the form of one electronic copy and two double-sided paper documents.

Task 8 *Cost Feasible Plan*

The CONSULTANT shall prepare the Cost Feasible Plan (CFP) using the results from previous tasks. The CFP shall include mass transit, highways, pedestrian facilities, greenways, bikeways, waterborne transportation, ITS, freight transportation as identified in the needs assessment, that are financially feasible and reasonably accepted by the public and elected officials. The CONSULTANT shall ensure that the final plan continues to be multimodal in nature and the recommended projects are consistent with the LRTP's vision, goals and objectives.

8.1 Public Involvement

Public involvement is essential during the LRTP development, especially in the beginning and at the end. The Cost Feasible Plan (CFP) shall be finalized after sufficient policy review and public involvement. The CONSULTANT shall seek input from the MPO board, its advisory committees, FDOT staff and other interested parties as part of the fulfillment of this task and as specified in Task 1. The CONSULTANT shall coordinate, schedule, and attend meetings, make presentation, take meeting minutes and keep records of information gathering efforts in such a way that is easily understood by the public and staff. The MPO staff will be available to assist the CONSULTANT as specified in the PIP or as determined by the PM.

Preparation of the 2035 CFP must include documentation describing the efforts made to solicit public input. The CONSULTANT shall identify how the proposed Cost Feasible Plan for the transportation system meets the performance standards included in the vision, goals and objectives. When significant written and oral comments are received on the draft LRTP as a result of the PIP, the CONSULTANT shall prepare a summary, analysis, and report on the disposition of comments which will be made a part of the final LRTP.

8.2 Cost Feasible Plan Development

As per Federal and State guidelines, the Cost Feasible Plan (CFP) must be implementable by the appropriate local and state agencies. The financial feasibility will be based on the reasonably estimated future revenues expected to be available from both private and public sources to carry out the plan in a timely manner, i.e., between years 2015 and 2035. The period between 2009 (plan adoption year) and 2014 is covered in the five-year Transportation Improvement program (TIP) and will be reflected in the CFP as committed improvements. In developing the CFP, the CONSULTANT shall demonstrate the consistency of proposed transportation investments with the projected sources of revenue identified in the Financial Resources. Using the Financial Resources Report and the cost data generated in Task 5 (Needs Assessment), the CONSULTANT shall meet all the requirements for a financial analysis as specified in FDOT's Metropolitan Planning Organization Program Management Handbook.

8.3 Comparative Analysis

The CONSULTANT shall perform a comparative analysis between the Needs Assessment and the Cost Feasible Plan (CFP) and identify non-cost feasible projects that will not make the CFP. The CONSULTANT shall identify and evaluate the impacts on levels of service for all modes of transportation and land use, of not being able to finance all projects in the Needs Assessment.

8.4 Congestion Management

The intent of congestion management is to improve the efficiency and effectiveness of the transportation system through lower cost efficiency-based improvements and programs. As per Federal guidelines, the LRTP should address congestion management through an area-wide strategies of new and existing transportation facilities and the use of travel demand reduction and operational management strategies. [23 USC 134 (k)(3); 23 C.F.R. 450.322(f)(4)]. The CONSULTANT shall identify appropriate congestion management strategies to improve the movement of people and goods through out the urban area. Such strategies shall be included in the CFP and may include but not be limited to:

- Car and van pooling
- Transportation System Management treatments
- Reducing single occupant vehicle use through promoting alternative transportation modes,
- Travel Demand Management
- Intelligent Transportation System (ITS)

8.5 Consistency with Local Plans

The CONSULTANT shall explain how the Cost Feasible Plan is consistent with the transportation element and future land use element of local governments plans, with Broward County (BC) Aviation Division plans, BC Office of Transportation plans, the South Florida Regional Transportation Authority (SFRTA) and Tri-Rail plans, BC Urban Planning and Redevelopment Department, BC Comprehensive Plan, and neighboring counties LRTP. The CONSULTANT shall prepare a list identifying inconsistencies, if any, between the Cost Feasible Plan and other plans.

8.6 Land Use Alternative

A key part of the overall work on the CFP is to provide linkage between land use and transportation infrastructures. In this subtask, the CONSULTANT shall test a “*what if*” scenario related to the efficient growth of population and employment. The CONSULTANT shall examine and develop additional urban design guidelines, development strategies and financial incentives to reinforce the linkage between land use and transportation planning. The proposed strategies should improve the efficiency of the transportation system and create

opportunities for improving transit use, reducing auto trips and trip length and encouraging non-motorized travel.

These strategies may include but are not limited to developing compact communities, mixed-use districts, major transit/intermodal stations, redeveloping major transportation corridors, directing employment and housing growth into urban centers and in patterns where it is easier to walk, bike and use transit such as Transit Oriented Design (TOD) and Transit Oriented Corridors (TOC). The development of the socioeconomic data for this alternative shall be the responsibility of the CONSULTANT in cooperation with Broward County Urban Planning and Redevelopment Department, the League of Cities, and the Plan Update Steering Committee.

The CONSULTANT shall use the socioeconomic data developed under this alternative to test the proposed transportation improvements in the CFP and to demonstrate the advantage of maintaining land use that supports efficient socioeconomic growth.

8.7 Prepare Interim Year Plans

Using the Year 2035 Cost Feasible Plan, available funding sources and socioeconomic data for interim Years 2015, 2020, 2025, and 2030 the CONSULTANT shall develop Interim Year Plans including project cost estimates for capital, maintenance and operations.

8.8 Documentation

The CONSULTANT shall prepare Technical Report Number 8 (TR8) titled “Year 2035 Cost Feasible Plan”, documenting the entire process of developing the 2035 Cost Feasible Plan (CFP) including the Interim Year Plans. A draft TR8 including copies of all illustrations and maps using GIS shall be prepared by the CONSULTANT and submitted to the PM for review and submittal of comments within two weeks. The CONSULTANT shall incorporate comments into TR8 and circulate it to all groups according to Table 1 for review, comments and approval. Consolidated comments received from these groups will be incorporated into a revised TR8 to be developed by the CONSULTANT and provided to the PM within 15 days in the form of one electronic copy and two double-sided paper documents.

Task 9 Environmental Justice

The principles of environmental justice, as outlined by the Federal Highway Administration, are intended to ensure that the process of transportation planning is consistent with the provisions of Title VI of the Civil Rights Act. These provisions should be incorporated into the 2035 LRTP update, and adhered to throughout the public involvement task of this project.

The CONSULTANT shall identify all geographic areas in zonal structure where the traditionally underrepresented population is located in Broward County. The CONSULTANT shall assess the level of transportation investment in these areas using the Geographic Information System (GIS). The CONSULTANT shall demonstrate that the proposed 2035 Cost Feasible Plan will not adversely impact low income/minority communities.

9.1 Documentation

The CONSULTANT shall develop Technical Report Number 9 (TR9) titled “Environmental Justice” documenting how the new plan will meet the principles and requirements of Environmental Justice. A draft TR9, including GIS maps and impact analysis, shall be prepared by the CONSULTANT and circulated to the PM with a period of two weeks for review and submittal of comments. A revised TR9 including consolidated comments will be developed by the CONSULTANT and provided to the PM within 15 days in the form of one electronic copy and two double-sided paper documents

Task 10 Regional Plan

Metropolitan Planning Organizations are designated for each urbanized area with a population of more than 50,000 people, as required by Federal Law. According to the 2000 Census, the urbanized areas encompassing parts of Miami-Dade, Broward, and Palm Beach Counties have grown together and should be combined in one urbanized area. However, the three counties MPOs decided to remain independent due to the size and complexity of the planning areas. As a result, the State of Florida required that the independent designation should be contingent upon the development and implementation of coordinated planning processes resulting in, but not limited to, the following:

- A regional long-range transportation plan covering the combined metropolitan planning area that will serve as the basis for the Transportation Improvement Programs of each MPO
- A coordinated project prioritization and selection process
- A regional public involvement process and a coordinated air quality planning process.

In response to the State’s request, the three MPOs in South Florida have developed a Regional Planning Committee. The Regional Planning Committee developed criteria to identify regionally significant transportation corridors. These criteria include the following:

- Interstate and Expressways (urban or rural Principal Arterials operate as Interstate and Expressway facilities)
- Major Regional Arterials (urban or rural Principal Arterials that cross county lines)
- Minor Regional Arterials (urban or rural Principal Arterials with two or more connections to the Interstate and Expressways Facilities)
- Extensions to Principal Arterials Connecting Regional Facilities – Minor Arterials connecting Principal Arterials to be reclassified to Principal Arterials in the future that connect Two Regional Facilities
- Future Extensions of Current Regional Facilities

10.1 Regional Network

The CONSULTANT will be tasked to coordinate and assist in the preparation of a Regional LRTP. The Regional LRTP will be developed by a different consultant in cooperation with FDOT and Palm Beach, Broward and Miami-Dade MPOs. This task would entail meeting with MPO staffs and consultants to produce the Regional LRTP document in accordance with FDOT's guidelines.

10.2 Documentation

The CONSULTANT shall develop Technical Report Number 10 (TR10) titled "Regional Plan" summarizing the Regional LRTP effort and outlining how the regional corridors in the three counties were evaluated and improved to meet future travel demand. A draft TR10 shall be prepared by the CONSULTANT and circulated to the PM with a period of two weeks for review and submittal of comments. A revised TR10 including consolidated comments will be developed by the CONSULTANT and provided to the PM within 15 days in the form of one electronic copy and two double-sided paper documents

Task 11 2035 LRTP Adoption

The CONSULTANT shall perform all work necessary to obtain final adoption of the LRTP update by the PUSC, BPAC, TCC, CIR and MPO members no later than Dec 2009. A conceptual approval is required by Nov 2009 so the final approval can proceed on time. The CONSULTANT shall prepare all necessary presentation material and handouts including slide presentation to explain how the plan was developed in accordance with the vision, GOPs community values and available funding sources. This work includes the development of the final plan update report including all the contents of Technical Reports 1 through 10.

11.1 Documentation

The CONSULTANT shall prepare Technical Report Number 11 (TR11) titled "Year 2035 Long Range Transportation Plan." This report shall include detailed analysis of all previous tasks and Technical Memorandums 1 through 10, maps, figures, and revisions required by the PUSC, BAC, TCC, CIR and MPO. TR11 will be circulated to the review bodies as outlined in Table 1. Consolidated review comments will be incorporated within 15 days into the final TR11 to be submitted to the MPO Board for review and approval. Final TR11 shall be of high quality paper and print.

The CONSULTANT shall prepare Technical Report Number 12 (TR12) titled "Year 2035 LRTP Executive Summary." The Executive Summary shall be of high quality paper and print and shall briefly outline all tasks included above and describe the proposed multimodal transportation improvements including pedestrian facilities, greenways, bikeways, highways, mass transit, waterborne transportation, ITS, freight and other facilities recommended for the

2035 LRTP. A summary of costs and revenues shall be presented in a table format and explained in the text. The Executive Summary shall include maps and other graphics to assist the reader in understanding the 2035 LRTP. All printed reports and documents should be double-sided; see chapter 4 for the number of copies required.